National Register of Historic Places Registration Form

1		OMB No. 10024-0018
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L	NAT.	REGISTER OF HISTORIC PLACES

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

718

1. Name of Property

historic name	Caldwell	Lustron	House

other names/site number Lustron House, Caldwell - Long House, Long Lustron House,

2. Location

street &	& number <u>1020 East</u>	Church Street				[] not for p	ublication	n N/A
city or	town Union City						🗆 vi	icinity N	I/A
state	Tennessee	code <u>TN</u>	_ county	Obion	code	_131	zip code	38261	

3. State/Federal Agency Certification

		
	reservation Act, as amended, I hereby certify that this 🛛 nomination	
	tation standards for registering properties in the National Register of	. 154
meets does not meet the National Register criteria. 1	al requirements set for in 36 CFR Part 60. In my opinion, the property recommend that this property be considered significant	
□ nationally.□ statewide ⊠ locally. See continuation		
- VIII AT HA	Challen	
- min L. Man		
Signatule of certifying official/Title		
Deputy State Historic Preservation Office	r, Tennessee Historical Commission	
State or Federal agency and bureau		
In my opinion, the property I meets I does not meet	the National Register criteria. (See Continuation sheet for	
additional comments.)		
Signature of certifying official/Title	Date	
State or Federal agency and bureau		
/		
I. National Park Service Certification	The a	
hereby certify that the property is:	Signature of the Reeper	Date of Action
I entered in the National Register.		6.25-99
See continuation sheet	Dan N. JUANX	(0.52.1)
determined eligible for the		
National Register.		
See continuation sheet		
determined not eligible for the		
National Register		
Register.		
other, (explain:)		

Name of Property

5. Classification						
Ownership of Property (Check as many boxes as apply)	Category of Property (Check only one box)	Number of Resources within Property (Do not include previously listed resources in count)				
🛛 private	☑ building(s) ☐ district	Contributing	Noncontributing			
public-State		1	buildings			
public-Federal			sites			
	object	<u></u>	structures			
			objects			
		1	0 Total			
Name of related multiple (Enter *N/A* if property is not part	e property listing of a multiple property listing.)	Number of Contrib	outing resources previously listed gister			
Historic & Architectural Re	esources of Union City, TN	0				
6. Function or Use						
Historic Functions (Enter categories from instruction	s)	Current Functions (Enter categories from ins				
DOMESTIC: single dwelli	ng	DOMESTIC: single	dwelling			
		<u></u>				
		<u></u>				
		·····				
		·····				
7. Description		· · · · · · · · · · · · · · · · · · ·				
Architectural Classificat		Materials				
(Enter categories from instructions)		(Enter categories from instructions)				
OTHER: Lustron House		foundation Concre				
		walls <u>porcelain st</u>				
	······································	roof porcelain st	eel enamel			
		other polyvinyl ch	loride gaskets, METAL, GLASS			

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Name of Property

8. Statement of Significance

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

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- **B** Property is associated with the lives of persons significant in our past.

C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity who's components lack individual distinction.

D Property has yielded, or is likely to yield, information important in prehistory or history.

N/A

Criteria Considerations

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

Property is:

- A owned by a religious institution or used for religious purposes.
- **B** removed from its original location.
- **C** moved from its original location.
- D a cemetery.
- **E** a reconstructed building, object, or structure.
- F a commemorative property
- **G** less than 50 year of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

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

Previous documentation on file (NPS): N/A	Primary location of additional data:
preliminary determination of individual listing (36	State Historic Preservation Office
CFR 67) has been requested	Other State Agency
previously listed in the National Register	E Federal Agency
Previously determined eligible by the National	Local Government
Register	🛛 University
designated a National Historic Landmark	Other
recorded by Historic American Buildings Survey	Name of repository:
#	MTSU, Center for Historic Preservation
recorded by Historic American Engineering	
Record #	

Areas of Significance

(Enter categories from instructions)

ARCHITECTURE

Period of Significance

1949

Significant Dates

1949

Significant Person (complete if Criterion B is marked)

N/A

Cultural Affiliation

N/A

Architect/Builder

Lustron Corporation and Unknown

Obion County, TN County and State

Caldwell Lustron House

Name of Property

Obion County, TN

County and State

10. Geographical Data				
Acreage of Property Less than one acre	_			
UTM References (place additional UTM references on a continuation sheet.)	Union City	, TN 427	NE	
1 16 316540 4032700 Zone Easting Northing 2		3 Zor 4	ne Easting	Northing
Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.) Boundary Justification				
(Explain why the boundaries were selected on a continuation sheet.)				
11. Form Prepared By				
name/title <u>Nathan Poe and Carroll Van West</u>				
organization MTSU Center for Historic Preservation		date	e May 1998	
street & number MTSU P O Box 80		telephor	ne 615 898 27	47
city or town Murfreesboro	state	TN	zip code	37132
Additional Documentation				
submit the following items with the completed form:				
Continuation Sheets				
Maps				

A USGS map (7.5 Or 15 minute series) indicating the property's location

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items

(Check with the SHPO) or FPO for any additional items

Property Owner (Complete this item at the request of SHPO or FPO.)

name Barbara Long					
street & number 1020 East Church Street			telephone		
city or town Union City	state	_ <u></u>	_ zip code	38261	

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listing. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P. O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20303.

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Caldwell Lustron House Obion County, Tennessee

7. NARRATIVE DESCRIPTION

The Caldwell Lustron House in Union City, Obion County is located at 1020 East Church Street. With a simple one story square floor-plan and a low-pitched front-gabled roof designed through a cooperative effort between architects, engineers, and automotive designers, the prefabricated Lustron house is made entirely of porcelain steel, rubber and concrete. "Decidedly modern in appearance as well as construction," the Lustron house is a building both "durable and filled with middle-class amenities." ¹ Built in 1949, a local construction company, following instructions provided by the Lustron Corporation, fabricated the home on-site. The Lustron Corporation of Columbus, Ohio designed, produced, and delivered the house to Union City, a Westchester two-bedroom model. The Westchester model, an efficient and critically acclaimed design, possesses two bedrooms, one bathroom, a dining room, a living room, a kitchen, and a utility room, as well as a front porch and side-entrance, into a living area of just over one thousand square feet. Due to the combination of durable materials, the difficulty of making additions and the fact that there have been only two owners, the house is in remarkable condition and has a high degree of integrity. The home has had no structural changes, and even the color of the porcelain baked into the exterior steel plates at the Lustron factory in Columbus, Ohio is original.

Exterior:

The Westchester design divides the Caldwell Lustron House into three different sections: the concrete foundation, the first floor metal framework, and the gabled metal roof. A thirty-two by thirty-six feet, eight-inch thick concrete block foundation was the only portion of the house not shipped directly from the Columbus, Ohio factory. Instead of wooden studs, steel studs (composed of individual exterior and interior beams joined by stud spacer plates) provide the skeleton for the Lustron home. A series of interconnected two-foot by two-foot square steel plates form the exterior walls of each side of the home. Protected from the weather by a porcelain enamel permanently bonded to the steel panels, the exterior walls are a peacetime byproduct of a chemical process invented for tank armor during World War II.

Connected to each other by hidden tongue and groove joints, the porcelain covered plates screw directly into the metal studs. A strip of rubber fits in between each steel plate, ensuring a snug fit and a tight seal. These strips of rubber, called "polyvinyl chloride gaskets," resemble the seals used on refrigerator doors, and essentially serve the same purpose.² The designers built

¹ Tom Wolfe and Leonard Garfield, "A New Standard for Living:' The Lustron House, 1946-1950," *Perspectives in Vernacular Architecture, III.* Thomas Carter and Bernard L. Herman, eds. (Columbia: University of Missouri Press, 1989), p. 56.

²Tim Snyder, "Lustron: A Prefabricated Ranch House of Porcelanized Steel." *Fine Homebuilding* (August/September 1984), 26-29.

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window and door openings, all metal as well, into the metal skeleton and are permanent openings. The basic Lustron design places the steel panels very close to each other, but with the rubber strips slightly separating the plates, each individual panel is easily discernible from the street. Slim (about six inches) enamel panels cover the ends of each side of the house, which run vertically up from the foundation to the roof line, unifying and completing the pattern started by the steel plates. Stacked next to and on top of each other, the overall effect created by the rubber strips, porcelain enameled steel plates, and end panels closely resembles a house constructed with giant blue building tiles. The gabled metal roof, like the first floor, is visually interesting. Steel roof trusses placed at four-foot intervals support the significant amount of weight created by the metal shingles, replacing the traditional rafters and joists of balloon frame construction.³ The Columbus, Ohio factory treated the metal roof tiles or shingles with a colorless, enameling process. The metal shingles, which do not lie flat, create a distinctive pattern, and, viewed from the side, cut a zigzag path down the roofline.

The front facade, which faces south towards the street, contains two openings, a window and a door. Looking directly towards the house, the window opening is about nine feet, from the west edge of the house. Situated above the first series of steel panels, the window opens up all of the space up to the pediment line created by the gabled roof. Surrounding the window opening are four slim white enamel panels. Acting as the window casing, the Westchester design sets two vertical panels on the window opening's west and east side flush with the square enamel panels of the facade. The lower horizontal panel forms the window's sill. The bottom end of the lower horizontal panel begins flush with the steel square enamel panels, but as the panel draws near to the window opening it slowly curves outward. A sharper curve from the top of the lower panel meets the slow curve from the bottom of the panel and creates a pointed windowsill. The window sill simultaneously adds to the modern appearance of the home and encourages precipitation to fall to the ground rather than remain between crevices and cracks. The top horizontal panel, directly over the window, serves the same purpose as the lower panel. It, however, only has one angle; starting flush with the square steel panels from the top edge, it gradually projects out two inches from the facade and overhangs the window. The window opening contains three sections; two vertically oriented four light windows flank a middle section -- a medium sized picture window. The Long family replaced the original picture window with a smaller window in circa 1965 to make room for an air-conditioning unit. Moving about two feet, to the east, a narrow horizontal, enamel, end panel covers an edge of the front facade created by a recessed porch. The porch, which cuts into the front facade with a recession of three square panels, or about six feet, takes up a third of the front facade. The roof simply overhangs the cut away section. A white horizontal, square metal pole, located about two feet from the edge of the foundation, supports the corner of the roof. The pole indicates that the recessed region is a stoop by marking its outer boundary. A white metal drainpipe runs from the roof gutter down and at an inward

³ Wolfe and Garfield, 56.

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angle towards the square, metal support pole, but does not intersect it. A wavy white rail runs up and down between the square pole and the drain for the roof gutter, adding a decorative feature to the basically austere facade, and simultaneously supports the roof gutter. The house design places the other opening, the primary entrance, directly into the corner created by the recessed porch and facing the street. Like the window opening, white enamel panels frame the door. The two vertical panels bordering the east and west side of the door lie flush with the square steel panels. The other panel, over the door, curves out slightly with a slow gentle slope, causing the bottom edge of the panel to project out about an inch over the door. Just to the east of the door a light fixture and a mailbox attach directly to the square enamel panels. A slim vertical end panel covers the far right edge of the recessed porch and the house. Narrow vertical, white, steel enamel panels fill in the pediment created by the gabled roof. The pediment projects out over the front facade by approximately six inches.

Two asymmetrically placed bays form the composition of the east elevation, three quarters of the length of the other sides of the house due to the recessed porch. Both bays contain window arrangements identical to the window opening of the front facade. Two vertical square four-light windows flank the sides of medium sized picture windows. These window bays are examples of how the window bay of the front facade appeared before the owners added a window unit air conditioner. The south bay of the east elevation is the only portion of the metal framework that projects out from the square floor plan of the Westchester. Extending about ten inches from the square floor plan, the projection runs from the ground up to the roofline, and all of the enameled panels of the projection, both structural and decorative, are white. The decorative panels framing the bay repeat the angles and slopes of the front facade window opening. The second bay, that does not project, is north of the aforementioned bay. Identical to the front facade window opening, the north white panel that frames the opening and also forms a portion of the north edge of the house.

Two symmetrically placed bays, both for small square windows, form the northern, or rear elevation of the Caldwell House. The Westchester design sets the east bay two square enamel panels from the east edge of the house, and two square panels from the foundation. One angled white enamel panel frames the top of the six-rectangular light window. The west end of the north elevation contains the second window, its trimmings and pane arrangement are identical to the other window. Narrow, vertical white enamel panels fill the pediment created by the gabled roof. This is identical to the front facade.

The west elevation of the house consists of four irregularly placed bays consisting of one entrance and three window openings. Facing the west elevation directly, the first opening, for a window, is identical to the arrangement of windows and enamel framing panels found on the window bay of the front facade. Located along the south edge of the elevation, this window sets right up against the narrow end panel that is located on all corners of the house. The next

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opening is a three-light vertical window. Very thin white enamel panels frame the north and south side of the window, and an angled panel sets on top of the window. The slightly inset window creates a very small sill. The back door, which enters into the kitchen is north of the vertical three-light window. White enamel panels also frame the door. The enamel panel topping the entrance is identical to the panel above the front facade entrance. Situated north of the rear entrance is the fourth window bay containing a square six-light window. The familiar sloped panel tops the only window of this arrangement in the Westchester design. White enamel panels surround the remaining sides of the window.

Interior:

The design of the Westchester model splits the interior into five living spaces, two bedrooms, a living room, a dining room, and a kitchen and utility area. Access to the house is through two entrances; the main entry leads from the front porch into the living room, and the second through a side door, which leads into the kitchen. Narrow vertical enamel plates form the interior walls, just as the square enamel plates form the exterior walls. All entrances and window openings are built directly into the steel skeletal frame of the house, and are flush with the interior walls. Synthetic contemporary wood paneling presently covers the original walls. Added circa 1970, the paneling is reversible to restore the interior to its historic appearance. Apart from the wood paneling, the majority of the original interior features are still intact. The kitchen and utility room's original metal shelving are unchanged, and the original bright pink paint, contrasting with the exterior's baby blue paint, still survives. All shelving features a simple indented vertical line design, with inset handles in the panels, imparting to the interior the same sleek, 'modern' look the exterior possesses.

In addition to the kitchen area's original shelving, several other areas boast built-in shelving. On both the dining room and kitchen side of the small partition that separates the two, the Westchester has an inset china closet for display and storage of special dishes. This inset storage area offers four open-air shelves, which occupy two-thirds of the storage area. The remaining one-third occupied by a cupboard featuring the same vertical inlaid line design found on other shelves. Two drawers are below the shelves and cupboard.

The living room also features a permanent inset storage and display area divided into three sections. The two outside sections filled with shelves. A mirror occupies the space in the middle section. The living room, the largest room in the house, dominates the space, and its placement requires that anyone in the house move through it to gain access to other parts of the house. This reflects the 1950s era home designer's ideas about interior spaces and domestic family relationships.

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The bathroom boasts all of the original fixtures, including the square three-drawer enamel paneled corner dresser. The bathroom also still retains its original inset bathtub and shower.

Bedroom one, the Master Bedroom, possesses the most storage space, with an inset closet as well as shelving and cupboard spaces surrounding the built-in vanity, as a special feature. The built-in vanity occupies the middle of the wall shared with the living room, opposite the living room's own storage space.

Bedroom two, the smaller of the two bedrooms, only possess a built-in closet space.

The designers of the Westchester model realized the space constraints the small footprint of the Lustron house would force upon would-be families. Although still a small space, every opportunity to conserve square footage was used by building storage into the walls. This is evident in the unique built-in vanities and china closet, but also by the simpler closets, which are in every spare space. The interior, just as much as the exterior reflects the goals, ideals, and requirements of pre-fabricated housing that the Lustron designers attempted to fulfill in the Westchester design. Due to its uniqueness as a Lustron house the Caldwell Lustron House is a distinctive element of the post-war suburban landscape of Union City. It is an architectural landmark among the ranch houses, Minimal Traditional, and different revival style houses that are along Church Street.

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United States Department of the Interior National Park Service

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Not To Scale

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8. STATEMENT OF SIGNIFICANCE

The Caldwell Lustron House is eligible for the National Register of Historic Places under Criterion A, for its association with social and political events immediately following World War II, and under Criterion C, as an unaltered example of an important and unique idea in twentieth century domestic architecture in Obion County. It is one of only thirty-four known Lustron houses constructed in Tennessee and the only known one constructed in the northwest corner of the state. It meets the registration requirements set forth in the Historical and Architectural Resources of Union City Multiple Property Nomination.

In the years immediately following World War II, the return of millions of GIs to the United States and the families they established created an unprecedented demand for new housing. Often forgotten among the more famous, and eventually successful, solutions for postwar housing shortages is the Lustron Corporation of Columbus, Ohio. The Lustron Corporation unsuccessfully introduced a unique line of prefabricated all-steel homes based on the concept of factory standardized production. During two years of production, the Lustron Corporation, with almost thirty-seven and one-half million dollars in Federal loans, only managed to produce 2,500 homes. Home #01850; model #2, the Westchester, arrived in Union City, Tennessee in May 1949. James L. And Betty Caldwell purchased the house and lot. Little is known about the family history of the Caldwell family at this time.

A combination of both historic events and intellectual design ideals, the Lustron house is a significant and interesting cultural artifact of postwar America. Historically, the Caldwell Lustron House stands not only as a physical memory of the housing crisis of the 1940s and 1950s, but it also represents America's exploration into the possibilities of non-traditional housing alternatives. Architecturally, the Lustron house design stands as a significant development in the pursuit of a standardized, industrialized domestic architecture first envisioned by Walter Gropius. Additionally, the interior design of the Lustron House reflects both designer's and engineer's postwar suppositions regarding the domestic sphere of the family. Women's roles in domesticity, the emerging growth of families, and the hopes, needs, and desires of postwar middle-class homeowners were considered in design. Locally, the Caldwell Lustron House documents a unique response of the desire for a distinctive house in an era dominated locally by the popularity of the Minimal Traditional and Ranch style dwelling.

In 1945, near the end of World War II, six million men and women were discharged from the armed forces, and in 1946, after the armistice, the U.S. military discharged an additional four million servicemen and women. Prior to the end of the war, President Roosevelt and the federal government, hoping not to be completely caught off-guard, established several agencies and policies to deal with the GIs return to the United States. The Federal Housing Administration (FHA), The National Housing Agency (NHA), the Veterans Administration (VA) housing program,

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the Reconstruction Finance Corporation (RFC) and a variety of depression-era and war-time measures granted the federal government enormous power to manipulate American housing construction, a notoriously wild and unpredictable industry. Through several studies, which took into account expected postwar population growth, years of savings, and the fact that the American housing industry had been, along with the rest of the nation, mired in the Great Depression, the NHA conservatively predicted in 1944 that the country needed at least five million homes built immediately and a total of twelve and one-half million over the next ten years. Regardless of the identified need, private construction firms only managed 245,000 "housing starts" in 1945. In that same year the Navy and Army began demobilizing up to a million servicemen and women a month, almost half of who were married. Wartime urgencies vastly outweighed future, postwar needs such as planning and housing. When the GIs returned home at the end of the war in large numbers, they encountered a housing crisis unparalleled in American history. Cities and citizens throughout the United States scrambled to provide any kind of housing for returning GIs. Subsequent Senate investigations into the crisis found that reunited families were doubling up with relatives, and hundreds of thousands of veterans had taken up temporary residence in garages, trailers, barns, and even chicken coops.

In response to such studies and investigations, President Truman signed the Veterans Emergency Housing Act of 1946 in an attempt to alleviate the crisis. Violently opposed, as all federal intrusions were, by real estate interests that believed private enterprise could handle the housing crisis, one title of the act granted surplus war plants and allocated scarce resources to firms working and willing to work in prefabrication. Housing experts believed, and the U.S. Army's experiences in World War II proved, that prefabricated housing was an untapped building technique that offered viable solutions for the nation's housing crisis. The Veterans Emergency Housing Act (VEHA), as further encouragement, also promised government loans through the Reconstruction Finance Corporation (RFC) to prefab firms. Wilson W. Wyatt, the "housing expediter" appointed by President Truman to oversee the implementation of VEHA, believed, optimistically, that government assisted prefabricators could produce as many as 850,000 homes by the end of 1947.

With RFC government loans acting as an inducement, nearly three hundred firms began constructing prefabricated houses in the late 1940s. One such company, the Lustron Corporation, easily outdistanced all of its competitors in concept, scope, and ambition. The Lustron Corporation originated from its parent company, the Chicago Vitreous Enamel Products Company. Chicago Vitreous (Chicago Vit) normally produced porcelain enameled panels for use in washing machines, store fronts, washroom stalls, and gas stations. When the war began Chicago Vit like most domestic industries changed to produce materials for the war effort. Chicago Vit produced extremely hard, non-porous cold-rolled steel covered with an equally hard protective porcelain enamel that the U.S. Army used for tank armor. A Chicago Vitreous engineer named Carl Strandlund developed a process that shortened the time tank armor

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needed to properly temper from fourteen hours to eight seconds. He saved the Army millions of dollars, made millions for Chicago Vit, and earned himself a promotion to Vice President. After the war the company, in an effort to find new markets for its porcelain enameling process, attempted to build steel paneled gas stations for Standard Oil. However, the Civilian Production Administration (CPA) turned down the company's petition for steel as non-essential since the metal was still very scarce supply. Strandlund, an opportunist by many accounts, saw the potential in combining the nation's desperate need for housing with Chicago Vit's need for new non-military markets. Strandlund proposed instead to the CPA controlled board to use the steel to produce prefabricate houses; a project that President Truman had determined was a peacetime priority.

Strandlund hired two architects to design a prototype Lustron House, which he presented, along with his own proposals regarding anticipated production capabilities and distribution plans, to the RFC. The Lustron Corporation did not receive immediate approval from the RFC. Through an up and down series of proposals, rejections, revisions and political maneuvering, Strandlund managed to secure a fifteen and one-half million dollar loan to prefabricate all-steel homes. On June 30, 1947, the RFC approved Lustron's loan and Strandlund procured the use of a huge Curtiss-Wright aircraft plant in Columbus, Ohio. At same time the newly elected Republican Congress, in a victory for private real-estate interests, repealed the Veterans Emergency Housing Act of 1946. However, the papers, already signed, and the RFC's Lustron deal, constituting the largest financial commitment ever made to a housing firm. This placed the U.S. government in the business of supporting a factory-made steel house.

Carl Strandlund, bought out Chicago Vitreous' interest in the Lustron Corporation shortly before the company received its initial fifteen and one-half million-dollar loan from the RFC. Strandlund was determined to overcome earlier problems prefabricators had during the Great Depression. With the capital the new company needed, Strandlund, now the CEO of the company revealed his plans. The Lustron House was to be a completely closed system; the Columbus, Ohio factory would produce every building element, from gutters, window frame, to doorknobs, specifically for the Lustron House. With porcelain enameled panels the problems of corrosion and condensation disappeared. Homeowners could no longer complain of heating problems with the radiant heating that was provided. Every element, from the heating system to the counter tops, the metal sinks and the chest of drawers, were made of metal or porcelain enameled metal. All were built directly into the steel structural framework of the houses. According to Strandlund's plans, a fully equipped trailer would leave the Lustron plant every seven minutes and leave directly for its preordained building location with absolutely everything needed to construct the home. As designed, the Lustron House, with its promise of cheap, high quality, architecturally designed living that combined "unity of design" and mass production, fulfilled the ideals of Walter Gropius. Strandlund's plans also pushed the concept of prefabrication to its ultimate conclusion: a completely closed system of design, production, delivery, and

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construction. With such intentions, the Lustron House stands as a vital and important step in the architectural history, of prefabricated housing in America.

The Lustron designs aimed primarily at middle-class Americans, revealed many suppositions and beliefs that engineers, architects, and advertisers held about post-war domestic life. The Westchester design of the Caldwell Lustron House in Union City, for instance, was a design that eventually outsold all other Lustron designs; it stands as the representative Lustron house. Several of the selling features of the Westchester pointed toward postwar ideals of what a typical home life was supposed to be. Many advertisements emphasized the ease of upkeep and lack of maintenance that the Lustron house required. Advertisements bragged that "soap, water, and a damp cloth are all the cleaning materials you need." Alongside the text placed a picture of a smiling wife wiping down porcelain enameled panels with her husband happily watching. Numerous Lustron advertisements depicted women cleaning, cooking, and enjoying the comfort of their homes. Such advertisements were obviously not limited to the housing industry, but they nevertheless speak volumes about postwar domestic spheres -- the place of the modern postwar woman was in her modern house. Another selling feature, now remarkably foreign to contemporary ideas, was the combination clothes washer and dishwasher. This appliance supposedly contributed to housewives' efforts to "achieve higher standards of cleanliness and efficiency, while allowing more time for child care." Advertisements proclaimed that the "dustproof, ratproof, fireproof and verminproof" Lustron house was "what America has been waiting for"-- all selling points for parents intent on providing a hospitable and healthy environment for their children.

The actual layout of the basic Westchester design of the Caldwell Lustron House also speaks to 1940s and 1950s housing tendencies. In a national environment in which the National Association of Home Builders distributed plans for inexpensive ranch-style homes, the Westchester design represents the ideal spatial relationship for a postwar family. The living room, dining room, and kitchen occupy over fifty percent of the home's floor space -- families were obviously supposed to spend time together, not isolated from each other in individual rooms. If parents had more than one child, and most did, the living room became an even more important domestic space. With Westchester bedrooms measuring only twelve feet by twelve feet and ten feet by fourteen feet, people spent most of their time in the living room. Acting as the focal point of the home, the living room provided access to every part of the house. Entrance into the kitchen, bedrooms, pantry, dining room and even the front door required navigating through the living room -- mothers and fathers could have knowledge of virtually every activity of the house simply by staying in the living room. "The suburban home was planned as a selfcontained universe. Family members would not need to go out for recreation or amusements, since they had swing sets, playrooms, and backyards with barbecues at home." Finally, engineers and architects followed the postwar design tenant; "... a 75 dollar gadget sells a 7500 dollar house." The use of new technologies like the combination clothes washer and

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dishwasher, the implementation of radiant heat rather than steam, a built in vanity and mirror, sliding doors and multiple overhead storing compartments all were features that the Lustron used to intrigue middle-class consumers. "In postwar America, newly conscious of comfort and convenience, the Lustron house was decidedly up to date."

In May of 1949, just as other young couples throughout the upper South and the Midwest, James L. and Betty Caldwell paid approximately \$7,500 for a small lot and the delivery of their 3,000 piece house, serial number #01850, model #2, a Westchester. The metal plaque carrying the serial number attached to a wall in the utility room after the house was fabricated. It was, and is, the only Lustron House in Obion County, and one of only thirty-four known in the state of Tennessee. It is one of only 2500 Lustron Houses in the United States. Twenty years after their initial purchase, the Caldwells sold their home to Barbara Long, a recent widow with two young children. Mrs. Long bought the Lustron Home in 1968 for a variety of reasons, but primarily because she thought the home would be "almost maintenance free," which it is. The Long children enjoyed the house's proximity to the local schools, a benefit the Caldwell family also certainly enjoyed. Apart from some very minor interior changes (wood paneling, and new paint) Mrs. Long has changed nothing in the house, even after the departure of her children. After serving her and her family's needs for almost thirty years, house #01850 appears today almost exactly as it did when the Caldwell first took up residence in the summer of 1949. The Westchester model, with its emphasis on family spaces, easy maintenance, comfort, and gadgetry, stands as a reflection of 1940s and 1950s domestic architecture and domestic engineering. It was a home owner's idea of what a new "modern house" should look like, and ultimately, American's ideals about the structure and behavior of their own families.

Ideals and expectations, however, often must compromise with reality. Just as 1950s Americans often discovered that a family centered universe of firmly delineated domestic spheres contributed to unchallenged and frustrated wives, work exhausted husbands, and rebellious children, Carl Strandlund discovered that obtaining sufficient capital and a suitable factory did not automatically guarantee success. Repeating much of the history of prefabrication, Strandlund's ideas and dreams stood in stark comparison to the reality that developed in the corporate headquarters in Columbus, Ohio.

The Lustron Corporation's first houses would not roll out of the Columbus plant until the fall of 1948. Two years after RFC's initial fifteen and one-half million dollar loan, and long after the original fifteen and one-half million dollar loan was spent, was much later than Strandlund's original date for the first house. "The Columbus factory was slow to equip, slow to start up, and short of steel. The delays were expensive and caused Lustron to miss the peak of the housing crisis." To keep the company afloat, Strandlund borrowed an additional ten million dollars in 1948 and another seven million in 1949. Throughout this down period, Lustron kept national enthusiasm high for the "Lustron House" with glossy advertisements, feature articles in national

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magazines and a series of model homes the company displayed in cities throughout the United States. Strandlund's political instincts and the Lustron Corporation's skillful advertising campaigns kept the company operating and in public and political favor much longer than would be expected. Eventually, however, the lack of production from the Columbus factory caught up with the company. In 1948 the company claimed twenty thousand housing orders, but by December only forty homes had left the factory. The Lustron Corporation originally intended to manufacture forty thousand homes a year, but by 1949 averaged only 130 homes a month from January to August, its highest production average. By July of 1949, the plant that had hoped to "produce houses like Ford builds cars" hit its peak production of "one hundred houses. In 1947, the Lustron Corporation had predicted a daily production of "one hundred houses a day by July of 1949."

Low volume, a distribution system that required up-front payment, and local construction workers unfamiliar with the Lustron blueprints, all drove up construction costs and a home that Strandlund originally claimed would sell to the lower end of the American middle-class at \$6,000, mushroomed to \$11,000 for larger models. This was a price at the high end of what most home buyers were willing to consider. Magazines, which had previously touted the promise of the Lustron House, began to print negative articles with titles like: "The Factory-Built house is here, but not the answer to the thirty-three million dollar question: How to get it to market?"- "What's Stalling Lustron?" and "Whither Lustron?". Articles began to question all of Lustron's loans and undelivered promises. Politicians, smelling blood, began to question the legitimacy of RFC loans to Lustron. With loan payments in escrow and factory machines bought with loans used to cover the collateral for new loans, Carl Strandlund led the Lustron Corporation into a downward spiral of unpaid loans, unfulfilled production orders, and distribution problems. All of these problems eventually landed Strandlund in front of several different Congressional committees, all of who demanded to know what had happened to the Government's (RFC loans) money. Production and housing orders ground to a halt in 1950 as real estate and housing dealers turned to other, more profitable and reliable housing corporations like Levitt and Sons, who could produce giant, 80,000 home communities in months. Accusing the Lustron Corporation of bribery, kickbacks, and general mismanagement, the Justice Department cut off RFC loans to Lustron, and began foreclosure proceedings in January of 1950. On June 6, 1950, the Lustron Corporation went up on the auction block, and the only bidder, the RFC, offered six million dollars to purchase a company that had only managed to produce 2,500 steel houses with thirty-seven and one-half million dollars in RFC loans.

In one congressional meeting, Republican Congressman Albert Cole of Kansas asked RFC Housing Chief Richard C. Dyas if the thirty-five and one-half million dollars advanced to Lustron had been a "good loan." Dyas replied that it was:

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. . . a question of philosophy. As a loan, and that may be the wrong name for it, it has to be considered a pilot undertaking, an experiment. The question it seems to me, is whether the experiment is working. I don't know how anyone can say definitely whether it is succeeding or failing. There are no yardsticks. . .

Although Representative Cole was inquiring to the monetary success of the Lustron Corporation, Dyas' answer speaks volumes. In almost every aspect of its creation, the Lustron House was an experiment. The Caldwell Lustron House of Union City, Tennessee is a physical representation of many fundamental social and architectural experiments that took place in the late 1940s and 1950s. The architectural history involved in the process of creating a completely prefabricated steel home to solve the housing crisis created by returning GIs and a postwar economic boom proved to be the deciding factor to the Federal government's unprecedented willingness to loan huge amounts of money to a private corporation. The design decisions and suppositions that molded postwar domestic relationships -- these are all experiments that the Caldwell Lustron House of Union City, Obion County, Tennessee, represents and reflects. The "yardstick" for Lustron's success is almost as ambiguous today as it was in 1949. Regardless of the arguments for or against success, the Caldwell Lustron House stands today as an excellent representation and reminder of the Post War housing crisis, experiments in prefabrication and the attempted Federal solutions to social problems in the late 1940s and early 1950s.

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9. **BIBLIOGRAPHY**

- Adams, Laurie Schneider. A History of Western Art. Madison, Wisconsin: Brown and Benchmark Publishers, 1994.
- Bartlett, Arthur. "Lustron The House that Lots of Jacks Built." *Collier's*, 5 November 1949, page 15.
- Bemis, Albert Farwell. The Evolving House, Vol. 2, The Economics of Shelter. Cambridge, Massachusetts: The MIT Press, 1981. Reprint of 1933 - 1936 edition.
- Davies, Richard O. Housing Reform During the Truman Administration. Columbia: University of Missouri Press, 1966.
- Gropius, Walter. "Prefabrication: A Freedom from Limitations." *Building for Modern Man.* Creighton, Thomas, ed. Princeton: Princeton University Press, 1949.
- Herbert, Gilbert. The Dream of the Factory-Made House: Walter Gropius and Konrad Wachsmann. Cambridge: MIT Press, 1984.
- Hersey, George L. "Godey's Choice." Journal of the Society of Architectural Historians. 18 October 1959.
- Jackson, Kenneth T. Crabgrass Frontier: The Suburbanization of the United States. New York: Oxford University Press, 1985.
- Keith, Nathaniel S. Politics and the Housing Crisis Since 1930. New York: Universe Books, 1973.
- Kelly, Burnham. The Prefabrication of Houses. New York: MIT Press. John Wiley, 1951.
- Life. 13 December 1948.
- May, Elaine Tyler. Homeward Bound: American Families in the Cold War. New York: Harper Collins Publishers, 1988.
- Niedermeier, Lynn Eleanor. 'A House Like A Ford': The Prefabricated Porcelain-Steel Lustron Home, 1946-1950. MA Thesis, Middle Tennessee State University, August 1992.

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- Snyder, Tim. "Lustron: A Prefabricated Ranch House of Porcelanized Steel." *Fine Homebuilding*. August/September 1984.
- Time. 20 December, 1948
- Wolfe, Tom and Leonard Garfield. "A New Standard for Living": The Lustron House, 1946-1950." *Perspectives in Vernacular Architecture, III*. Carter, Thomas and Bernard L. Herman, ed. Columbia, Missouri: University of Missouri Press, 1989.
- Wright, Gwendolyn. Building the Dream: A Social History of Housing in America. New York: Pantheon, Books, 1981.

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10. GEOGRAPHICAL DATA

Verbal Boundary Description

The nominated boundary is at East Church Street, listed as parcel 13 on the attached Union City Tax Map P-49-A.

Boundary Justification

The nominated boundaries contain all of the historic and current property associated with the Long Lustron House.

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1"=100'

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PHOTOGRAPHS

Caldwell Lustron House 1020 East Church Street Obion Co., TN

Photos by: Carroll Van West MTSU Center for Historic Preservation Murfreesboro, TN 37132 Date: September 1996 Negatives: Tennessee Historical Commission 2941 Lebanon Road Nashville, TN 37243

North facade, facing south 1 of 6

North facade and east elevation, facing southwest 2 of 6

East elevation, facing southwest 3 of 6

South elevation, facing northeast 4 of 6

West elevation, facing northeast 5 of 6

West elevation, facing southeast 6 of 6