

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Dearborn Chemical Company Warehouse

Other names/site number: N/A

Name of related multiple property listing:

N/A

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

2. Location

Street & number: 941 Waimanu Street

City or town: Honolulu State: Hawaii County: Honolulu

Not For Publication: Vicinity:

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide X local

Applicable National Register Criteria:

X A ___ B X C ___ D

Signature of certifying official/Title:	Date
State or Federal agency/bureau or Tribal Government	

In my opinion, the property ___ meets ___ does not meet the National Register criteria.	
Signature of commenting official:	Date
Title :	State or Federal agency/bureau or Tribal Government

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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:) _____

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

Category of Property

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>1</u>	<u> </u>	buildings
<u> </u>	<u> </u>	sites
<u> </u>	<u> </u>	structures
<u> </u>	<u> </u>	objects
<u>1</u>	<u> </u>	Total

Number of contributing resources previously listed in the National Register None

6. Function or Use

Historic Functions

(Enter categories from instructions.)

Commerce/Trade
Warehouse

Current Functions

(Enter categories from instructions.)

Vacant

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7. Description

Architectural Classification

(Enter categories from instructions.)

Utilitarian
Late Nineteenth-Early Twentieth Century Revival
Classical revival

Materials: (enter categories from instructions.)

Principal exterior materials of the property: concrete walls, standing seam metal roof, concrete slab foundation

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Dearborn Chemical Company Warehouse sits on a flat, 23,366 square foot corner lot bounded by Ward Avenue, Waimanu Street and Kawaiahao Street. The building faces southwest, or *makai* (towards the ocean), fronting on Kawaiahao Street, with its rear opening on Waimanu Street. A paved parking lot, accessed from Waimanu Street and Kawaiahao Street, separates the building from Ward Avenue and its sidewalk, and the sides of the former warehouse run parallel to Ward Avenue. The building is a single-story, utilitarian, concrete building with classical undertones. It features a front-facing, corrugated metal, gable roof and sits on a poured in place concrete slab foundation. Its concrete walls are plastered on the exterior, with impressions of the walls' form work evident on the interior. In 1965 a single story, wood frame, 12' high, flat roofed addition was placed on the Ward Avenue side of the building, and the building was converted from warehouse to commercial retail use. Through the development of this 2,244 square foot addition, most of the original structure's Ward Avenue side wall was removed and the building was reoriented to face Ward Avenue. The vacant building has a 12,504 square foot footprint. It is in fair condition, being a shell that has had almost all the 1965 retail interior partitions and fixtures removed. The former warehouse building retains its integrity of location, design, materials, craftsmanship, feeling and association.

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Narrative Description

The Dearborn Chemical Company Warehouse currently stands vacant and the owner desires to rehabilitate it in accordance with the Secretary of the Interior's Standards for Rehabilitation in order to utilize the federal historic preservation tax credit. At this juncture it is essentially a shell with the interior comprised of 6" I-beam columns supporting, a mezzanine, most of which was constructed in 1966 and 1967.

The original 54' x 190', poured in place, reinforced concrete building is three bays wide at its southwest, or *makai* (ocean facing) and northeast, or *mauka* (mountain facing), ends, with its side walls being twelve bays long. The façade and rear wall originally followed almost the same design. They are characterized by square columns at their corners, which terminate with Doric capitals. Pilasters demarcate the three bays, and the pedimented gable ends have a parapet which follows the line of the gable and terminates with a chevron. A bas-relief of the date "1928" appears in the chevron. The pediment follows the utilitarian character of the building and is unadorned. A rectangular, horizontal-louvered, metal vent is in the pediment.

Below the pediment, the 12' wide middle bay served as an entry to the building. On the *makai* end of the building this entry has been in-filled with CMU blocks and three jalousie windows. However, the original transom above the former doorway remains, and is comprised of three industrial steel, pivot windows, each of six panes with wire glass with a hexagonal mesh. The spandrel beam between the transom and the former doorway has the word "Dearborn" in bas-relief. The *mauka* entry bay also retains its historic transom and features a pair of sliding metal doors. There is no inscription in its spandrel beam.

On the *makai* end of the building, the bay to either side of the entry bay is 21' wide and contains an industrial steel window with thirty panes of wire glass with a hexagonal mesh. The five panes at the bottom are fixed, as are the six panes at either vertical edge. The fourth row of panes from the bottom is also fixed. The six panes above and below the fixed row of panes pivot. These industrial windows were originally used throughout the warehouse. In the *mauka* end wall these historic windows were at some point replaced with glass block windows. Also, a hinged door was placed in the *mauka* wall at its Diamond Head (east) end in 1965.

The side walls of the building were twelve bays long, with a pilaster demarcating each bay. Each bay was approximately 15' – 9" wide and contained an industrial steel window. The pilasters are actually 16" square structural columns which support the walls' concrete top plates. The southeast, or Diamond Head facing wall of the building remains intact, although it has been covered on the exterior by corrugated metal; however, the northwest, or *Ewa*, wall was partially removed in 1965 when a wood frame addition was added to that side of the building and the warehouse was converted

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to retail use. Only the two north-most, or *mauka*-most, bays of this wall are intact, although the 16" square structural columns of the remainder of that wall still remain in place, providing support for the mezzanine and the roof's truss work.

The 1965 wood frame addition is eleven bays long and faces Ward Avenue. It is characterized by a built-up flat roof with a wide, plastered fascia which cantilevers out 5' over the 3'- 6" wide, concrete sidewalk that runs the length of the addition. The façade is comprised of single pane, aluminum framed display windows and aluminum framed glass doors. The kick plate below the windows is one course of concrete masonry unit (CMU). The addition is 12' wide, 186' long and 12' tall. In the clerestory between the top of the flat roof and the warehouse's eave, a bank of jalousie windows was installed. A set of four, 35" wide, five-slat jalousies was placed between each of the warehouse's original pilasters. The two southern-most, or *makai*-most, sets of jalousies have been boarded over. The owner proposes to remove the entire, rather unsympathetic addition and reconstruct the original warehouse wall and windows.

On the interior, the partition walls defining the individual retail spaces have all been removed. The floor is scored concrete. In the northeast (Diamond Head-*mauka*) corner of the warehouse is an L-shaped CMU wall, which was built in 1965 to enclose the three *mauka*-most bays for office purposes. It projects 20' into the warehouse space. The mezzanine installed in 1965 and extended in 1966, also still remains in place; however, the owner proposes to remove all these 1965 additions in order to bring back the open warehouse space of the time of the building's historic significance. The only mezzanine area to remain will be a small concrete floor segment at the *mauka* end of the building. A steep, metal stair-ladder with eleven 8" treads accesses this mezzanine. In addition, two other sets of stainless steel stairs, each of which has treads and risers fabricated from one piece of metal, access the 1965-1966 mezzanine. These stairs date from the 1965 addition.

The original roof and its Fink trusses remain in place. The Fink trusses' bottom and top chords are made of a pair of 3" x 3" angle irons welded back to back. Their web studs are single 3" x 3" angle irons. The truss is reinforced with a king post, also made of a pair of 3" x 3" angle irons. All the truss members are secured with metal gussets. The bottom chord of the truss is 16' from the floor and the ridge of the roof is approximately 26' above the floor. To either side of the ridge are four, purlins made of 4" channels. Running laterally, below the ridge line, between each truss, is a lateral cross brace made of single 3" x 3" angle irons and secured in the middle by a metal gusset.

The Dearborn Chemical Company Warehouse retains sufficient integrity to allow the historic character of the building to be readily recognizable. Its Diamond Head wall remains completely intact behind a corrugated metal exterior sheathing, and its two end walls have undergone minor modifications to two windows and one door, all of which can be easily returned to their original design. With the removal of the 1965 addition, the original *Ewa* wall can be reconstructed, with the company which originally fabricated the 1928 windows still doing business and able to replicate their earlier windows.

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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 whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

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

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

Areas of Significance

(Enter categories from instructions.)

Architecture
Community Development

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Period of Significance

1928

Significant Dates

1928

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

designer: E. W. Ellis

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Dearborn Chemical Company Warehouse is significant on the local level under criterion A for its associations with the development of Kakaako as a light industrial area. It is also significant at the local level under criterion C, as a good example of a concrete warehouse constructed in Hawaii during the 1920s. The building is typical of its period in its design, materials, workmanship and methods of construction.

The 1928 period of significance was chosen in accordance with the instructions on how to complete a national register nomination form provided in National Register Bulletin 16A: "For architecturally significant properties, the period of significance is the date of construction and/or the dates of any significant alterations and additions." The bulletin further states, "For properties associated with historic trends, such as commercial development, the period of significance is the span of time when the property actively contributed to the trend." As is noted in the above section, "significant dates", 1928 is the year of construction.

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

The Dearborn Chemical Company Warehouse is significant under criterion A for its associations with the development of Kakaako as a light industrial area, being one of the early industrial buildings erected in the area.

In 1896 Bruce Waring and Company acquired from Kamakee Piikoi the lands northwest (*mauka* and *Ewa*) of Kukuluaeo, and subdivided the area as the Kewalo Tract with Kawaiahao, Waimanu and Queen Streets as the principal arteries. The property on which the Dearborn Chemical Company warehouse sits, at the narrow, eastern edge of this trapezoidal shaped subdivision, occupies lots 6, 7, 26, and 27, and a portion of lots 5 and 28, all in block 12. The property originally encompassed 29,000 square feet, but the widening of Ward Avenue in 1956 reduced the property to today's 23,366 square feet.

Real estate developer Charles S. Desky, sold a portion of the subject property in October 1897 to Manuel J. and Mary J. Gonsalves, who expanded it in 1915 to include the current lots. Although the Gonsalves purchased this property, they did not develop it, as much of the Kakaako area was a marsh land. In 1910, a small outbreak of the Bubonic Plague led the Board of Health to view the *makai* wetlands situated at Kewalo and Kukuluaeo as a sanitation problem. Improvement of this area had previously been considered, but except for occasional projects by the Road Department and some small land owners, nothing had been done to raise the plane of the streets and lots sufficiently above sea level to allow proper drainage and the construction of underground utilities. In 1911 the Board of Health condemned the property belonging to the Kanoa and Hamauku estates just north of the Kewalo Tract and notified the Department of Public Works. In turn, the Department of Public Works notified the owners that they had sixty days to fill their ponds and surrounding lands to a height of four feet above sea level. The owners responded that the amount of fill was too large for them to handle and suggested the Territory address the situation themselves. At that moment the Legislature was in session, and a law, Act 29 of the 1911 Session, was passed. The law appropriated \$250,000 to be used as a revolving fund to finance the filling of the lands, with land owners required to reimburse the government for the cost of the work. In August 1911, the Board of Health condemned as insanitary the district bounded by King Street and Ala Moana Boulevard, between South Street and Ward Avenue, and then individually condemned 140 parcels within the district. The Gonsalves property was just outside the district, to the east.

Property owners in the district were given sixty days to fill their low lands. No one took any action, thus the Department of Public Works prepared plans and specifications for the filling of the area. In March 1912 the project went out to bid, and Lord-Young was the successful bidder. The contract called for the placing of 362,000 cubic yards of materials at a price of 42 cents a cubic yard, for a total of \$152,250. The Kanoa Estate

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immediately brought suit, attacking the constitutionality of the enabling legislation, which permitted the Superintendent of Public Works to sell the filled lands at public auction in the event a property owner failed to pay for the filling. When the Territorial Supreme Court ruled the law was not confiscatory, Lord-Young commenced constructing a hydraulic dredge. The dredge was the first in Hawaii to be powered by electricity rather than a steam engine. In June 1913, the filling of the Kewalo-Kukuluaeo lowlands commenced at the corner of Ward Avenue and Lanikai (now Lanikai) Street, which was owned by Victoria Ward. By the middle of February 1914, all the property *makai* of Queen Street had been filled and work started on the more *mauka* parcels. The project was delayed when several owners again brought suit against the Territory, and on June 11th 1914, a restraining order was placed on the project by the Chief Justice of the Supreme Court, and in November of that year the court made a decision against the Lord-Young Company and the Department of Public Works. With this ruling the project came to a premature conclusion.

Thus, by mid-February 1914 the wetlands between Ala Moana Boulevard and Lanikai Street and west (*Ewa*) of Ward, had been filled by the Territorial Public Works project. By 1919, much of the former Kakaako-Kewalo wetlands were dotted almost exclusively with single family, single story, wood dwellings. A few commercial and light industrial structures, including a rice mill and automobile storage facility appeared along the Cooke Street periphery of the area, and Oahu Ice and Electric and the California Feed Company had establishments on Hustace Street between Cooke and Dreier streets. Allen & Robinson, a building supply company owned and operated by Mrs. Ward's relatives, had a lumber yard on the block bounded by Waimanu, Kawaiahao, Kamakee, and Cummins Streets, and the properties between Allen & Robinson and Ward were in single family residential use. However, the Gonsalves property remained vacant at least up until 1923, and most likely until 1928.

The filling of the former wet lands not only spurred private investment in the lands Diamond Head of South Street, but also led to thoughts of roadway improvement. In 1921, Ward Street was realigned to make a straight thoroughfare, which went from Ala Moana Boulevard to Prospect Street, and was renamed Ward Avenue, the name it carries to this day. In addition, the City proposed to build a new road from South and King Streets to Kalakaua Avenue, which was named Kapiolani Boulevard. The latter project was discussed throughout the 1920s but did not get underway until 1929.

In November 1928, the new road project commenced when the buildings at King and South Streets were sold at public auction. The successful bidders were given ten days to remove the smaller buildings from their lots and thirty days for the larger buildings. Hawaiian Contracting Company was awarded the construction contract for the new road and began work on the segment between King and South streets and Ward Avenue, which traversed the existing Hustace Street for much of the distance. In March 1929, the Ward family objected to the condemnation of a portion of their lands for the new boulevard, which entangled the road project in legal battles for the good part of two years. The Wards contested the city's condemnation of a portion of their residential

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property, and also objected to the city's requiring property owners adjoining the new roadway to pay all the costs of road construction, including the filling of the wetlands it traversed. The Ward family's attempts to halt Kapiolani Boulevard from cutting their homestead into two portions were for naught, as on February 27, 1931 the Territorial Supreme Court affirmed Land Court and Circuit Court decisions upholding the city's right to build across the lands. While the city waged the legal battle, construction of Kapiolani Boulevard proceeded on both sides of Old Plantation. By June 1930 the road was completed to Sheridan Street, and in April 1, 1931 Kapiolani Boulevard was opened for vehicular traffic from King and South Streets all the way to McCully.

With the prospects of Kapiolani Boulevard being constructed, the Dearborn Chemical Company purchased the Ward Avenue property belonging to the Gonsalves family on May 5, 1928 and proceeded to construct its warehouse building at that location. As originally planned, the building was to be 54' x 200' but was shortened by 10' when the company learned that the Planning Commission planned to widen both Waimanu and Kawaiahao Streets from 40' to 50'. Construction got underway on the \$20,000 warehouse in September 1928 and opened for business in December of that year. The warehouse was intended to be the first building in a larger three or four building complex to include an office building, a storage plant, and possibly a manufacturing plant, all of which were to be constructed on the part of the parcel fronting on Ward Avenue. As such, general manager Frank Boyer informed the press, "considerable attention will be paid to the appearance of the building." Which was described as, "an up to date industrial structure" [*Star Bulletin*, September 15, 1928]. Thirty-six hundred square feet of the fireproof building's walls were devoted to steel sash wire glass windows. With the completion of the building, the company moved its warehouse operations out of the rented space on Queen Street near Cooke, but still maintained its main office on Kaahumanu Street.

Dearborn Chemical was the most substantial building in its area, one of only a handful of non-residential buildings. In addition, it was a rare masonry building in the Kakaako district. As late as 1939 the Dearborn Chemical Company warehouse stood out in a neighborhood of single family, frame houses. At that time, there were only three other masonry buildings in its immediate area: the single-story building at the *makai*-Diamond Head corner of Queen and Ward owned by C. Q. Yee Hop, a single-story laundry at Waimanu Street and Kamakee, and the American-Hawaiian Steel Company's buildings on Kawaiahao at the foot of Kamakee. Of these four masonry structures, the Dearborn Chemical Company warehouse is the only one standing today.

Following World War II, light industrial buildings supplanted the residences which dotted the Kakaako district and became the primary building type in the area. Dearborn Chemical operated out of its warehouse until 1965, when Jack Tsukamoto acquired the property and converted it to commercial retail use. With the increased redevelopment of Kakaako from the 1990s onward, more and more of the light industrial buildings which characterized the area in the post-World War II era are giving way to larger scale residential projects. Thus, the Dearborn Chemical Building, which was one of the earlier

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light-industrial buildings in the Kakaako district, now stands as a rare surviving example of a light industrial, masonry building from the pre-World War II period to still exist in the area.

The Dearborn Chemical Company was established in 1887 by chemist William H. Edgar, in Chicago, Illinois, to treat and purify water to reduce the formation of mineral deposits in stationary (mostly locomotive) and marine boilers as well as other equipment. The firm also offered customers chemical analyses, and soon expanded its product line to include lubricating oils and, then later distributed Alemite products and also No-Ox-Id, a rust preventative. Originally named the Dearborn Drug and Chemical Works, during the opening decade of the twentieth century the enterprise changed its name to the Dearborn Chemical Works and then the Dearborn Chemical Company.

The treatment of water for locomotive engines remained the company's bread-and-butter business into the 1940s when rapidly diminishing numbers of steam engines caused Dearborn to focus its interests elsewhere, becoming active in the treatment of waste from water cooling systems and industrial sites. In 1953 construction was begun on a new facility at Lake Zurich, Illinois, and in 1971 Dearborn's headquarters were relocated there. Dearborn was acquired by W.R. Grace in 1965, becoming known first as Grace Dearborn then, in 1971, as Chemed Corporation. In 1996 Betz Laboratories, Inc. acquired Dearborn from W.R. Grace forming Betz Dearborn, Inc.

The Dearborn Drug and Chemical Works established a Honolulu office in the C. Brewer Building on Fort Street in 1898, under the managership of Edward C. Brown. Brown remained as the manager of the Honolulu branch until 1910, when he went to Asia on behalf of the company and opened offices in China, Japan and the Philippines. He then returned to Chicago where he worked for the firm for two years before being sent to South America, to explore that market. Here he opened and managed a branch office in Buenos Aires. In 1929 he returned to the United States to become one of the company's vice presidents, serving also as the sales manager for the east coast and head of the New York office.

Frank O. Boyer succeeded Brown as the manager of Dearborn Chemical Company's Honolulu office. Boyer, who was born in Ohio, came to Hawaii in 1901 to work for a well boring operation, which had been started by Lucius E. Pinkham who would later serve as Territorial Governor from 1913 to 1920. Within months of his arrival he was employed as an assistant engineer with the Oahu Railroad and Land Company. In 1908 he went to work as the assistant manager of Dearborn Chemical Company's Honolulu office, and then in 1910 became the manager. He was still the manager when the new warehouse building was constructed in 1928. At the time of the construction of the building, Dearborn Chemical Company had branches in New York, Boston, Philadelphia, Pittsburgh, Syracuse, Buffalo, Detroit, Cleveland, Atlanta, Cincinnati, Washington D. C., St. Louis, Milwaukee, Indianapolis, Louisville, St. Paul, Peoria, San Francisco, Denver, Los Angeles, Minneapolis, and Kansas City. They also had overseas operations in Toronto, London, Barcelona, Hamburg, the Hague, Rome,

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Christiania (now Oslo, Norway), Sydney, Cape Town, Johannesburg, Havana, Port of Spain in Trinidad and Tobago, Buenos Aires, Rio de Janeiro, Santiago, Chili, Montevideo, Manila, Tokyo, Osaka, Shanghai, Tientsin, Korea, Formosa, Dutch East Indies, Bombay and Calcutta, as well as its headquarters in Chicago and its Honolulu office. This building would serve as Dearborn Chemical Company's Hawaii headquarters until 1965 when W. R. Grace merged with Dearborn, and the building was acquired by Jack Tsukamoto.

The Dearborn Chemical Company Warehouse is also significant under criterion C as a good example of the use of reinforced concrete in industrial architecture in Hawaii.

Although the use of reinforced concrete in buildings began in the 1850s in France, it was not until around 1895 that reinforced concrete began to be employed commercially in the United States for the construction of buildings. The two primary reasons for the sudden increased use of reinforced concrete in the waning years of the nineteenth century were: the perfection of the manufacture of cement resulting in not only an improved, uniform and reliable building material, but also a decrease in the cost of manufacturing, making it possible for reinforced concrete to compete with other materials in price; and the development of rational and positive methods for computing the strength of reinforced concrete, allowing for dependable calculations on its strength.

Ernest L. Ransome was one of the pioneers in the use of reinforced concrete in buildings in the United State. His first major building was the Leland Stanford Jr. Museum in San Francisco (1890), and seven years later he designed the four-story Pacific Coast Borax Refinery in Bayonne, New Jersey, which is considered one of the earliest reinforced concrete industrial buildings in the United States. The Paris Exposition of 1900 successfully demonstrated the potential of reinforced concrete, but for Americans very little information was available on this building material as little was published about it in English. As a result, by 1906 there were only around two hundred reinforced concrete buildings standing in the United States. The material received more attention following the publication of Frederick E. Turneaure and E. R. Mauer's *Principles of Reinforced Concrete Construction* in 1907 and also the appearance of a series of books published by the Atlas Portland Cement Company in that same year. These publications were followed by an onslaught of books and articles on the topic over the next ten years, leading to a tremendous increase in the popularity of reinforced concrete as a building material, especially for industrial buildings as they could be built quickly, were fireproof, and could resist the vibrations of heavy machinery.

The earliest reinforced concrete buildings imitated the forms of timber or steel construction, with columns supporting girders, which in turn supported joists. Cheaper than stone or brick construction, the material quickly became associated with more utilitarian types of buildings, as opposed to high style edifices. Typically, factory walls were characterized by large expanses of windows placed between the building's structural columns, which were usually articulated on the facade. To reduce the chances of fire, the windows were often made of steel and had wire glass panes.

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Ornament was minimal with chevrons on the building's parapets being one of the more common concessions to decoration.

Hawaii was one of the earliest places in the current United States to use reinforced concrete in buildings. In the early 1870s, several government buildings, including the Kamehameha V Post Office, Aliiolani Hale, the Kapuiwa Building and the Hawaiian Hotel utilized this new material. In addition, Dillingham & Company constructed a reinforced concrete warehouse, and Castle & Cooke used the material in the quoins on its building on King Street. However, these buildings used reinforced concrete in a simple block form, and the material did not re-emerge as a popular building material in Hawaii until around 1910. In June 1911, the *Pacific Commercial Advertiser* noted, "Ten or twelve concrete buildings are now nearing completion or just occupied in Honolulu proper." [PCA, June 18, 1911, section 2, page 1]. These buildings included the three-story McCandless Building at the corner of Pauahi Street and Nuuanu Avenue (listed on the National Register), and the Pantheon Building at Hotel and Fort Streets (severely altered), but the majority of the buildings were industrial in character and constructed in the Iwilei district. Also at this time, the two story Hackfeld Building was erected in Hilo, and featured rebar that ran the full two stories in height.

From 1910 forward, reinforced concrete became increasingly used as a building material in Hawaii, especially for warehouses and industrial buildings. Buildings built prior to 1930 that still remain standing include the Administrative Offices Building (1913) and the Pattern Shop (1916) both at Pearl Harbor, the Hawaii Sugar Planter's Association experimental station (1917) in Makiki, Drier's Cold Storage Building (1921) at Kapiolani and Cooke, the Sunrise Soda Factory (1928) in Palama, and 458 Keawe Street (1929) in Kakaako. On the island of Hawaii, Sperry Flour built a reinforced concrete warehouse in 1920 and the Hawaii Consolidated Railroad constructed several sugar warehouses along its line, including at Honomu and Hakalau in 1922. On Kauai, the County Building (1913), joined the no longer extant Lihue Plantation Store as the first two reinforced concrete buildings on that island.

With its reinforced concrete walls with articulated structural members, its steel truss roof structure and its expanses of large windows, as well as its modest classical façade with a chevron at its apex, the Dearborn Chemical Company's warehouse in Kakaako stands as a good example of an industrial building in Honolulu rendered in reinforced concrete. It is one of less than perhaps twenty such warehouse buildings to still remain in the city.

The designer of the building, E. W. Ellis, was an engineer, who was born in New York. Other buildings designed by him include the Siu Building (1926) in Honolulu's Chinatown at the corner of Hotel and Smith streets (National Register), and the no longer extant Chun Chin Hotel and Store (1927) which stood at Fort Street and New Era Lane. Ellis appears to have come to Hawaii in 1904/1905 as a surveyor for the Hawaiian Agricultural Company in Pahala on the island of Hawaii. By 1909 he had relocated to Honolulu and served first as a surveyor and engineer for the U. S. Lighthouse Board, and then was employed by the U.S. Engineers at Pearl Harbor. He

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worked as a construction inspector for the U.S. Navy until 1923 when he went to work for Grace Brothers in Honolulu, an import-export firm which also served as manufacturers' agents and provided engineering services. In 1925 he opened his own engineering office, which remained in operation until 1931. With the onset and deepening of the Depression he returned to work as an inspector for the naval yard at Pearl Harbor, a position he held throughout the remainder of the 1930s. His name last appears in the Honolulu City Directories for 1939-1940.

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9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Polk's City Directories for Honolulu, 1899-1967

City and County of Honolulu Tax Office records.

State Bureau of Conveyances, book 173, page 325; book 415, p. 357; book 945, p. 47; book 934, p. 404; book 5087, p. 568; TCT 7394; document 365464; and document 365466.

Building permits dated January 22, 1965, May 2, 1966, and September 13, 1967

Plans dated June 25, 1928 and June 1965

Sanborn Fire Maps for 1923, 1939, 1968

"Sendoff to Boyer," *Hawaiian Star*, September 11, 1908, p. 1

"Manager Brown for the Far East," *Evening Bulletin*, February 3, 1910, p. 6

"The New Era of Reinforced Concrete," *Pacific Commercial Advertiser*, June 18, 1911, section 2, page 1

"\$150,000 Home to be Built by Dearborn," *Honolulu Advertiser*, March 3, 1928, page 3.

"Chemical Firm Adds Warehouse," *Honolulu Star-Bulletin*, September 15, 1928, page 29.

"Waikiki City Plan Calls for Wide Streets, Direct Routes and Public Parks," *Honolulu Advertiser*, October 17, 1928, Section 2, page 8

"In New Building," *Honolulu Star-Bulletin*, December 8, 1928, page 29.

Fung Associates, *Documentation of Victoria Ward, Limited Properties in Kaka`ako, O`ahu*, Honolulu, 2012

Hibbard, Don, *Buildings of Hawaii*, Charlottesville, Virginia: University of Virginia Press, 2011

Ransome, Ernest L. and Alexis Saurbrey, *Reinforced Concrete Buildings*, New York: McGraw-Hill, 1912

Thompson, Sanford E., *Reinforced Concrete in Factory Construction*, New York: Atlas Portland Cement Company, 1907

Turneure, F. E and E. R. Maurer, *Principles of Reinforced Concrete Construction*, New York: John Wiley & Sons, 1913

Dearborn Chemical Company Warehouse

Honolulu, Hawaii
County and State

Name of Property

"The BetzDearborn Archive, 1906-1996 (bulk 1965-1995)," *Archivegrid*, as viewed on February 22, 2018 at:

<https://beta.worldcat.org/archivegrid/collection/data/839269378>

"Supply and Trade," *Railway Age*, vol. 87, no. 1, July 6, 1929, page 127-128, as viewed on February 22, 2018 at:

<https://books.google.com/books?id=kgcjAQAAMAAJ&lpg=PA128&ots=80CzRWZvHL&dq=%22dearborn%20chemical%20company%22%20hawaii&pg=PA128#v=onepage&q=%22dearborn%20chemical%20company%22%20hawaii&f=false>

Wilson, Mark R., "Chemicals," *Encyclopedia of Chicago*, as viewed on February 22, 2018 at:
<http://www.encyclopedia.chicagohistory.org/pages/233.html>

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____
- recorded by Historic American Landscape Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other
- Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreeage of Property less than one acre

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: Google Maps

Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

(enter coordinates to 6 decimal places)

Latitude: 21.297920

Longitude: -157.853201

Or

UTM References

Datum (indicated on USGS map):

NAD 1927 or NAD 1983

- | | | |
|----------|-----------|-----------|
| 1. Zone: | Easting: | Northing: |
| 2. Zone: | Easting: | Northing: |
| 3. Zone: | Easting: | Northing: |
| 4. Zone: | Easting : | Northing: |

Verbal Boundary Description (Describe the boundaries of the property.)

The property being nominated includes all the property owned by Dearborn 535 LLC in 2018 as described by Tax Map Key 2-3-003:067.

Boundary Justification (Explain why the boundaries were selected.)

This is the parcel of land associated with this building since its construction.

11. Form Prepared By

name/title: Fung Associates, Inc.
organization: _____
street & number: 1833 Kalakaua Avenue, Suite 1008
city or town: Honolulu state: Hawaii zip code: 96815
e-mail _____
telephone: (808)-941-3000
date: February 22, 2018

Additional Documentation

Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** sketch of floor plan
- **Owner:** Dearborn 535 LLC
259 West Santa Clara Street
Ventura, CA 93001

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.460 et seq.).

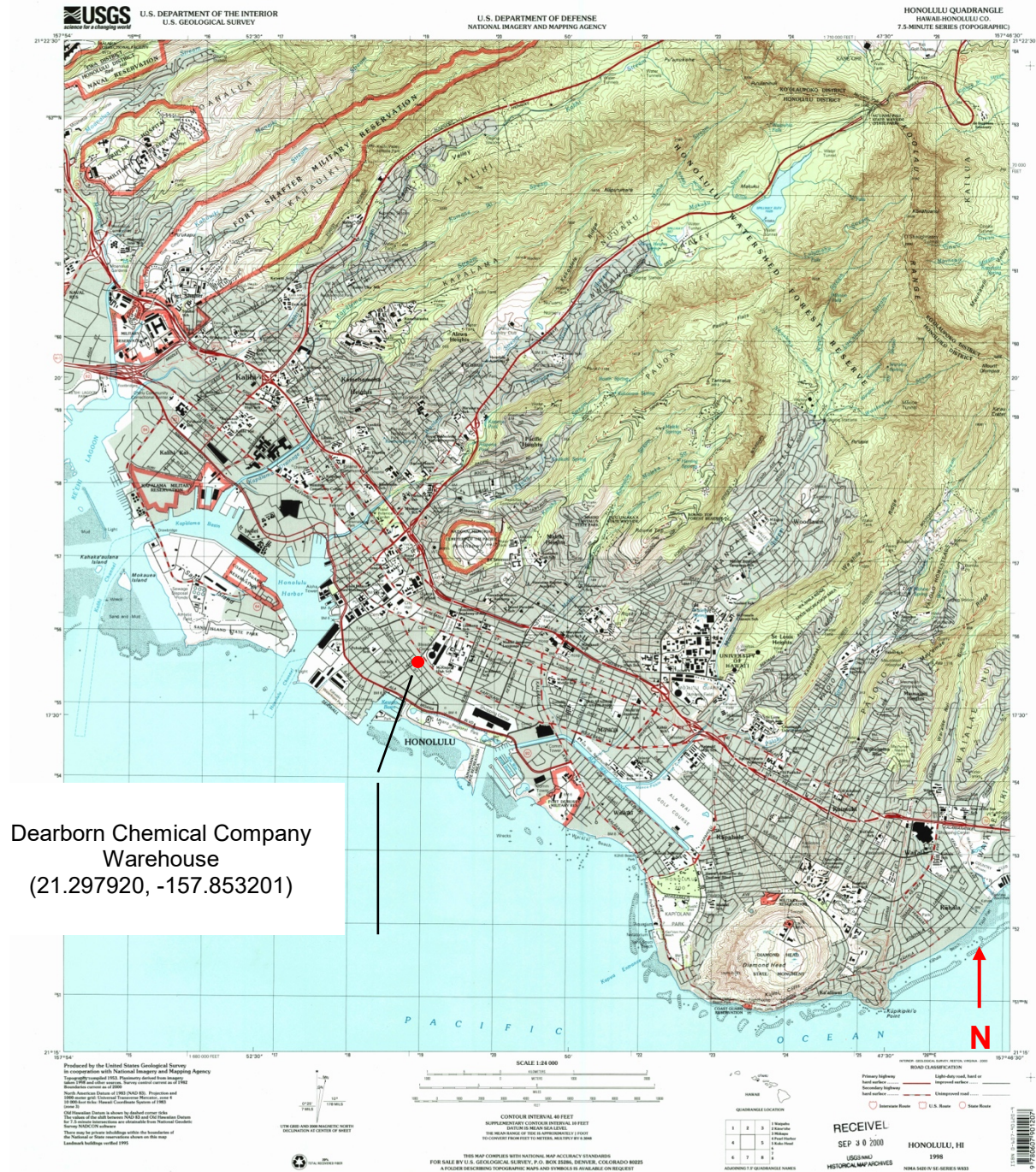
Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

Maps

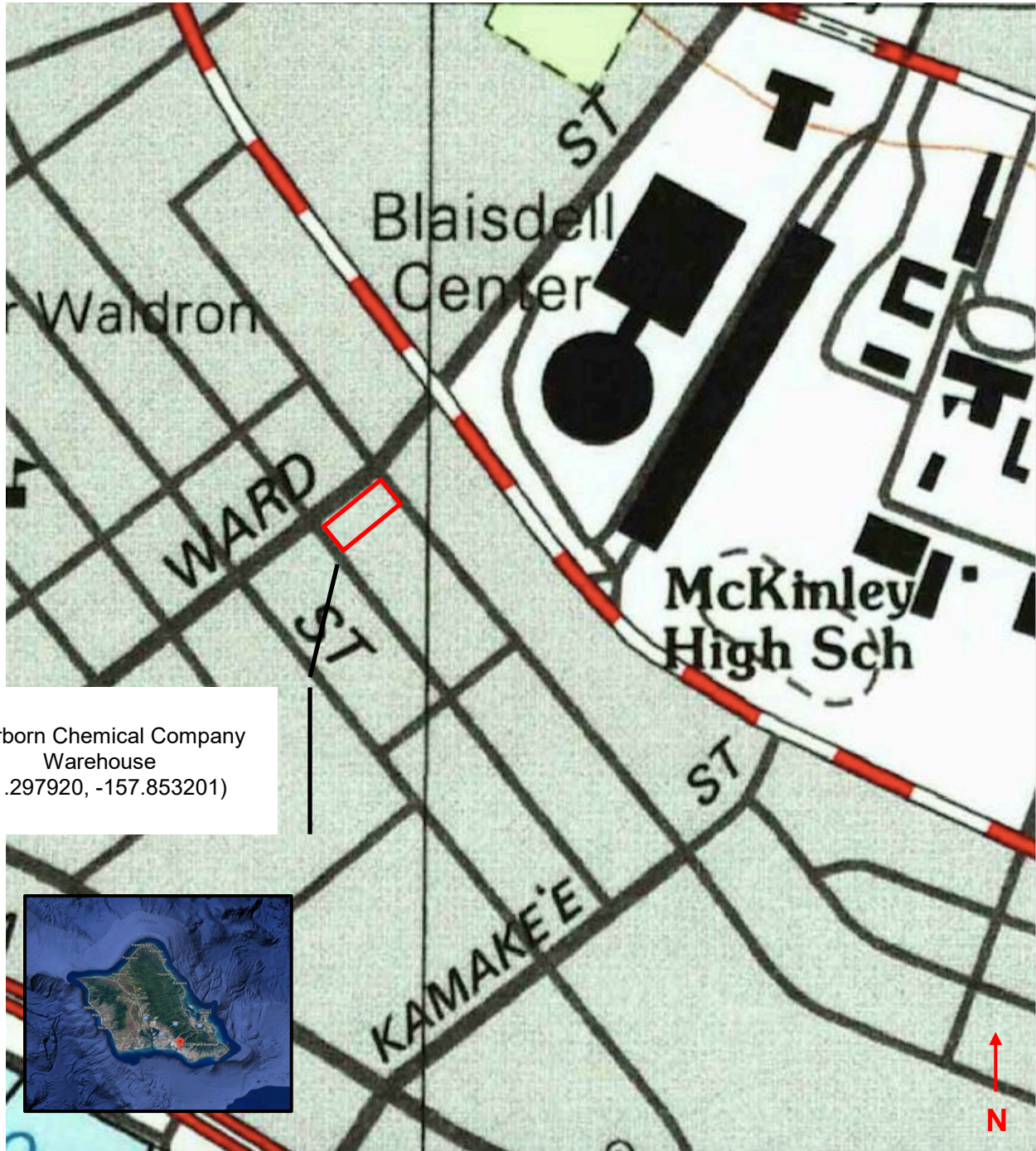
USGS Map: Small Scale Map



Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

USGS Map: Large Scale Map



Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

TMK Map



Dearborn Chemical Company
Warehouse
(21.297920, -157.853201)

Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

Photographs

Name of Property: Dearborn Chemical Company Warehouse

City: Honolulu

County: Honolulu

State: Hawaii

Name of Photographer:

Date of Photographs: October 10th and December 4, 2017

Location of Original Digital Files: Fung Associates, Inc.

Photo #1

Northwest façade, camera facing southeast.



Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

Photo #2

Southwest façade, camera facing northeast.



Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

Photo #3

Building interior, under central mezzanine, camera facing southwest.



Dearborn Chemical Company Warehouse
Name of Property

Honolulu, Hawaii
County and State

Photo #4

Building interior from mezzanine, camera facing northeast.

