

**United States Department of the Interior
National Park Service
National Register of Historic Places Registration Form**

1. Name of Property

Historic Name: Imperial Sugar Company Refinery Historic District
Other name/site number: N/A
Name of related multiple property listing: N/A

2. Location

Street & number: 198 Kempner Street
City or town: Sugar Land State: Texas County: Fort Bend
Not for publication: Vicinity: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 levels of significance:
 national statewide local

Applicable National Register Criteria: A B C D

Mark Wolfe State Historic Preservation Officer 5/5/17
Signature of certifying official / Title Date
Texas Historical Commission
State or Federal agency / bureau or Tribal Government

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

Signature of commenting or other official Date

State or Federal agency / bureau or Tribal Government

4. National Park Service Certification

I hereby certify that the 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

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

5. Classification

Ownership of Property

<input checked="" type="checkbox"/>	Private
<input type="checkbox"/>	Public - Local
<input type="checkbox"/>	Public - State
<input type="checkbox"/>	Public - Federal

Category of Property

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

Number of Resources within Property

Contributing	Noncontributing	
4	0	buildings
0	0	sites
1	2	structures
0	0	objects
5	2	total

Number of contributing resources previously listed in the National Register: 0

6. Function or Use

Historic Functions: COMMERCE/warehouse; INDUSTRY/manufacturing facility

Current Functions: RECREATION/museum; VACANT; WORK IN PROGRESS

7. Description

Architectural Classification: NO STYLE

Principal Exterior Materials: Brick, Concrete

Narrative Description (see continuation sheets 7 through 11)

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

8. Statement of Significance

Applicable National Register Criteria

<input checked="" type="checkbox"/>	A	Property is associated with events that have made a significant contribution to the broad patterns of our history.
<input type="checkbox"/>	B	Property is associated with the lives of persons significant in our past.
<input type="checkbox"/>	C	Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
<input type="checkbox"/>	D	Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations:

Areas of Significance: INDUSTRY

Period of Significance: 1923-1967

Significant Dates: 1925

Significant Person (only if criterion b is marked): N/A

Cultural Affiliation (only if criterion d is marked): N/A

Architect/Builder: Unknown

Narrative Statement of Significance (see continuation sheets 12 through 21)

9. Major Bibliographic References

Bibliography (see continuation sheets 22-23)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested. (*Approved Oct. 6, 2016*)
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey #
- recorded by Historic American Engineering Record #

Primary location of additional data:

- State historic preservation office (*Texas Historical Commission, Austin*)
- Other state agency
- Federal agency
- Local government
- University
- Other -- Specify Repository: *Sugar Land Heritage Foundation, Sugar Land*

Historic Resources Survey Number (if assigned): NA

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

10. Geographical Data

Acreage of Property: 4.8 acres

Coordinates

Latitude/Longitude Coordinates (use decimal degree format)

Datum if other than WGS84: N/A

1. Latitude: 29.620904° Longitude: -95.636412°

Verbal Boundary Description: See page 24

Boundary Justification: See page 24

11. Form Prepared By

Name/title: Hannah Curry-Shearouse, Grace Cynkar, Lauren Maas, Anna Mod

Organization: SWCA Environmental Consultants

Address: 10245 W. Little York Road, Suite 600

City or Town: Houston State: Texas Zip Code: 77040

Email: hcurryshearouse@swca.com

Telephone: (281) 617-3217

Date: November 2016

Additional Documentation

Maps (see continuation sheets 25-27)

Additional items (see continuation sheets 28-37)

Photographs (see continuation sheet 38-61)

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

Photographs

Imperial Sugar Company Refinery
Sugar Land, Fort Bend County, Texas
Photographed by Hannah Curry-Shearouse and Anna Mod
January 2016 (except as noted)

Overall site, view northeast from west
Photo 1

Overall site, view south from north
Photo 2

Overall site, view west from east
Photo 3

Overall site, view north from south
Photo 4

Char House (Resource ID 1), east and north elevations, view southwest
Photo 5

Char House (Resource ID 1), north and west elevations, view southeast
Photo 6

Char House (Resource ID 1), south elevation, view north
Photo 7

Char House (Resource ID 1), interior, view northwest
Photo 8

Char House (Resource ID 1), interior, windows on south elevation
Photo 9

3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view northwest
Photo 10

3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view east
Photo 11

3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view west
Photo 12

3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view east
Photo 13

3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view west
Photo 14

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view east
Photo 15

Container Warehouse (Resource ID 5), east and north elevations, view southwest; silos (Resource ID 3) in background
Photo 16

Container Warehouse (Resource ID 5), interior, view west
Photo 17

Engineering Building (Resource ID 2, center), north elevation, view south
Photo 18

Date Photographed: April 2016
Engineering Building (Resource ID 2), south and east elevations, view northwest
Photo 19

Date Photographed: April 2016
Engineering Building (Resource ID 2), west and south elevations, view northeast
Photo 20

Date Photographed: April 2016
Char House (Resource ID 1), interior, missing flooring visible, view south
Photo 21

Date Photographed: April 2016
Char House (Resource ID 1), interior, missing flooring visible, view north
Photo 22

Railroad tracks (Resource ID 6) in foreground, view southwest
Photo 23

Date Photographed: April 2016
Covered walkway (Resource ID 7), view north from south of Engineering Building (Resource ID 2)
Photo 24

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.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

Narrative Description

The Imperial Sugar Company Refinery Historic District includes five contributing historic resources and two non-contributing resources of the former industrial sugar refining complex in Sugar Land, Fort Bend County, Texas. The functionally related industrial complex is the remaining 4.8-acre portion of a facility that encompassed 25.4 acres, where sugar was refined, finished, bagged and shipped. The nominated district includes four contributing buildings and one structure (a section of railroad track), and two noncontributing structures (covered walkways and silos, constructed outside of the period of significance). The buildings include industrial warehouses and an office, all of which relate to aspects of the sugar refining process. One building in particular, the Char House (resource ID 1) is a well-known and beloved landmark for local residents, and its height at eight stories sets it towering over every other building on the site. The Char House served as the hub for the refinery during its lifespan as the key building for the refining process. The four buildings and three structures are those remaining of the larger industrial complex and located in a contiguous 4.8 acre historic district and are representative of the company's growth and adaptation to new technologies and collectively serve as a reminder of the importance of the sugar refinery to the development of Sugar Land.

The Imperial Sugar Company Refinery Historic District occupies a 4.8-acre site from the original 25.4-acre complex in Sugar Land, Fort Bend County, Texas, a suburban city approximately 20 miles southwest of Houston. The district is on a single property located on the north (westbound) side of Highway 90-Alt and between Ulrich and Brooks Streets. Oyster Creek and Main Street are located to the east of the property. An operational railroad line runs along the southern boundary between the complex and Highway 90-Alt. As of January 2016, a large number of the complex's industrial resources have been demolished leaving large open areas where grass has covered any remnants of these buildings and structures.

As late as 2008, the complex had over 40 remaining buildings, objects and structures, many of which were contributing resources. These included warehouses, sheds, the power plant, pump houses, cisterns, sheds, bridges, rail road tracks, and smoke stacks. All of these resources were concentrated in the southern portion of the complex southwest of Cleveland Canal, an eastern off shoot of Oyster Creek. The portion of the original complex to the northwest of Cleveland Canal was developed after 1970 and included numerous non-historic, pre-fabricated warehouse buildings that were demolished c.2007 when the site was slated for redevelopment prior to the 2008–2010 recession. When the recession began, the plan for the redevelopment of the complex that was to incorporate the historic resources into a mixed use facility, was abruptly halted. The site was then sold several times in the ensuing years and with each sale and proposed development, more of the historic resources were demolished to accommodate new development plans that never materialized or due to the dangerous condition of the building. The current owners purchased the property from the City of Sugar Land in 2016 with the remaining four buildings and three structures clustered around the Char House (Resource ID 1). Other remaining historic resources remaining outside the proposed district include the water tower, located on the east side of Oyster Creek, the masonry smoke stacks, located to the north of the proposed district, and the pedestrian, rail and roadway bridges over Oyster Creek and Cleveland Canal. These three resources are not included in the historic district since they are separated by empty land and are located too far away from the core of the historic district.

In total, there are seven resources within the proposed historic district: four buildings and three structures. All of the five contributing resources are associated with the Imperial Sugar Refinery's period of significance, dating 1923-1967.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

IMPERIAL SUGAR COMPANY REFINERY HISTORIC DISTRICT INVENTORY

ID	Name	Contributing (C) or Non-Contributing (NC)	Date built	Property Type
1	Char House	C	1925	Building: char house
2	Engineering Building	C	before 1953	Building: office
3	Sugar Silos	NC	c.1997	Structure: silo
4	3-Bay Refined Sugar Warehouse	C	c.1923	Building: warehouse
5	Container Warehouse	C	before 1950	Building: warehouse
6	Railroad Tracks (fragment)	C	c.1908	Structure: Railroad Tracks
7	Covered Walkways	NC	c.1980	Structure: Covered walkways (two)

Resource ID 1: Char House (1925) – contributing building

The Char House is a 6x6 bay, rectangular plan reinforced concrete frame eight-story building with a brick veneer. The building’s original multi-light, steel industrial type windows are extant on the north elevation; the windows on the other three elevations have been replaced with fixed aluminum windows that fill the original openings. The window lintels are exposed concrete and introduce a horizontal break in the strong verticality of the building. The eight stories are irregular in height with the first, fourth, and fifth extending to double-height spaces. The pilasters on the eighth floor are embellished with brick and cast stone detailing that projects from the building plane and defines the top floor of the building as the cornice. The pilasters project above the parapet and each has a cast stone cap. A simple brick entablature separates the first two stories from the upper six levels. An Imperial Sugar sign is located along the cornice line of the west and south elevations.

The south elevation is composed of six symmetrical bays defined by the brick pilasters that run the full height of the building. The windows are the fixed, aluminum frame with three strong vertical mullions in each opening. The divisions are simple, concrete details run the full height of the building and separate each bay with similar combinations of the same fixed, six-light aluminum windows per floor. The first story contains two, vertically joined units of the base, six-light aluminum window. The second story contains a single, shortened version of the base window unit. The third level holds a single, heightened version of the base aluminum window and the fourth and fifth levels each have a doubled version of differing heights. Finally, the sixth, seventh, and eighth floors all have single, aluminum window units.

The east elevation is composed of six bays with a similar window arrangement to the south elevation; however, the first and six bays differ from the south elevation. The first bay has a single, metal door on each floor. These doors provided access to an adjacent building that has since been demolished. The sixth bay has fixed, single-light aluminum windows on each level except the first and fifth where the window units have been doubled into 1/1 fixed-light windows.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

The north elevation retains its original multi-light, metal casement windows and is organized in a six-bay pattern similar to the south and east elevations. The north elevation differs in its sixth bay with a series of smaller, rectangular window openings similar to the sixth bay of the east elevation. The north elevation also has a two-story, shed-roofed pop-out cantilevered between the fifth and sixth stories. Due to its location immediately above the contributing railroad tracks, it is likely that this cantilevered shed was used to load or unload train cars below.

The west elevation has the same six-bay pattern and replacement, fixed, six-light aluminum windows as the south and east elevations. The first bay, similar to the sixth bay on the east elevation, has replacement, single-light aluminum windows.

The Char House was used for processing raw sugar cane into the types of sugar sold by the Imperial Sugar Company. All the steps for refinement took place in this building, including affination, carbonation, decolorization, boiling and crystallization, and recovery.

All of the equipment used for refining raw, milled sugar on the property was housed inside the char house. A previous owner removed the vast majority of the industrial equipment at an unknown date as part of the abatement process. A select few pieces of this industrial process remain inside the building. The elevator shaft in the northwest corner remains, though the elevator equipment has been removed. The staircase next to it has been blocked off and is inaccessible. Flooring between floors has been removed where it existed, so there is currently no access to upper floors for safety reasons.

Resource ID 2: Engineering Building (Before 1953) – contributing building

The Engineering Building is a two-story modern brick office building with a flat roof, elongated eaves, and windows arranged to emphasize its horizontality. The building has an elongated brick veneer and belt courses on both stories. The building retains its original 2/2 aluminum sash windows and double, metal primary entrance doors with divided lights. A simple flat roofed metal, pedestrian covered walkway was added c.1980 (Resource ID 7) and extends southward from the south elevation and makes a 90-degree turn to the west towards the parking lot and the Sugar Silos (Resource ID 3).

Historically, this building housed offices, research and development, and the payroll department where employees picked up paychecks.¹ This building currently houses the Sugar Land Heritage Foundation, a non-profit preservation group who uses the space for archival storage, offices, and exhibitions.

Resource ID 3: Sugar Silos (c. 1997) – noncontributing structure

The Liquid Sugar Silos are three interconnected, cylindrical concrete silos. The Imperial Sugar Company logo is painted on the south elevation of the central silo. The silos were constructed using a continuous slip form method of concrete construction. A “slip form” is constructed on hydraulic lifts, which pushes the form higher every 3-4 minutes while concrete is poured into the form. A floor inside the silo moves with the formwork and holds the workers who add steel reinforcement, monitor the concrete pour, and smooth the final pour in place. This method allows for seamless construction, creating fewer opportunities for moisture penetration in the concrete.²

¹ Little, Bill, Leon Anhaizer and Bettye Anhaizer, Interview, July 17, 2015.

² Staff, “New look for Sugar Land’s historic landmark,” *Imperial Holly Employee Bulletin*, Dec. 1997 <<http://4.bp.blogspot.com/-YSbBnG9VAdU/VCBDOoOmgul/AAAAAAAAXI/40fPo2N2gJw/s1600/silos.jpg>>

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

The silos were used for storing granular sugar after the refinement process prior to packaging. The silos held a combined total of 11,820 tons of sugar.

Resource ID 4: 3-Bay Refined Sugar Warehouse (c. 1923) – contributing building

The 3-Bay Refined Sugar Warehouse is a rectangular-plan, gabled, masonry building with interior I-beam supports. The building is composed of three, symmetrical gabled bays with divisions visible at the roofline and on the interior. There are full-width clerestory windows on both the north and the south elevations. The north and south elevations each have a series of 12 truck door openings divided into four openings per bay. The interior is open and has a concrete floor and exposed brick walls.

This building was used for storing packaged finished product before it was shipped for sale, and it was historically called the ABC Warehouse.³

Resource ID 5: Container Warehouse (before 1950) – contributing building

The Container Warehouse is a rectangular-plan, reinforced concrete-framed building with a brick veneer. The building has a flat roof and exposed interior concrete columns with bell-shaped capitals. The south elevation is divided into four bays. The first three bays are similar with short ribbon windows and cantilevered concrete canopies over the truck bay openings. The fourth bay has been altered. The north elevation mimics the four bay composition and elements of the south elevation and retains the truck bays and canopies in the first two bays. The third and fourth bays have shed-roofed concrete masonry unit additions. The east elevation is almost entirely solid brick with a single, metal door and four small windows.

This warehouse housed the packaging equipment and was used to package the final product before it was stored in the 3-Bay Warehouse nearby.⁴

Resource ID 6: Railroad Tracks (fragment, c. 1908) – contributing structure

A short stretch of one of the rail spurs through the refinery complex remains under asphalt, immediately north of the Char House (Resource ID 1). A small portion of the tracks are still visible near the northeast corner of the Char House. The spur was likely constructed as part of the Imperial Valley Railroad (founded 1893) before the rail company was sold to the Sugar Land Railway in 1912. The spur would have made loading and unloading goods faster and more efficient by bringing the train directly into the sugar refinery complex, and more importantly, directly to the Char House (Resource ID 1) and Container Warehouse (Resource ID 5).

Resource ID 7: Covered Walkways (c. 1980) – non-contributing structure

There are two covered walkways constructed c. 1980. Both are composed of regularly spaced I-beams with a flat roofed canopy with horizontal fascia band. The easternmost walkway has an L-plan and is connected to the south exit door of the Engineering Building (Resource ID 2) and extends approximately 45 feet to the west towards the parking lot; the longer end of the L-plan extends approximately 70 feet to the south to Kempner Street. The end of the Kempner Street elevation has the property address, “198” in the fascia. The second covered walkway is a straight line running east-west located in the parking lot directly in front of the Sugar Silos (Resource ID 3) and is approximately 285 feet long. The eastern end of the southern fascia bands has “IMPERIAL SUGAR COMPANY” signage in

³ Little, Bill, Leon Anhaizer and Bettye Anhaizer, Interview, July 17, 2015.

⁴ Ibid.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

attached, back lit letters. Analysis of the historic aerial photographs date these covered walkways to c. 1980 (they do not appear on the 1978 aerial and are in place on the 1985 aerial).

Justification for Proposed District

These seven resources are all those that remain clustered around the Char House of the former refinery complex. At its peak, the refinery complex contained almost fifty buildings, structures, and objects including sheds, warehouses, refinery pipes and conveyors, and cisterns. The others were demolished by previous owners in preparation for failed redevelopments or life safety or environmental precautions. The remaining seven buildings and structures are representative examples of the refinery's historic industrial processes, and they best demonstrate the site's historic function of processing, packaging, and shipping sugar.

The Char House is an iconic structure to Sugar Land residents and remains the anchor for the proposed district. The char house served as the location for the five steps of processing milled, raw sugar, including affination, carbonation, decolorization, boiling and crystallization, and recovery.

Though non-contributing due to their age (c. 1997), the silos provide valuable context as the location for the final products from the char house before packaging and shipment. The silos are a visual reminder of the company's continued operations until the end of the twentieth century. Furthermore, the "slip form" technology used to construct the seamless concrete silos is a visual reminder of the company's commitment to technological advancement.

The 3-Bay Refined Sugar Warehouse, the Container Warehouse, and the railroad tracks all effectively communicate the importance of shipping and transportation for the refined goods. The remaining overhead doors in the 3-Bay Refined Sugar Warehouse also effectively demonstrate the introduction of trucking as a shipment method, not just rail.

Finally, the engineering building served as the center of employee needs. As stated above, the engineering building was used for research and development, and it also held the administrative offices, including payroll. Every employee at the refinery would go to the engineering building, at the very least to pick up their paycheck. The engineering building remains the best example of the refinery's administrative functions.

These buildings were constructed in their current locations as new technologies, both architectural and industrial, became more prevalent. For instance, the existing Char House replaced an iron-clad char as illustrated in the Sanborn maps (Figure pages 3-5). The 1925 Char House, constructed with fire-resistant materials, appears to have provided more square footage for refinement, allowing the company to produce a larger volume of sugar as the company grew and to accommodate new mechanical equipment, including centrifuges and evaporators. The construction of the two warehouses, on locations previously dominated by rail spurs, further emphasizes the transition from rail transport to automotive shipping. The demolition of the cooperage and commissary (both visible in the 1940 Sanborn) to make way for newer buildings also speaks to the evolution of the company's needs, particularly as packaging types changed and after Imperial Sugar was no longer the sole employer for Sugar Land.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

Statement of Significance

The Imperial Sugar Company Refinery at 198 Kempner Street in Sugar Land, Texas is the site of the longest-operating sugar cane refinery in Texas (1843-2003) and is foundational to the existence of the City of Sugar Land. Throughout the 160 years of continuous operation on the same site, the City of Sugar Land developed around it, first as a company town, and then later incorporating. The history of Imperial Sugar and Sugar Land are so intertwined as to be the same, and even though the refinery is no longer operational, corporate headquarters for Imperial Sugar are still located in Sugar Land, Texas. Four different sugar refining operations have utilized this property beginning in 1843, with the Imperial Sugar Company using the property for the longest period, from 1907 until 2003.⁵ All of the existing resources within the Imperial Sugar Company Refinery Historic District are associated with the Imperial Sugar Company and were the most critical for the site's function as a refinement, packaging, and shipping facility. Though most of the complex has been demolished, the remaining buildings and structures housed critical functions unique to the manufacturing and sales processes. The Imperial Sugar Company Refinery is nominated to the National Register of Historic Places under Criterion A in the area of Industry at the local level of significance with a period of significance from 1923 to 1967.

Sugar Production in Texas

Anglo-American settlers began cultivating sugar cane soon after their arrival in Texas in the 1820s. William Stafford of Fort Bend County established the first permanent sugar mill in Stephen F. Austin's colony in 1834. Unfortunately, his mill and home were burned down by Santa Anna's advancing army on the way to the historic battle at San Jacinto.⁶ The 1840s witnessed an escalating expansion of the sugar industry in Texas. There were more than 20 sugar plantations in operation between the Colorado and Brazos rivers in 1847.⁷ Brazoria County accounted for approximately 75 percent of the total amount of sugar produced in Texas during its antebellum peak in 1852. Many of the plantations in this area, such as the Levi Jordan Plantation, had their own sugar mills and contributed to this overall output while other smaller plantations, like the John Sweeny Jr. Plantation, grew cane but not to the same extent. Fort Bend, Matagorda, and Wharton Counties were also significant contributors though sugar cane never became the leading cash crop in any of these areas. This is likely due, at least in part, to the substantial capital investment required to produce sugar during this era. Planters often had to employ a sugar maker and an engineer to oversee the process throughout the grinding season. On-site facilities such as a steam roller mill and sugarcane house for boiling the sugar in the open-kettle method were also costly necessities. Unlike their northern counterparts, southern growers often marketed their sugar raw without further processing or refining.⁸

Post-Civil War sugar production in the South faced trying times. Wartime deaths and the emancipation of slaves devastated the labor force. Drastic times called for drastic measures and in 1871 the Texas Legislature passed a law allowing the state to lease convicts (including a high percentage of former slaves) to private industry in an effort to curb the labor shortages that plagued the state. Unlike Louisiana which utilized wage labor, Texas relied on this convict lease system at more than half of its sugar plantations. Collectively they employed more than one-third of the state's prison inmates.⁹

⁵ Sudhalter, Michael. "Sugar Land didn't have to reinvent the wheel, they just refined it." *Fort Bend Star*. 27 January 2016
<<http://www.fortbendstar.com/2016/01/27/sugar-land-didnt-have-to-re-invent-the-wheel-they-just-refined-it/>>

⁶ Sowell, A. J., *History of Fort Bend County* (Houston: W. H. Coyle & Co., Stationers and Printers, 1904), 237.

⁷ Sitterson, *Sugar County: The Cane Sugar Industry in the South, 1753-1950*, 42.

⁸ Cindy Wilke, "SUGAR PRODUCTION," *Handbook of Texas Online*
(<http://www.tshaonline.org/handbook/online/articles/afs02>), accessed June 30, 2015. Uploaded on June 15, 2010. Published by the Texas State Historical Association.

⁹ Wilke, "Sugar Production."

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

The last decade of the nineteenth century saw major innovations in sugar cane processing from other growing regions such as larger roller mills and advances in the crystallization process. Growers also benefitted from new labor-saving apparatuses like the row cultivator and mechanical cane loader. All this new machinery led to the separation of cane farming from sugar manufacturing as independent endeavors. It also greatly increased sugar production and resulted in Texas being ranked second in sugar output in the United States.¹⁰

As sugar production in Texas moved into the twentieth century, the state experienced expansion not only in the Brazos and Colorado River Valleys, part of the "sugar bowl" of Texas, but the beginnings of cane growth in the Rio Grande Valley. In 1903 eight sugar mills were operating in Texas and a single sugar refinery was open in Sugar Land in Fort Bend County. Growth remained steady until 1920 when the industry suffered several setbacks including an outbreak of Mosaic disease that damaged crops throughout the country. During the next 50 years, commercial cane production was almost entirely abandoned in the state and much of the sugar that was produced was utilized for the creation of different syrups. Sugar beets also started to play a significant role during this period. Sugar cane yields did not really recover until after the 1970s with a definite shift in crop concentration to the southernmost tip of Texas in Hidalgo, Cameron, and Willacy Counties. Imperial Sugar Company remained in service and was the only company refining cane sugar in Texas throughout the twentieth century.¹¹

Origins of the Imperial Sugar Company

Stephen F. Austin originally granted the land where the Imperial Sugar complex now stands to Samuel May Williams in 1828. Williams received one and a half leagues for his "valuable services performed in the affairs of the colony" as secretary to Austin and one of the financiers of the Texas Revolution. Williams' property was located along Oyster Creek in what is now the northeastern section of Fort Bend County. In 1838, Williams sold his property, named Oakland Plantation, to his brother Nathaniel. By 1843, Nathaniel and a third Williams brother, Matthew, were growing cotton, corn, and sugar cane on the plantation. They also established a raw sugar mill on the property.¹²

A year after Mathew's death on October 10, 1852, Nathaniel sold the plantation to Benjamin F. Terry and William J. Kyle. The two men renamed the plantation "Sugar Land" and over the next 5 years, increased their holdings to a total of 12,500 acres including the original Williams' plantation.¹³ Once called the "Land of Sugar," the town on and surrounding the plantation was officially named Sugar Land in 1858 when the local post office was established and had to provide a specific office location name.¹⁴ It has retained that moniker to the present day.¹⁵ Terry and Kyle expended their efforts to promote a railway to the area and to construct plantation homes, a sawmill, a cotton gin, two sugar mills, a horseracing track, and various other outbuildings on their property.¹⁶ The Buffalo Bayou, Brazos, and

¹⁰ Wilke, "Sugar Production."

¹¹ Wilke, "Sugar Production."

¹² Bettye J. Anhaizer, "SUGAR LAND, TX," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/hfs10>), accessed October 5, 2008 & July 1, 2015. Uploaded on June 15, 2010. Published by the Texas State Historical Association.

¹³ Bettye J. Anhaizer, "Texas Oldest Cane Sugar Refinery" for Texas Historical Commission, 1976-1977, 6.

¹⁴ "Sugar Land, Texas Postmasters," *Life on the Brazos River*, date unknown <<http://lifeonthebrazosriver.com/SugarLand.htm>>

¹⁵ Little, Bill, Leon Anhaizer and Bettye Anhaizer (Former Marketing Employee and Former Plant Manager at Imperial Sugar, and spouse), interviewed by Grace Cynkar and Lauren Maas, Imperial Sugar Facilities, Sugar Land, Texas, July 17, 2015.

¹⁶ Ware, Diane L., "Creating a Company Town: William T. Eldridge, Isaac H. Kempner and Sugar Land, Texas (1906-1947)" (Thesis, University of Houston, 1994).

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

Colorado Railway constructed track that ran from Harrisburg to Richmond in 1856, and there may have been a station in or near Sugar Land on that track.¹⁷

Both Terry and Kyle were killed during the Civil War, leaving their property to various heirs. After the Civil War, Colonel Edward H. Cunningham purchased the former plantation, constructing a sugar refinery on the property in 1879.¹⁸ As with all sugar production in the south, Sugar Land suffered from labor shortages resulting from wartime deaths and the emancipation of slaves. As early as 1878, Cunningham obtained a contract with the State to lease convict labor force for the area sugarcane farms. The injection of this new labor system enabled the sugar industry in Sugar Land to rebound.¹⁹ The rebound of the sugar industry also allowed Cunningham to charter the Sugar Land Railway in 1893.²⁰

Cunningham forged the beginnings of a company town in Sugar Land with his Cunningham Sugar Company. He invested a sizable fortune in a sugar refinery, a paper mill, and the 14-mile Sugar Land Railroad.²¹ By 1884 he was also operating a 600-ton raw sugar mill with a convict labor force of around 300 men. He built a commissary and housing in the form of abandoned slave shacks, outbuildings, and lean-tos. The original post office closed in 1886 but by 1890 had reopened along with the introduction of the Sugar Land Railway. By 1892 the town had a population of approximately 500, a figure that would fluctuate until the 1950s when the area appeared to reach more steady growth.²² Cunningham's dependence on locally grown sugar cane, however, would lead to his downfall. Inclement weather in combination with a short three-month growing season would cause him to default on more than \$500,000 worth of loans in 1902. He had tried to supplement his raw sugar with imports from Cuba that year, but it was too little too late. The Lincoln Trust and Title Company assumed his property in 1905 and sold Cunningham's land, which had its own raw-sugar mill and cane sugar refinery, and company holdings to William T. Eldridge and Isaac H. Kempner in 1907.²³

Imperial Sugar Company in Sugar Land, 1907-2003

In addition to the former Cunningham Sugar Company land, Eldridge and Kempner also purchased the neighboring Ellis Plantation increasing their property to a total of 18,500 acres of farmland. An Ellis Plantation mill had been dubbed the "Imperial Mill" prior to its acquisition. Isaac Kempner held fond memories of his stay at the Imperial Hotel in New York City and wished to convey the regal splendor in his new product. Hence, the new Eldridge-Kempner venture became known as the "Imperial Sugar Company."²⁴ Isaac Kempner's younger brother Dan served as the company's first president until 1914, when Dan was replaced by Isaac as president and general manager.²⁵ After taking

¹⁷ George C. Werner, "BUFFALO BAYOU, BRAZOS AND COLORADO RAILWAY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/eqb16>), accessed January 27, 2016. Uploaded on June 12, 2010. Published by the Texas State Historical Association.

¹⁸ Diana J. Kleiner, "IMPERIAL SUGAR COMPANY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/diicy>), accessed January 27, 2016. Uploaded on June 15, 2010. Published by the Texas State Historical Association.

¹⁹ Ware, "Creating a Company Town: William T. Eldridge, Isaac H. Kempner and Sugar Land, Texas (1906-1947)."

²⁰ "The Sugar Land Refinery," *Life on the Brazos River*, date unknown <<http://lifeonthebrazosriver.com/SugarLand.htm>> "Cunningham Sugar Road," Galveston Daily News, 6 August 1893.

²¹ Anhauser, "Sugar Land, TX," 1-2.

²² Anhauser, "Sugar Land, TX," 1.

²³ Ware, "Creating a Company Town: William T. Eldridge, Isaac H. Kempner and Sugar Land, Texas (1906-1947)."

²⁴ *The First 150 Years Imperial Sugar 150th Anniversary Brochure*, 1993 (Fort Bend County Archives).

²⁵ Diana J. Kleiner, "IMPERIAL SUGAR COMPANY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/diicy>), accessed June 30, 2015. Uploaded on June 15, 2010. Published by the Texas State Historical Association

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ownership, Eldridge and Kempner attempted to modernize the existing facilities and further develop the community into a company town for their new business, the Sugarland Industries and the Sugar Land railroad.²⁶

Since its inception, Sugar Land was the epitome of a company town. When Imperial Sugar began its operations in 1907, it had already constructed rows of company houses on either side of future Hwy 90-A that would continue to be a part of the growing community for decades. The town also saw the establishment of a bank, a company store, a paper mill, various retail stores, a cotton gin, and a feed mill, as well as designated space for churches that same year.²⁷

Eldridge and Kempner signed a 10-year contract with the State of Texas in 1907 for the use of convict labor at the Imperial Sugar Company. A contingency of this agreement required the company to refurbish its dormitories. The new \$30,000 concrete dormitory held beds, toilets, showers, hospital facilities, and a plunge bath for 416 inmates and guards.²⁸ That same year, the firm established the Imperial State Bank, the Imperial Mercantile Company, a company store, a paper mill, various retail stores, a cotton gin, and a feed mill. Imperial Sugar Company also chartered the Imperial Valley Railway in 1907, constructing 5 miles of track between Sugar Land and Cabell to the northwest. The rail linked to existing lines owned by the Galveston, Harrisburg and San Antonio and the Sugar Land Railway.²⁹ Imperial Valley Railway was sold to the Sugar Land Railway Company in 1912.³⁰ The company continued to employ convict labor for the Ellis Plantation parcel until 1914 when it sold the property as a prison farm for the state.

Production continued to increase and the continued importation of raw sugar from foreign growers like Cuba allowed for output to soar to 525,000 pounds per day in 1914. This capacity increased to 750,000 pounds per day in 1925 and necessitated the construction of the Char House which stands to this day (Resource ID 1).³¹ The company manufactured the same products, refined cane sugar and blackstrap molasses, throughout its entire existence. The company facilitated the merger of the Imperial Sugar Company and the still existing Cunningham Sugar Company in 1917 to form the new Imperial Sugar Company. A trust estate called Sugarland Industries was put in place in 1919 to own and operate the collection of Sugar Land businesses as departments or subsidiaries, of which the Imperial Sugar Company was one.³²

In 1928, the last sugar cane crop to be planted in Fort Bend County was harvested. Multiple factors including high federal taxes and plant disease shut down local cane farming and the focus turned to importing raw sugar to be processed at the refinery. Less than a decade later, Imperial was the only sugar manufacturer in the state. During WWII, Imperial supplied all the sugar for Texas and Oklahoma which resulted in its continued dominance in those markets postwar.³³

The Kempner family, who purchased the Eldridge interest in the company and were sole owners of the town by 1946, was regarded as benevolent by the town's residents and company employees. Education was provided for all the children and free medical care offered to employees. During the Great Depression, they lowered the rent due on housing and did not lay off a single employee. The town experienced an uncommon sense of security even during

²⁶ Anhaizer, "Sugar Land, TX," 2.

²⁷ Little, Bill, Leon Anhaizer and Bettye Anhaizer, Interview, July 17, 2015.

²⁸ Ware, "Creating a Company Town: William T. Eldridge, Isaac H. Kempner and Sugar Land, Texas (1906-1947)."

²⁹ Stephen L. Hardin and Chris Cravens, "IMPERIAL VALLEY RAILWAY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/eqi01>), accessed January 27, 2016. Uploaded on June 15, 2010. Published by the Texas State Historical Association.

³⁰ *Ibid.*

³¹ *The First 150 Years Imperial Sugar 150th Anniversary Brochure*, 1993 (Fort Bend County Archives) 7.

³² Kleiner, "Imperial Sugar Company," 2.

³³ *Ibid.*

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tough economic times.³⁴ A few different employment opportunities existed for women in the City of Sugar Land including in the offices and packing department at the refinery and as telephone operators. Social life was more limited and consisted of events at the Lions's Club, dances at Knights of Columbus, a garden club, and church activities.

According to oral interviews with former Imperial employees, minorities lived in a separate area of town and had their own school.³⁵ They did not receive the same housing assistance as their counterparts and most lived in shacks. After the city incorporated, they worked with the Federal Housing Administration (FHA) in Houston in order to redevelop the area. Imperial Sugar helped minority employees purchase their homes as well through a payroll deduction plan. At the refinery, however, opportunity appeared to be much more uniform. There was equal pay for equal work on site. Each laborer was paid the same for his particular task despite race. Both Imperial Sugar and the town itself were seen as progressive. For many years Sugar Land was unique in that it was a one hundred percent employment community. Everyone in the town worked and lived together. There seemed to be no division between managers and workers at the refinery. Overall, it was a very tight knit community for many years.³⁶

The desire for Sugar Land to become its own city began in the mid-1950s as nearby Houston was attempting to extend its reach outward as far as possible. The unwelcome prospect of being annexed by Houston coupled with the rising costs of providing maintenance and services to company housing convinced the community leaders of Sugar Land to move towards incorporation. However, in order to vote on the matter, residents of the proposed town had to be homeowners. As a result, in 1956-57 the Imperial Sugar Company made home ownership for employees a real possibility, offering the company houses to their occupants for sale, many of whom did in fact purchase their homes.³⁷ The family began selling businesses, homes and land in the area for development in 1958, and the town was incorporated in December 1959.³⁸ The incorporation of the town distinctly marked the end of Sugar Land's period as a company town, though the company's influence was still pervasive during the local government's early years.

The incorporated city limits of Sugar Land were originally 4 square miles (12,000-13,000 acres) all of which was essentially owned and run by Sugarland Industries. The city had to initially borrow funding from the Sugar Land bank but the loan was guaranteed by Imperial Sugar Company. Imperial had also already created the necessary infrastructure such as roads and utilities as well as amenities to make the town run. Therefore, the City of Sugar Land had a solid foundation on which to operate and grow from the outset which eased the transition. Since the area consisted of so much open land, it was easy to zone for different endeavors which was an unusual circumstance at that time. Sugar Land also had good water sources which were not only necessary for sugar refining but were attractive to people who wanted to settle in the area.

By the early 1970s, the company had sold or liquidated the bulk of Sugarland Industries and its local assets, though the Kempner family retained ownership. It later established the Belknap Corporation and entered real estate development with local subdivisions, though it later sold all but a few acres of its properties. In 1986 the Imperial Sugar Company still boasted over 600 employees of whom a large portion had been with the company for 20-plus years. Imperial merged with the Holly Sugar Corporation in 1989 to form the Imperial Holly Corporation which processed both cane and beet sugar. It was on the Fortune 500 list of the largest companies in the country in 1990 with annual sales of more

³⁴ Little, Bill, Leon Anhaizer and Bettye Anhaizer, Interview, July 17, 2015.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Kleiner, "Imperial Sugar Company," 2.

³⁸ Anhaizer, "Sugar Land, TX," 2.

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than \$700 million. Until the company closed the Sugar Land refinery in 2003, the Imperial Sugar Company was the oldest extant business in Texas, operating continuously on that property since 1843.³⁹

Sugar Extraction History and Process

Sucrose is a basic carbohydrate derived from a variety of plant and animal sources. The common edible crystalline form used in foods, commonly referred to as sugar, comes from sugar cane or sugar beet. A crystalline sugar can also be obtained from fruit, honey, sorghum, and sugar maple.⁴⁰ Sugar cane (*Saccharum officinarum* L.) requires a sub-tropic or tropic climate with a minimum of 24 inches of rain per annum, making the coastal plains of the Gulf of Mexico and many island nations throughout the Caribbean an ideal local for the plant to flourish.⁴¹ While sugar beet cultivation is a relatively recent practice—the modern sugar beet agriculture dates to the early 19th century in Europe—sugar cane cultivation can be traced back millennia. Scientists believe sugar cane was first domesticated in New Guinea as early as 8000 B.C. It was introduced to the Philippines and India 2,000 years later.⁴²

Sugar extraction from sugar cane begins with crushing. The power to crush through sugar cane's tough stalk fibers was accomplished primarily by animal power. The edge-roller, a milling machine consisting of a stone wheel driven in a circle by a mule, was invented in China around 200 A.D. The only major innovation to this technology was the replacement of the stone wheel with an iron wheel in the nineteenth century. The first step towards modern sugar milling came with the invention of the three-roller mill. While its origins remain obscure, the most probable date for its invention is in Peru or Brazil in the early seventeenth century. Rollers, though improved by technology and industrialization, are still used to crush the cane and extract the sugar from the fibers of the plant. The Imperial Sugar Company had its own mill on site, and the mill was demolished at an unknown date. However, not every refinery had their own mill on site. Sugar mills and refineries were often separate businesses. The result of the milling process is raw sugar, a sticky brown sugar. The cane syrup goes on to the refinery for further processing, while the byproduct of the cane is a fibrous material known as bagasse, and is typically burned to produce electricity and steam to help power the process.⁴³

Historically, the crystallization of sugar from the cane syrup was achieved through a laborious, material and time-consuming process of reduction known as a "Jamaica Train." This process entailed boiling cane syrup in successive kettles of smaller sizes until the syrup reached a consistency in the final kettle that would crystallize when the sugar maker made a "strike." The sugar master's skill was to recognize when to remove syrup that would crystallize, otherwise his efforts would render a worthless blob of molasses. The Jamaica Train was an inherently inefficient process. It wasted a tremendous amount of fuel, as each individual kettle required its own heat source, and large amounts of sugar was lost through spillage and overcooking.⁴⁴

With the advent of the steam engine, however, the process of crushing and refining of sugar changed forever. The first sugar mill powered by steam was in Jamaica in 1768.⁴⁵ Soon afterwards, African American inventor Norbert Rillieux

³⁹ Kleiner, "Imperial Sugar Company," 1.; Michael Sudhalter, "Sugar Land didn't have to reinvent the wheel, they just refined it," Fort Bend Star, 1 January 2016, <<http://www.fortbendstar.com/2016/01/27/sugar-land-didnt-have-to-re-invent-the-wheel-they-just-refined-it/>>

⁴⁰ "Sugar," Wikipedia, accessed October 3, 2008, <https://en.wikipedia.org/wiki/Sugar>.

⁴¹ "Sugar Cane," Wikipedia, accessed October 3, 2008, <https://en.wikipedia.org/wiki/Sugarcane>.

⁴² "Sugar Beet," Wikipedia, accessed October 3, 2008, http://en.wikipedia.org/wiki/Sugar_beet.

⁴³ "How Cane Sugar is Made – The Basic Story," SKIL – Sugar Knowledge International, accessed October 6, 2008, <http://www.sucrose.com/lcane.html>.

⁴⁴ "Sugar Production and the Multiple Effect Evaporator," The American Chemical Society National Historic Chemical Landmarks, accessed October 3, 2008, <http://acswebcontent.acs.org/landmarks/landmarks/sugar/sug3.html>.

⁴⁵ "Sugar."

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revolutionized sugar refining. In 1843, he patented the Multiple Effect Evaporator, a device that would replace the Jamaica Train system. Rillieux turned the process of sugar refining into a closed-loop system. His evaporator would heat syrup in a succession of pans, each drawing heat from the steam produced by the previous stage. With this machine, there was zero heat waste, no chance of spillage and a better final product since the reduction took place at lower temperatures. This innovation in sugar refining marked the beginning of modern industrial chemistry and is the basis for an assortment of processes requiring evaporation.⁴⁶ Today, Rillieux's evaporators are used for everything from desalting seawater to recycling processes used in the space station. Its principles remain the foundation of current steam-based sugar refinement.⁴⁷

In the twentieth century, refineries use a five-step process, located in the char house (Resource ID 1), to turn the raw sugar from the mills into the final product available in stores. The first step, called affination, uses more updated and efficient versions of the evaporators, located in the char house to heat the extracted raw cane syrup in order to thicken it, which creates both a thick molasses of raw sugar and a byproduct known as mother liquor. The molasses continues on the refinement process, while the mother liquor cycles back through the evaporators. Mother liquor, a chemical term, still contains sugar crystals, and continues through the evaporators so as to yield the most possible product from a sugar cane harvest. Any mother liquor that cannot be converted into raw sugar will be sold to cattle feed manufacturers and alcohol distilleries. The resulting raw sugar molasses is mixed into a concentrated syrup of higher purity then spun in a centrifuge to pull the liquor from the raw sugar crystals. Centrifuges were introduced to the refining process in 1873, and would have been used in the 1925 char house at the Imperial Sugar Company.⁴⁸

Next, carbonation removes any solids which make the liquor turbid, serving to remove some of the dark color from the raw molasses. During this step, calcium hydroxide is added to sugar, and carbon dioxide is bubbled through the mixture. The gas reacts with the calcium hydroxide, creating calcium carbonate, which helps remove the impurities from the sugar. Carbonation takes place in machines called rotary leaf filters, where the sugar is pumped from the outside through to the center. While the leaf filters spin, the impurities rise to the top for removal and the purified sugar continues through the filters to the next phase of the process.⁴⁹

Decolorization removes the brown color through a filtering process where the sugar liquor is pumped through a column of granular activated carbon, the modern version of this historically-used bone char, which removes additional impurities and it brings the sugar closer to the white color seen in packaged granulated sugar. Columns used in this process are typically tall, around 32 feet or three stories. Columns are often paired in order to remove more impurities during this step and to improve the shelf lives of their carbon columns, which must be replaced when they reach absorption limits.⁵⁰ The carbon can be cooked to release any impurities captured from the raw sugar filtration process and is then reused. Eventually, the carbon granules become too small to act as an effective filter. At that point it is sold for its high calcium content to be added to feed.⁵¹ Refineries that handle large volumes of sugar, like the Imperial Sugar Company, often have multiple sets of decolorization columns running simultaneously.⁵²

During the boiling phase, the still-liquid sugar is boiled until sugar crystals begin to grow. The crystallization is often aided by the addition of sugar dust in order to encourage the natural chemical process of sucrose formation. At the end

⁴⁶ "Sugar Production and the Multiple Effect Evaporator."

⁴⁷ Lienhard, John H., "Norbert Rillieux" in *Engines of our Ingenuity* Radio Broadcast # 236 (original broadcast date unknown).

⁴⁸ Virginia Mescher, "'How Sweet It Is!' A History of Sugar and Sugar Refining in the United States Including a Glossary of Sweeteners." Available at <www.raggedsolider.com/sugar_history.pdf> Copyrighted by author 2005.

⁴⁹ "Carbonation," SKIL – Sugar Knowledge International, accessed November 1, 2016, <http://www.sucrose.com/rcarbon8.html>.

⁵⁰ "Decolourisation," SKIL – Sugar Knowledge International, accessed November 1, 2016, <http://www.sucrose.com/rdecol.html>

⁵¹ Raska, Marion (Facility Maintenance Imperial Sugar), interviewed by Jay Hrivnatz and Anna Mod, Imperial Sugar Facilities, Sugar Land, Texas, 1 October 2008.

⁵² "Decolourisation," SKIL – Sugar Knowledge International, accessed November 1, 2016, <http://www.sucrose.com/rdecol.html>

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of this step, the crystalline mixture is once again spun in a centrifuge to separate the sucrose from a layer of mother liquor. Once spun, the crystals are dried with hot air, and the granulated sugar is ready for storage or packaging⁵³

In the final step, known as recovery, the leftover mother liquor is sent back through the refining process in order to maximize the final product until it is no longer viable and is sold to feed manufacturers and alcohol distilleries⁵⁴ The machinery used for each of these steps was connected, relying on a combination of gravity and chemical reactions in order to move the sugar through the char house and the refining process.

Dried, ready-to-pack sugar was stored in the silos (Resource ID 3) until it was relocated to the Container Warehouse (Resource ID 5) for packaging. After packaging, the final product was stored in the 3-Bay Warehouse (Resource ID 4) until it was shipped for sale via trucks.

The resulting products include granulated white sugars of varying size, confectioner's powdered sugars for baking, brown sugars of different color and consistency, and molasses. Byproducts of sugar refinement are sold to the cattle industry as feed supplements. Excess molasses which cannot be converted to sugar becomes molasses protein supplement.

Significance under Criterion A (Industry)

The Imperial Sugar Company Refinery is nominated to the National Register at the local level under Criterion A in the area of Industry with a period of significance from 1923-1967. The proposed district is comprised of seven resources that are best remaining and representative of the work major industrial processes performed at the refinery, including the actual refinement, packaging, and shipping. The remaining support building also highlights that before incorporation, the Imperial Sugar Company was the only economic driver in Sugar Land for decades, as the company town grew into Fort Bend County's largest population center. The complex remains the best representative of Sugar Land's past as an agricultural and industrial hub prior to its conversion as a suburban city.

Furthermore, the Imperial Sugar Company Refinery's growth and evolution shows the technological evolution in sugar refinement, commercial shipping, and industrial architectural style. The buildings and structures that remain at the site date as early as the 1920s. That the site contains none of the buildings from the refinery's opening in 1843 speaks to the continued growth of the company over the decades as the company expanded and constructed new buildings with new architectural technologies to accommodate new industrial systems. These systems include the introduction of centrifuges in the 1925 char house, the transition from rail shipping to trucking, and the switch from storing the finalized product in silos rather than barrels before packaging. These changes are obvious in the construction of a new, larger char house in 1925, a building that was full of the mechanical equipment needed to refine sugar; the construction of the three-bay warehouse with trucking loading docks and the resulting demolition of several rail lines; and the demolition of every coopeage on property to be replaced by silos. The 1925 char house also demonstrates the transition from iron-frame construction to concrete-frame construction, as the previous iron-framed char house was demolished to make way for the existing. The existing silos, though non-contributing resources, also demonstrate the company's use of new seamless concrete construction to create leak-proof storage and maximize their sellable product.

The char house provides the most understanding of the complex's refining history, as the refining processes for raw milled sugar took place in this building. Though the vast majority of the industrial equipment for the processes no longer remains, the visually-industrial architectural design lends itself to easy understanding of building's significance.

⁵³ "Boiling," SKIL – Sugar Knowledge International, accessed November 1, 2016, <http://www.sucrose.com/rboil.html>

⁵⁴ "How Sugar is Refined – The Basic Story," SKIL – Sugar Knowledge International, accessed October 6, 2008, <http://www.sucrose.com/lref.html>.

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Particularly, the absence of flooring in many areas following the removal of the equipment speaks to the size and scale of the machines once located in the char house.

Additionally, the 3-Bay Refined Sugar Warehouse was constructed in 1923 using structural brick and steel I-beams to create the vast spaces needed to store and move product around the building. Just two years later, the char house was constructed with a reinforced concrete frame and brick veneer. Part of those differences is likely related to the intended function for each building. However, the container warehouse constructed in the 1950s was also made from reinforced concrete rather than structural brick, strengthening the argument that the char house's construction was more related to available construction technology rather than intended purpose of the buildings.

The same technological evolution is visible in the transition from rail transportation to trucking. The railroad tracks still present at the site served a spur between the refinery complex and the still-active rail tracks that run parallel to Highway 90-A. The tracks through the refinery brought goods to the rail line for shipping out for sale. However, the trucking bay openings present in the 3-Bay Refined Sugar Warehouse and the Container Warehouse demonstrate the changing focus to automotive shipping rather than rail.

Furthermore, the Imperial Sugar Company was the only economic driver in the town for decades, by virtue of being a company town. It was only their desire not to be incorporated into the City of Houston that spurred their own incorporation into the City of Sugar Land. This suburban community would not continue to exist without the Imperial Sugar Company. The buildings and structures that remain at the refinery represent not only the city's economic origins, but their entire basis for existence.

The proposed district retains its integrity, despite the demolition of several buildings at the site. The integrity of setting has been compromised due to the aforementioned demolition. However, the buildings that remain at the site are the best examples and most representative of the Imperial Sugar Company Refinery's influence on Sugar Land, and the proposed district does retain its integrity of location, design, materials, workmanship, feeling, and association.

The location for the refinery complex has not changed since the sugar refinement began on the site in 1843, nor have any of the individual buildings and structures been relocated since their original construction date. The design for the complex also speaks to the industrial and functional nature of the site. Buildings were constructed as needed and where they fit, regardless of sight lines or the overall site design. The design of each building demonstrates the evolution in construction technology and methodologies, highlighting the evolution of the company and its shifting refinement and transportation needs to align with technological growth.

The integrity of materials remains the same; the buildings all retain their original exterior materials. Though the char house has had windows replaced over the years, the north elevation still retains the original windows, which provides valuable knowledge to fix a reversible change. The workmanship remains the same since the original construction of each building, with no building showing significant visible signs of irreversible changes. The site also retains its industrial feeling; the scale and massing of the remaining buildings still harken the quantity of material processed and product moved each day by the sugar company. The simplicity of the architecture, designed to be functional rather than ornamented, also continues this feeling. Moreover, the remaining buildings are all located near Highway 90-A and remain visible, iconic landmarks to the local residents, with the city having established official view corridors in order to protect the char house from encroaching development.

Finally, the integrity of association remains the most unaffected of the proposed district's aspects. The proposed district is the site of the Imperial Sugar Company's longest-operating refinery, which was actively in use from 1843 until 2003. Though the refinery no longer runs, the Imperial Sugar Company still maintains its corporate headquarters in Sugar Land because of their long association with the city. Additionally, both the silos and the char house retain

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signage for the Imperial Sugar Company, despite the fact that the Company no longer owns the proposed district. Furthermore, the Sugar Land Heritage Foundation operates out of the Engineering Building, maintaining the history of both Sugar Land and the Imperial Sugar Company on the site.

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Bibliography

- Anhaiser, Bettye J., "SUGAR LAND, TX," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/hfs10>), accessed October 5, 2008 & July 1, 2015. Uploaded on June 15, 2010. Published by the Texas State Historical Association.
- Anhaiser, Bettye J. "Texas Oldest Cane Sugar Refinery" for Texas Historical Commission, 1976-1977.
- "Cunningham Sugar Road." *Galveston Daily News*. August 6, 1893
<<http://lifeonthebrazosriver.com/SugarLandRailroad.htm>>
- "Demographics." Fort Bend Chamber of Commerce. 2002 <<http://www.sugarlandliving.com/wp-content/uploads/2014/11/sugar-land-demographics.pdf>>
- The First 150 Years*, Imperial Sugar 150th Anniversary Brochure. Fort Bend County Archives. 1993.
- Hardin, Stephen L. and Chris Cravens, "IMPERIAL VALLEY RAILWAY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/eqi01>), accessed January 27, 2016. Uploaded on June 15, 2010. Published by the Texas State Historical Association.
- "How Cane Sugar is Made – The Basic Story," SKIL – Sugar Knowledge International, accessed October 6, 2008, <http://www.sucrose.com/lcane.html>.
- "How Sugar is Refined – The Basic Story," SKIL – Sugar Knowledge International, accessed October 6, 2008, <http://www.sucrose.com/lref.html>.
- Kleiner, Diana J., "IMPERIAL SUGAR COMPANY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/diicy>), accessed June 30, 2015. Uploaded on June 15, 2010. Published by the Texas State Historical Association
- Lienhard, John H. "Norbert Rillieux" in *Engines of our Ingenuity* Radio Broadcast # 236. Date unknown.
- Little, Bill, Leon Anhaiser and Bettye Anhaiser, Former Marketing Employee and Former Plant Manager at Imperial Sugar, and spouse. Interviewed by Grace Cynkar and Lauren Maas, Imperial Sugar Facilities, Sugar Land, Texas, July 17, 2015.
- Lynch, Alban J. and Chester A. Rowland. A History of Grinding. Littleton: Society for Mining, Metallurgy and Exploration, 2005.
- Mescher, Virginia. "How Sweet It Is! A History of Sugar and Sugar Refining in the United States Including a Glossary of Sweeteners." Available at <www.ragedsolider.com/sugar_history.pdf> Copyrighted by author 2005.
- Mintz, Sidney W. Sweetness and Power. New York: Elisabeth Sifton Books/Viking, 1985.
- "Population History." City of Sugar Land, TX. 1 January 2014, <<https://www.sugarlandtx.gov/index.aspx?NID=213>>

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

- Raska, Marion, Facility Maintenance Imperial Sugar. Interviewed by Jay Hrivnatz and Anna Mod. Imperial Sugar Facilities, Sugar Land, Texas, 1 October 2008.
- Sitterson, J. Carlyle. Sugar County: The Cane Sugar Industry in the South, 1753-1950. Lexington: University of Kentucky Press, 1953.
- Sowell, A. J. History of Fort Bend County. Houston: W. H. Coyle & Co., Stationers and Printers, 1904.
- Staff. "New look for Sugar Land's Historic Landmark." *Imperial Holly Employee Bulletin*, Dec. 1997.
- Sudhalter, Michael. "Sugar Land didn't have to reinvent the wheel, they just refined it." *Fort Bend Star*. 27 January 2016 <<http://www.fortbendstar.com/2016/01/27/sugar-land-didnt-have-to-re-invent-the-wheel-they-just-refined-it/>>
- Sudhalter, Michael. "Sugar Land's job growth increases by 10 percent since 2010." *Fort Bend Star*. 23 September 2014, <<http://www.fortbendstar.com/2014/09/23/sugar-lands-job-growth-increases-by-10-percent-since-2010/>>
- "Sugar," Wikipedia, accessed October 3, 2008, <https://en.wikipedia.org/wiki/Sugar>.
- "Sugar Beet," Wikipedia, accessed October 3, 2008, http://en.wikipedia.org/wiki/Sugar_beet.
- "Sugar Cane," Wikipedia, accessed October 3, 2008, <https://en.wikipedia.org/wiki/Sugarcane>.
- "The Sugar Land Refinery." Life on the Brazos River. Date unknown <<http://lifeonthebrazosriver.com/SugarLand.htm>>
- "Sugar Land, Texas Postmasters." Life on the Brazos River. Date unknown <<http://lifeonthebrazosriver.com/SugarLand.htm>>
- "Sugar Production and the Multiple Effect Evaporator," The American Chemical Society National Historic Chemical Landmarks, accessed October 3, 2008, <<http://acswebcontent.acs.org/landmarks/landmarks/sugar/sug3.html>>
- "Texas Prison System Central State Farm Main Building." Life on the Brazos River. Date unknown <<http://lifeonthebrazosriver.com/SugarLand.htm>>
- Ware, Diane L. "Creating a Company Town: William T. Eldridge, Isaac H. Kempner and Sugar Land, Texas (1906-1947)." Thesis, University of Houston, 1994.
- Werner, George C., "BUFFALO BAYOU, BRAZOS AND COLORADO RAILWAY," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/eqb16>), accessed January 27, 2016. Uploaded on June 12, 2010. Published by the Texas State Historical Association.
- Wilke, Cindy, "SUGAR PRODUCTION," *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/afs02>), accessed June 30, 2015. Uploaded on June 15, 2010. Published by the Texas State Historical Association.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

Section 10: Geographical Data

Verbal Boundary Description: The nominated historic district sits on a portion of the S.M. Williams League, in Sugar Land, Fort Bend County, Texas. The property was replatted when it was sold to the current owner in 2016 and is a smaller portion of the 2016 legal description of 0097 S M WILLIAMS, TRACT D (Pt), ACRES 18.335, Plant Land & Bldgs (Pt of a 41.034 ac tract), SITUS = 198 Kempner ST, Sugar Land. The nominated historic district only includes 4.8 acres of the larger tract. The subsequent boundary of the nominated district is drawn to include the four buildings and three structures that make up the core of the remaining resources of the once larger industrial complex.

The southwest corner of the district begins on Kempner Street approximately 319 feet east of Ulrich Street and travels north approximately 584 feet to form the northwest corner of the district. There the boundary line travels directly east 290 feet to form one of the northeast boundary points directly north of the eastern façade of the 3-bay warehouse. From there it makes a 45 degree turn and travels in a southeasterly direction 152 feet to form another boundary point of the district polygon. The boundary then travels due south 150 feet to just north of the remnant railroad tracks that are to the north of the Char House. The boundary then turns to and travels to the east 173 feet and includes the railroad tracks and the Char House and forms the second northeast boundary corner. There it turns directly south for 175.5 feet to Kempner Street and forms the southeast corner. Once at Kempner Street, the boundary turns to the west and travels approximately 590 feet to the point of beginning.

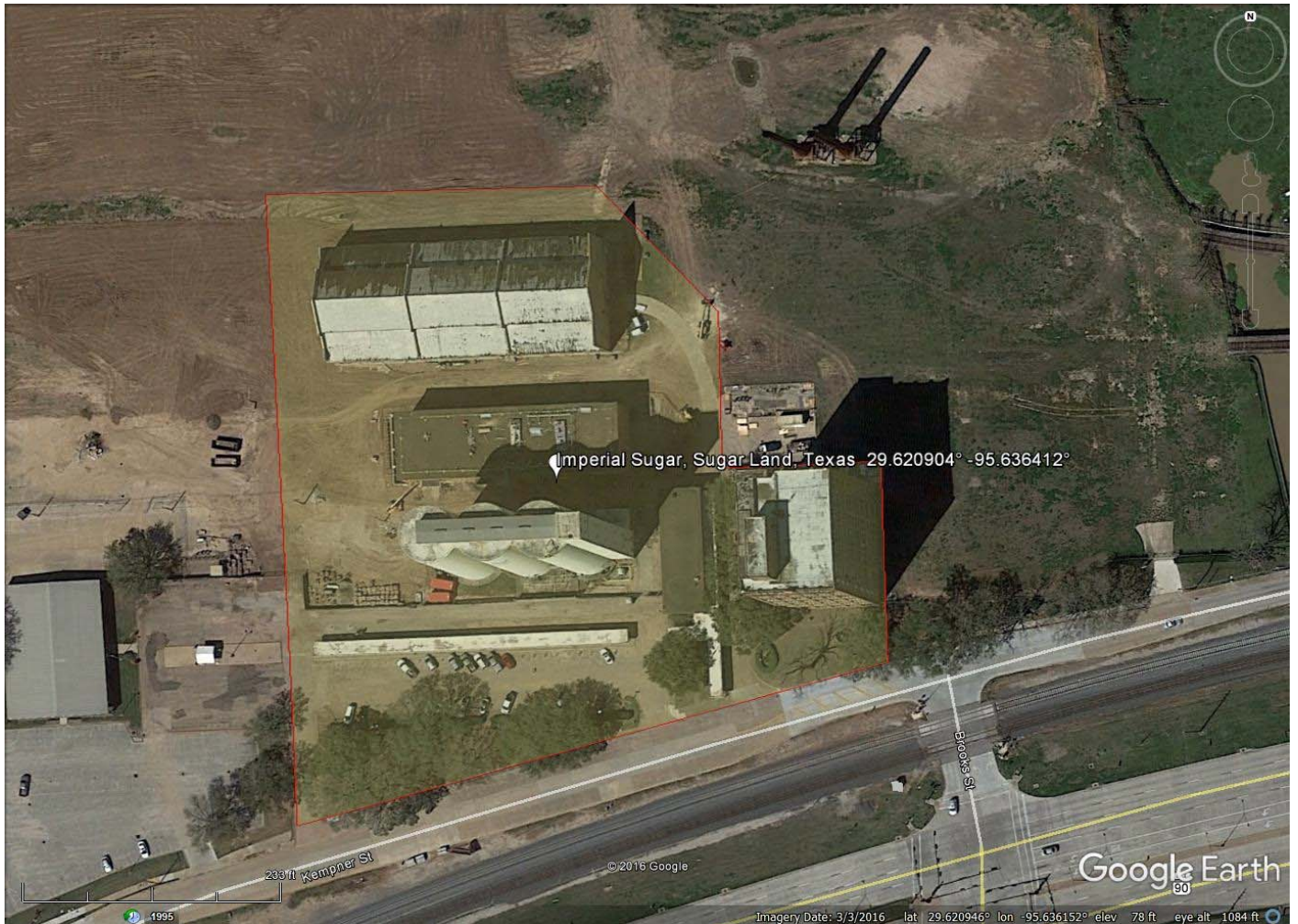
Boundary Justification: The proposed boundary for the Imperial Sugar Company Refinery Historic District encompasses a dense cluster of the remaining buildings and structures from the industrial site, including the 8-story Char House, which housed essential sugar refining functions of the facility.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

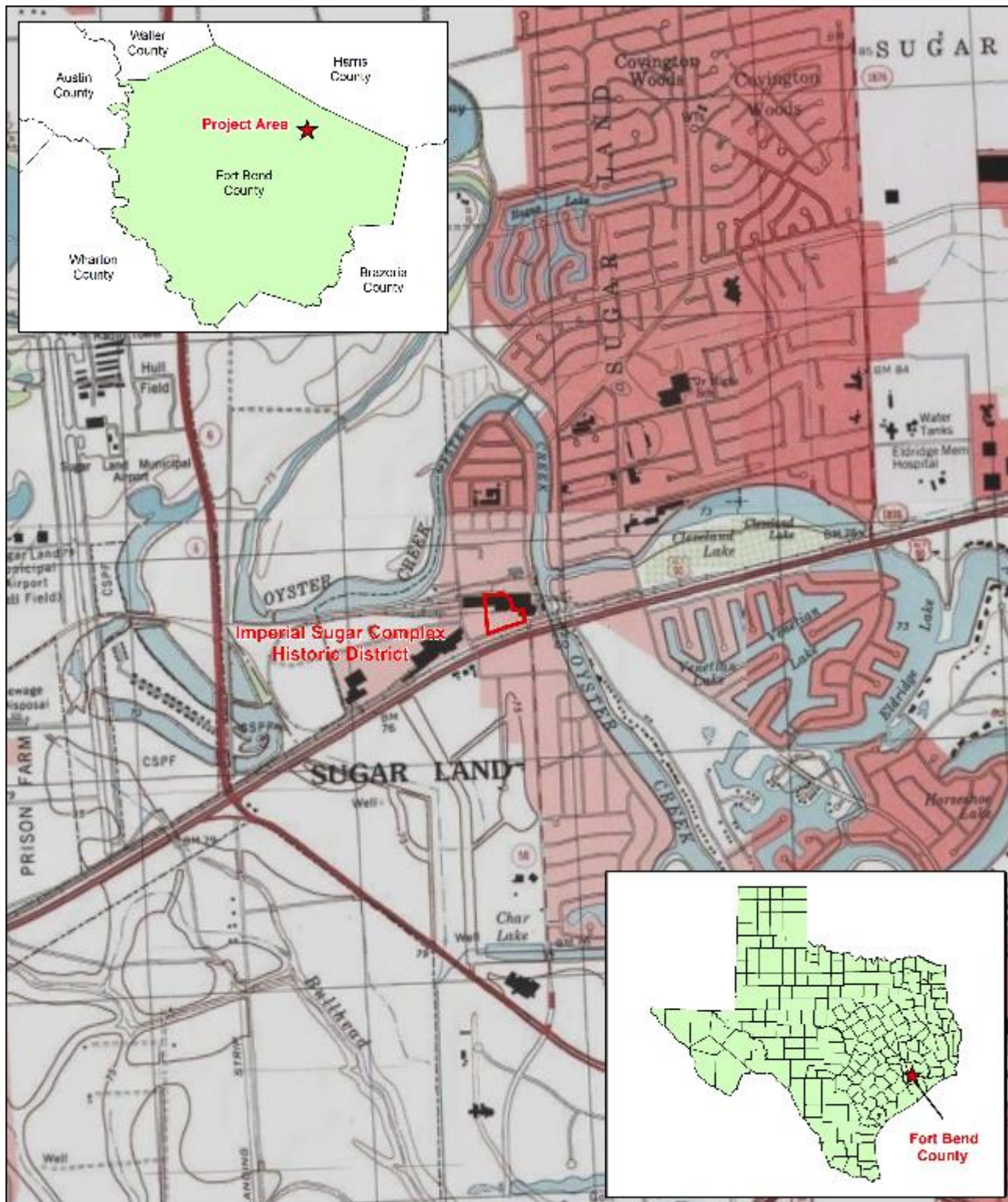
Section 10: Geographical Data (continued)

Acreage of Property: 4.8 acres

Coordinates: Latitude: 29.620904° Longitude: -95.636412°



Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Topographic map showing historic district boundary

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Site map with resources labeled.

- Resource ID 1: Char House
- Resource ID 2: Engineering Building
- Resource ID 3: Sugar Silos
- Resource ID 4: 3-Bay Refined Sugar Warehouse
- Resource ID 5: Container Warehouse
- Resource ID 6: Railroad Tracks (fragment)
- Resource ID 7: Covered Walkways

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

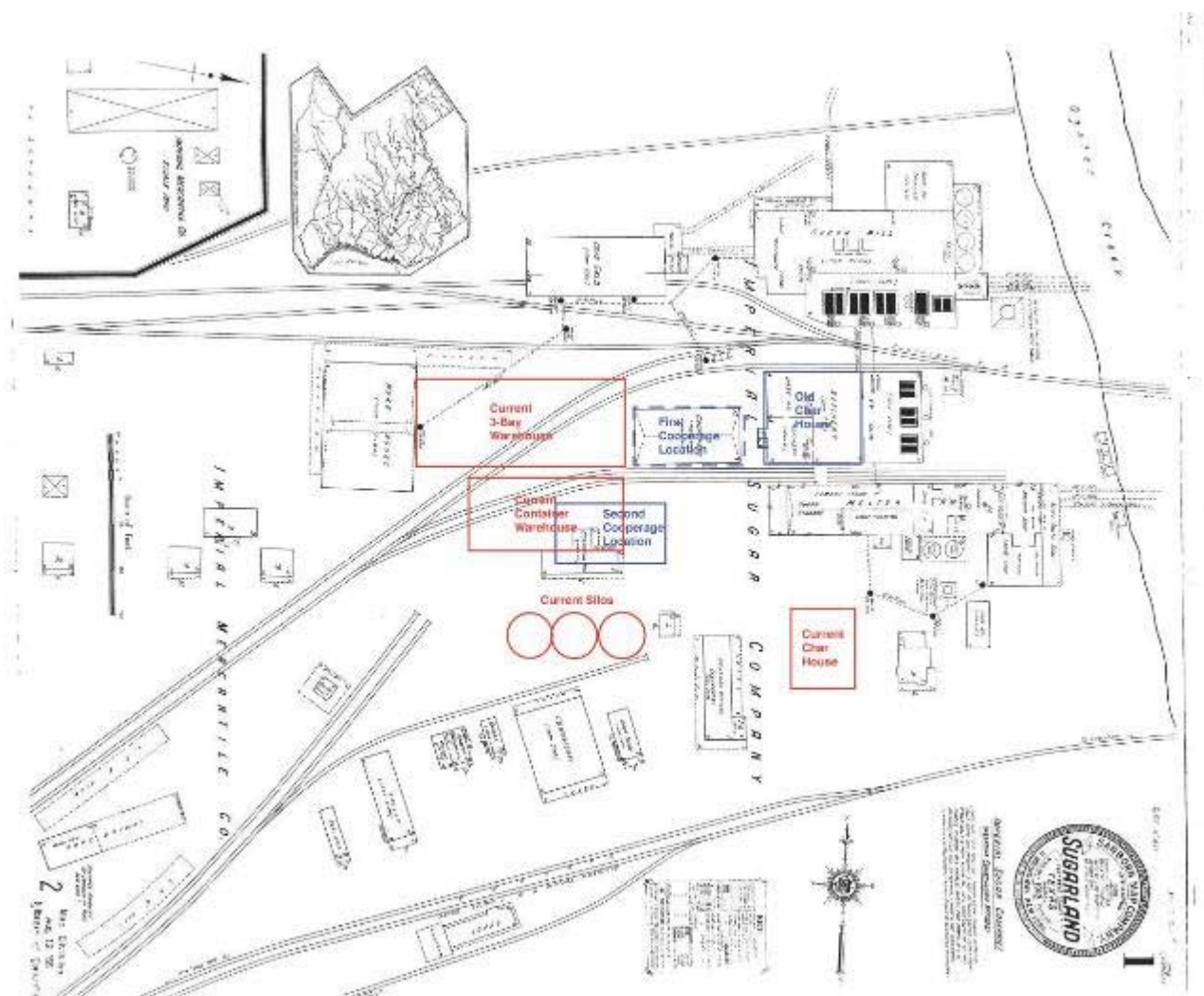


Figure 1 - 1913 Sanborn Fire Insurance map. Annotations courtesy Bruce Kelly and the Sugar Land Heritage Foundation

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

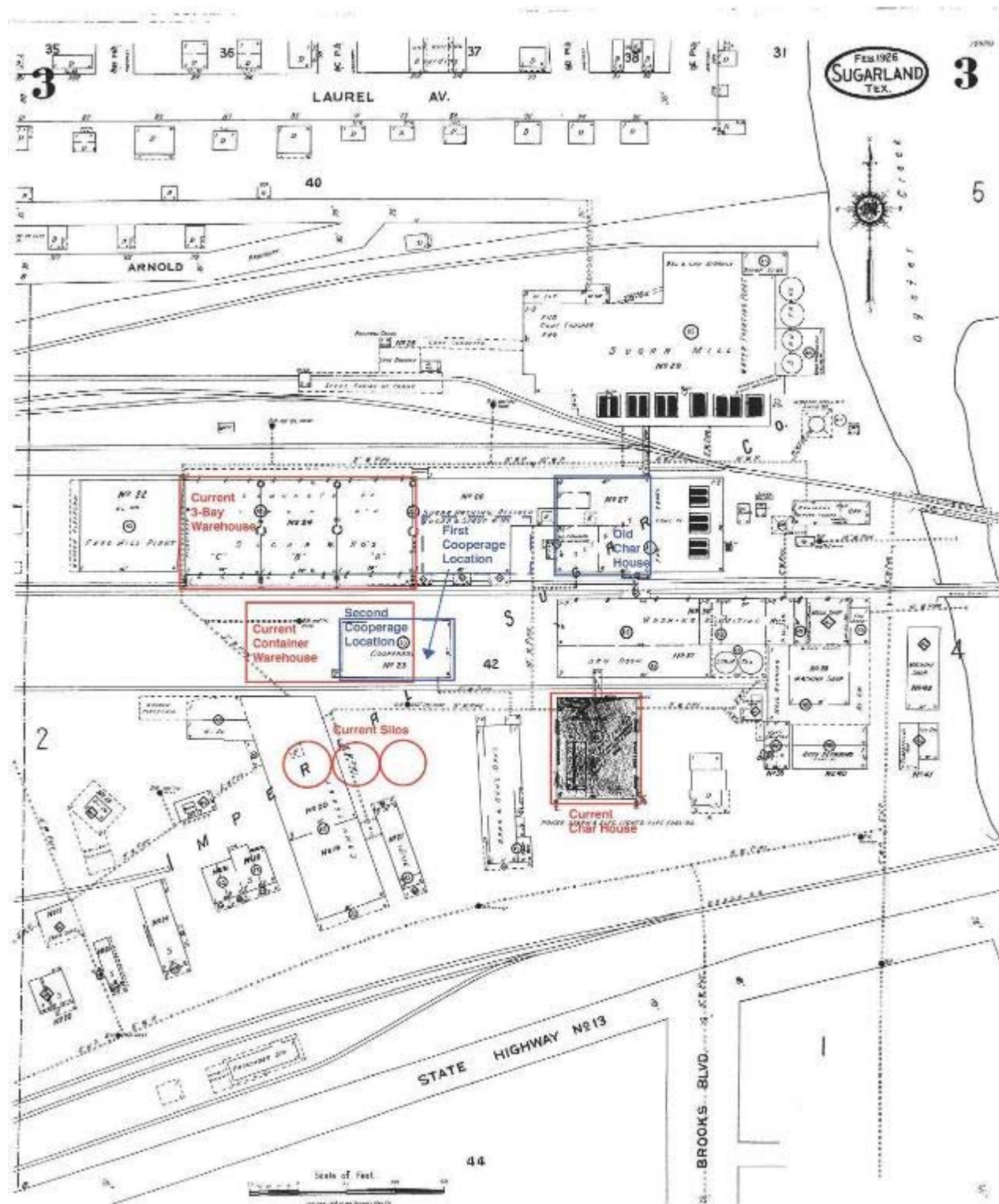


Figure 2 - 1926 Sanborn Fire Insurance map. Annotations courtesy Bruce Kelly and the Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

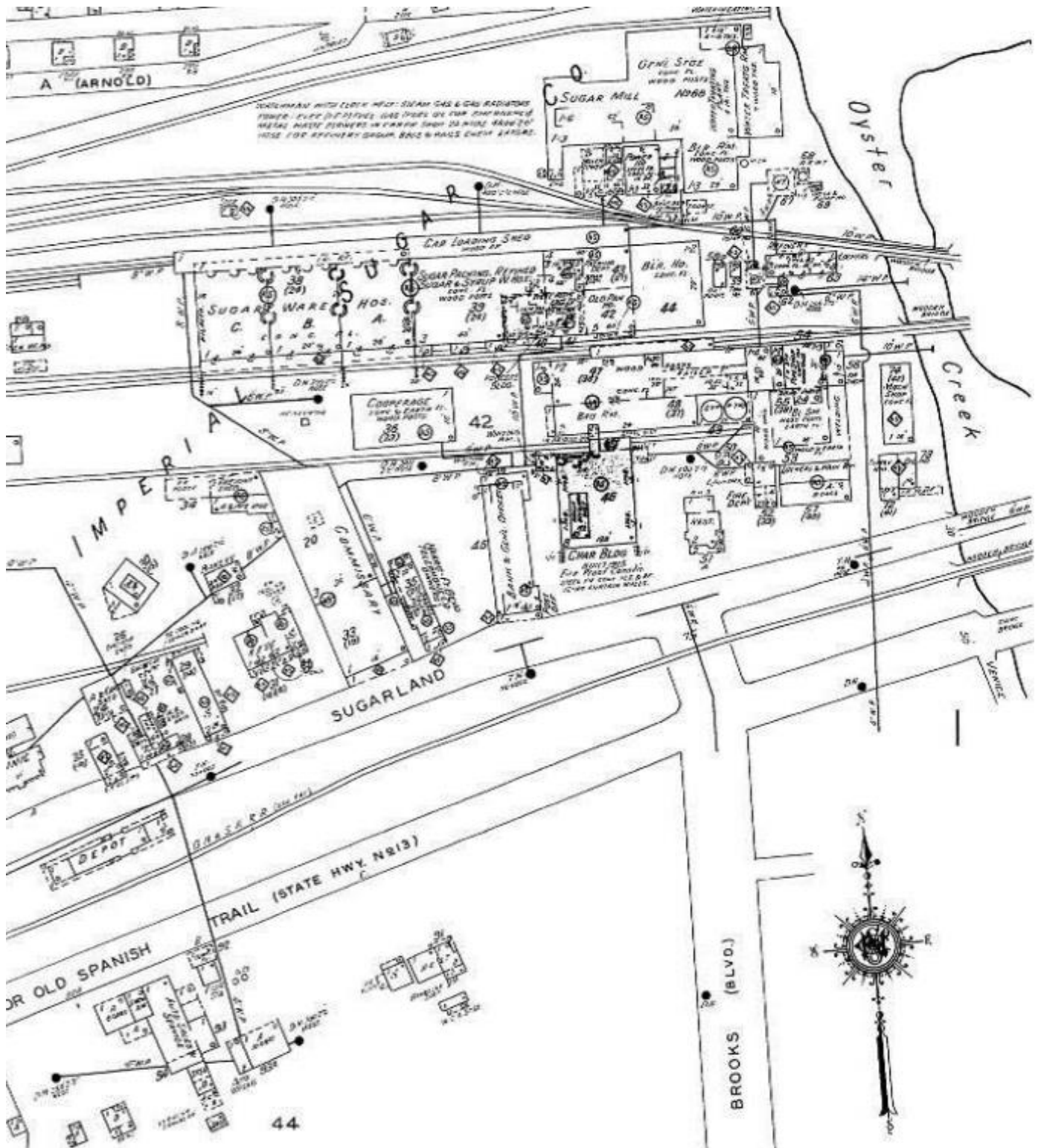


Figure 3 - 1940 Sanborn Fire Insurance map

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Figure 4 - From the intersection of Kempner & Ulrich, view northeast, c. 1900. Courtesy Sugar Land Heritage Foundation

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Figure 5 - From the east bank of Oyster Creek, view west, c. 1910. Courtesy Sugar Land Heritage Foundation.

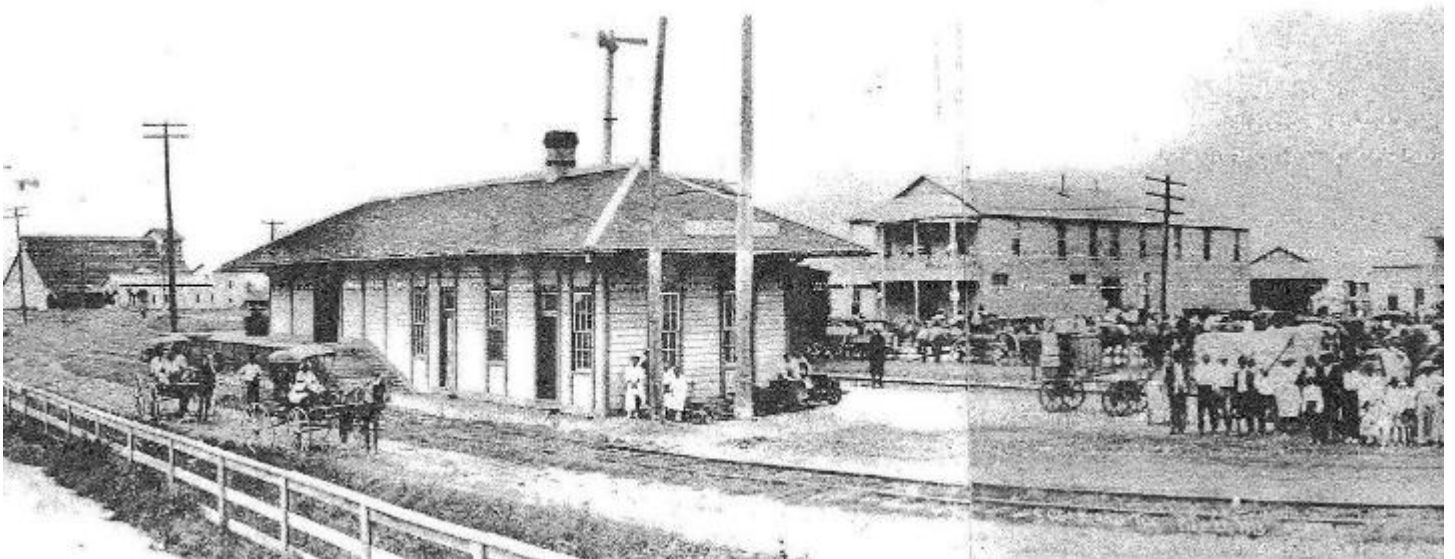


Figure 6 - Train Depot, c. 1913. Courtesy Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Figure 7 - Aerial of Sugar Land, looking south c. 1926. Char House in upper right corner. Courtesy Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

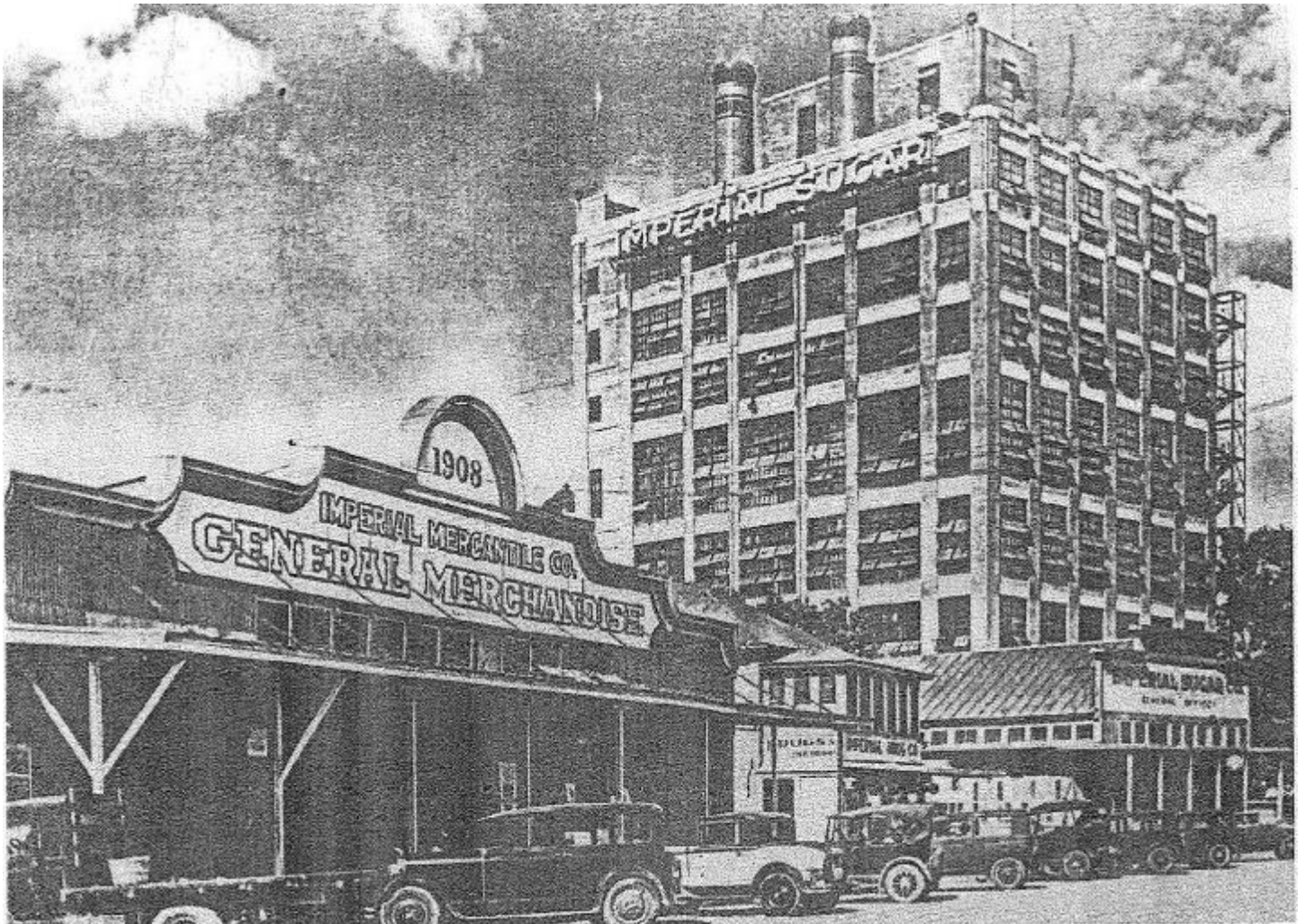


Figure 8 - 1908 General Store and 1925 Char House, c. 1929. Courtesy Sugar Land Heritage Foundation.



Figure 9 - Aerial image of the Imperial Sugar Company Refinery, c. 1953. Courtesy Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Figure 10 - During construction of a new warehouse, c. 1969. Courtesy Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Figure 11 - During construction of a new warehouse, c. 1969. Resource ID 4 (left), Resource ID 5 (center), and Resource ID 1 (right, in background) visible. Courtesy Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Figure 12 - Aerial image of Sugar Land, c. 1970, view northeast. Courtesy Sugar Land Heritage Foundation.

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 1 – Overall site, view northeast from west

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 2 – Overall site, view south from north

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 3 – Overall site, view west from east

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 4 – Overall site, view north from south

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 5 – Char House (Resource ID 1), east and north elevations, view southwest

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 6 – Char House (Resource ID 1), north and west elevations, view southeast

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 7 – Char House (Resource ID 1), south elevation, view north

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 8 – Char House (Resource ID 1), interior, view northwest

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 9 – Char House (Resource ID 1), interior, windows on the south elevation

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

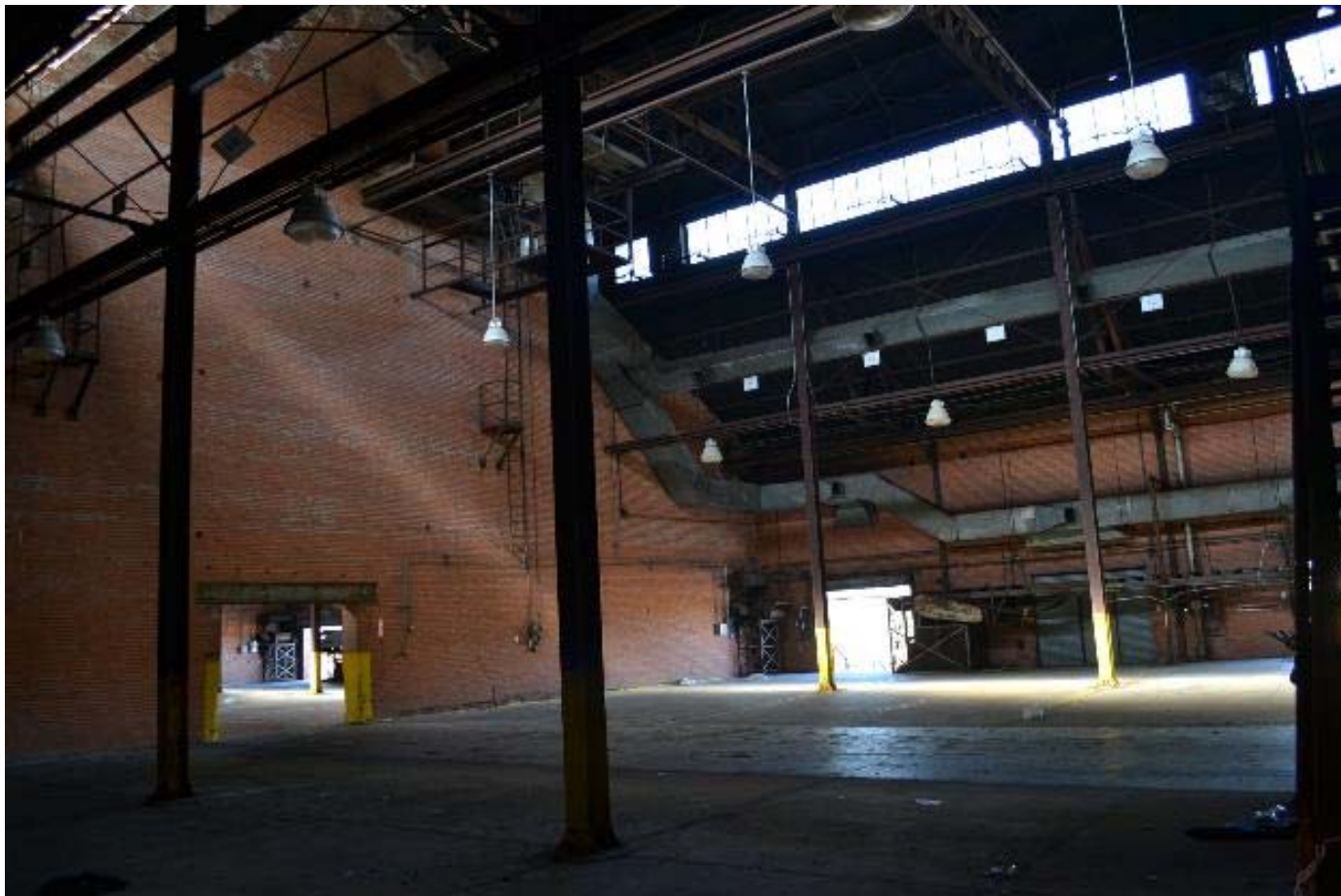


Photo 10 – 3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view northwest

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 11 – 3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view east

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 12 – 3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view west

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

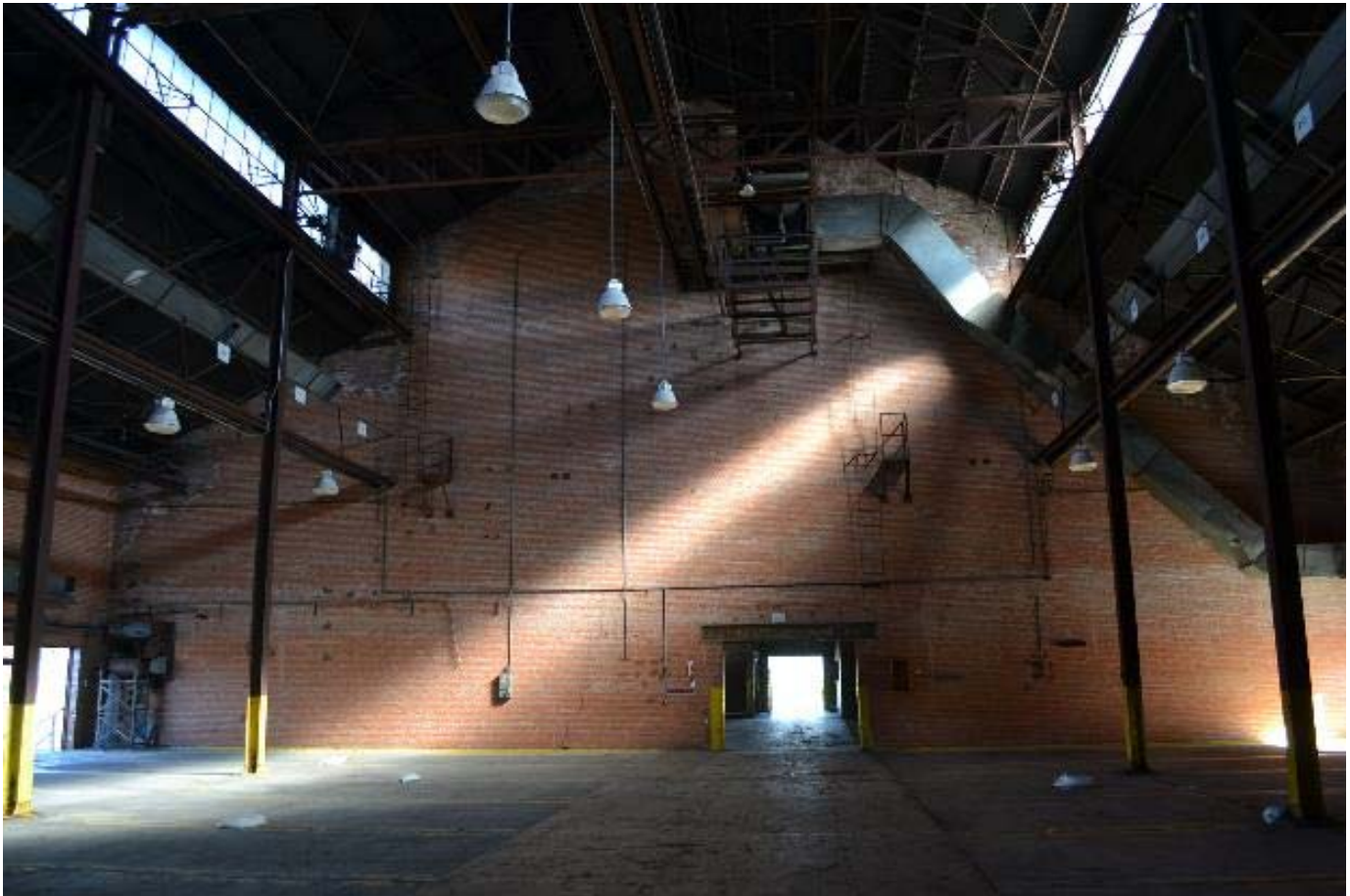


Photo 13 - 3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view east

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 14 - 3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view west

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas

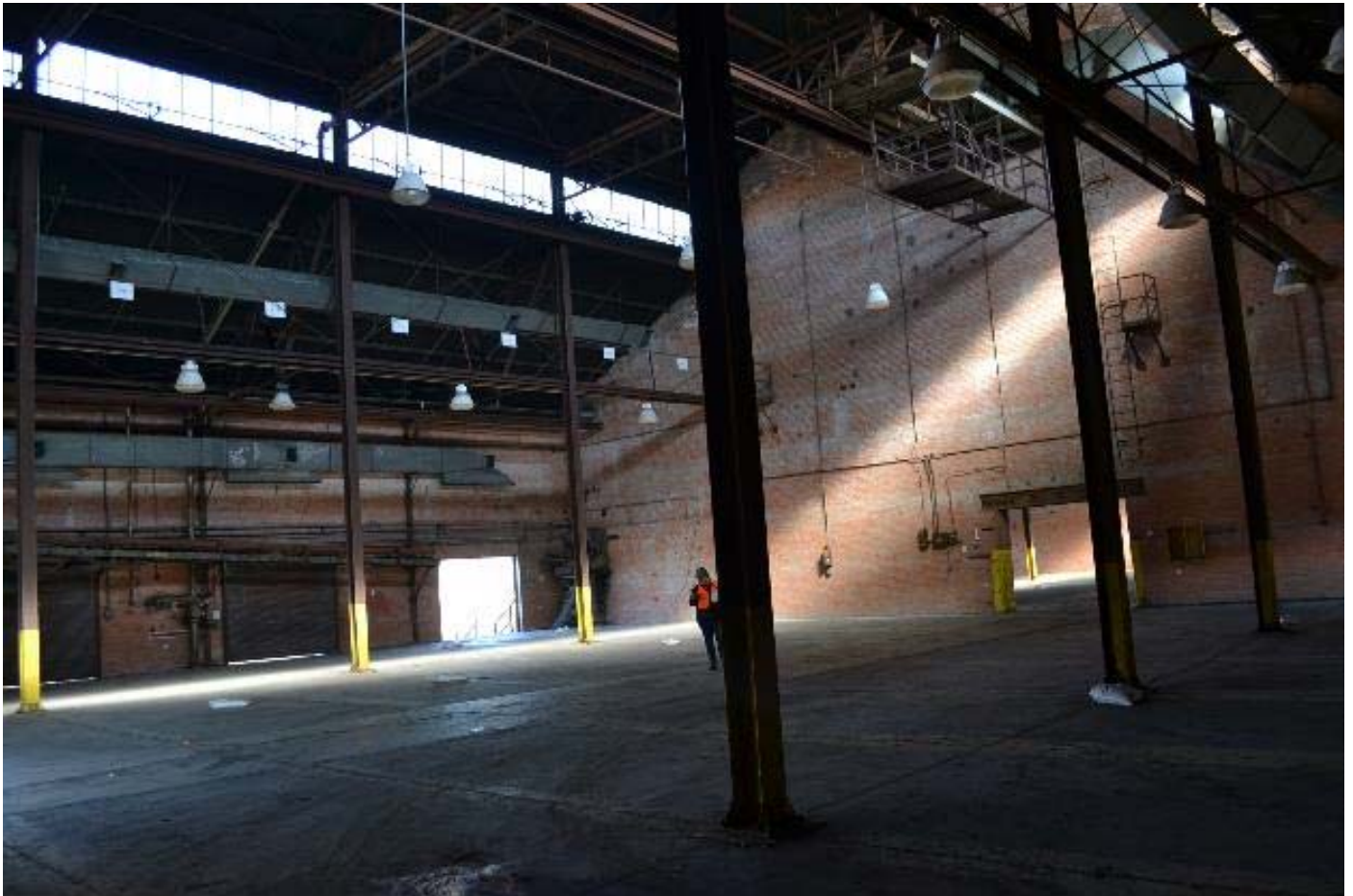


Photo 15 - 3-Bay Refined Sugar Warehouse (Resource ID 4), interior, view east

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 16 - Container Warehouse (Resource ID 5), east and north elevations, view southwest; silos (Resource ID 3) in background

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 17 - Container Warehouse (Resource ID 5), interior, view west

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 18 - Engineering Building (Resource ID 2, center), north elevation, view south

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 19 - Engineering Building (Resource ID 2), south and east elevations, view northwest

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 20 - Engineering Building (Resource ID 2), west and south elevations, view northeast

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 21 - Char House (Resource ID 1), interior, missing flooring visible, view south

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 22 - Char House (Resource ID 1), interior, missing flooring visible, view north

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 23 - Railroad tracks (Resource ID 6) in foreground, view southwest

Imperial Sugar Company Refinery Historic District, Sugar Land, Fort Bend County, Texas



Photo 24 - Covered walkway (Resource ID 7), view north from south of Engineering Building (Resource ID 2)

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