

United States Department of the Interior
National Park Service

National Register of Historic Places
Multiple Property Documentation Form

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items.

New Submission Amended Submission

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A. Name of Multiple Property Listing

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Lustron Houses in South Dakota

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B. Associated Historic Contexts

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(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Prefabricated Housing
Lustron Corporation 1946-1950
Lustron Dealerships
Lustron Planning Guides
Lustron Development in South Dakota

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C. Form Prepared by

=====

name/title On Site Photography and Preservation: Michelle C. Saxman-Rogers, SHPO

street & number P O Box 94627 telephone (402) 438-8093

city or town Lincoln state NE zip code 68508

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D. Certification

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As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. (___ See continuation sheet for additional comments.)

Signature and title of certifying official

Date

State or Federal agency and bureau

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper

Date

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Table of Contents for Written Narrative

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Provide the following information on continuation sheets. Cite the letter and the title before each section of the narrative. Assign page numbers according to the instructions for continuation sheets in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Fill in page numbers for each section in the space below.

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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 listings. 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.).

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Prefabricated Metal Housing

For all its technological advancements and streamlined design the Lustron Corporation was not the first to build either an all metal house or a prefabricated house. Carl Strandlund was a visionary capable of adapting his ideas to fit current needs; namely the shortage of housing for military personnel returning from service during World War II. His ideas were brought to fruition through technological advancements such as the assembly line and ever evolving machinery developed during the Industrial Revolution. The first prefabricated building elements used in housing date to the early 19th century. Pattern books conceived for homeowners and not builders, began appearing in the 1830s, and became highly popularized with the Gothic revival cottages designed by Andrew Jackson Downing. Pattern books established a market for the Sears catalog for prefabricated and premanufactured housing. The first three decades of the twentieth century established Sears & Roebuck Company as the leading American company for manufacturing prefabricated housing.

The first quarter of the nineteenth century witnessed construction of the first cast-iron house in England. This was an anomaly, however; though other examples were built, it was not until the post World War I era that an interest in prefabrication was ignited by demand for inexpensive and available housing. The social situation at the time was similar to that of the post World War II period as veterans returning from the war encountered a shortage of affordable housing. Advancing technology provoked innovation in housing design, materials and manufacture that without doubt influenced Strandlund in his decision to design an all-metal prefabricated house manufactured using idled wartime industrial assembly capacity.

In 1928 L. W. Ray, the construction superintendent for White Castle's restaurant, pioneered a significant innovation in building design: the movable, all metal, porcelain-enameled steel-paneled building. Controlled through local manufacture and insulated from the variables of local construction costs, this innovative and cost-effective solution to erecting restaurants throughout the northeast became the standard building form for the company. One of the most interesting aspects of Ray's White Castle design was that the company organized its own subsidiary called the Porcelain Steel Buildings Company which manufactured their porcelain-enameled buildings; until 1934 this work was contracted out to other companies. The Porcelain Steel Buildings Company was located in Columbus, Ohio--the same town in which Lustrons were manufactured.

Another company innovating porcelain -enameled steel construction was the Ferro Company located in Cleveland, Ohio. In 1932 the company erected two metal houses in the Cleveland vicinity. One utilized steel frame and sheathing with porcelain-enameled steel shingle siding as well as roofing. The second house utilized load bearing walls rather than a steel structural system and was also clad in porcelain enameled shingles. The Ferro Company evolved this idea into a cooperative effort with the Armco Steel Company to create a porcelain-enameled steel paneled house, without a frame, which they introduced at the 1933 Chicago World's Fair. The 1933 Century of Progress Exposition in Chicago was one of the first fairs to popularize the experimental demonstration house to the public. Much of the focus was centered on the use of steel for housing stock;

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however, problems with insulation, water damage and condensation corrosion impeded innovation in metal housing. Other technological advances, such as the balloon frame and the standard four-foot construction module supported the efforts towards prefabricated housing in the 1930s.

Corporations such as U.S. Steel, Republic Steel, the Homosote Company, General Electric, and Westinghouse began looking to the success of American car companies Ford and General Motors, adapting mass production techniques to tap into the new housing market. "Houses like Fords" was a common advertising slogan for some of these experimental projects. Other upstart companies, organized solely to develop housing for the modern market, included Howard Fisher's General Houses in Chicago, Robert McLaughlin's American Houses in New York, and National Houses in Lafayette, Indiana. Like the Lustron, Robert McLaughlin and Howard Fisher, who were also designing prefabricated houses in the 1930s, favored panel wall construction that utilized steel studs. Each company built several hundred houses, all of which utilized steel framing as well as other steel components. The experimental use of steel and other metals in housing came to an abrupt halt at the outset of World War II as supplies of metal tightened due to the demands of World War II. Attention then centered on wood as the primary material in the manufacture of prefabricated houses.

The war buildup and the resulting need to supply housing for the American military overseas initiated government-subsidization to private industry in order to prefabricate housing for military housing needs. The Lanham Act of 1940 enabled seventy companies to produce 200,000 housing units for the government during World War II, mostly financed with public funds. Some of these used steel structural systems, but all employed standardized parts and modular design. After the war, the demand in the United States for housing greatly increased; the federal government estimated that fifteen million houses would be needed to accommodate demand during the decade after the conclusion of the war. There was an effort to build as much as possible as fast as possible; as a result, Congress voted to fund research into prefabricated housing and to help subsidize production in 1946. Boosting support for prefabricated housing, the Veterans Emergency Housing Act of 1946 made available war plants to firms specializing in prefabrication and rewarded them with access to natural resources, such as steel-making materials, rationed for production during the war. In a development important to establishing production of postwar prefabricated houses, the Reconstruction Finance Corporation provided government loans to the prefabricating companies, making a national priority the need to house returning veterans--often in prefabricated homes.

Though this financial support ushered an influx of hundreds of companies into prefabricated housing production, only three were selected to receive the money available through the Reconstruction Finance Corporation. One, the General Panel Corporation, operated from 1942-1951 and produced a prefabricated standardized house constructed of panel units that could be adjusted for use in a variety of positions like walls or ceilings without structurally changing the building. The General Panel houses, designed by Walter Gropius and Konrad Wachsmann, experienced many of the same problems as the Lustron, and the company was dissolved in 1951 after producing only a few hundred houses.

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The Lustron Corporation, manufacturer of an all-steel house, was the most heavily capitalized and industrialized of the 280 firms involved in the production of prefabricated houses in 1947. An industrialist, Carl Strandlund, formed the Lustron Corporation. Born in Sweden in 1888, Strandlund came to the United States as a child and studied engineering through a correspondence school. By the 1920s, he had embarked on a successful career in industry; business journals credit him with several innovations in agricultural machinery during his years as president of the Oliver Farm Equipment Company. By the 1930s, Strandlund was an executive with the Chicago Vitreous Enamel Product Co., which produced enameled steel panels for use in products ranging from refrigerator doors to storefronts. As vice-president of the firm, Strandlund traveled to Washington, D. C., in the summer of 1946 to request material for the production of five hundred enameled steel gas stations.

The Civilian Production Administration found little appeal in steel gas stations. Steel houses, Strandlund was told, would be viewed more favorably. Chicago Vitreous agreed, and hoped the venture might recoup some of the business lost with the postwar curtailment of non-residential building. Three months later, Strandlund returned to Washington with plans and drawings for a house built of enameled panels to be produced by an affiliated Porcelain Products Company. The name was soon changed to Lustron Corporation, a name derived from Lusterlite, a type of material that Chicago Vitreous manufactured and the Porcelain Products Company applied to iron.

The plans for steel houses were well received. Housing Expeditor Wilson Wyatt called the concept a "sensationally good" idea and backed Strandlund's request for government financing, Wyatt also promised the huge wartime Dodge plant in Chicago and a guarantee to cover the cost of the first 15,000 homes produced by the firm. Strandlund's plans were to manufacture 30,000 houses a year, but their goal was never reached. After four years, from 1946 to 1950, the corporation folded with a final production run of less than 2,500 houses. The Lustron Corporation was praised by the architectural press and was hailed as a critical test of the viability of the factory-made house. Lustron began its extensive promotional campaign in early 1948, fueling enthusiasm with glossy advertisements in general interest magazines such as *Life*. Over the next year, display houses sprang up in 100 major eastern and midwestern cities. Crowds lined up to inspect models in New York, Chicago, Columbus, St. Louis, Miami, Detroit, Milwaukee, and Washington, D. C. A display house in New Jersey's Palisades Amusement Park was the prize in a raffle to benefit a charity.

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Planning Guides

The Lustron Planning Guide was published by the Lustron Company to illustrate the most attractive site layouts for the homes. The planning guides also discussed specific site locations, planning and zoning regulations, and interior design--especially useful for showcasing display models by certified dealers. Often Lustrons were not welcome additions to neighborhoods with established building codes; some Lustron owners were faced with a struggle to locate their houses within established neighborhoods.

All aspects relating to the house were addressed in these guides. Residential neighborhoods were recommended where a sufficiently sized lot could provide a permanent location. Planning included proper preparation and grading of the slab. The planning guides offered established site plans for lots of various sizes and shapes. Landscaping was considered an important part of the Lustron aesthetic and was recommended for proper drainage. The company emphasized the importance of the entire setting to best display the modern house; therefore Lustron sites were illustrated in the guides complete with trees, grass, and gardens. Always looking to the future, information was provided in these guides for builders and developers on how to utilize unimproved lots and acreage for entire Lustron subdivisions.

Dealer Networks

Even the first tentative dealer network was established, as the Lustron corporation created a dealer network across the country, each with an exclusive sales territory. Lustron executives initially were uncertain about the number of dealers required to serve a particular area. They granted a number of exclusive franchises over large territories east of the Rockies, including the entire New York metropolitan area and the states of Connecticut, New Jersey, and Florida. Unfortunately, Lustron dealers faced major problems from the beginning: despite two years of promises and promotions, Lustron houses were simply not being built in sufficient numbers to meet demand. Even as houses became available, dealers faced unexpected costs. Lustron required dealers to pay for each house before it left the factory doors, to pay for transportation to the site, and to cover the cost of on-site assembly. To make such a transaction feasible, the Lustron dealer either found customers with complete up-front financing or carried a portion of the costs himself. (Lustron did arrange to have a Columbus firm, Galbreath Mortgage Company, offer dealers some interim financing).

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Early Funding

By 1947, Strandlund's initial \$52 million loan request had been trimmed to a more modest \$15 1/2 million; the Dodge plant had been given to Preston Tucker (manufacturer of the Tucker automobile), and Wyatt had resigned under the pressure of a new Republican Congress. But, despite the setbacks to Strandlund's plans, Lustron received a giant Curtiss-Wright aircraft plant in Columbus, Ohio, and the most massive financial commitment ever made by the federal government to a housing firm. The company even won concessions from the American Federation of Labor--a craft union traditionally opposed to prefabricated housing.

Strandlund's first house, a two bedroom prototype called the *Esquire* was produced at a plant in Cicero, Illinois, under the auspices of Chicago Vitreous and erected at Hinsdale, Illinois, in 1946. Architects Roy Blass and Morris Beckman designed the prototype. It was the last house Strandlund would build for nearly two years. The Columbus factory was slow to equip, slow to start up, and short of materials necessary for manufacture. The delays were expensive and caused Lustron to miss the time of greatest need during the housing crisis. Not until the summer of 1948 did the first enameled steel emerge from the ovens of the plant; the first house was not completed until November.

A second loan of \$10 million was granted by the RFC in 1948 followed by a third loan for \$7 million in 1949. By fall 1948, as the first houses finally rolled from the factory, the company had 20,000 unfilled orders and closed its books for the year. By 1949, infused with over \$37 million in government loans, Lustron houses were being produced on a regular, if still insufficient, basis, climaxing with 268 units in July of that year. Although far short of the stated goals for the year (17,000), the press proclaimed Lustron a success. It was the first real demonstration of the theory that "houses can be turned out like automobiles," according to Architectural Forum. The success was short-lived; Lustron never ceased losing money, as much as \$1 million per month. By 1950, the corporation had declared bankruptcy; Congress had begun an investigation into the federally-funded corporation, and the RFC had foreclosed on its loans. Shortly before the corporation was sold at auction in June 1950, it had shipped fewer than 2,500 houses.

The failure was especially disheartening to the proponents of prefabrication. Lustron had the elements for success; unprecedented financial, physical, and technological resources enabled the corporation to achieve a scale necessary for profitable mass production. Lustron was the most industrialized of the housing manufacturers of the period, and the Columbus plant was among the largest in the world, capable of producing one hundred houses per day. On 107 acres of land, the plant enclosed one million square feet of floor space--23

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acres of presses, welding machines, and furnaces. Steel was delivered by rail and either cut into framing sections or welded on the assembly line or cold stamped into panels that were then enameled and fired.

Lustron Construction

The Lustron house was a one-story, gabled-roof ranch with an exterior and interior skin of enameled steel panels bolted to a structural-steel frame and a concrete slab foundation. All construction from the wall framing to roof trusses were made of steel with porcelain-enameled steel panels hung from them--all surfaces except the concrete slab and asphalt tile floors were porcelain-enameled steel. Porcelain enameling provided a glass-like, maintenance-free finish to the two-by-two foot square exterior panels, the two-by-eight foot interior wall panels, and the four by four foot ceiling panels. The exterior was comprised of twenty straight wall framing sections (which included openings for doors and windows) and ten corner assemblies. Ten steel roof trusses, placed at four-foot intervals, replaced traditional rafters and joists. The assembly line stamped out the steel panels out of material emerging from continuous-feed porcelain-enameling furnaces. After the panels were enameled and shaped, a plastic gasket was added to seal the joints, and the insulation was automatically cemented to the inside. Wall-framing sections were composed of interior and exterior studs placed on two-foot centers and supported by diagonal braces. The bottom plate was fastened to the concrete foundation by an anchor bolt.

Given the permanent nature of the building material, ornamental features had to be chosen with care. Carl Strandlund consulted with Howard Ketcham, a noted color consultant, to develop the Lustron color schemes. Specified to be darker for the roofs with neutral and pastel interiors, the exterior color palate was contemporary with the times. Initial exterior colors included white, blue-green, green, and pink with the later palate limited to four basic shades: surf blue, dove gray, desert tan, and Maize yellow.

Lustron interiors were considered ultra-modern at their time of construction. This perception was probably enhanced as many of the houses were originally viewed within the context of theme parks, fairs or promotional displays--locations often quite different from the common residential neighborhood for which they were destined. All models included a galley kitchen with a dishwasher (innovative at the time) and built-in book shelves, bedroom vanity units, and pass through from the kitchen to the dining area. Sliding doors were utilized throughout for the bedrooms, bathrooms, closets and kitchen cabinets. Most were ornamented with a modern design element on the form of a streamlined vertical motif. The main entrance door, a typical swinging door, was fitted with a frosted glass insert with a striped design motif. Radiant heating was provided via a ceiling plenum system fired by an oil or gas furnace unit on the deluxe models. From these basic features, buyers were able to choose from three different models all of that came in a two or three bedroom floorplan. Approximately 90% of all Lustrons sold were the two-bedroom plan.

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Building a house from separately manufactured parts represented an integrated but "closed system" design. Each building element, down to the window frames, gutters and bathtub, was fashioned expressly for Lustron and made on the factory floor. No other products would fit, nor could individual owners tailor the house to meet their own needs. Any design change required re-tooling the factory; the limitations of the closed system were compounded by the nature of steel, which required the precision fabrication capabilities of expensive machinery, none of which were easily modified.

According to Lustron plans, a fully equipped truck would roll through the factory doors every seven minutes. As custom-designed trailers traveled through the factory, each was loaded with 12 1/2 tons of parts that would comprise a single house, packed in a manner that enabled on-site workers to unload them in the proper sequential order. Each trailer was then transported to a building location where it served as an on-site warehouse until the house was assembled. The complete package was composed of 3,000 parts including clips for mounting wall decorations, a front door key, and an owner's operating manual. Even the plant location was ideal, close to both steel suppliers and the so-called "prefab belt" of the upper Midwest, where the need for, and acceptance of, prefabricated housing created a strong market. The failure of what seemed a successful venture forced the industry to re-examine the prefabricated metal house.

Designing such house was not a typical architectural project. In fact, Lustron had never been architect-designed in any real sense according to Carl Koch, who served as design consultant to the firm in 1949 and 1950. From its inception it was conceived of as an industrial design, its design itself an element of the industrialized process of manufacture. Although Blass and Beckman worked on the original plans, a staff of stylists, many drawn from the ranks of automotive designers, was primarily responsible for the finished look of the house. Such was the emphasis on production efficiency that one change made from the prototype was the elimination of a jog in the rear wall which allowed for more floor space.

Non-traditional Housing in a Traditional Market

The corporation hoped one day to assemble the house at regional warehouse-assembly plants located across the county. However, these future plans remained on the drawing board. The immediate challenge was to build houses to meet existing demand, and to get those houses to building sites. Koch and others encouraged the corporation to explore the potential of designing for planned developments, but without success. Without the lure of a cheap price, the amenities of a suburban subdivision, or the pressure of a housing crises, the house of steel panels lost out to the traditional American home of wood or brick. Lustron made several business decisions that more seriously undermined the firm's potential success. The company underestimated the costs of capitalizing achieve mass production, allowing the peak of the housing demand to be unmet by available

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Lustron products. Despite its early efforts at establishing a dealer network, much in the manner of automobile distribution, the Lustron Corporation failed to establish a substantial distribution system to handle high-volume sales. Because Lustron sold houses on an individual basis through franchised dealers, the company never achieved the sales volume that characterized the large-scale housing developments of the period like those of Levite and Sons, Inc. Moreover, because production levels remained low, the cost of each house steadily escalated. Soon, the proposed \$6,000 house was selling for \$11,000, a price greater than that of many traditionally constructed small houses.

These miscalculations were critical: by the time Lustron was producing homes on a regular basis, the housing crisis had largely passed and the Lustron house was competing in a rebounded market dominated by independent builders erecting suburban homes using traditional methods. Competing in a marketplace dominated by traditional housing, Lustron had little chance for real success. Local building codes varied from city to city and, because they were based on specifications rather than performance standards, often prohibited features of Lustron's innovative design. Chicago's code, for example, banned steel houses altogether; Detroit's outlawed copper wiring. For large-scale housing developers, the problems of financing building codes, and suppliers were solved through nearly complete control of the entire real estate process. But for Lustron, these battles were fought anew with each sale. To the corporation's credit, it waged an aggressive campaign (partially successful) to amend local building codes. Moreover, the construction industry viewed metal prefabrication as a threat to on-site craftsmen and established suppliers of building materials. As a result, Lustron found little support within the very industry on which it depended for local assembly.

Significantly, conservative financial institutions such as the Federal Housing Administration were wary of granting or guaranteeing mortgages for nontraditional houses, especially before the house had arrived at the lot. The FHA, in exerting a powerful shaping influence on housing policy through their mortgage guarantees, insured that the traditionally-constructed house would be the dominant form of residential construction throughout the United States. Eventually, the design was approved by the Federal Housing Authority (FHA), but it was not enough. Lustron's piecemeal approach to sales and distribution could not guarantee the enormous sales needed to sustain mass production.

Some critics viewed the failure of Lustron as conclusive proof that factory-made housing could not succeed. But the collapse of Lustron should not overshadow the firm's achievements. The popular acceptance of the design challenged the notion that American buyers would never live in factory-made houses or that prefabricated designs could succeed only as temporary solutions in crisis situations. Nor had any venture so thoroughly applied the methods of the assembly line in the construction of single-family housing.

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That the Lustron Corporation produced an innovative design that embraced efficiency and maintenance-free longevity was ultimately not enough to guarantee its success in the postwar housing market. In retrospect, the success of the Lustron experiment in mass-manufactured prefabricated housing depended as much on the institutional particulars of the housing market, such as the availability of federal financing of mortgages and restrictive local building codes, as it did on generating consumer acceptance of a revolutionary solution for affordable homebuilding. In January 1952, the RFC dropped its suit against Carl Strandlund in return for a general release and a transfer of all his Lustron stock. The following year, Strandlund found employment as president of a steel parts manufacturer. He retired to Florida a few years later and after seventeen years moved to Minneapolis, his wife's birthplace. Strandlund died on December 24, 1974. The Columbus manufacturing plant is still extant and was until recently used by an airline company. It is currently vacant.

The Models/Property Types

The first Lustrons manufactured were two-bedroom models, although by 1950 the corporation had introduced a three-bedroom design. In 1949, the company hired Carl Koch and Associates to design a luxury model with more flexible interior plan, a fireplace, and an attached garage. Other plans called for establishing a market for used Lustron parts and creating a system of built in furniture.

Westchester--The *Westchester* and *Westchester Deluxe* were the most commonly sold models. The two-bedroom *Westchester* measured 31 by 35 feet and was distinguished by a 6 by 12 foot cut-out which formed a corner entry porch. Two windows on the primary facade characterize this model. The three-bedroom measured 31 by 39 feet with no cut-out for the porch; this model was entered through the gable side. Three windows on the primary facade distinguish the three-bedroom model. Optional on the *Westchester*, the *Westchester Deluxe* model included a built-in vanity in the bedroom, as well as a bookcase, pass-through between the kitchen and dining room, and a bay window. The standard model was number 021 or 031 (depending on the number of bedrooms) and the deluxe model numbered 02 or 03.

Newport--The *Newport* was designed subsequently to the *Westchester* as a lower priced model--the least expensive Lustron available. Very few *Newports* were sold. The two-bedroom model, numbered 032, measured 23 by 31 feet and is characterized by the two windows on the primary facade; it lacked the corner cutout characteristic of the *Westchester* model. The three-bedroom plan is numbered 033 and measured 31 by 31 feet square; likewise, it is characterized by the two windows on the primary facade with no cutout for the porch.

Meadowbrook--The *Meadowbrook* was conceived of as a "middle-line" model and was the last one designed; it is a larger variation on the *Newport*. The two bedrooms *Meadowbrook*, numbered 022, measured 31 by 25 feet with a similar window and door arrangement as the *Newport*. The three bedrooms measured 31 by 33 feet and is numbered 023.

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Optional for the entire Lustron model line was either a one-and-a-half or two-and-a-half car garage (with or without a connecting breezeway); it was available in 1949 and 1950 only. The model G-1 garage measured 15 by 23 feet; the G-2 model measured 23 feet square. The breezeway would connect the house to the garage, but was also sold separately. Significantly, unlike the Lustron house design, the garages were traditionally framed using balloon construction to which the porcelain enameled panels were attached.

Lustron Development in South Dakota 1949-1950

The March 1950 Lustron Corporation *Dealer's Report* indicates that a total of 30 Lustron houses were shipped to South Dakota. Ten houses were shipped to the Huron area; four to Mitchell; three to Mobridge; three to Rapid City; Nine to Sioux Falls; and one was shipped to Watertown. Since 38 are known to have been constructed in South Dakota, presumably the total number of Lustron homes is fairly accurate.

The first Lustron House constructed in South Dakota is believed to be 1505 South West Ave in Sioux Falls. The first South Dakota Lustron franchisee, Leader's Construction, served the Minnehaha County area and constructed the house in 1948. An undated 1948 newspaper article from the Daily Argus Leader announced, "State's First Enamel-Steel Home Here, Sioux Falls Builder Granted Franchise for Lustron Home." The Lustron Company gave Leader's Construction authority to finish homes within a 150-mile radius of Sioux Falls. Other authorized Lustron home dealers in South Dakota were Weisenburger in Huron; the city of Mitchell; Sackreiter Development Co. of Mobridge; Nelson implements in Rapid City; and Schull Co. in Watertown.

During the short period of time Lustron was in existence, Leader's Construction had tentatively sold 40 homes to potential buyers. Of this number, only nine were ever constructed in Minnehaha County. All of these houses are the two-bedroom Westchester model, except one. The one is a three-bedroom Westchester, constructed in Wolf's sub-Kowland's addition. Of the nine Lustron houses constructed in Minnehaha County only one includes a Lustron garage; it is located at 1509 South Glendale Avenue, Sioux Falls. The company purchased 40 foundation kits, but only received nine house kits. The company was able to use the remaining foundation kits on other job sites.

The Weisenburger Construction company franchise, in Huron, constructed Lustron houses in Huron, Miller, Pierre, and Martin. According to the 1950 Dealer Performance report Weisenburger received ten Lustrons that year with one open order unfilled. Bruce Hobson's Lustron, located at 111 School Street in Martin, was the last Lustron built by the Weisenburger Company, constructed in 1950, after the factory announced its foreclosure sale. He retains the instructional manual and a brochure for the house.

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Lustrons in South Dakota

Pierre

1117 E. Capital
1123 E. Capital

Tyndall

401 Ivy St.

Watertown

950 N. Lake Dr.
1109 2nd St. NW

Wakonda

410 Idaho St.

Sioux Falls

1505 S. West Ave.
800 S. Hawthorne
1509 S. Glendale Ave
604 Gordon Dr.
1809 S. Grange Ave.
1218 S. Willow
1222 S. Willow
1725 S. Menlo Ave.
2400 S. Covell Ave.

Rapid City

101 E. Quincy
1909 9th St.
4121 Canyon Lake Rd.

Miller

315 E. 3rd Ave.
320 E. 5th St.

Huron

669 Dakota North
1305 McDonald Dr.
1278 Utah SE

Mitchell

824 S Miller Ave
819 Vincent Pl.
813 Vincent Pl.
702 Foss Pl.
510 S. Montana

Mobridge

101 Second Avenue SE
1109 N. Main
1020 N. First Ave.

Redfield

204 E. 2nd St.

Vivian vicinity

South Hwy 53, rural, gravel road

Howard

303 Farmer St.

Martin

111 School St.
2 others in town, no street address

Chamberlain

School St.

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Identification and Evaluation

Lustrons included in this study were any of those constructed within the state of South Dakota. Given the nature and rarity of the Lustron as a property type, all Lustrons constructed in the state are worthy of study, even though not all are eligible for the National Register. Lustron houses are unique within the context of postwar housing primarily because of the small numbers produced and constructed. Because of limited model availability and relatively few customizable features, the defining characteristics of the houses are straightforward. They must retain their characteristic form of a one-story ranch style with gable roof. The porcelain-enameled steel interior and exterior, with the defining 2 foot square exterior panels and roof tiles, must be intact.

The Lustron is considered significant for its design as well as its method of construction; thus additions to the original construction may affect the integrity of the floorplan and thus compromise a particular example. Some additions or enlargements, however, attached to the back of the house are not visible from the road and thus do not affect the visual integrity of the main facade. However, many of the houses in South Dakota remain in their original condition with minimal alterations. Given the number of properties without additions and alterations in South Dakota, those that have undergone this type of significant change are not considered eligible within this context. The most common alteration seems to have been enclosing the corner entrances either for expanded living space or for insulating purposes. Because this is a major alteration to the main facade, these properties are not considered eligible. However, the enclosure of the cut-out is less obtrusive if the Lustron was included in a district. Even though porch enclosures were a trend in South Dakota given the climate, enclosing the characteristic Lustron cut-out detracts from the visual integrity of the main facade.

Features of the Lustron that must be maintained include the fenestration. Within the demands of practicality, windows may be replaced with a similar style and must retain their original opening size and characteristics. This is easily done as there are many affordable window options today that closely resemble the Lustron arrangement. The exterior cladding (including the roof), the main entrance, and the interior floorplan must also be retained for National Register eligibility. The Lustron is characterized by the enameled panels that are integral to its construction, both interior and exterior. Although the function of interior spaces may change over time, the arrangement of the rooms is partly what defines a Lustron house. The room arrangement, in utilizing space as efficiently as possible, reveals the design of the Lustron as unique. To alter the original design by

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replacing facing material, adding new walls or subdividing rooms significantly affects the integrity of the original design and would render the property not eligible for the National Register.

Some, but not all, Lustrons now fall within the fifty-year cut-off date for eligibility for the National Register; the remainder will soon fall within the date of eligibility. These buildings played an important role in the housing industry after World War II. Thus they are recognized as a significant historical resource.

There is a notable National Register-eligible historic Lustron district Mitchell, South Dakota. Because the association of buildings to one another in a district provides a setting, within a historic district the enclosed porch on a Lustron may be overlooked as integrity requirements are adjusted to include those examples with enclosed cut-outs.

Areas of Significance

Provided they meet the defined characteristics as defined in the building type section above, Lustrons are significant under National Register criteria A and C for their architectural and engineering contributions. The house is closely associated with federally subsidized efforts to alleviate the post World War II housing shortage and thus significantly contributes to the history of housing in the United States. Lustrons represent significant contributions to Postwar development of the residential landscape funded primarily through government programs. As such, they are part of a long history of federally subsidized housing efforts, although characterized by innovations that seem remarkable daring in the context of federal housing programs--particularly given the strength of the forestry and conventional homebuilding industry. Further, the Lustron is significant for its contributions to prefabricated metal housing technology of the era as the manufacturing techniques utilized assembly line production directly influenced by the automobile industry. Porcelain-enameled steel panels were an innovative advancement for prefabricated housing construction, particularly as utilized in the single-floor modern ranch style house plan that provides the Lustron with their unusual appearance. As practical, affordable housing for the average family, Lustrons represent perhaps the most ambitious campaign in private residential construction to infuse modernity throughout everyday life in a postwar environment that itself sought consolation for the war effort in the imagery of the future. Their failure to capture a viable market is attributable perhaps to a nation that was truly ill-prepared to embrace modernism within the dearly-held institution of the house (in the context of the automobile it was apparently acceptable). that they are being afforded across the country. This multiple nomination of Lustrons in South Dakota represents an effort toward that end.

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