NPS Form 10-900

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

RECEIVED 2280
OMB No. 1024-0018
JUL 05 2013
NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

614

1. Name of Property

Historic Name: Seaholm Power Plant
Other name/site number: Power Plant No. 2 and Water Intake Building
Name of related multiple property listing: NA

2. Location

Street & number: 800 West Cesar Chavez Street
City or town: Austin State: TX County: Travis
Not for publication: ☐ Vicinity: ☐

1. 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 — 6/27/13
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: _____

for Edson H. Beall — 8.20.13
Signature of the Keeper **Date of Action**

5. Classification

Ownership of Property

X	Private
X	Public - Local
	Public - State
	Public - Federal

Category of Property

X	building(s)
	district
	site
	structure
	object

Number of Resources within Property

Contributing	Noncontributing	
2	2	buildings
0	0	sites
0	0	structures
1	0	objects
3	2	total

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

6. Function or Use

Historic Functions: INDUSTRY/PROCESSING/EXTRACTION: energy facility

Current Functions: WORK IN PROGRESS

7. Description

Architectural Classification: MODERN MOVEMENT: Modern Classical

Principal Exterior Materials: concrete

Narrative Description (see continuation sheets 7-8 through 7-10)

8. Statement of Significance

Applicable National Register Criteria

X	**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.
X	**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: N/A

Areas of Significance: Industry, Architecture

Period of Significance: 1950-1963

Significant Dates: 1950, 1955

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

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

Architect/Builder: Burns & McDonnell (engineers)

Narrative Statement of Significance (see continuation sheets 8-12 through 8-16)

9. Major Bibliographic References

Bibliography (see continuation sheets 9-17 through 9-18)

Previous documentation on file (NPS):
- **x** 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 #

Primary location of additional data:
- **x** State historic preservation office (*Texas Historical Commission*, Austin)
- _ Other state agency
- _ Federal agency
- _ Local government
- _ University
- **x** Other -- Specify Repository: Austin History Center, Austin Public Library

Historic Resources Survey Number (if assigned): N/A

10. Geographical Data

Acreage of Property: Approximately 2.75 acres (2.62 power plant; 0.13 water intake)

Coordinates (Latitude/Longitude)

Datum if other than WGS84: NA

	Latitude:	Longitude
1. Power Plant:	30.266524	-97.752692°
2. Water Intake:	30.265285°	-97.753051°

Verbal Boundary Description: The nominated property includes two discontiguous parcels. The power plant is located on Lot 1 Seaholm Subdivision, City of Austin, and the nomination includes the entire lot (TravisCAD property ID 807299). The water intake facility is located southeast of Sand Beach Reserve (property ID 807299) on the north shore of Lady Bird Lake, approximately 110 meters south of the power plant. The water intake facility boundary includes only the footprint of the building.

Boundary Justification: The boundaries include the property associated with the power plant where above-ground historic buildings are present. The buildings are sited on two discontiguous parcels.

11. Form Prepared By (with assistance from Gregory Smith, National Register Coordinator)

Name/title: Anna Mod, Grace Cynkar, and Roger Ciuffo (SWCA Environmental Consultants); adapted from a draft nomination prepared in 2000 by Sasha Berghausen
Organization: SWCA Environmental Consultants
Street & number: 7255 Langtry, Suite 100
City or Town: Houston State: Texas Zip Code: 77040
Email: amod@swca.com
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Date: May 2013

Additional Documentation

M**aps** (see pages 19-20)

Additional items (historic photos and plans, see pages 21-41)

Photographs (see pages 5-7)

Photographs

Photographs

Seaholm Power Plant
Austin, Travis County, Texas

Photo 1
Turbine Generator Building
South façade, camera facing north
Photographer: Historic American Building Survey (HABS), 2000

Photo 2
Turbine Generator Building
Southeast oblique, camera facing northwest
Photographed by Gregory Smith, June 2013

Photo 3
Turbine Generator Building
East entrance, South façade
Camera facing north
Photographed by Gregory Smith, June 2013

Photo 4
Turbine Generator Building
Northeast oblique, camera facing south
Photographed by Gregory Smith, June 2013

Photo 5
Turbine Generator Building
Northwest oblique, camera facing southeast
Photographed by Gregory Smith, June 2013

Photo 6
Turbine Generator Building
Third level exterior, north side
Camera facing southeast
Photographed by Gregory Smith, June 2013

Photo 7
Turbine Generator Building
Interior, Main Floor
Camera facing west
Photographed by Gregory Smith, June 2013

Photo 8
Turbine Generator Building
Interior, Main Floor from crane
Camera facing west
Photographed by Gregory Smith, June 2013

Photo 9
Turbine Generator Building
Interior, Main Floor
Camera facing east
Photographed by Gregory Smith, June 2013

Photo 10
Turbine Generator Building
Interior, Main Floor
Camera facing northeast
Photographed by Gregory Smith, June 2013

Photo 11
Turbine Generator Building interior turbine room north (left), east (center), and south (right) elevations
Camera facing east
Photographed by Clayton & Little, 2011

Photo 12
Photographed by SCWA, 2012
Turbine Generator Building
Interior entry level and turbine room partial west (left) and partial north (right) elevations
Camera facing northwest

Photo 13
Turbine Generator Building, below main floor
Camera facing east
Photographed by Gregory Smith, June 2013

Photo 14
Turbine Generator Building
Camera facing southeast
Photographed by Gregory Smith, June 2013

Photo 15
Water Intake Building north façade
Camera facing south
Photographed by Clayton & Little, 2011

Photo 16
Water Intake Building partial west (left) and south elevations
Camera facing north
Photographed by Clayton & Little, 2011

Photo 17
Water Intake Building interior pump room north (left) and east (right) elevations
Camera facing northeast
Photographed by Clayton & Little, 2011

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 any 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.

Narrative Description

The Seaholm Power Plant includes two contributing buildings: the Turbine Generator Building (Turbine Generator Building) and its associated smokestacks and boilers; and, the Water Intake Building. Non-contributing buildings include a guard booth and storage building. The one contributing object is an in-place flagpole. The power plant is roughly bordered by Lady Bird Lake to the south, a Missouri Pacific Railroad line to the west, West 3rd Street to the north and the western boundary of an electric substation to the east. The two contributing buildings are site-cast concrete and built in the Art Moderne style. The complex, constructed in two phases in 1951 and 1955, was once a major component of the City of Austin's power generation system. This 1950s complex supplemented and ultimately replaced an adjacent nineteenth century power plant now at Power Plant No. 1, located to the east (Historic Photo 6). The Seaholm Power Plant generated power here until 1989 and has since been vacant and used intermittently for special arts and music events. The site has concrete and asphalt parking areas and sidewalks, a front entry drive and a small, metal clad guard booth that dates from the early 1970s. Other significant site elements include an aluminum flagpole on the front lawn and possibly some of the original landscaping. The entire complex is vacant and surrounded by a secured chain link fence.

Turbine Generator Building

The primary or south facade of the Turbine Generator Building faces south toward Lady Bird Lake atop a gently sloping grass hill in an urban area just southwest of Austin's Central Business District (Photo 1). This symmetrical, three bay facade follows a regular A-B-A pattern defined by the regular fenestration of two levels of industrial type windows punctuated by two monumental entry portals that project slightly from the building plane. There are low wings that project from the east and west, both much smaller than the first floor level of the main building. From the exterior, the building appears to be three stories composed of a two-story horizontal mass and a smaller third floor clerestory level that steps back from the parapet. All first floor windows on the principal facade are 14-lite fixed units, two lites wide by seven lites tall with an operable awning sash near the center. The second floor windows are similar and two lites wide by six lites tall with one operable awning type window. The first floor windows sit on the water-table with no sill; the second floor windows have cast stone sills. Between the first and second floor windows are corrugated concrete spandrel panels. The only asymmetrical elements on the primary facade are two rectangular concrete air intake vents located at the middle and west ends of the building that supplied air to the two subgrade basement levels. Original Art Moderne style graphics are extant on the building on top of the metal aluminum clad canopies. Atop the west entry canopy the letters spell "Light," while the east entry says "Power." Above each canopy is a large glass block panel with an aluminum graphic that reads "City of Austin" and displays a stylized, inverted lightning bolt symbolizing the building's power generating function. On the east entry is a metal plaque from the 1960 ceremony dedicating the plant to Walter E. Seaholm.

The first construction phase, completed in 1951, included only the easternmost entry portal and its three flanking window bays (Historic Photos 1-2). By 1955 the building had been expanded and more than doubled in size. A mirror image of the first phase was added to the west plus two additional window bays in the center for a total of 14 vertical window openings (Photos 6-7).

The upper portion of the west elevation looms prominently above busy Lamar Boulevard. The low 1972 addition is obscured, but the stacks, boilers, and overall building profile are clearly visible above the railroad tracks. There are no window openings on the west elevation. Near the cornice line are the same Art Moderne style aluminum letters as seen on the other elevations, here maroon in color and spelling "City of Austin Power Plant" (Photo 5 and Historic Photo 8). These graphics are illuminated red at night.

The east elevation continues the same scored and fluted concrete vocabulary seen on the principal facade. This elevation introduces several window variations from the primary facade in addition to a shift of the corrugated concrete spandrel panels from a vertical to a horizontal orientation (Photo 6).

Five large boilers and stacks dominate the north elevation (Photo 5). On this side of the building the railroad track bifurcates, sending a spur directly into the Turbine Generator Building through an overhead rolling steel door on the northeast corner. This railroad track is extant yet no longer active (the track to the west is still in active use and passes to the north and west). The four easternmost boilers served generators #5 through #8 (the nineteenth century power plant contained boilers #1 through #4) and are identical in appearance. The stacks for boilers #7 and #8, added five years later, are taller and thinner than the two original stacks that served the two generators housed in the 1951 portion of the Turbine Room. Each stack is on an octagonal concrete pad north and center of its associated boiler and connected to the boiler via large rectangular metal clad ducts, installed in the early 2000s as part of the hazardous material abatement. The boilers were originally clad in asbestos insulation contained within a woven wire mesh, plaster, and canvass, all painted a light color.[1] When the asbestos was removed, the mesh was replaced with the aluminum skin seen today.

A steel superstructure of valves, ladders, stairs, catwalks, and great lengths of piping infrastructure is located above and around each boiler (Photos 5-6). Pipes travel through holes, much larger in diameter than the pipes themselves, often penetrate the interior concrete walls of the Turbine Generator Building. Asbestos sheeting filled the gap between these pipes and walls. Paired metal clad doors are surmounted by industrial type, metal framed multi-light windows. The ground between the boilers contains pipe trenches covered with removable concrete slabs.

There was a concrete masonry unit (CMU) "Gun House" between boilers #7 and #8 used to maintain the fuel injectors ("guns") for the boilers. This CMU addition was not original to the building and was removed at an unknown date (most likely during the hazardous material abatement in the early 2000s). The most western boiler, #9, is different in appearance and type from the other four. It is known as a "hanging" boiler as opposed to its ground mounted counterparts. The attached flue stack is larger in diameter than all the others and despite being set farther north than the other stacks, which have an east-west alignment, it matches the height of stacks #7 and #8. To the west of boiler #9 is a low addition completed in 1972. Between this addition and base of boiler #9 is a small, shed roofed concrete block infill addition added in 1987 that necessitated the removal of two windows at Boiler #9's base.

Turbine Generator Building – Interior

The building interior is four levels: Intake-Level 1, Entry-Level 2, Turbine-Level 3, and Mezzanine-Level 4. The interior is dominated by the Turbine Room, an immense, rectangular plan, two-story undivided space 100 feet wide, 270 feet long, and 50 feet high (Photos 7-8). Each southern entry portal leads into a double-height stair lobby leading to the office block, located along the mezzanine level of the Turbine Generator Building. The staircase and entry lobbies of this section of the building are more elaborately detailed as opposed to the more functional design of the operational part of the building. A red clay tile base surrounds the perimeter of the stair lobby. An aluminum stringer course, similar in material used on the exterior canopy, details the staircase, while the stair rail is made of extruded aluminum. The stairs have a landing above the aluminum entry doors, situated just below the back side of the glass block light and aluminum text. At mezzanine level, the stair opens directly onto the open floor area with railing returning back to the stairwell wall. The glass block and lightning bolts at the two entry portals remain visible from the mezzanine level. The stair lobbies enter directly onto the Turbine Room floor through a set of steel full-lite doors with transoms above that mimic the aluminum entry doors.

The Turbine Room is an impressive volume of undivided space. Various openings to lower levels exist in the bare concrete floor that was previously covered with vinyl composition tile (VCT). The Turbine Room is generously lit with natural light from the clerestory windows along the north and south walls as well as from the windows on the east elevation. The elevator penthouse on the north lower roof and the boilers obscure some of the clerestory windows. Three

[1] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.

large square openings cut into the floor between the generators provide views into two lower levels that contain numerous concrete columns supporting floor slabs as well as concrete supports for the now removed turbines (Photo 7).

Engaged rectangular columns in a regular pattern line the north and south walls of the Turbine Room and support the crane runway above for the 75-ton gantry crane (Photo 8). Topping each engaged column is a concrete roof beam supporting the concrete roof deck and built-up roof. A central concrete spine runs down the center of the perforated metal panel ceiling at the gable peak, helping to make the ceiling appear like the ribbing of a boat hull. Along the south face of the Turbine Room at the fourth floor are the mezzanine level administrative offices with a view of the Turbine Room floor below. The control monitors were located along the north side of Turbine Hall.

Water Intake Building

The Water Intake Building is south of West Cesar Chavez Street along the banks of Lady Bird Lake (Photos 1-3). Its construction system and design vocabulary, both inside and out, are similar to the Turbine Generator Building. This building was also built in two phases coinciding with the 1951 construction and 1955 expansion of the Turbine Generator Building. The original 1951 Water Intake Building contains only four sluice gates (two each for generators #5 and #6). With the addition of generators #7 through #9, the Water Intake Building was extended to the west to accommodate six more sluice gates and pumping gear.

Much of the north elevation is obscured by large live oak trees and a public hike and bike trail that runs along this elevation. The east and west elevations have three, two-over-seven divided light windows set within slightly indented vertical bands that span from the water to the parapet. The east and west elevations maintain the same scored concrete vocabulary as the other two elevations yet the composition is a horizontally divided panel instead of vertical divisions. A steep metal stair on the west elevation leads to a concrete walk just above the lake's water level on the south side.

The south elevation rises two stories above the water. At the water level are the sluice gates nestled below the concrete walk. The two phases of construction are apparent in a double-wide wall separating the indentations for pumps #6 and #7. Down the center of each indentation runs a metal rod, from the floor above and held in place by two metal bearings, that opens the sluice gates. Above each rectangular indentation is a two-over-seven divided light window. Like the east and west faces, these windows are placed within a vertical indentation running from the parapet topped with a pre-cast concrete coping, above, to the rectangular indentations below.

To the east of Seaholm's Water Intake Building is a small, four-bay building very similar in detailing. This building served the Green Water Treatment Plant and was never an operating component of the Seaholm Plant and only shared a retaining wall. The Green Water Treatment Plant was previously located to the east and across Shoal Creek from the Seaholm Power Plant. It opened in 1925 and in 1969 it was posthumously named in honor of Thomas C. Green, the plant's first chemist. In August 2005, Austin City Council approved the relocation of the Thomas C. Green Water Treatment Plan and it was decommissioned in 2009. Plans for the redevelopment of this site are in process. There is a free standing EFIS-clad (exterior insulation finishing system) building directly to the northeast that dates from the last decades of the twentieth-century.

The interior of the Water Intake Building has a similar large interior rectangular volume as the Turbine Room of the Turbine Generator Building. It also has similar engaged rectangular piers that support the rails of a 5 ton beam crane. Cooling water for the steam condenser was drawn into the Water Intake Building and then passed through screens to remove lake water debris. The screens, linked in a belt like a chain, were moved by the drive mechanisms located above on the south side of the main floor. The water was then pumped to the Turbine Generator Building through 42-inch diameter pipes (#9 had 54-inch pipes) by the massive pumps at the bottom of the sump pits. After cooling the steam that spun the turbines, the water was discharged into Shoal Creek. The Water Intake Building retains a substantial degree of

integrity. None of the external elements has been compromised; the only major alterations are the replacement of the four traveling water screens for generators #5 and #6 with newer units.

Guard Booth

The Guard Booth is to the west of the concrete driveway off of W. Cesar Chavez to the south of the Turbine Generator Building. This small and modest metal building has lower metal panels with 1/1 aluminum framed sash window above and a flat roof. The design is purely functional to allow a guard to have a 360° view. There is a single door opening on the south elevation. The guard booth dates to ca. the mid-1970s and is in poor condition. It is considered a non-contributing resource.

The following is a list of the resources included in the Seaholm Power Plant National Register nomination:

Name	Classification	Construction date	style	Contributing or non-contributing (C or NC)
Turbine Generator Building	Building	1951, 1955	Art Moderne	C
Water Intake Building	Building	1951, 1955	Art Moderne	C
Guard booth	Building	c. 1975	No Style	NC
EFIS clad building	Building	c. 1985	No Style	NC
Flagpole	Object	c. 1955	No style	C

As of March 2013, masonry entry gates of the previous plant located adjacent to the current complex were still extant and are scheduled for relocation elsewhere on the site. The complex system of piping and subgrade infrastructure that provide an additional underground element between the Turbine Generator Building and Water Intake Building remain intact.

Statement of Significance

The Seaholm Power Plant in Austin, Travis County, Texas, was designed by the nationally-recognized Kansas City engineering firm Burns & McDonnell, and constructed in two phases (1951 and 1955) to serve the expanding needs of the city. The complex was built immediately to the west of an earlier city power plant and identified on engineering drawings as "Power Plant No. 2." In June 1960, the City of Austin renamed the facility in honor of the late Walter E. Seaholm, a prominent figure in the administration of Austin's municipal utilities from the 1920s until the mid-1950s. The Seaholm Plant is an outstanding example of the Art Moderne architectural style and shares many design elements of the design firm's other designs for municipal waterworks and powerhouses of the 1930s through the 1950s. Typical of Burns & McDonnell designs, great attention was paid to the massing, scaling, and detailing of Seaholm. This Austin example differs slightly in that it is constructed entirely of site-cast concrete while their other plant examples were of brick cladding over concrete or steel structural systems. The Seaholm Power Plant is nominated at the local level of significance to the National Register under Criterion A in the area of Industry for its association with energy production in the growing city, and Criterion C in the area of Architecture and as an excellent example of late Art Moderne design applied to a concrete electricity-generating plant.

Electric power arrived in Austin in 1893, and the city has owned its own generation and distribution system ever since.[2] In 1927, however, municipal ownership of the power plant was jeopardized when Texas Power and Light Company (TP&L) made a bid to purchase Austin's municipal utility, claiming they could operate it more cheaply than the city. Walter E. Seaholm, then working as Superintendent of the Electric Department (1922-1933), proved the TP&L engineers wrong by demonstrating more economical operation of the plant than the engineers thought possible, thus ending TP&L's bid to purchase the municipal utility.[3] The dedication plaque on Seaholm's east entry acknowledges Walter E. Seaholm's important role in the "preservation of this city's ownership of its electrical system…."

In 1948, when the Seaholm Power Plant was commissioned, Austin was a town of nearly 132,000 people. World War II and post-war shortages meant the city had not upgraded its infrastructure since 1940 when its population was just 87,930.[4] Not only did a larger population mean greater demand for electricity, but so too did lifestyle changes and an appetite for new postwar devices such as air conditioning, televisions, washing machines and dish washers.[5] In addition to meeting Austin's increased demand for electricity, the new Seaholm Plant also served as the home of the entire municipal electric department.

Walter E. Seaholm

Walter E. Seaholm served as Austin's Director of Utilities from 1945-1950. During this five year period, the city commissioned Burns & McDonnell to design the first phase of the Seaholm Plant. During the second construction phase, Seaholm was the City Manager (1950-1955). Previously he served as the Director of Utilities from 1934 until 1942 and stepped up as the Acting City Manager from 1942 until 1945 while Guiton Morgan (appointed) was called to duty in World War II. In addition to Walter E. Seaholm's 1927 stand against TP+L, he is recognized for his ingenuity during the Colorado River flood of June, 1935, which knocked out the city's power and drinking water. He obtained power by patching into TP+L's system and established an emergency drinking water pump.[6]

[2] "Municipal Power Plant Serves Double Purpose," *Austin American-Statesman* (29 January 1958).
[3] "Seaholm Previously Victorious," *Austin American-Statesman* (26 January 1955).
[4] Reference Desk, Austin History Center, Austin Public Library.
[5] Jack Cashill, *A Century of Excellence: Burns & McDonnell*, 1998.
[6] "Power Man Seaholm Never Blew a Fuse," *Austin American-Statesman* (25 April 1948).

Walter E. Seaholm graduated from The University of Texas at Austin in 1920 with an electrical engineering degree after World War I interrupted his studies. In addition to his civic service, he served as President of the Texas Society of Professional Engineers, and a member of the Ex-Students Association of UT, the Kiwanis Club, and of Child and Family Services. In 1953 he was recognized as "Engineer of the Year" by the Texas Society of Professional Engineers, Travis Chapter, and named "Mr. Front Page of the Year" by the *Austin-American Statesman*. His tenure serving the city ended in 1955 when a 3-2 vote in City Council ousted him as City Manager.

Burns & McDonnell

By 1948 Burns & McDonnell had established themselves as the nation's foremost experts on municipal power plant design.[7] Co-founder Robert E. McDonnell was a prolific contributor to trade journals, writing articles that championed public ownership of utilities. He believed municipal ownership was the only way of ensuring quality electrical service over profits, thus earning the reputation as the nemesis of privately held electric companies. McDonnell served as a Congressional advisor under President Franklin D. Roosevelt,[8] and also advocated municipal utilities as an effective revenue generator for cities; indeed, Seaholm made money for the City of Austin. So much so that city leaders were often tempted to raid Seaholm's expansion funds for contributions to the General Fund.[9]

Burns & McDonnell began in 1898 and by their 25th anniversary in 1923 they had designed 232 water works, 115 sewer systems, and 87 lighting plants. By their 50th anniversary in 1948, the same year Burns & McDonnell was hired by Austin to design Seaholm; Burns & McDonnell had billed a total of $664 million. Their focus on water and sewage plants shifted in favor of power plants and by 1948 over 50% of their revenues was from lighting and power plant design. In its first fifty years Burns & McDonnell had completed projects in 854 American cities in 45 states. Still operating out of its Kansas City headquarters, Burns & McDonnell now has international offices and its services include architectural and consulting services. In addition to water, sewer, and power plants, their completed work includes airport terminals, hangars, runways, roads, parking facilities, warehouses, bridges, dams, power distribution systems, and chemical processing plants.[10]

Part of Burns & McDonnell's pre-World War II success can be attributed to the 1936 passage of the Rural Electrification Act, initially passed by Congress to subsidize construction of power distribution systems to rural areas, such as Texas' Hill Country, and later interpreted to support governmental assistance in the construction of power generation facilities. The government only subsidized municipal or cooperative utilities through the formation of the Rural Electrification Administration (REA). Private utility companies received no subsidies. With an extensive portfolio of municipal work and a founder who espoused public ownership, Burns & McDonnell was poised to garner many of the municipal contracts for new electrical work nation-wide following formation of the REA.

Burns & McDonnell's Seaholm Plant is unusual in that all of their other pre-1950 powerhouse and waterworks projects are masonry construction. Only one other, a brick-clad powerhouse in Wallingford, Connecticut, was partially made of concrete: it has a concrete structural frame.[11] Constructing a powerhouse with a daunting array of plumbing penetrations

[7] Ibid.
[8] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.
[9] "Full Text of Seaholm's Last Address to Council," *Austin American-Statesman* (10 February 1955).
[10] Jack Cashill, *A Century of Excellence: Burns & McDonnell*, 1998.
[11] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.
[12] Ethel S. Wonderly, personal interview, 20 May 2000, by Sasha Berghausen.
[13] Ibid.
[14] Ethel S. Wonderly, personal interview, 20 May 2000, and Dave Ege, personal interview, 27 March 2000 by Sasha Berghausen.

entirely of site-cast concrete meant that every pipe breech in the concrete floors, walls and roofs had to be designed and accounted for. If a structural steel frame with masonry cladding were used instead, the designers only needed to check the shop drawings for conflicts between piping and the steel; brick masons could then simply brick around pipes as they clad the frame.[12] Seaholm's exclusive use of concrete, however, made for the most elaborate set of shop drawings ever seen by one of Burns & McDonnell's civil engineers.[13] A former mechanical engineer and an architect for Burns & McDonnell claims that Seaholm used a concrete frame because war shortages, associated with the aftermath of World War II and the coming of the Korean War, resulted in long delays for structural steel orders.[14] There is some speculation that political interests in Austin drove the decision, or perhaps the use of concrete was associated with another large-scale civic project at the time, like dam construction.

Seaholm is a semi-outdoor plant type, popular only in temperate climates, particularly the south.[15] With its boilers outside, exposed to weather, and its generators housed within a building, Seaholm is representative of a powerhouse type that compromised ease of boiler maintenance in favor of cost savings, avoiding a covering for the massive boilers. Not many years after Seaholm was constructed, powerhouse construction became characterized by either completely outdoor boilers and generators, such as Austin's Decker Creek Plant (1977), also designed by Burns & McDonnell, or enclosed powerhouses clad only in corrugated metal panels.

Seaholm housed five Westinghouse hydrogen-cooled turbine generators. Phase one housed two 20 megawatt generators, #5 and #6, to augment the 24 megawatt output by generators #1 through #4 in the old powerhouse. Before completion of the first phase, however, plans were made for expansion, indicated by the temporary masonry infill in the west wall shown in the as-built drawings. The expansion in phase two originally housed only #7 and #8, two additional 20 megawatt generators, and included space for the addition of a larger, 40 megawatt unit. Walter E. Seaholm was particularly proud of the cost-savings incurred by planning ahead for the addition of Unit #9.[16] It was not unusual for a city's load profile to double every 7 to 10 years. Typically the extra capacity was accommodated by simply doubling the generator output at some point. In Austin's case, they jumped from 20 megawatt units to a 40 megawatt generator. Once generators got bigger than approximately 25 megawatts, the larger boilers required (#9, for instance) became more efficient if they were "hung," expanding downward when hot rather than upward, like the ground-mounted boilers #5-#8.[17]

Seaholm was built with ash pits under Boilers #5 and #6, although they were never used because #5 and #6 never fired with coal.[18] The Oil Heating Building and four underground tanks allowed Seaholm to run on No. 6 crude oil, yet it was fired primarily on natural gas. Accommodating the ability to burn three types of fuel was typical, for the REA required all subsidized plants to be designed with flexibility.[19] The Texas REA-funded plants in San Miguel and the Brazos Electric Cooperative's Miller Plant were the first to convince the REA to relax the restriction that boilers be suitable for conversion to coal firing.[20] In short, there was nothing at all remarkable about Seaholm's power generating technology, yet the sheer scale of its boilers, generators and the Turbine Generator Building is impressive and symbolic of post World War II optimism, growth and prosperity in Central Texas and an excellent example of a typical post-war power plant.

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[15] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.
[16] "Full Text of Seaholm's Last Address to Council," *Austin American-Statesman* (10 February 1955).
[17] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.
[18] Ibid.
[19] Ibid. According to Harold Wonderly (as reported by Ethel S. Wonderly), however, Seaholm was *not* a REA project.
[20] Ibid.

Architectural Significance

The Seaholm Power Plant meets National Register Criteria C in the area of Architecture as an outstanding late example of Classical Modern design, frequently utilized throughout Texas for public buildings during the 1930s and 1940s, but applied with less frequency into the early 1950s. Buildings of this style are often categorized as "Art Deco" or "Art Moderne," terms derived from Paris's *1925 Exposition Internationale des Arts Decoratifs et Industriels Modernes*, which is commonly (but imprecisely) used to describe a diverse assortment of "modernistic" art and architectural styles of the 1920s through the 1940s. The power plant's appearance is a combination of fairly traditional design concepts with elements of the modern vocabulary common in public buildings designed and constructed in the 1930s and early 1940s through various New Deal programs. A modernistic appearance was commonly achieved by utilizing a geometric, stylized form of ornamentation in place of a more literal interpretation of historicist design. This approach was applied to formal design components, such as columns and cornices, as well as in limited areas of applied decoration, often in the form of low-relief sculptural carvings and flattened moldings. Industrial buildings designed in this style achieved a novel and modern appearance even when the interior plans and functions remained utilitarian. The style was an especially popular choice for public architecture because it evoked progress without completely abandoning the familiarity, solidity and monumentalism of classical idioms. While most buildings of this type date to the 1930s and early 1940s, many architects and designers in the immediate post-World War II era (through the early 1950s) returned to a minimalist Modern Classical style, often simplifying ornament and detailing even further than was common in the 1930s, or eliminating it entirely. The Seaholm Power Plant is an excellent example of this trend, featuring an abstracted temple form set back from the street, rectangular block massing, flat roofs, and stacked windows between pilasters, but lacking ornament except for the modernistic metal text and lightning bolt motifs at each entry pavilion on the south elevation. The classical orders are reduced to plain piers; the building lacks a pediment. The power plant represents the latter days of the Modern Classical style, constructed entirely in the 1950s but with characteristics more commonly found in prewar buildings.

Although a "power plant" would suggest an unadorned, functional design, Seaholm is thoughtfully scaled and detailed. The form work for much of Seaholm's exterior walls was constructed using wood battens nailed to plywood such that the large concrete exterior walls have a scored pattern of 4-foot by 4-foot panels. This panelized system indicates the designers gave careful consideration to proportioning the elevations of Seaholm, breaking down the immense scale of the large powerhouse into a rational composition of elements more closely related to human scale. While these panels retain the imprint of the wood grain from the plywood form work, other regions of Seaholm utilize smooth corrugated surfaces (for the spandrel panels), or flat rubbed concrete (for the entry surrounds), portraying a skilled manipulation of the material by the designers and craftsmen.

Burns & McDonnell's work displays a certain level of consistency, beginning with the Art Deco styled Cincinnati waterworks plant built in 1938, which carries through to Seaholm (see photo, p. 21). Cincinnati established the precedents seen on Seaholm of rectangular massing culminating in parapets capped with concrete coping. At its base, the water-table is also concrete, and its face sits forward of the building's brick exterior. To either side of the celebrated entry "portal" (which is quite similar to the entry on the 1932 Fort Collins, Colorado, power plant) are fluted concrete spandrel panels. Lakeside Station, located in Springfield, Illinois, and built in several phases in the 1930s through 1950s establishes a vocabulary for expansion also observed in the two phases of Seaholm (see photo, p. 22). The original phase became subsumed in a larger building that created a unified composition of two entries located within celebrated "portals" on either side of a symmetrical facade. Lakeside also has recessed, vertical bands of windows and is labeled with Moderne style supergraphics. Such stylized graphics, a remarkable feature of Seaholm, seem to have been a Burns & McDonnell specialty. Two brochures prepared by Burns & McDonnell, one in the early 1940s and a second in 1948 are both labeled with Moderne text (see photo, p. 23). Supergrahpic signage on Burns & McDonnell plants can be observed as early as 1938 in McPherson, Kansas, or 1937 in Kalamazoo, Michigan (see photo, p. 23). Illuminated supergraphics for dramatic night-time lighting appear in 1937 in Kansas City and in the 1950s in Sibley, Missouri. But only Seaholm seems to have merged all three concepts together: Moderne supergraphic text that is dramatically illuminated both on the west elevation

and above each entry in the principal facade. In fact, Seaholm appears to be the culmination of all previous Burns & McDonnell powerhouse and waterworks designs, synthesizing all elements, including the use of glass block windows in addition to the other elements listed above, that are characteristically modernistic. Seaholm is arguably the only Burns & McDonnell plant in which a merging of all the critical modernistic design elements has been synthesized into a single building.

The architectural drawings of Seaholm list the initials of the designers and detailers responsible for the design. The principal designer for the first phase is indicated as Ralph M. Mitchel (R.M.M), who was the Chief Architect of Burns & McDonnell. He was assisted by detailer Ethel Sklar (E.S.), a woman and registered architect. Ms. Sklar (now Mrs. Wonderly) thinks she was responsible for the sign designs and recalls that a subcontractor by the name of Kansas City Ornamental Iron (she thinks) did all sign subcontracting for Burns & McDonnell.[21] Harry A. Lind (H.A.L.) also completed further detailing. All of the design for the expansion of the Turbine Generator Building in phase two is credited to Keith Edwards (K.E.), who became the Chief Architect of the Power Division.[22] Expansion of the Water Intake Building was designed by Andy A. Zahner (A.A.Z.), who later became the chief HVAC engineer after returning to school for his engineering degree. Leo D. Boswell assisted Zahner in the design. Two detailers are also listed: Jack Avery (J.A.) and the unidentified R.R.F.

The only addition attached to the original building is the truck loading dock and offices on the west, designed in 1972 by Simpson Associates, Inc. In 1987 Parshall and Associates designed the small concrete block infill between the loading dock addition and Boiler #9, removing two windows from the original concrete block base supporting Boiler #9. The asbestos abatement removed all of the pipe insulation. The wire mesh, plaster, and canvas that originally covered the asbestos insulation wrapping of the boilers was also removed and replaced with metal panels.[23]

Seaholm put its last watt of power on the grid in 1989. By that time, running the plant reportedly cost more than the city could charge for the electricity Seaholm could produce. It could no longer compete with the much larger, more efficient Decker and Holly Plants.[24]

The Seaholm Power Plant retains a high degree of integrity in its location, setting, design, materials, workmanship, association and feeling. Its original site remains relatively unaltered; the old power plant that was to the east was demolished in the early 1960s and an outdoor electric substation erected in its place. Two of the brick entry gate posts remain on the site from the previous power plant. The Seaholm Power Plant Complex remains a prominent Austin landmark on the shores of Lady Bird Lake.

[21] Ethel S. Wonderly, personal interview, 20 May 2000, by Sasha Berghausen.
[22] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.
[23] Dave Ege, personal interview, 27 March 2000, by Sasha Berghausen.
[24] Harold Reynolds, personal interview, 27 March 2000, Sasha Berghausen.

Bibliography

"Backstage, Walter Seaholm Made History for Austin." *Austin American-Statesman*, 15 June 1969. The newspaper articles from the *Austin American-Statesman* are conveniently gathered in the public utilities Austin Files at the Austin History Center, Austin Public Library.

Cashill, Jack. *A Century of Excellence: Burns & McDonnell*. 1998. This text, published by Burns & McDonnell in commemoration of its 100th anniversary, was invaluable in describing the founding of the firm and significant projects throughout its history. It also gives a general account of the political climate of the power industry as well as an account of America's evolution of dependency upon electricity.

"City's New Power Generating Plant to be Opened to the Public Sunday." *Austin American-Statesman*, 3 May 1956.

Ege, Dave. Burns & McDonnell. Personal telephone interview. 27 March 2000. Mr. Ege was an engineer for Burns & McDonnell when the first phase of Seaholm was designed. Although he is retired, he remains active with the firm at its headquarters and provided significant advice on technical issues pertaining to Seaholm and powerhouses in general.

"Engineering Society to Honor Walter Seaholm with Dinner." *Austin American-Statesman*, 24 February 1953.

"Freelance." *Austin American-Statesman*, 11 February 1955.

"Full Text of Seaholm's Last Address to Council." *Austin American-Statesman*, 10 February 1955.

McComas, Mike. Burns & McDonnell. Personal telephone interview, 23 March 2000. Mr. McComas is an engineer with Burns & McDonnell's St. Louis office and is presently the most senior engineer (non-retired) in the Energy Division.

Minutes, City of Austin City Council, September through November, 1948, pg. 1055. Although the *Minutes* could be a potentially useful source listing when the city accepted Seaholm, as well as contract prices and contractors, they are difficult to use because they are not indexed.

Minutes, City of Austin City Council, October through December, 1954, pp. 798-799.

Municipal, vol. 4, nos. 16-17 (December 1956-January 1957).

"Municipal Power Plant Serves Double Purpose." *Austin American-Statesman*, 29 January 1958.

Operating and Maintenance Instructions, Combustion Engineering-Superheater, Inc., February 21, 1952. Austin Energy has many of the operating manuals, which list specifications for Seaholm's equipment, in its corporate library.

"Power Man Seaholm Never Blew A Fuse." *Austin American-Statesman*, 25 April 1948.

Reynolds, Harold L. ,Jr. Fire & Emergency Specialist, Austin Energy. Personal interview, 27 January 2000. Mr. Reynolds is the only Austin Energy employee currently on-site daily at Seaholm and is responsible for leading tours of the plant.

San Miguel, Rose. Project Manager, Technical Services, Austin Energy. Personal interview, 11 May 2000. Ms. San Miguel is responsible for overseeing the decontamination and remediation of Seaholm prior to its rehabilitation.

"Seaholm Episode." *Austin American-Statesman*, 14 January 1955.

"Seaholm Previously Victorious." *Austin American-Statesman*, 26 January 1955.

"Seaholm Selected." *Austin American-Statesman*, 14 April 1942.

"Seaholm Sparks Short Circuiting." *Austin American-Statesman*, 1 October 1954.

"Shortage of Engineers Emphasized at Dinner Honoring Walter Seaholm." *Austin American-Statesman*, 25 February 1953.

Wonderly, Ethel S. Personal telephone interview. 27 March 2000. Mrs. Wonderly (formerly Ethel Sklar) was a registered architect working as a Designer for Burns & McDonnell from 1943 through 1976. She is listed as a "Detailer" on the original drawings of Seaholm, Phase One, and provided many of her personal memories of working on the plant in a tape-recorded phone interview that has become part UT Austin's Alexander Architectural Archives (along with an outline transcription of the conversation). Her husband, Harold Wonderly, was a Civil Engineer who joined Burns & McDonnell in 1953. He was also able to provide some details about Seaholm's construction through Mrs. Wonderly.

Archival Material

Original ink on linen as-built architectural drawings for "Power Plant No. 2, City of Austin, Texas." In the possession of Austin Energy, 721 Barton Springs Road, Austin, Texas.

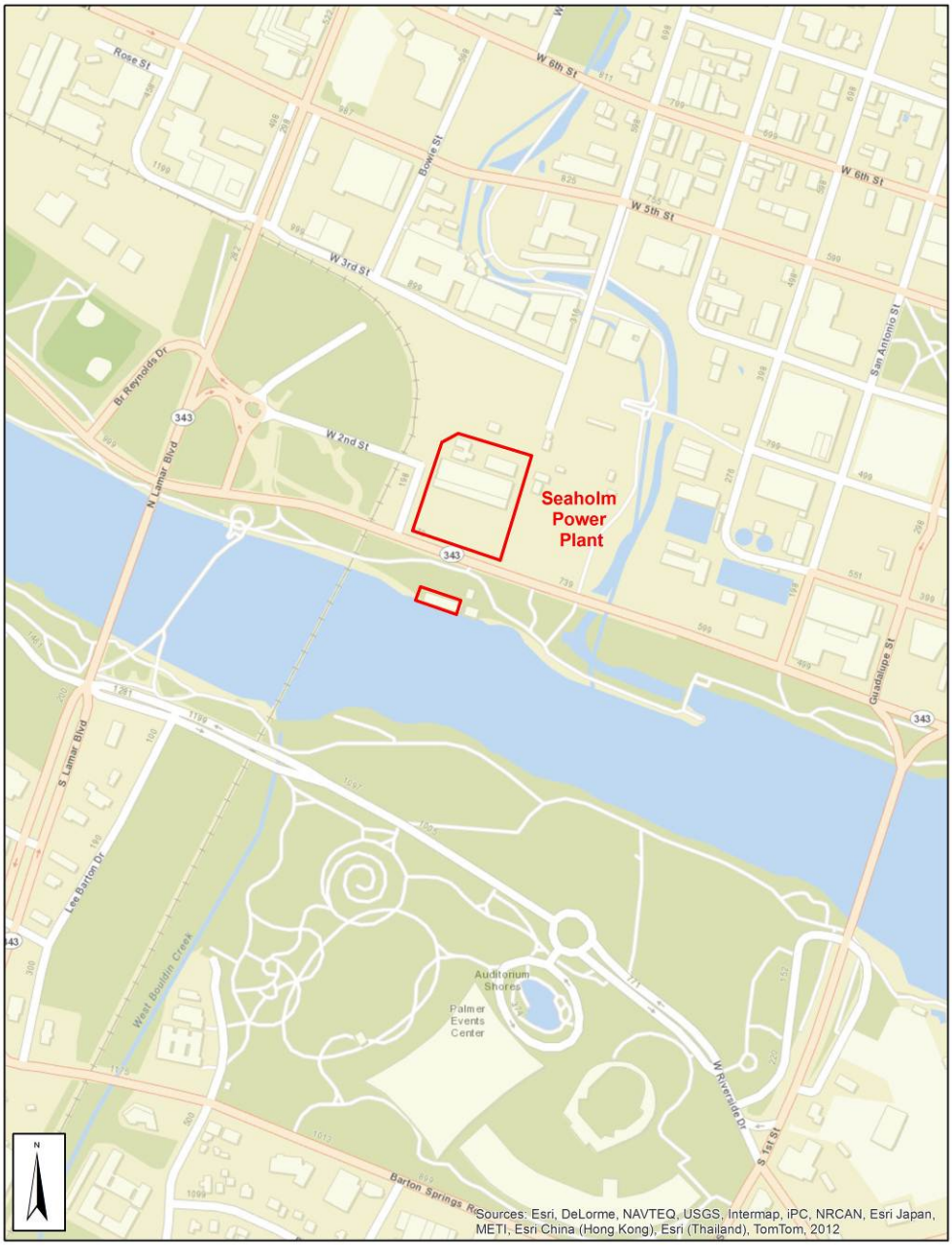
Original ink on linen as-built architectural drawings for "Addition—Power Plant No. 2, City of Austin, Texas." In the possession of Austin Energy, 721 Barton Springs Road, Austin, Texas.

Biography File: Walter E. Seaholm. Austin History Center, Austin Public Library.

Austin File: AF—Public Utilities—Electric Utility Department. Austin History Center, Austin Public Library.

Historic Photo file of Seaholm. Austin History Center, Austin Public Library.

Seaholm Power Plant, Street Map
Indicating boundaries of nominated properties



Google Earth aerial view, indicating the nominated buildings

	Latitude	Longitude
1. Power Plant:	30.266524	-97.752692°
2. Water Intake:	30.265285°	-97.753051°

North

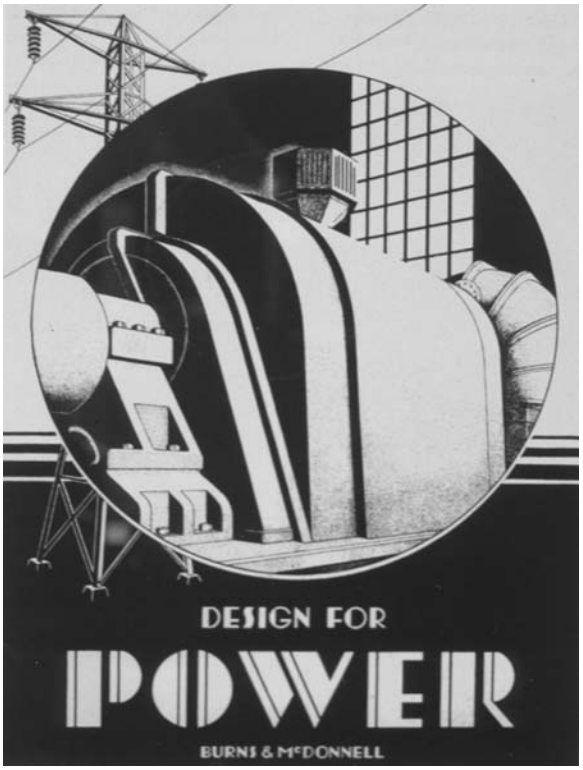
1938 Burns & McDonnell Water Treatment Plant, Cincinnati, Ohio. This plan established much of the vocabulary observed on Seaholm.[25]

[25] Jack Cashill, *A Century of Excellence: Burns & McDonnell*, 1998.

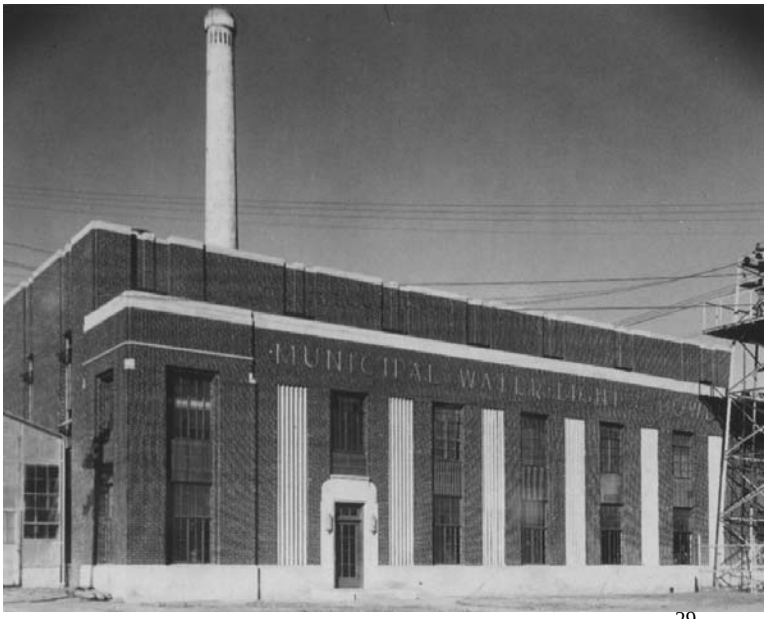
Phase One (1930s), Lakeside Station, Springfield, IL.[26]

Phase Two (1950s), Lakeside Station, Springfield, IL. This expansion has much in common with Seaholm.[27]

[26] Jack Cashill, *A Century of Excellence: Burns & McDonnell,* 1998.
[27] Ibid.



1940s Burns & McDonnell Promotional Brochure. Note the Moderne-style font, similar to Seaholm's signs.[28]



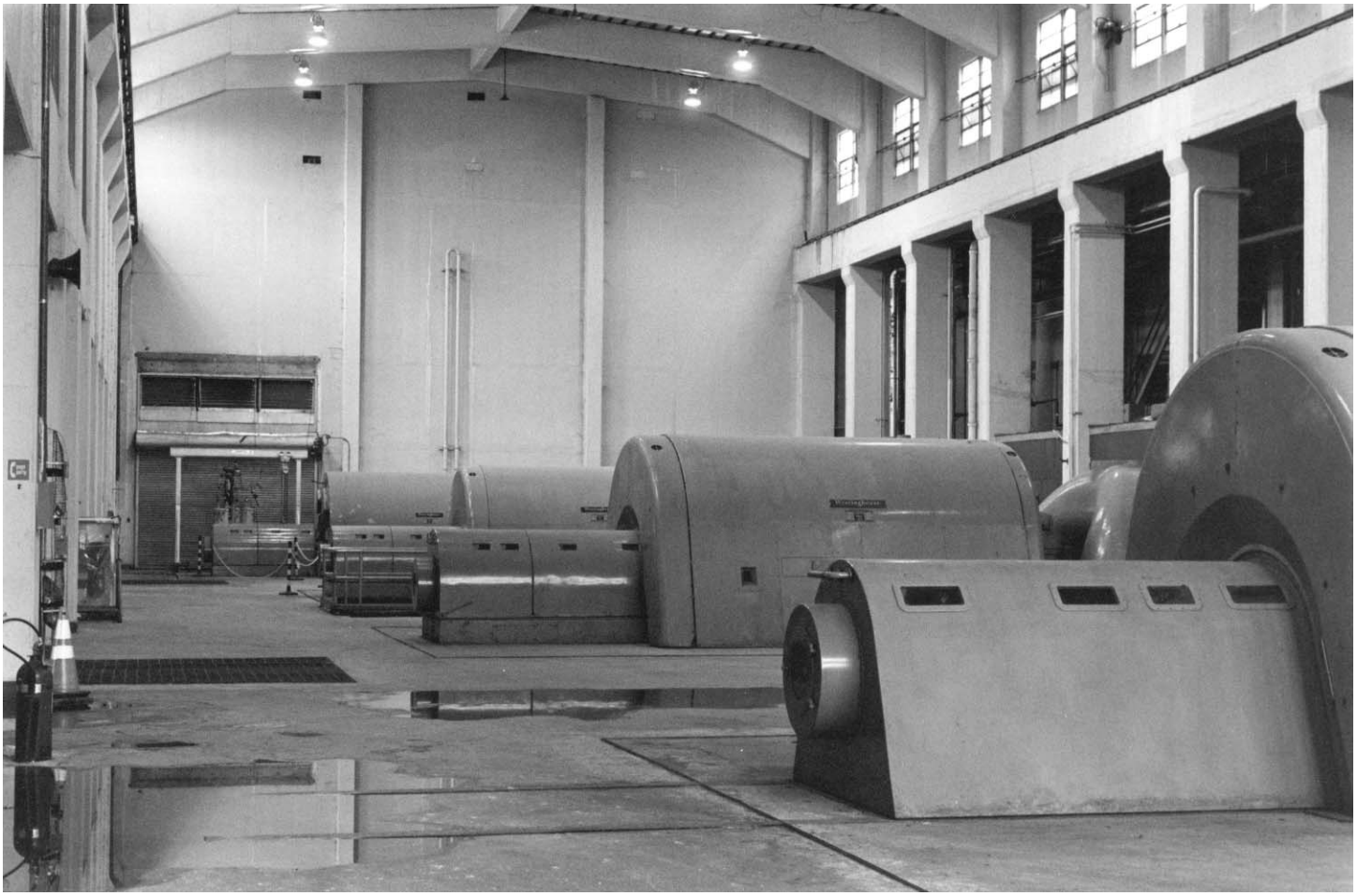
1937 McPherson, Kansas, Plant with Supergraphics.[29]

28 Jack Cashill, *A Century of Excellence: Burns & McDonnell*, 1998.
29 Ibid.

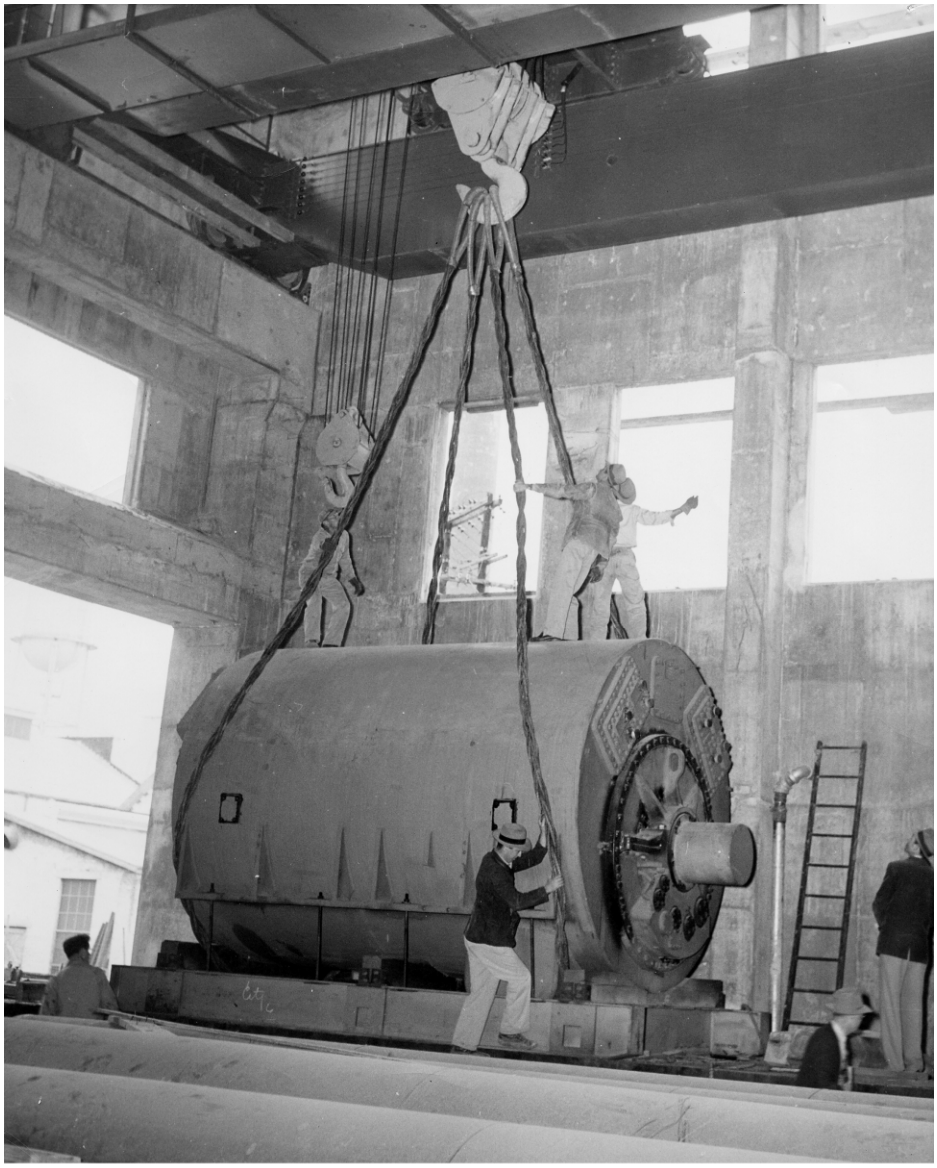
Seaholm Power Plant, 1951.
Source: Austin History Center
South facades of Water Intake Building (left) and Turbine Generator Building (right), camera facing north

Seaholm Power Plant, 1951.
Source: Austin History Center
Turbine Generator Building south façade (left) and partial east elevation (right), camera facing northwest

Seaholm Power Plant, 1951.
Source: Austin History Center
Turbine Generator Building west elevation (left), partial south façade (right), and construction of west 1955 addition, camera facing northeast

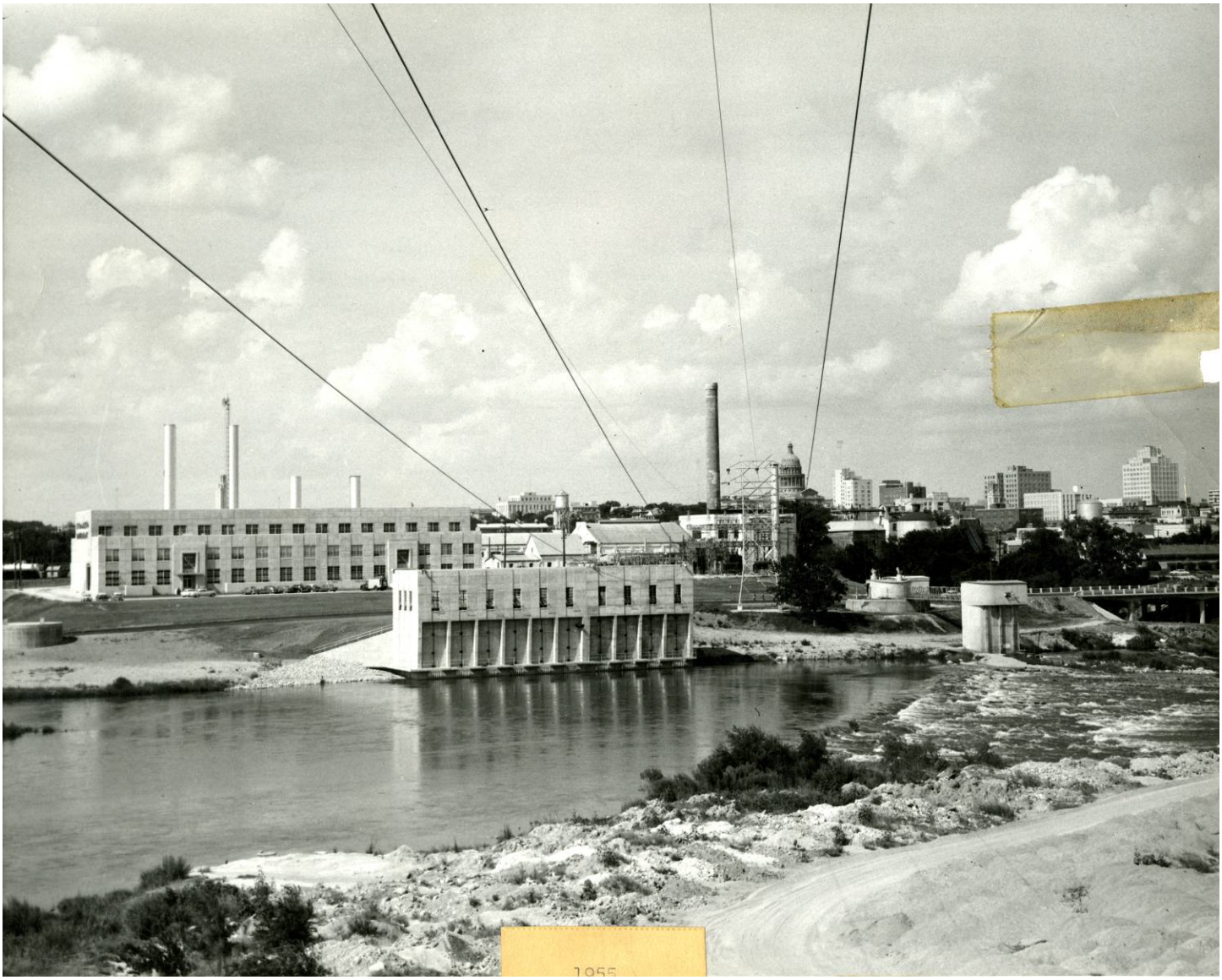


Seaholm Power Plant, 1951.
Source: Austin History Center
Interior of Turbine Generator Building turbine room partial south (left), west (center), and north (right) elevations, camera facing west



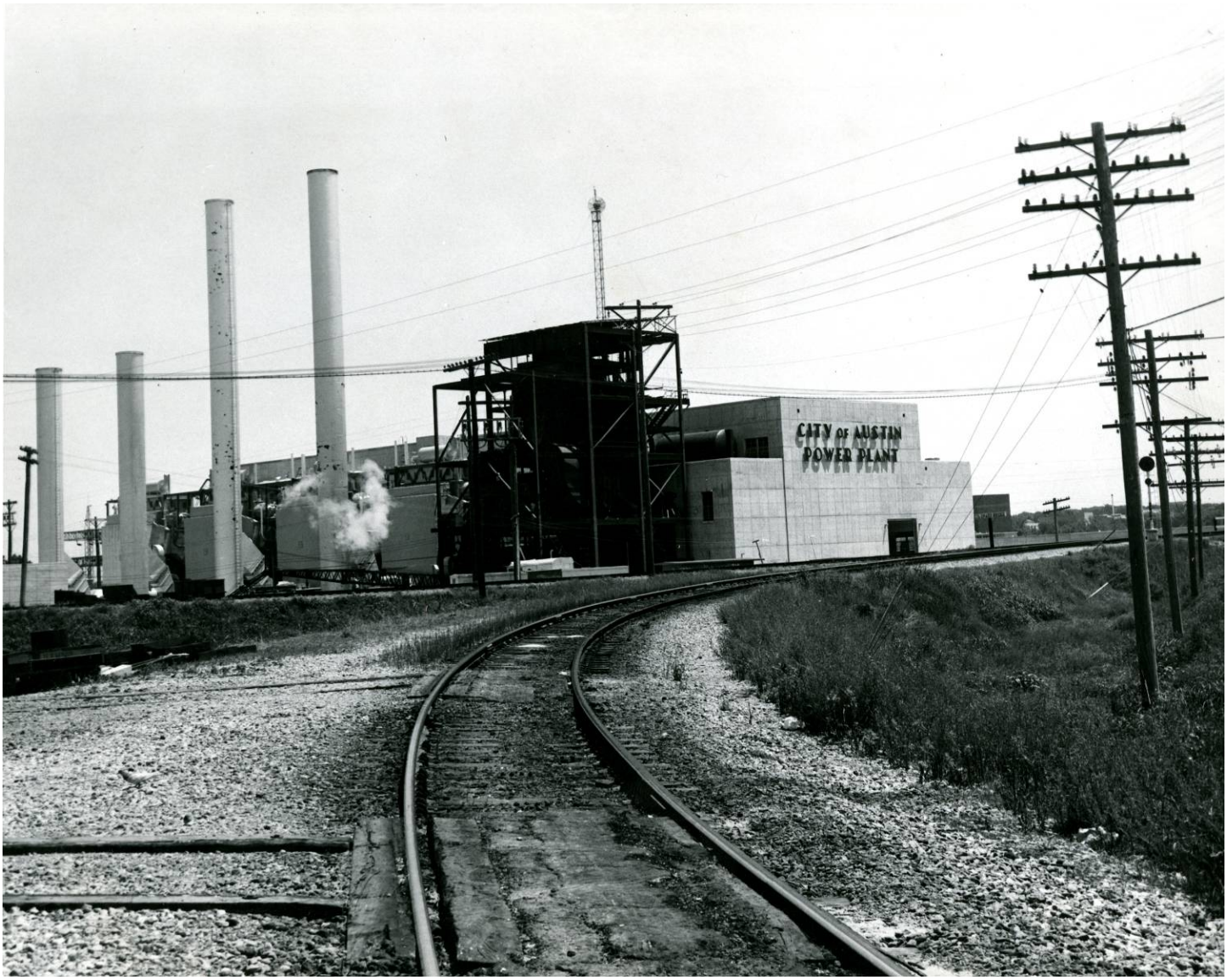
PICA 26737 Austin History Center, Austin Public Library

Seaholm Power Plant, 1951.
Source: Austin History Center
Interior of Turbine Generator Building turbine room north (left) and east (right) elevations and lowering turbine into place, camera facing northeast



Seaholm Power Plant, 1955.
Source: Austin History Center
Turbine Generator Building and Water Intake Building partial west (left) elevations and south façades, camera facing northeast

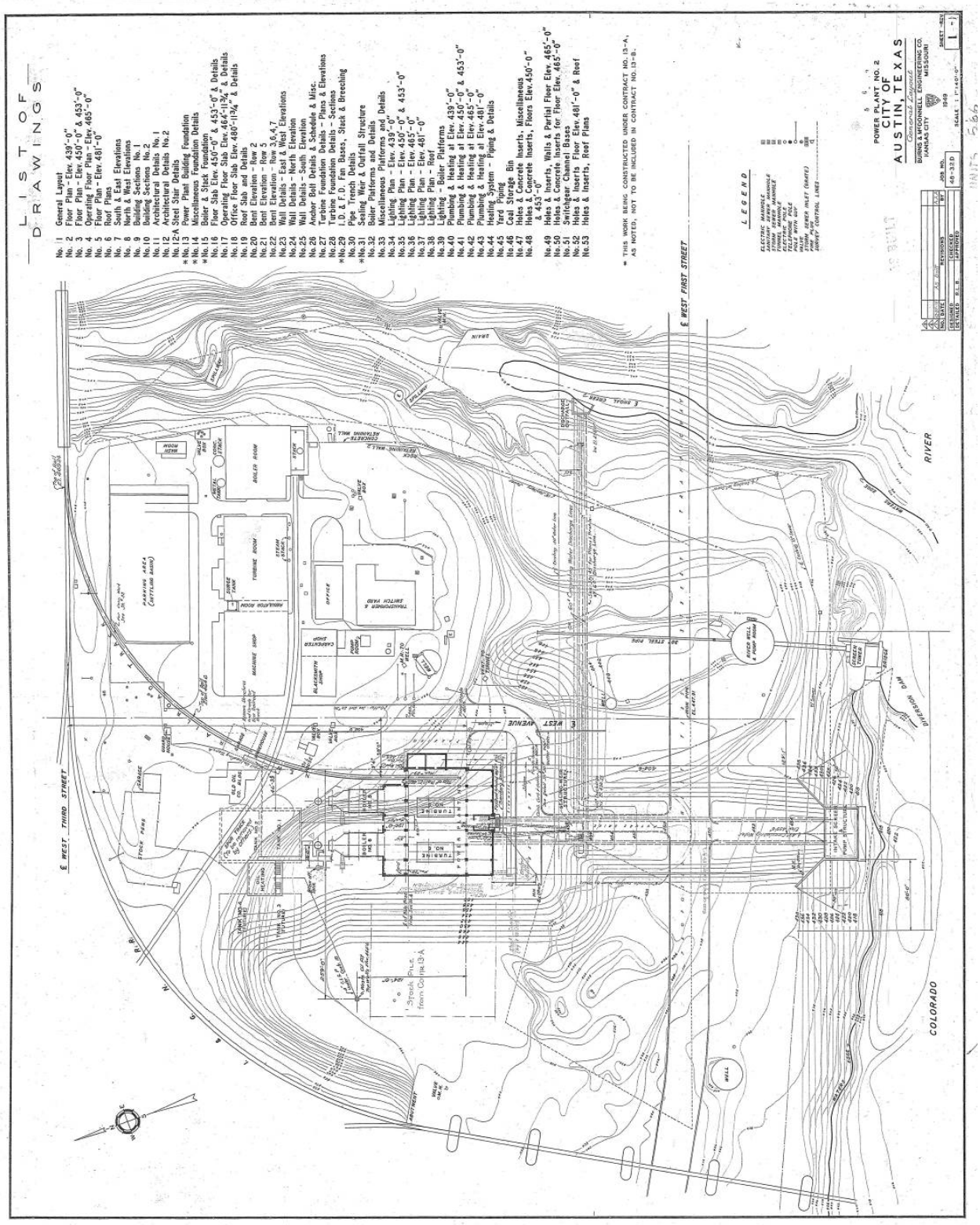
Seaholm Power Plant, 1955
Source: Austin History Center
Turbine Generator Building south façade, camera facing north



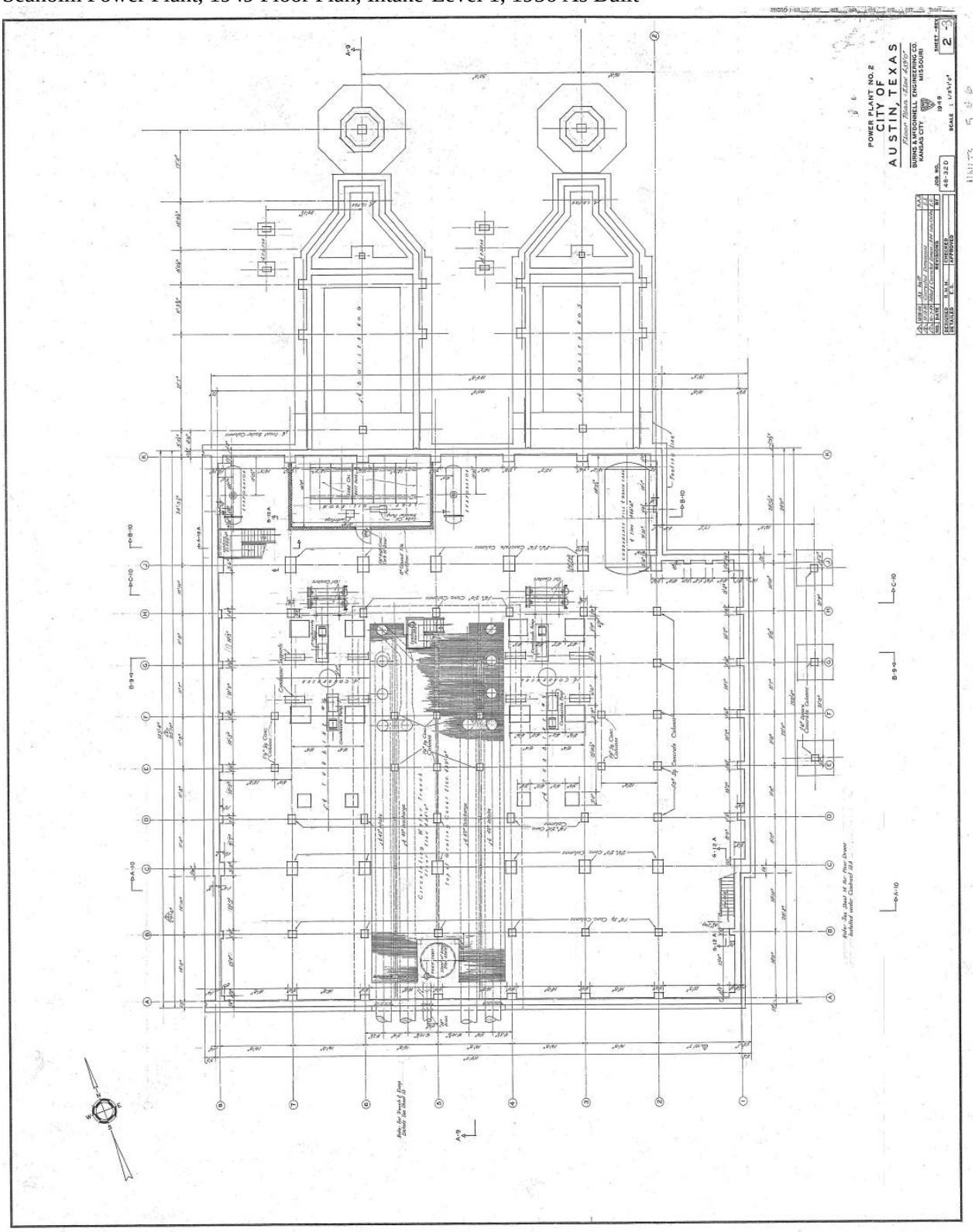
Seaholm Power Plant, 1955.
Source: Austin History Center
Turbine Generator Building north (left) and west (right) elevations, camera facing southeast

1984 Aerial photograph of south façades of Turbine Generator Building and Water Intake Building, and Earthen Island, camera facing north

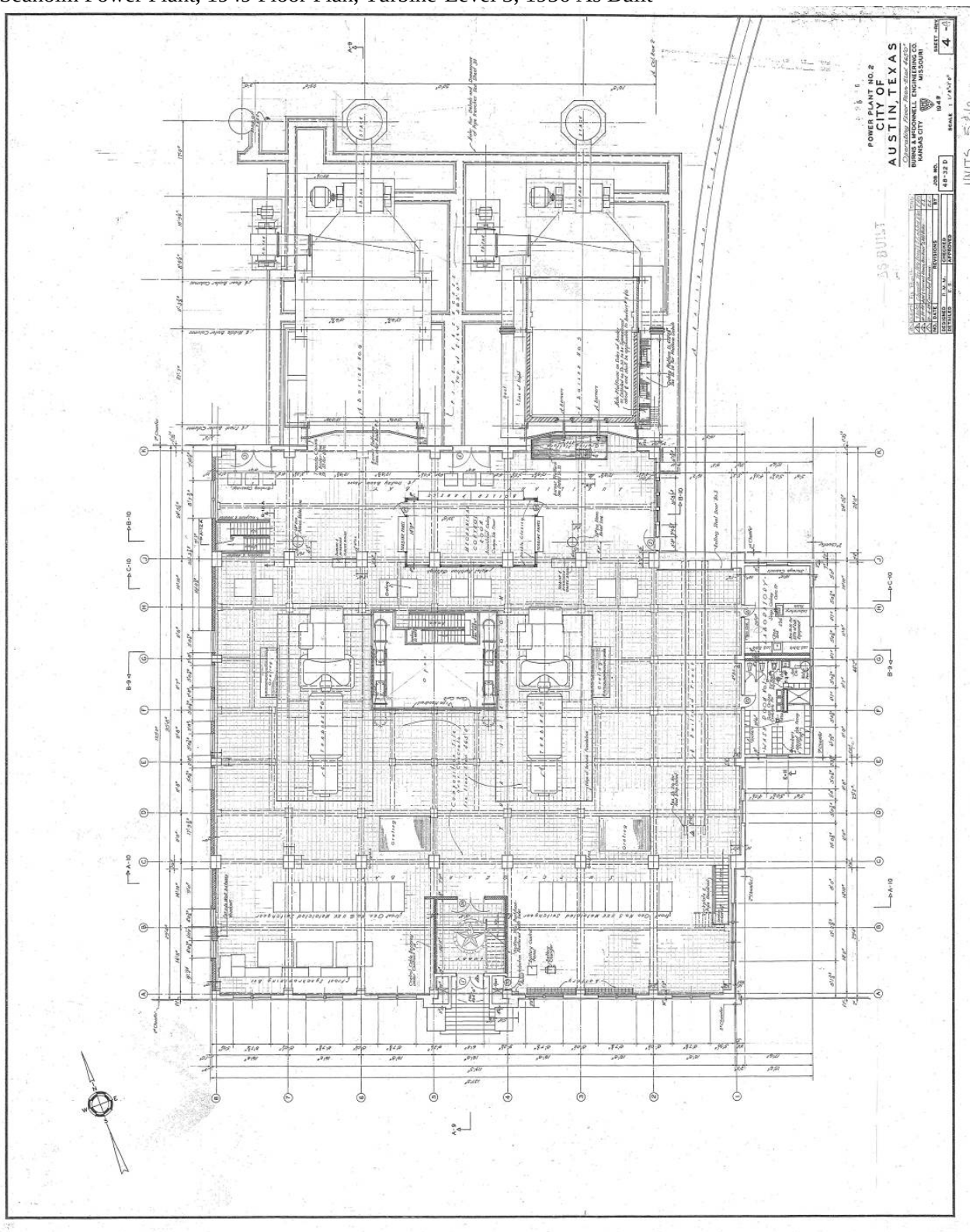
Seaholm Power Plant, 1949 Site Plan, 1956 As Built



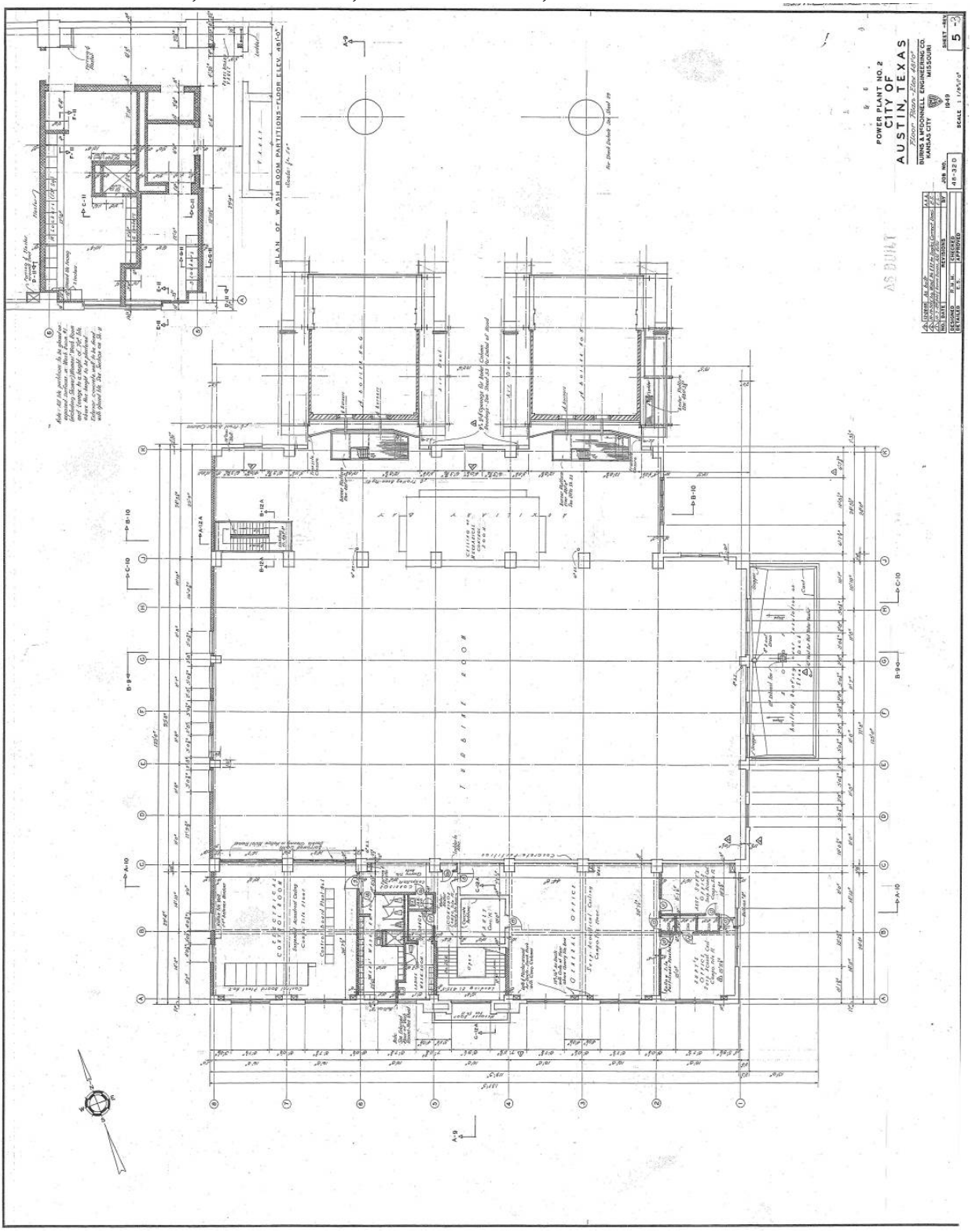
Seaholm Power Plant, 1949 Floor Plan, Intake-Level 1, 1956 As Built



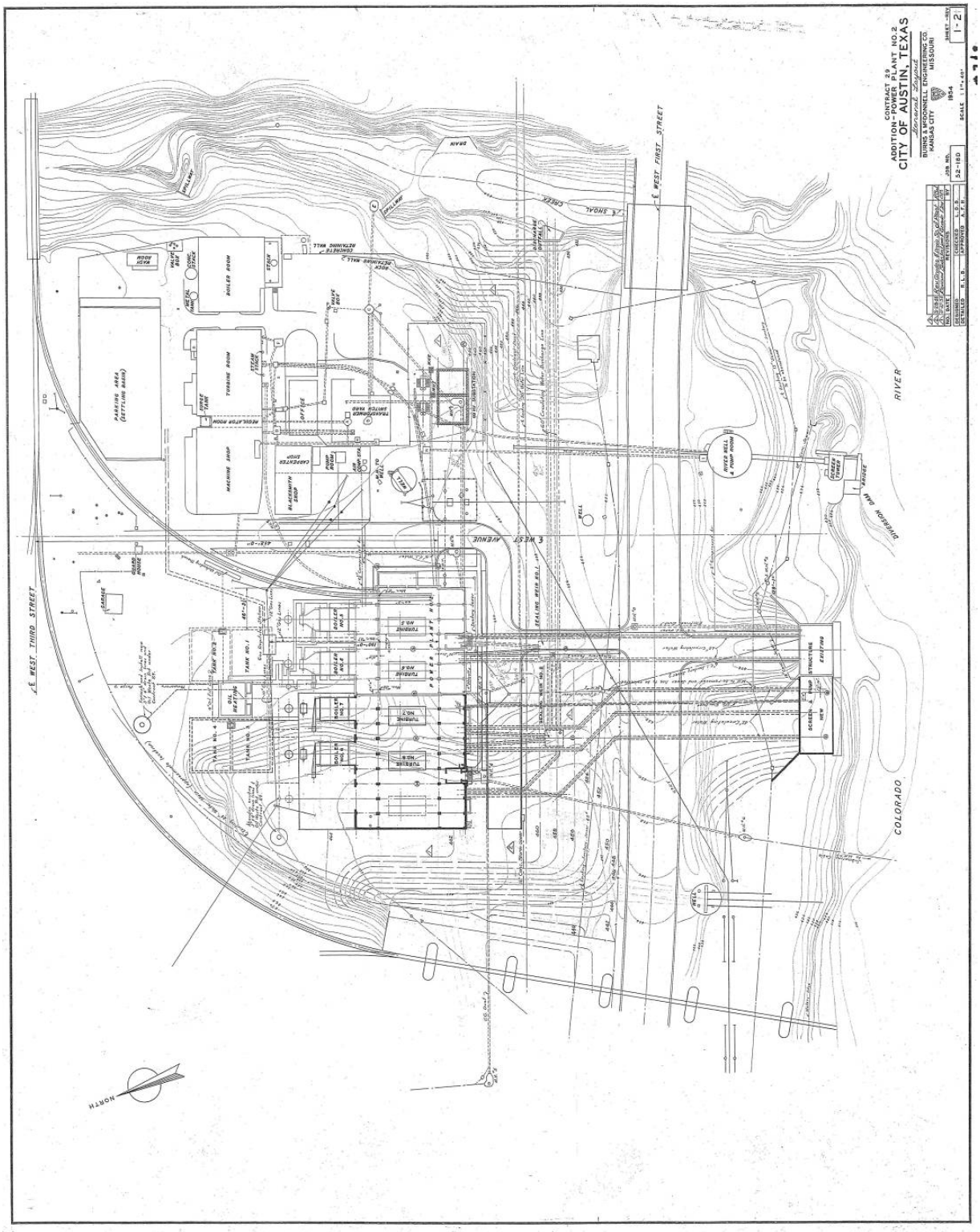
Seaholm Power Plant, 1949 Floor Plan, Turbine-Level 3, 1956 As Built



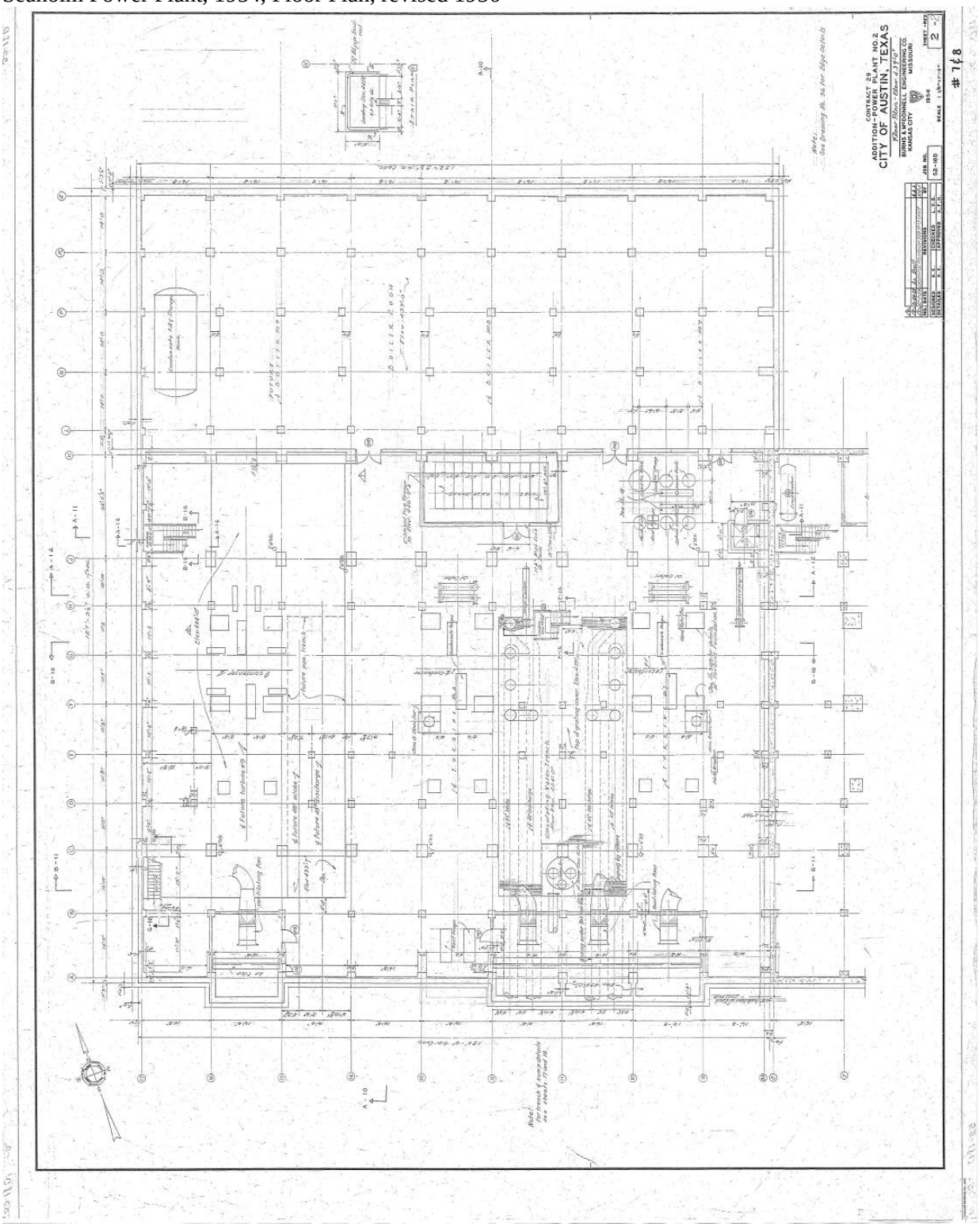
Seaholm Power Plant, 1949 Floor Plan, Mezzanine-Level 4, 1956 As Built



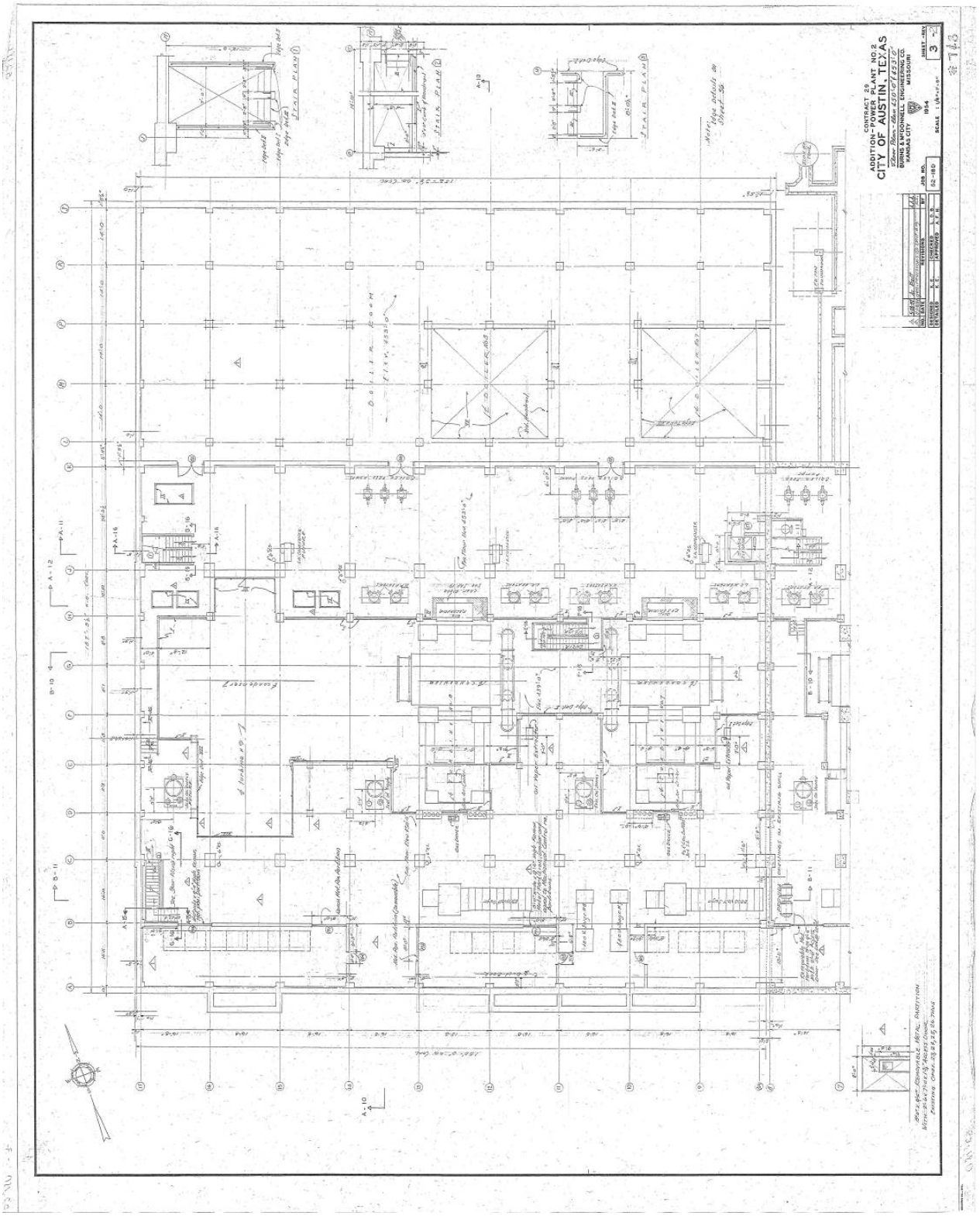
Seaholm Power Plant, 1954, Site Plan, revised 1956



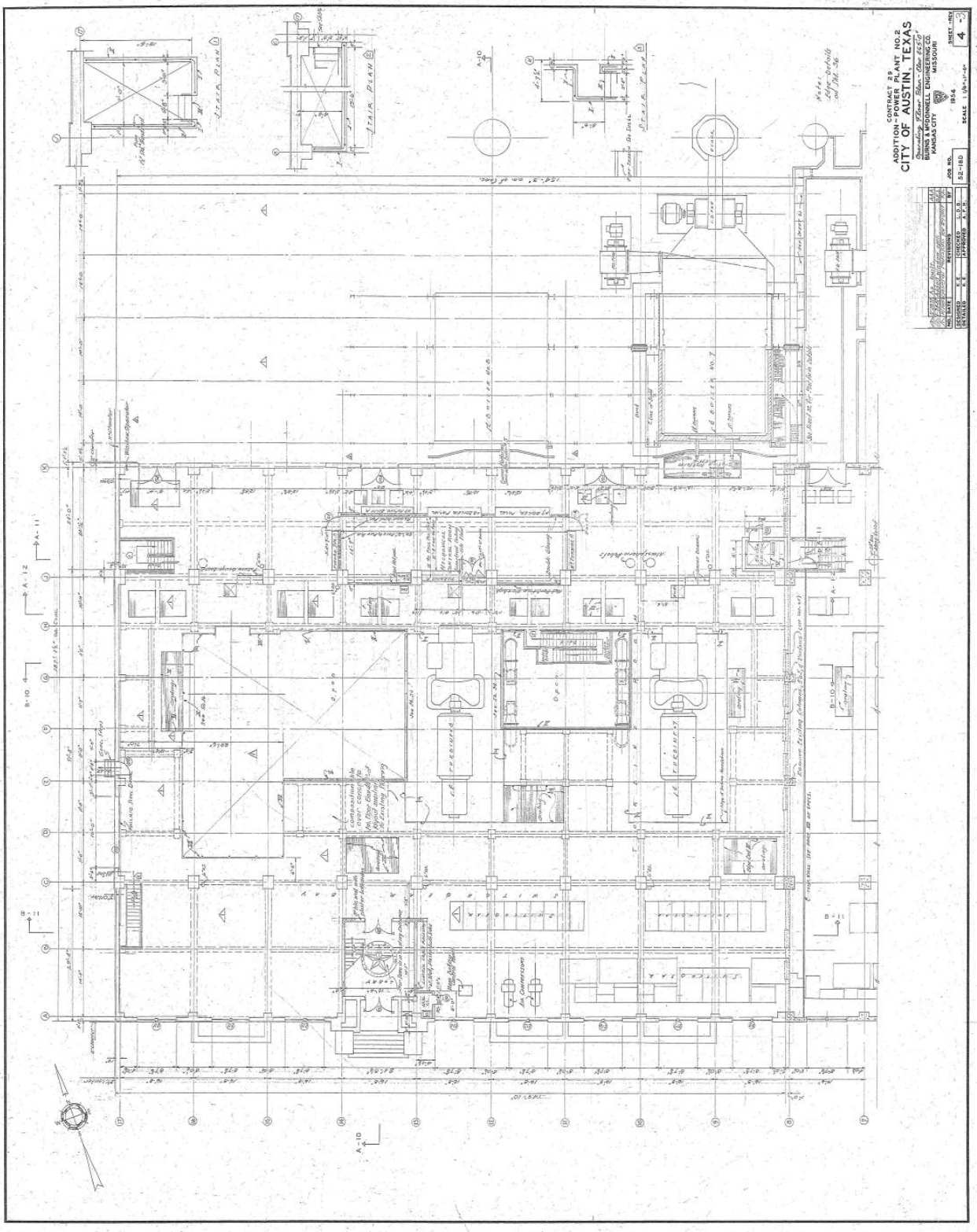
Seaholm Power Plant, 1954, Floor Plan, revised 1956



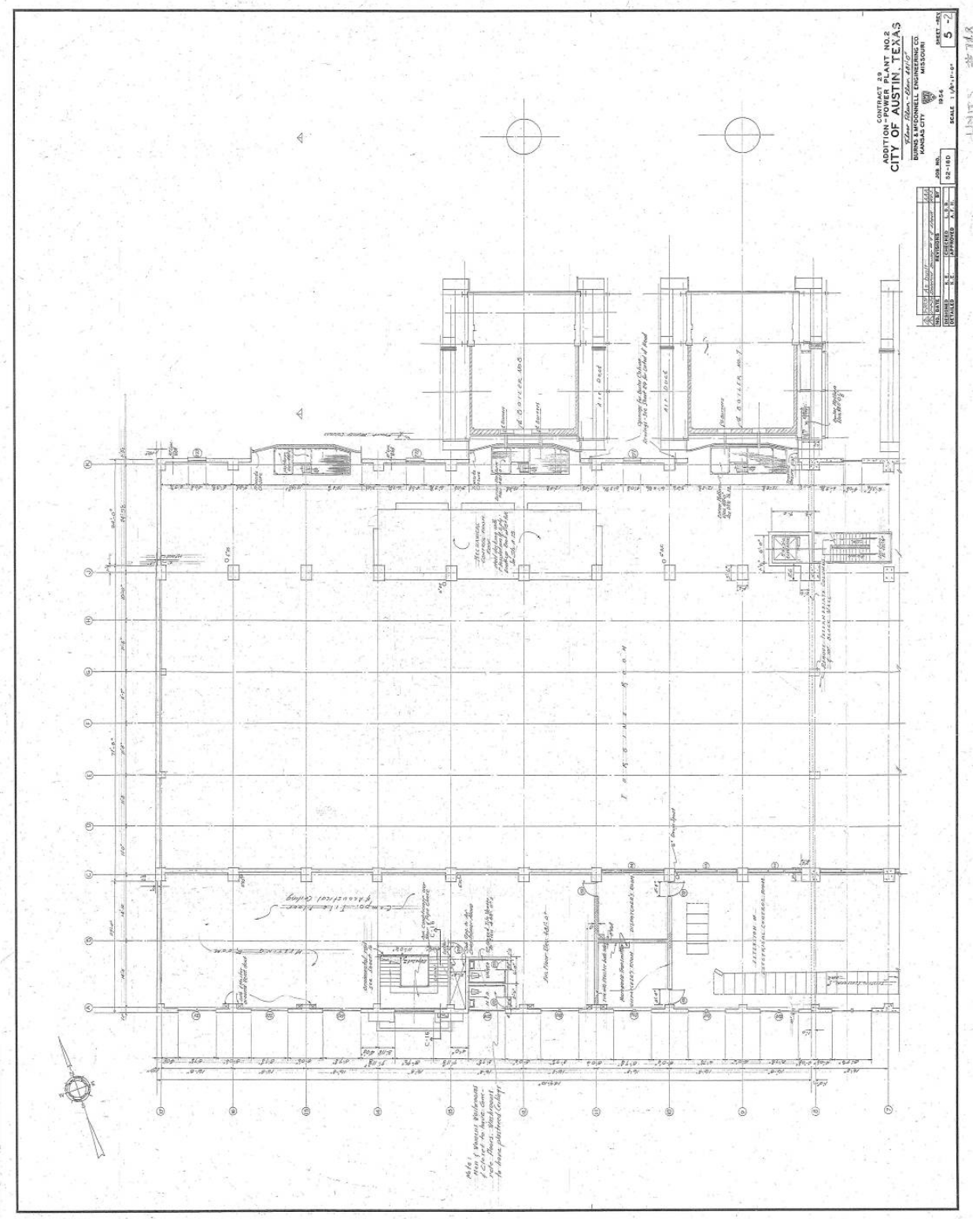
Seaholm Power Plant, 1954, Floor Plan, revised 1956



Seaholm Power Plant, 1954, Floor Plan, revised 1956



Seaholm Power Plant, 1954, Floor Plan, revised 1956



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