

OWNER/OPERATOR: GEORGETOWN STEAM PLANT COMMUNITY DEVELOPMENT AUTHORITY (GTSPCDA)

LEGAL DESCRIPTION: THAT PORTION OF TRACTS A, B, C AND D, QUEEN ADDITION TO THE CITY OF SEATTLE SUPPLEMENTAL, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 10 OF PLATS, PAGE 29, RECORDS OF KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID TRACT A; THENCE ALONG THE NORTHWESTERLY LINE OF TRACTS A AND B NORTH 57o 33' 42.1" EAST 173.78 FEET; THENCE SOUTH 37o 27' 58.4" EAST 361.30 FEET TO THE SOUTH LINE OF SAID TRACT; THENCE ALONG THE SOUTH LINE OF THE SAID TRACTS B, C AND D SOUTH 660 37' 59" WEST 228.32 FEET; THENCE NORTH 370 39' 06.5" WEST 220.04 FEET TO THE WEST LINE OF SAID TRACT A; THENCE ALONG SAID WEST LINE OF TRACT A NORTH 1' 26' 38.3" EAST 128.257 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH THE NORTH HALF OF THE FILLED BED OF THE DUWAMISH RIVER AND AN IRREGULAR STRIP OF LAND BOUNDED ON THE SOUTHERLY SIDE BY THE EASTERLY LINE OF THE NORTHERLY HALF OF THE FILLED BED OF THE DUWAMISH RIVER, AND BOUNDED ON THE NORTHERLY SIDE BY THE SOUTHERLY LINE OF TRACTS A, B, C AND D OF QUEEN ADDITION TO THE CITY BOUNDED BY THE ABOVE DESCRIBED EASTERLY AND WESTERLY LINES PRODUCED SOUTHERLY, AND TOGETHER WITH THE SOUTH HALF OF VACATED S. GREELY ST ADJACENT TO THE ABOVE DESCRIBED PARCEL

## KING COUNTY ASSESSOR'S PARCEL NUMBER 700670-0570

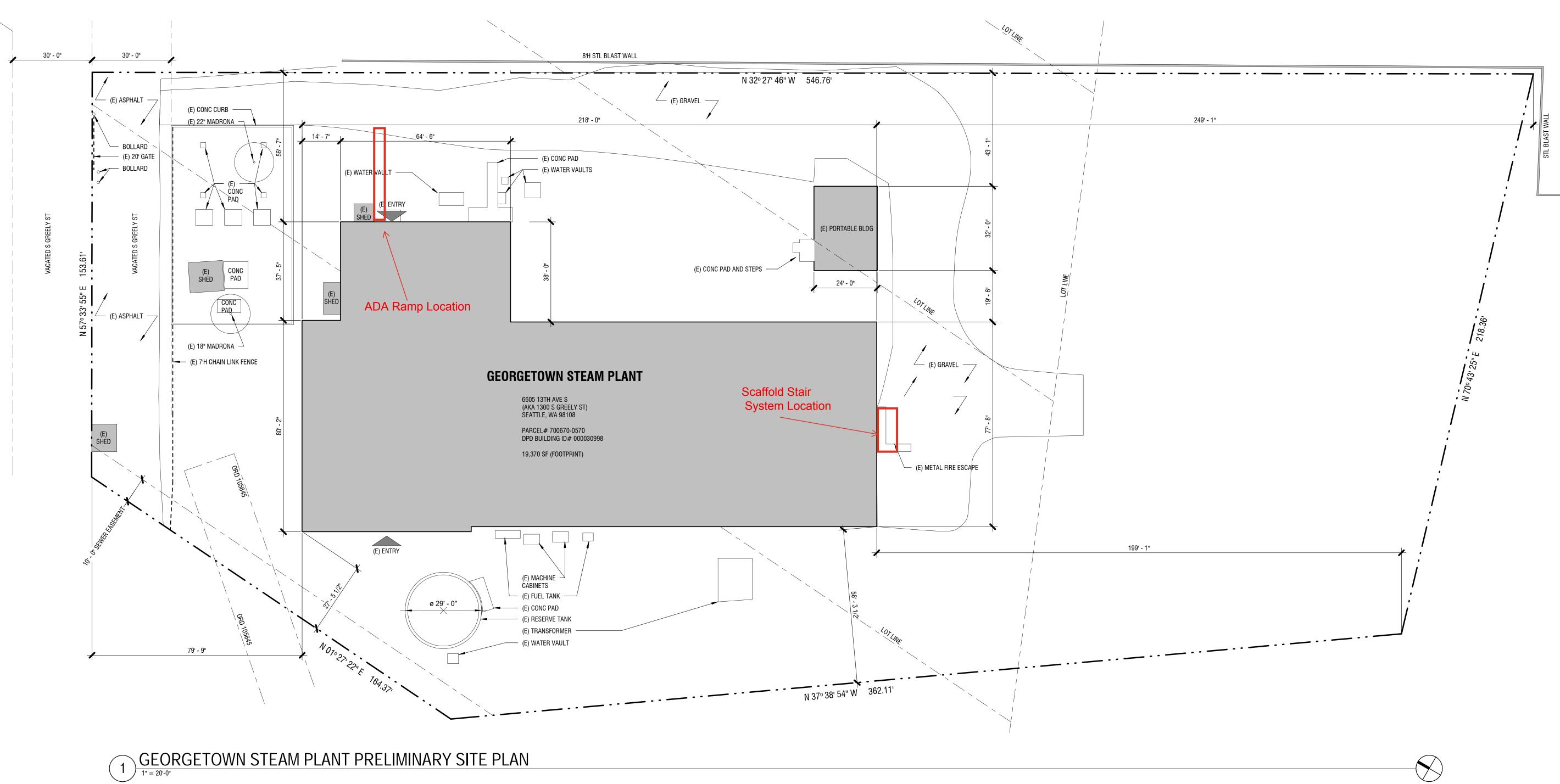
GREATER DUWAMISH MANUGACTURING INDUSTRIAL OVERLAY ARCHEOLOGICAL BUFFER AREA - APPROX SOUTH 2/3 OF SITE

<u>eca:</u> ECA5 - Liquifaction prone area (entire site)

### SHKSARCHITECTS

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	1050 N. 38th St.
	Seattle, WA 98103 PH: 206.675.9151
	www.shksarchitects.com
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	STEAM PLANT <b>TEMPORARY</b> <b>EVENT</b> 6605 13TH AVE S SEATTLE, WA 98108
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	STEAM PLANT  TEMPORARY EVENT  6605 13TH AVE S SEATTLE, WA 98108  Drawn by: SKe Checked: Scale: 8/30/24 Scale: 1" = 100'-0"
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	STEAM PLANT  TEMPORARY EVENT  6605 13TH AVE S SEATTLE, WA 98108  Drawn by: SKe Checked: Scale: 1" = 100'-0"  Revisions: L





### PROJECT ADDRESS:

6605 13TH AVE S SEATTLE, WA 98108

### OWNER'S NAME:

GEORGETOWN STEAM PLANT COMMUNITY DEVELOPMENT AUTHORITY (GTSPCDA)

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### KING COUNTY ASSESSOR'S PARCEL NUMBER:

700670-0570

### <u>SDCI BUILDING ID#:</u>

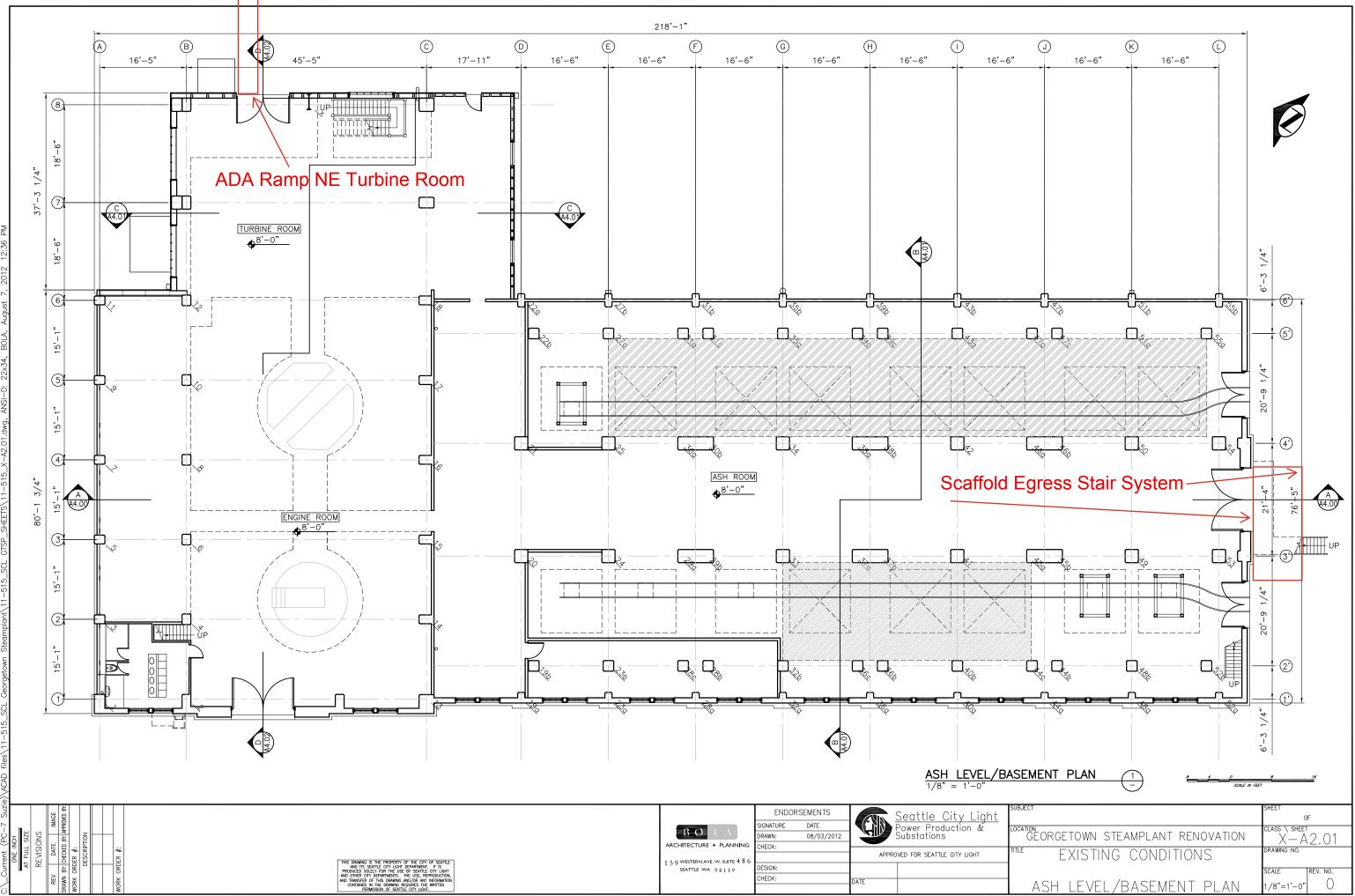
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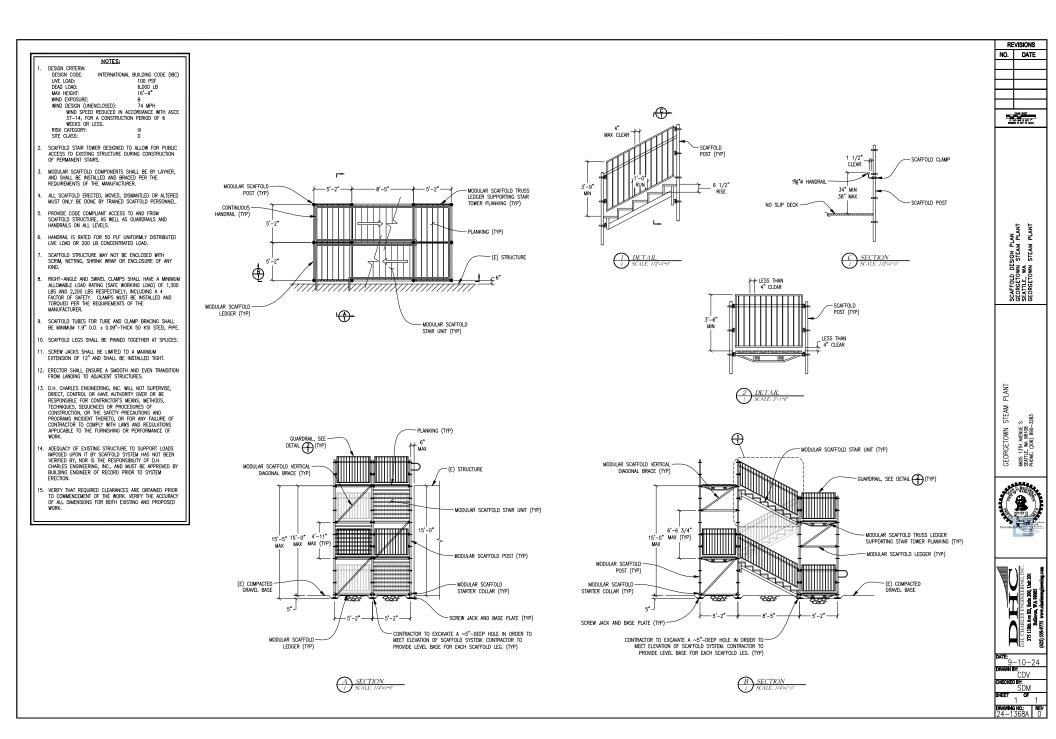
## ZONE:

IG2 U/85 GREATER DUWAMISH MANUFACTURING INDUSTRIAL OVERLAY ARCHEOLOGICAL BUFFER AREA - APPROX SOUTH 2/3 OF SITE.

### ECA:

ECA5 - LIQUEFACTION PRONE AREA (ENTIRE SITE)







More Possibilities. The Scaffolding System.

## LAYHER ALLROUND SCAFFOLDING® EMERGENCY EGRESS STAIRTOWERS



## THE FLEXIBLE STAIRTOWERS FROM LAYHER SAFER – ECONOMICAL – IMMEDIATELY AVAILABLE

Additional emergency egress stairway structures for buildings are becoming more and more important. That includes the **reinforcement of existing buildings** for public use, model building regulations require, for greater numbers of people, a second emergency egress route or modification to the existing one – for example for fire safety reasons. During **refurbishing work on buildings** of any type too, a second emergency egress route may be temporarily required if the main emergency egress route is closed due to building work. The requirements relating to dimensions for building stairways are in general governed by the IBC Code.

Extensive refurbishing measures for larger and better emergency egress routes usually require additional of time and money. In some cases, refurbishing work by others is not even possible. The solution: public access stairtowers from Layher. Taking proven Allround Scaffolding as the basis, stairway structures can be flexibly adapted to a wide range of building situations, such as exit levels – for various rises and loads, and if required with child safety guardrails. Layher public access stairways also offer a long service life: this is assured by continuously monitored and high-quality production "Made in Germany", and by the high standard of surface coating on all Layher steel components by means of hot-dip galvanising.

### Important legal requirements for stairways open to the public

- Public Access Live load : 100 psf (5 kN/m2)
- Riser min. 4" (102 mm) max. 7" (178 mm)
- Thread min. 11" (279 mm)
- Minimum Width 44" (1148mm)
- Guardrail compliant with IBC section 1015

Note: These requirements may differ or can be increased to comply with other local regulations and laws. Continuous Handrail and stair covering might be required depending on the local codes.

### Your requirements - our solutions

If existing buildings fail to comply with legal requirements relating to emergency egress routes, additional measures are needed for the



Adaptation of the flight width to local conditions and requirements using system stairways from 1.29 to 2.07\* metres wide.

latter. They can be provided economically and quickly using public access stairtowers made using the Layher Allround Scaffolding construction kit.



Adaptation of the entry and exit levels at the stairway bottom or top area using equalising stairways with different heights.



For a **reduction in the risk of injury** Allround standards without spigots can be used in the top stairway level – and optionally with tube caps. This ensures at the same time an attractive appearance.



Even **great heights** of over 50 feet are **possible** without any problems – the load capacity can be further increased by bundling the standards.



The required **headroom can** where necessary **be increased** by the use of different diagonal braces in conjunction with the clampable rosette from the Allround Scaffolding construction kit.



To make emergency egress stairways **accessible from different points of the building**, projecting building walkways at the top level can be built completely using standard parts from the Allround system.

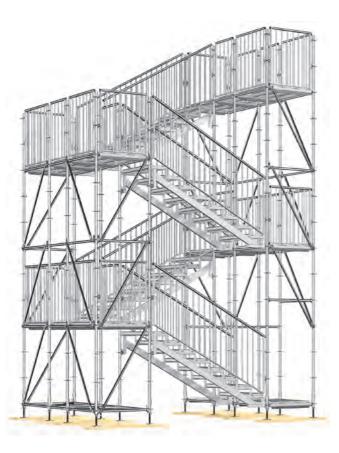


To **prevent unauthorised access to the stairtower**, the lower exit area of the stairway can be enclosed using the Layher Protect System. An ideal addition to this is the Protect door element, which can only be opened from the inside.

The 16-standard design of the Allround stairtower is suitable for uses with high live loads. In this case, the stairways are made up of individual stringers and – as steps – of series decks. That permits variable stairway flight widths of 1.09 to 2.57 metres. The 16-standard floor plan of the stairtower permits, in the intermediate bays too, adjustment of the exit heights using short equalising stairways.

Thanks to their modular design, the weights and the volumes of the individual parts are low, assuring rapid and hence economical assembly and dismantling as well as creating advantages for the logistics. The high proportion of standard Layher Allround Scaffolding material further contributes to high efficiency.

#### 16-standard Allround stairtower with platform



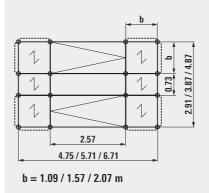
### The benefits for you at a glance

- Inexpensive alternative to one-off solutions using steel or wood.
- Rapid assembly of emergency egress stairtowers from immediately available standard components.
- Flexible adaptation to different building conditions.
- Reusability of scaffolding parts for other applications.
- Sturdy and corrosion-resistant components thanks to hot-dip galvanisation – "Made in Germany".

The **stairtower 750** is, thanks to its riser dimensions and load capacity values, the optimum solution for stairway structures open to the public and **as the first emergency egress stairtower**.

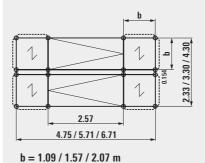
The advantages of modular-designed Layher Allround Scaffolding over one-off solutions made of steel and wood are persuasive: rapid and economical assembly, exact adaptation to prevailing conditions, and later re-use of the scaffolding parts when the building requirements change – or for new applications.

#### Ground plan design variants



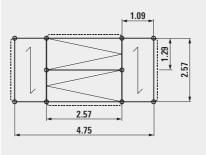
16-standard with platform

with intermediate platform for any required intermediate stairway



#### 16-standard without platform

with twin wedge coupler



#### 10-standard

inexpensive alternative to the 16-standard stairtower for small and medium tower heights



MORE INFORMATION An overview of all access solutions from Layher can be found in the Temporary Accesses brochure: downloads-en.layher.com





Layher is your dependable partner with more than 70 years of experience. "Made by Layher" always means "Made in Germany" too – and that goes for the entire product range. Superb quality – and all from one source.

Proximity to the customer is a central factor behind Layher's success – geographically speaking too. Wherever our customers need us, we will be there – with our advice, assistance and solutions.



SpeedyScaf

Allround Scaffolding

System-free Accessories



Shoring



More Possibilities. The Scaffolding System.



Plant 2 in Gueglingen

#### Layher USA

**Central & West Region** 8225 Hansen Road Houston, TX 77075 tel: 866.300.0904 fax 713.947.1441

#### Southeast Region

4814 SW 60th Avenue Ocala, FL 34474 tel: 352.286.3087 fax: 407.386.8112

#### Layher Canada West Region

6207 39th Street Leduc, AB T9E 0Z3 tel: 866.300.0904 tel: 780.986.9633

#### **Contact us via**

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#### **South Region**

8495 Moffett Road Semmes, AL 36575 tel: 251.649.7696 fax: 251.649.7793

#### East Region

Toronto, ON tel: 416.660.0640 fax: 647.362.5600

#### Layher International

#### **Subsidiaries:**

Argentina, Australia, Austria, Chile, France, Great Britain, Hungary, Italy, New Zealand,Norway, Poland, Spain, Singapore, Sweden, Switzerland, The Netherlands, USA and Layher Bautechnik in Germany.

#### **Representatives:**

Bahrain, Croatia, Czech Republic, Estonia, Finland, Greece, Hong Kong, Iceland, Japan, Kuwait, Latvija, Lebanon, Lithuania, Luxembourg, Libya, Mexico, Rumania, Russia, Saudi-Arabia, Singapore, Slovak Republic, Slovenia, South Africa, Ukraine, United Arab Emirates and further partners around the world.

# Edition 10.2016



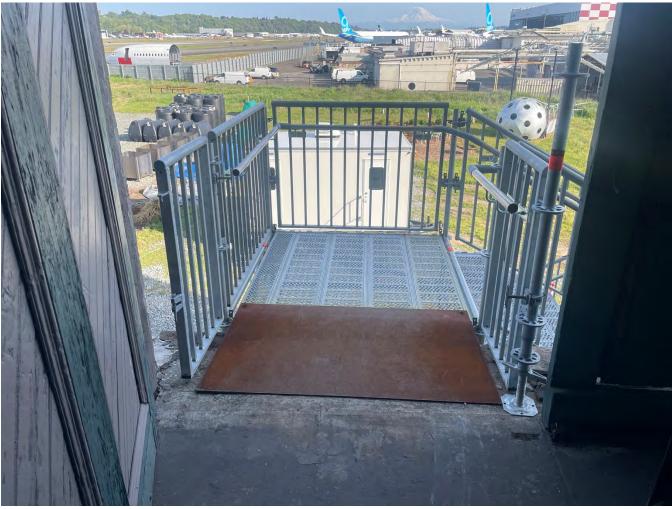
Scaffold Egress Stairway South Exterior



Scaffold Egress Stairway South Exterior



Scaffold Egress Stairway South Exterior



S Boiler Room Egress Scaffold Stair from inside Boiler Room

## PATHWAY<sup>®</sup> HD Code Compliant Modular Access System

## **TECHNICAL SPECIFICATIONS**





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### OVERVIEW

SCOPE OF WORK: PROVIDE PREFABRICATED MODULAR ALUMINUM ACCESS RAMPS AND STEPS

### 1. SUBMITTALS

- 1.1 Product Literature must be submitted with bid.
- 1.2 Warranty must be submitted with bid.
- 1.3 Shop Drawings: Include detailed shop drawings upon receipt of purchase order.
- 1.4 Engineering: Provide sealed professional engineering drawings or empirical independent test results upon request.

### 2. QUALITY ASSURANCE

- 2.1 Manufacturer: EZ-ACCESS, a division of Homecare Products, Inc., 1002 15<sup>th</sup> St SW, Suite 218 Auburn, WA 98001 Toll free: (800) 451-1903 or Fax (800) 630-2350. Website: www.ezaccess.com. Any alternate manufacturer must be approved prior to bid opening.
- 2.2 All components shall be reusable and shall be easy to disassemble and reassemble so the ramp system can be relocated.
- 2.3 Design of all aluminum members shall conform to the 2018 edition of the International Building Code (IBC).
- 2.4 All exposed surfaces shall be smooth and free of sharp or jagged edges.
- 2.5 All components shall have a mill finish.
- 2.6 All fasteners shall be corrosion resistant.
- 2.7 Warranty: EZ-ACCESS, a division of Homecare Products, Inc., warrants its products to be free from defects in manufacturing material and workmanship for a period of three years beginning at date of delivery of product. This warranty excludes any defects resulting from abnormal use in installation, service, accidental or intentional damage or any occurrences beyond the manufacturer's control.

### 3. PRODUCTS

- 3.1 RAMP SECTIONS
  - 3.1.1 Engineering
    - 3.1.1.1 Ramp Sections shall be designed for a Uniform Live Load of 100 pounds per square foot (psf) minimum and a concentrated vertical load of 300 pounds.
    - 3.1.1.2 Aluminum structural design shall conform to the aluminum association specifications and guidelines for aluminum structures.
  - 3.1.2 Materials
    - 3.1.2.1 Ramp Sections shall be constructed using 6000 series aluminum alloy with 6061-T6 or 6005-T5 being used for structural components.
  - 3.1.3 Design
    - 3.1.3.1 Ramp sections shall be prefabricated in 2', 3', 4', 5' and 6' lengths in addition to a distinctive 6' starter ramp section.
    - 3.1.3.2 All ramp sections shall be designed for a 1:12 slope when assembled.
    - 3.1.3.3 Ramp walking surface, for the standard 48", 54", and 60" ramps, shall be a clear width of 48", 54", and 60, respectively.
    - 3.1.3.4 Ramp edges shall have a 4" tall (minimum) curb or a barrier which does not allow passage of a 4" diameter sphere.
    - 3.1.3.5 The walking surface of the ramp shall be continuous, without gaps, and shall be approximately 1-1/4" x 6" self-mating aluminum deck with extruded slip resistant surface.

### 3.2 LANDINGS/PLATFORMS

- 3.2.1 Engineering
  - 3.2.1.1 Landings/platforms shall be designed for a Uniform Live Load of 100 pounds per square foot (psf) minimum and a concentrated static vertical load of 300 pounds.
- 3.2.2 Materials
  - 3.2.2.1 Landings/platforms shall be constructed of 6000 series aluminum alloy with 6061-T6 or 6005-T5 for structural components.

#### 3.2.3 Design

- 3.2.3.1 Landings/platforms shall be prefabricated in typical 65-1/2" square, 77-1/2" square, 65-1/2" x 77-1/2" rectangular or 65-1/2" x 89-1/2" rectangular sections.
- 3.2.3.2 Landings/platforms shall be designed for variable heights.
- 3.2.3.3 The walking surface of the landing/platform shall be continuous, without gaps, and shall be comprised of approximately 1-1/4" x 6" high self-mating aluminum deck with extruded slip resistant surface.

- 3.3 STEPS
  - 3.3.1 Engineering
    - 3.3.1.1 Step Systems shall be designed for a Uniform Live Load of 100 pounds per square foot (psf) minimum and a concentrated vertical load of 300 pounds over an area of 4 square inches.
  - 3.3.2 Materials
    - 3.3.2.1 Step Systems shall be constructed using 6000 series aluminum alloy with 6061-T6 or 6005-T5 being used for structural components.

#### 3.3.3 Design

- 3.3.3.1 Step risers shall be between 7" maximum and 4" minimum (6" typical) high and shall be closed.
- 3.3.3.2 Step treads shall be 11" minimum deep x 50-3/16" minimum wide between handrails, 56" between side rails.
- 3.3.3.3 The walking surface of the step shall be without gaps and shall be composed of selfmating aluminum treads and riser closures with an extruded slip resistant surface.

#### 3.4 LEGS

- 3.4.1 Engineering
  - 3.4.1.1 The legs shall be designed to support the ramp and landing/platform sections (see sections 3.1.1.1 and 3.2.1.1).
- 3.4.2 Materials
  - 3.4.2.1 Legs shall be all aluminum construction alloy 6061-T6 or 6005-T5.
- 3.4.3 Design
  - 3.4.3.1 The legs shall allow for height and slope adjustments. Legs shall be designed so that they will be perpendicular to the ground and vertical loads are transmitted axially through them, regardless of slope.
  - 3.4.3.2 All legs shall have through bolted polymer 7-3/8" x 7-3/8" feet.
- 3.5 GUARDS AND HANDRAILS
  - 3.5.1 Engineering
    - 3.5.1.1 Guards and handrails shall be designed to resist a single concentrated load of 200 pounds applied at any point and in any direction at the top of the guard or handrail and to transfer this load through the supports to the structure.
    - 3.5.1.2 Guards and Handrails shall be designed and constructed to resist a load of 50 pounds per linear foot applied horizontally at the required guard height and a simultaneous load of 100 pounds per linear foot applied vertically downward at the top of the guard. Note: The loading of 3.5.1.1, 3.5.1.2, and 3.5.1.3 shall not be applied simultaneously.
    - 3.5.1.3 Guard infill (pickets, balusters, etc.) shall be designed and constructed to resist a 50pound horizontal load applied over a one square foot area at any point in the system.

#### 3.5.2 Materials

- 3.5.2.1 All guards, handrails, and handrail brackets shall be aluminum construction alloy 6061-T6 or 6005-T5.
- 3.5.3 Design
  - 3.5.3.1 Handrail gripping surface shall be smooth and continuous throughout ramp sections, steps, and landings/platforms, returning to a guard or wall that is not more than 1/4" from the end of the handrail termination.
  - 3.5.3.2 The handrail shall be 1-1/2" diameter tubing. The top of the handrail shall be 36" above the walking surface. The height of the handrail above the finish surface "shall be uniform, not less than 34" (864 mm) and not more than 38" (965 mm)".
  - 3.5.3.3 Optional child handrail shall be 1-1/2 "diameter tubing. The top of the child handrail shall be 25" above the walking surface.
  - 3.5.3.4 Clearance between 1-1/2" diameter handrail and nearest obstruction shall be 1-1/2" minimum except as allowed by IBC. 2-1/4" clearance is optional.
  - 3.5.3.5 Guards shall form a protective barrier of 42" high, minimum. Guards shall be designed such that a 4" sphere cannot pass through any opening. 3-15/16" maximum, 3-3/4" typical, picket spacing.

### **DIMENSIONAL SPECIFICATIONS**

- ✓ Unless otherwise specified, weights are expressed in pounds; lengths and widths in feet and/or inches.
- ✓ Weights and dimensions are approximate, contact manufacturer for more information.

### **RAMPS**

- ✓ Made with aircraft grade aluminum.
- ✓ Slip resistant Gecko Grip<sup>®</sup> walking surface.
- ✓ 4" side rail curb height.
- ✓ 1.5" handrail diameter.
- ✓ Handrail minimum clearance 1.5" (except as allowed by IBC)
- ✓ 36" (nominal) handrail height.
- ✓ 25" (nominal) child handrail height.
- ✓ 42" (nominal) frame (top rail) height.
- ✓ 21.5" (nominal) frame midrail height.
- ✓ Designed for a uniform live load of 100 lbs. per square foot (psf) min. and a concentrated vertical load of 300 lbs.

	48" WIDE RA	48" WIDE RAMPS								
	2' Ramp	3' Ramp	4' Ramp	5' Ramp	6' Ramp	Starter Ramp				
Ramp Weight (lbs.)	28.5	41.3	54.1	66.9	79.8	75.1				
Useable Dimensions	2′ x 48″	3′ x 48″	4′ x 48″	5′ x 48″	6' x 48"	6' x 48"				
Handrail Pair Weight (lbs.)	2.5	3.3	4.2	5.1	6	5.97				
Handrail w/ Child Rail Pair Weight (lbs.)	5	6.6	8.4	10.2	12	N/A				
Two-Line Rail Pair Weight (lbs.)	20.2	22.5	24.7	26.9	29.1	29				
Guard Pair Weight (lbs.)	23.3	28.2	33.1	37	41.9	41.7				
Outside Dimensions			54.81" Foot to Foot			60.46" Foot to Foot (Welded)				

### TABLE 1

	54" WIDE RA	54" WIDE RAMPS								
	2' Ramp	3' Ramp	4' Ramp	5' Ramp	6' Ramp	Starter Ramp				
Ramp Weight (lbs.)	31.2	45.3	59.3	73.4	87.5	82.3				
Useable Dimensions	2′ x 54″	3′ x 54″	4′ x 54″	5′ x 54″	6′ x 54″	6′ x 54″				
Handrail Pair Weight (lbs.)	2.5	3.3	4.2	5.1	6	5.97				
Handrail w/ Child Rail Pair Weight (lbs.)	5	6.6	8.4	10.2	12	N/A				
Two-Line Rail Pair Weight (lbs.)	20.2	22.5	24.7	26.9	29.1	29				
Guard Pair Weight (lbs.)	23.3	28.2	33.1	37	41.9	41.7				
Outside Dimensions			60.81" Foot to Foot			66.46" Foot to Foot (Welded)				

### TABLE 2

	60" WIDE RA	60" WIDE RAMPS								
	2' Ramp	3' Ramp	4' Ramp	5' Ramp	6' Ramp	Starter Ramp				
Ramp Weight (lbs.)	33.1	50.8	66.7	82.4	98.3	89.5				
Useable Dimensions	2' x 60"	3′ x 60″	4′ x 60″	5′ x 60″	6' x 60"	6′ x 60″				
Handrail Pair Weight (lbs.)	2.5	3.3	4.2	5.1	6	5.97				
Handrail w/ Child Rail Pair Weight (lbs.)	5	6.6	8.4	10.2	12	N/A				
Two-Line Rail Pair Weight (lbs.)	20.2	22.5	24.7	26.9	29.1	29				
Guard Pair Weight (lbs.)	23.3	28.2	33.1	37	41.9	41.7				
Outside Dimensions			66.81" Foot to Foot			72.46" Foot to Foot (Welded)				

### PLATFORMS/LANDINGS

- ✓ Made with aircraft grade aluminum.
- ✓ Slip resistant Gecko Grip<sup>®</sup> walking surface.
- ✓ 5.5" minimum landing/platform height without support legs.
- ✓ 42" (nominal) frame (top rail) height.
- ✓ 3-15/16" maximum, 3-3/4" typical guard picket spacing.
- ✓ 22" (nominal) frame midrail height (Two-Line Rails).
- ✓ Designed for a uniform live load of 100 lbs. per square foot (psf) min. and a concentrated vertical load of 300 lbs.

Platform size	5' x 5' (5' rails)	5' x 6' (5' rails)	5' x 6' (5' & 6' rails)	5' x 6'' (6' rails)	6' x 6' (6' rails)	5' x 7' (5' rails)	5' x 7' (5' & 7' rails)	5' x 7' (7' rails)	1' x 4.5' Extender (1' rails)	1' x 5' Extender (1' rails)
Platform Outside Dimensions	65.5″ x 65.5″	65.5″ x 77.5″	65.5″ x 77.5″	65.5″ x 77.5″	77.5″ x 77.5″	65.5″ x 89.5″	65.5″ x 89.5″	65.5″ x 89.5″	59.5″ x 17.5″	65.5″ x 17.5″
Platform Only w/o Rails Weight (lbs.)	81.6	94.3	94.3	94.3	107.8	107.0	107.0	107.0	28.6	30.8
Two-Line Rail Pair Weight (lbs.)	41.8	41.8	43.6	45.4	45.4	41.8	45.8	49.8	27.6	27.6
Guard Pair Weight (lbs.)	47.0	47.0	49.6	52.2	52.2	47.0	52.6	58.2	28.2	28.2
Width to Outside of Support Feet	65.68" x 65.68"	65.68" x 77.68"	65.68" x 77.68"	65.68" x 77.68"	77.68″ x 77.68″	65.68" x 89.68"	65.68" x 89.68"	65.68″ x 89.68″	59.59″ x 17.59″	65.59" x 17.59"

#### TABLE 4

### **LEGS**

- ✓ Made with aircraft grade aluminum.
- ✓ 6061-T6 or 6005-T5 aluminum alloy construction.
- ✓ Each leg terminates into a 7.375" square polymer foot.
- ✓ 1.5" square; lengths vary.
- ✓ Weights vary by length (0.67 Lb. /inch).
- ✓ Legs install perpendicular to the ground plane; vertical loads transmit axially through legs.

### <u>STEPS</u>

- ✓ Made with aircraft grade aluminum.
- ✓ Slip resistant, knurled Gecko Grip<sup>®</sup> walking surface.
- ✓ Standard 6" closed risers from 18" 60".
- ✓ 1" safety tape standard; 2" safety tape available.
- ✓ Standard useable width 56".
- ✓ Standard overall width 60".
- ✓ Typical tread depth 12.5".
- ✓ Aluminum feet included for leveling on uneven surfaces.
- Designed for a uniform live load of 100 lbs. per square foot (psf) min. and a concentrated vertical load of 300 lbs. over an area of 4 square inches.

Step Height	18″	24″	30″	36″	42″	48″	54″	60″		
Outside Riser Dimensions (L x W x H)	27.53″ x 60″ x 19.52″	40.18″ x 60″ x 25.44″	52.82″ x 60″ x 31.78″	65.47" x 60" x 37.55"	78.10″ x 60″ x 43.63″	90.69" x 60" x 49.93"	103.39″ x 60″ x 55.97″	116.03" x 60" x 62.05"		
Riser Weight (lbs.)	43.84	60.81	77.91	94.97	112.07	129.16	146.22	163.33		
Guard Pair Weight (lbs.)	36.74	43.85	49.98	58.35	67.68	73.76	82.11	94.34 (1)		
Handrail Pair Weight (lbs.) (2)	2.74	2.74	2.74	5.78	6.30 (3)	6.30 (3)	8.35 (3)	8.35 (3)		
Foot Pair Weight (lbs.)		3.04								
Step w/ Guard & Handrail (Pairs) Weight (lbs.) (4)	83.32	107.40	130.63	159.10	186.05	209.22	236.68	266.02		

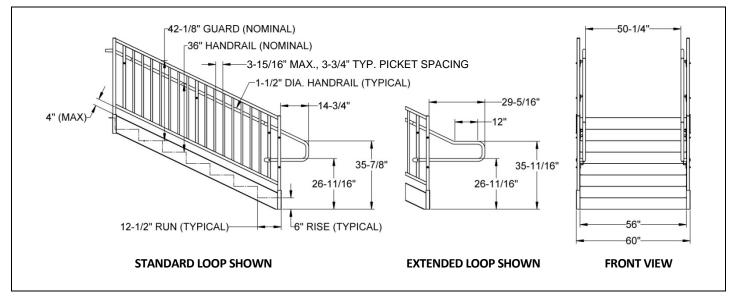
Note (1) – Includes 1.5" square step guard reinforcement posts.

Note (2) – Before being trimmed to fit.

Note (3) – Includes mid-handrail brackets and attachment hardware.

Note (4) – Not including lower handrail return loops or upper handrail transitions.





**FIGURE 1** 

### **TRANSITION PLATES (OPTIONAL)**

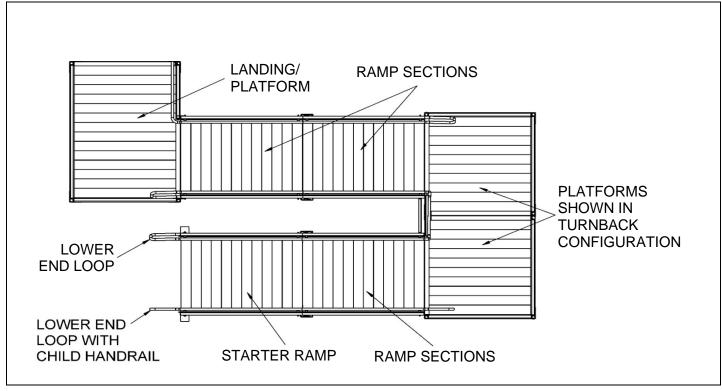
- ✓ Made with aircraft grade aluminum.
- ✓ Slip resistant walking surface.

	48" (nominal)	54″ (nominal)	60" (nominal)
Length	6.73″	6.73″	6.73″
Width	47.38″	53.37″	59.37″
Weight (lbs.)	6.4	7.2	8
Anchor hole diameter		0.25″	
Anchor (hole to hole)	45.37	51.37	57.38

TABLE 6

### **RAMP & PLATFORM/LANDING VIEWS**

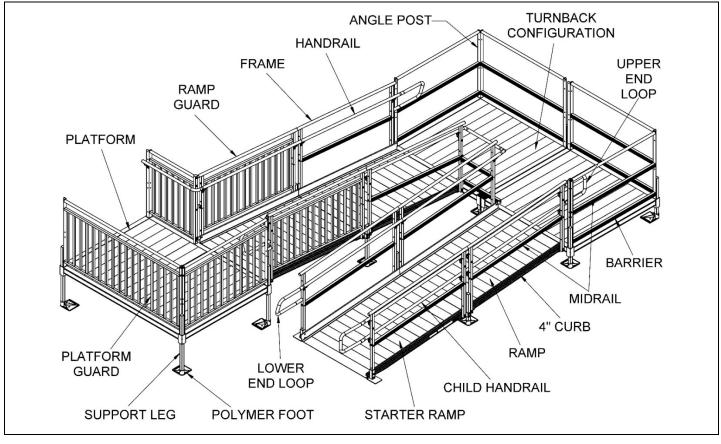
### **Plan View**



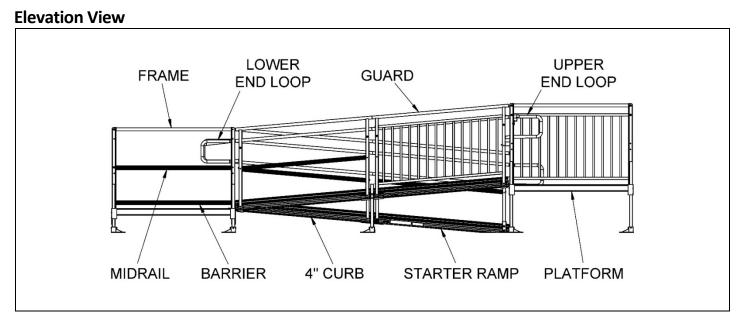
**FIGURE 2** 

### RAMP & PLATFORM/LANDING VIEWS (CONTINUED)

### **Isometric View**

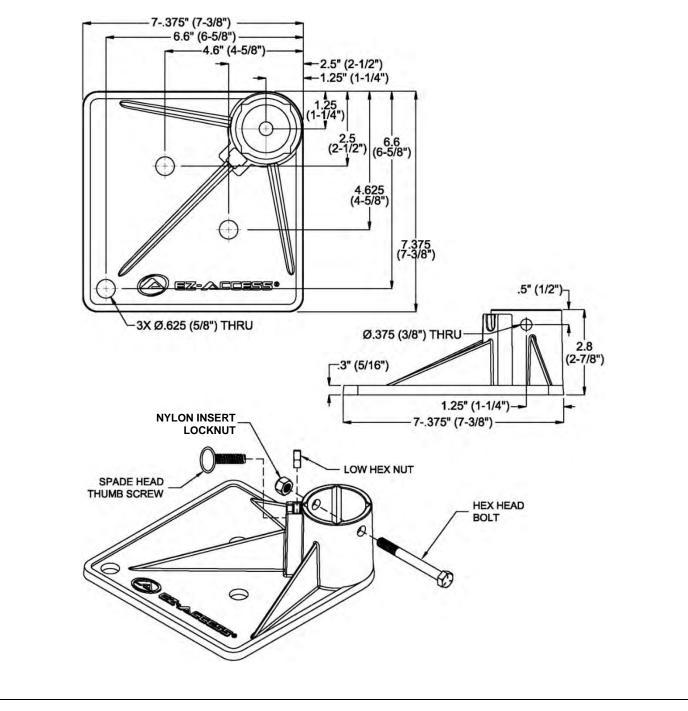


**FIGURE 3** 



**FIGURE 4** 

### POLYMER FOOT



**FIGURE 5** 



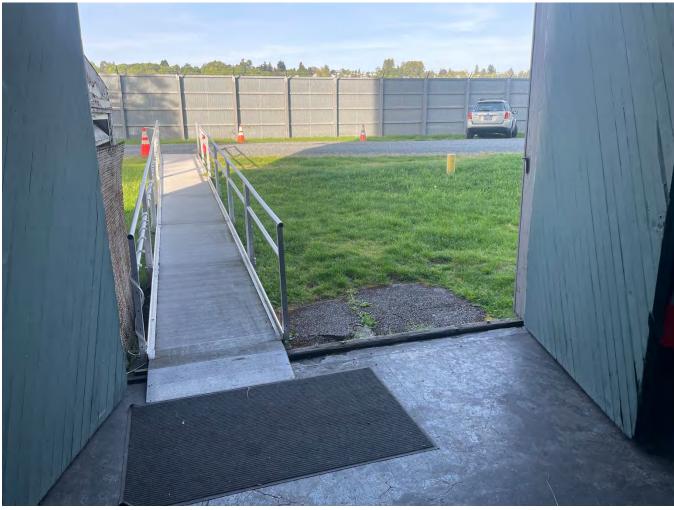
ADA Ramp to Turbine Room NE Exterior



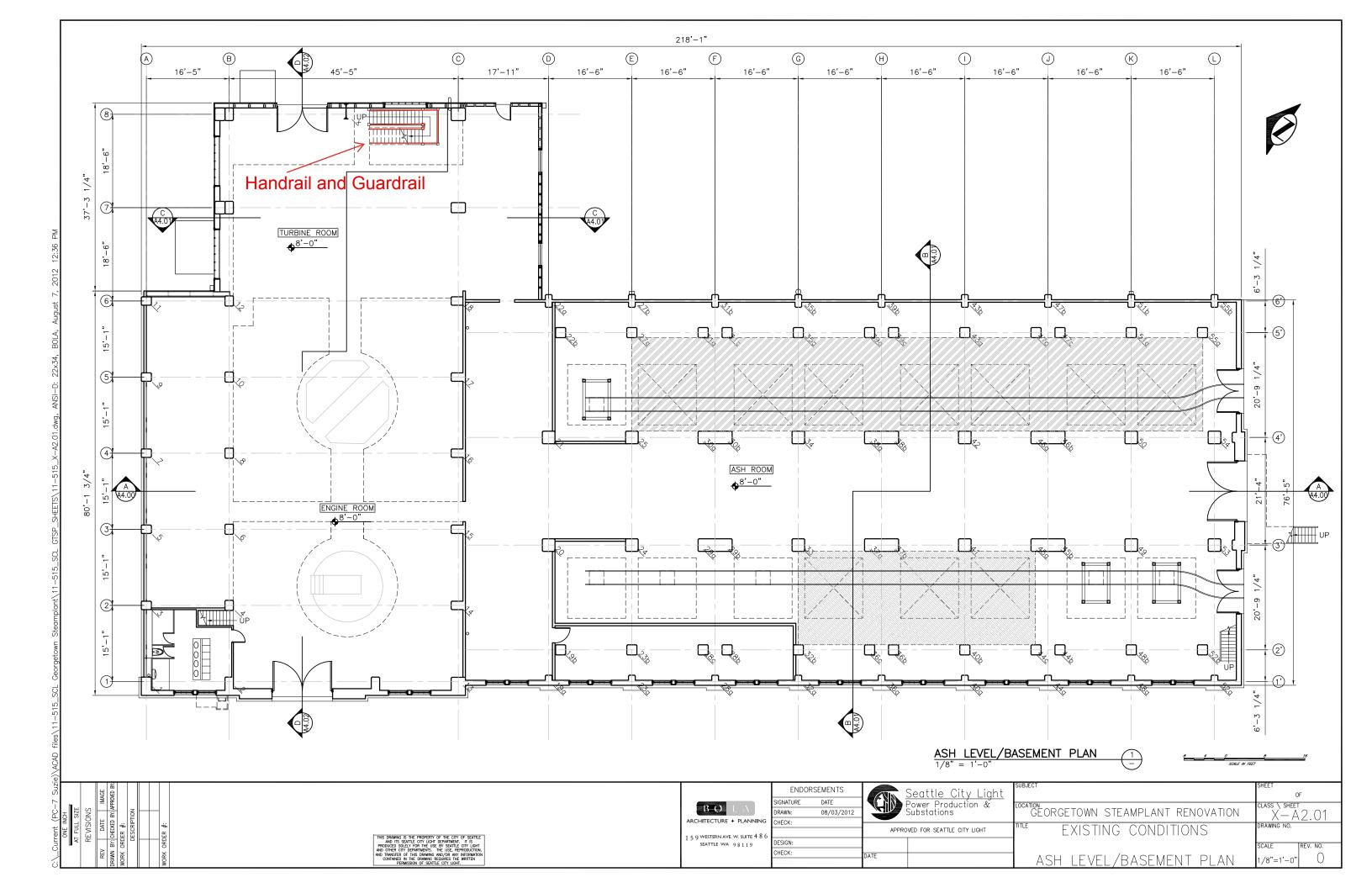
ADA Ramp to Turbine Room NE Exterior

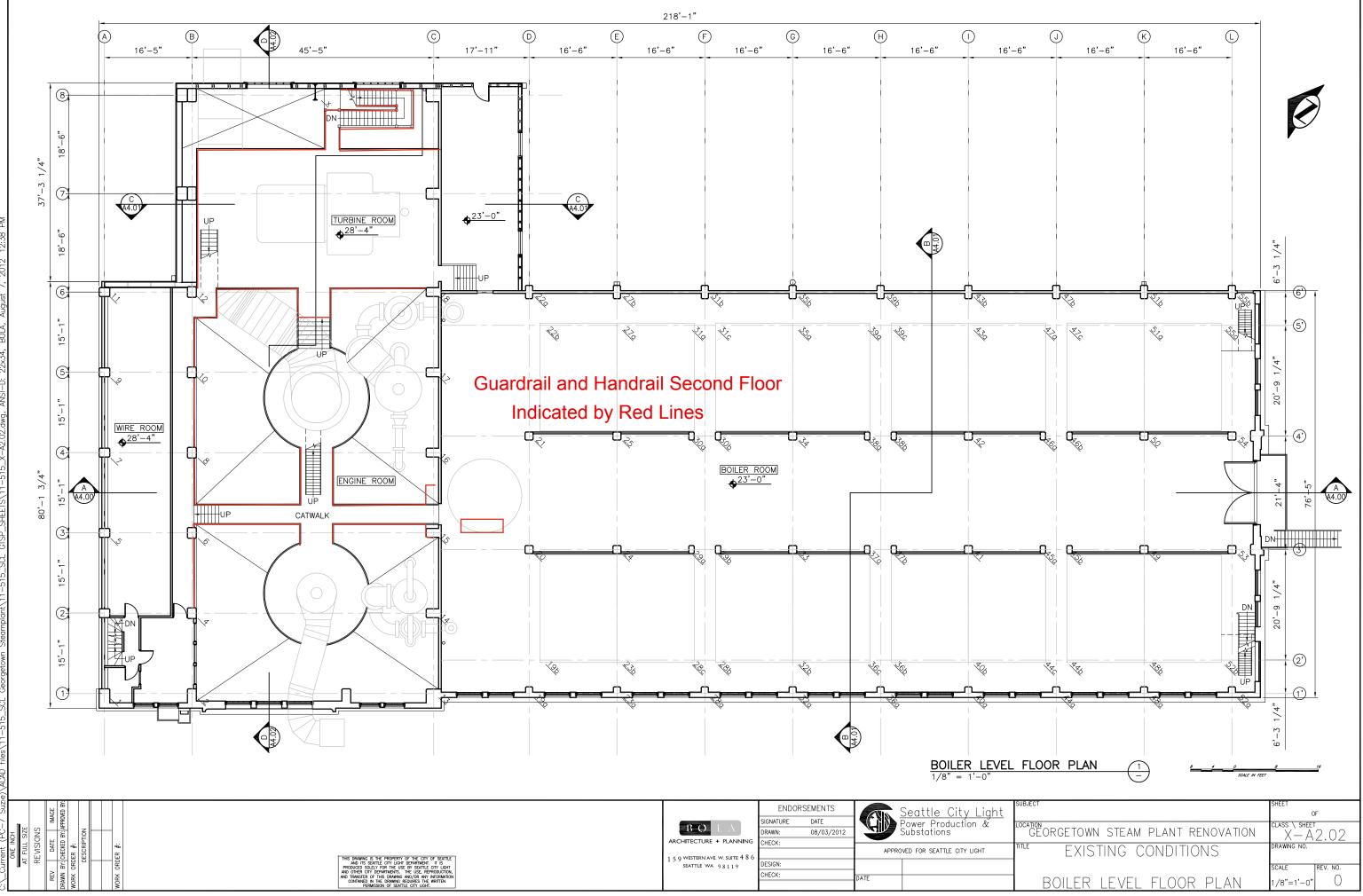


ADA Ramp to Turbine Room NE Exterior



ADA Ramp From NE Turbine Room

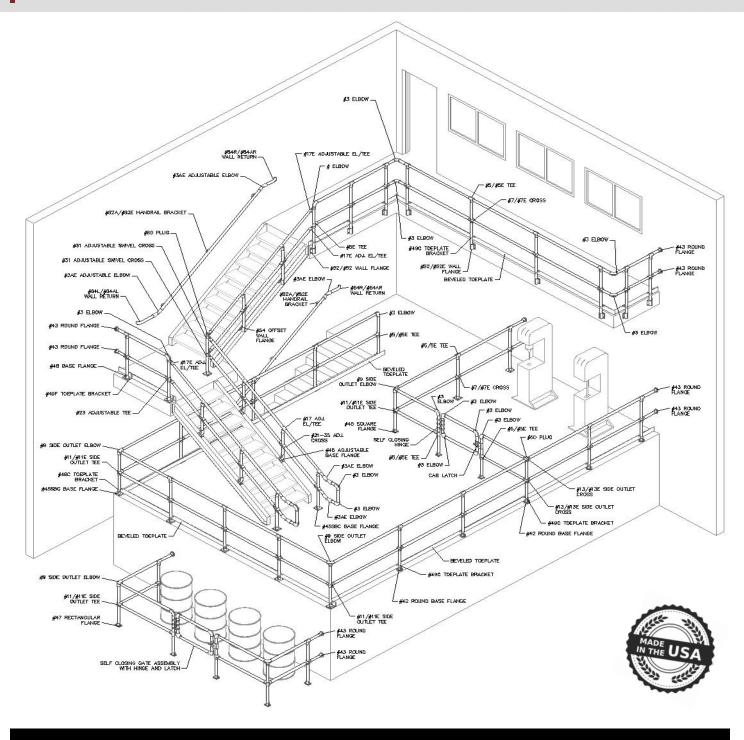






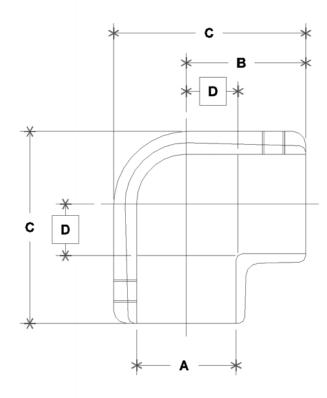


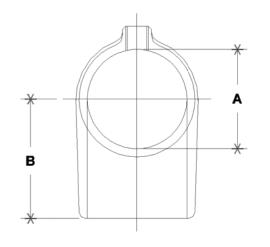
# **TYPICAL SPEED-RAIL® RAILING DRAWING**





The Hollaender® Manufacturing Company P.O. Box 156399 | 10285 Wayne Avenue | Cincinnati, OH 45215-6399 800-772-8800 | 513-772-8800 | Fax: 513-772-8806 | sales@hollaender.com | www.hollaender.com NOTE: DIMENSIONS LOCATED IN BOXES ARE COMMON SETBACK DIMENSIONS FOR EACH FITTING





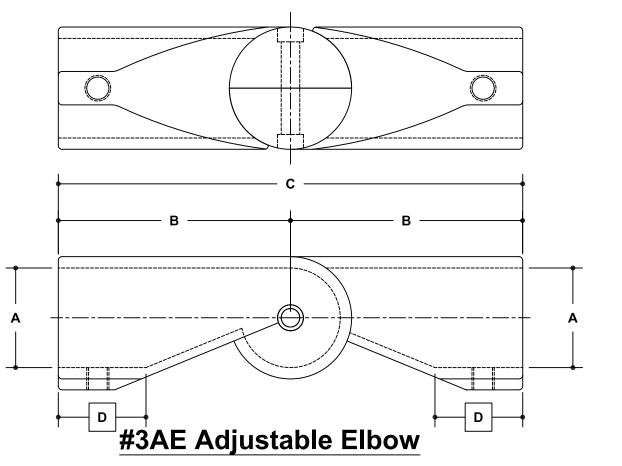
#3 Elbow

SCALE: HALF

ENGLISH UNITS (Inches)											
PIPE SIZE	Α	В	С	D	Е	F	G				
2"	2.40	3.00	4.64	1.25							
1½"	1.93	2.32	3.72	1.00							
1¼"	1.68	2.00	3.22	0.88							
1"	1.32	1.78	2.82	0.72							
3⁄4"	1.07	1.50	2.34	0.60							

METRIC UNITS (mm)											
PIPE SIZE	Α	В	С	D	E	F	G				
2"	61	76	118	32							
1½"	49	59	94	25							
1¼"	43	51	82	22							
1"	34	45	72	18							
3/4"	27	38	59	15							

### NOTE: DIMENSIONS LOCATED IN BOXES ARE COMMON SETBACK DIMENSIONS FOR EACH FITTING

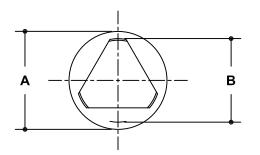


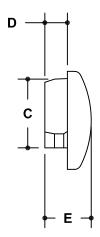
SCALE: HALF

	ENGLISH UNITS (Inches)										
PIPE SIZE	Α	В	С	D	E	F	G				
11⁄2"	1.93	4.50	9.00	1.63							
11⁄4"	1.68	3.81	7.63	1.38							

METRIC UNITS (mm)										
PIPE SIZE	Α	В	С	D	E	F	G			
11⁄2"	49	114	229	41						
11⁄4"	43	97	194	35						

### NOTE: DIMENSIONS LOCATED IN BOXES ARE COMMON SETBACK DIMENSIONS FOR EACH FITTING





## #62 Mach. Plug Sch.40 (OD PIPE)

SCALE: HALF

	ENGLISH UNITS (Inches)											
PIPE SIZE	ØA	ØВ	С	D	E	F	G					
2"	2.38	2.08	1.68	.44	.84							
11/2"	1.90	1.64	1.35	.44	.78							
11⁄4"	1.66	1.40	1.19	.44	.76							
1"	1.32	1.06	.86	.44	.72							
3⁄4"	1.05	.84	.70	.44	.70							

METRIC UNITS (mm)							
PIPE SIZE	Α	В	С	D	E	F	G
2"	60	53	43	11	21		
11⁄2"	48	42	34	11	20		
11⁄4"	42	36	30	11	19		
1"	34	27	22	11	18		
3⁄4"	27	21	18	11	18		



Handrail and Guardrail at NE Stair 1st Floor



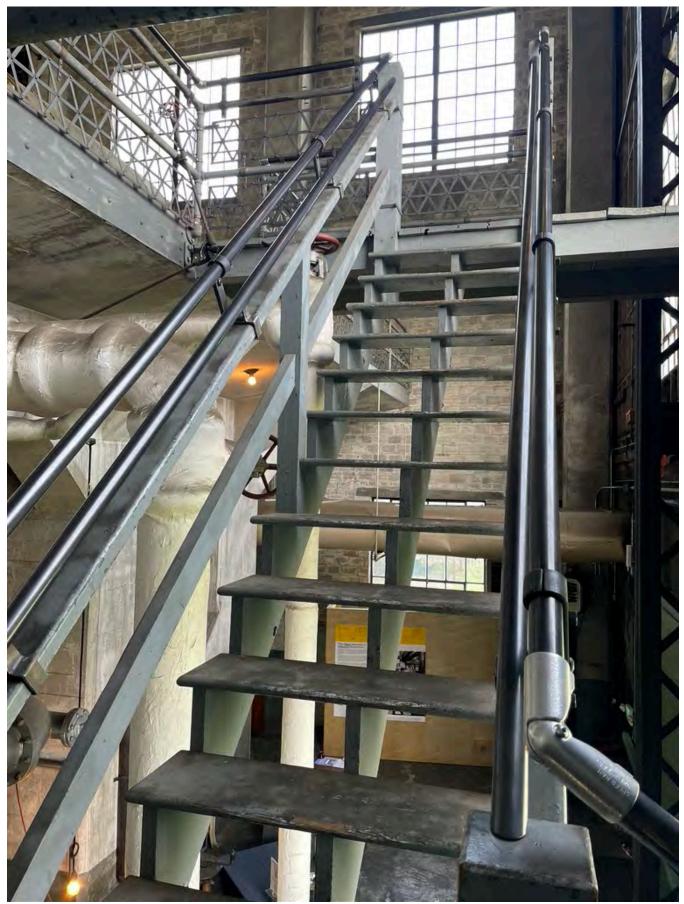
Handrail and Guardrail at NE Stair Looking up from 1st Floor



Handrail and Guardrail at Landing Between 1st and 2nd Floor



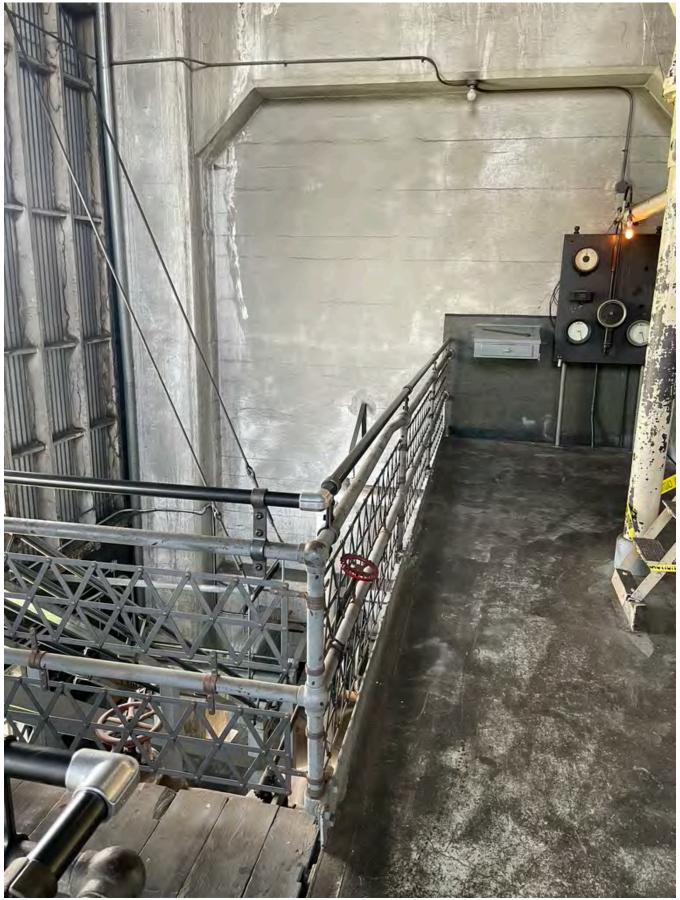
Handrail and Guardrail at Landing Between 1st and 2nd Floor



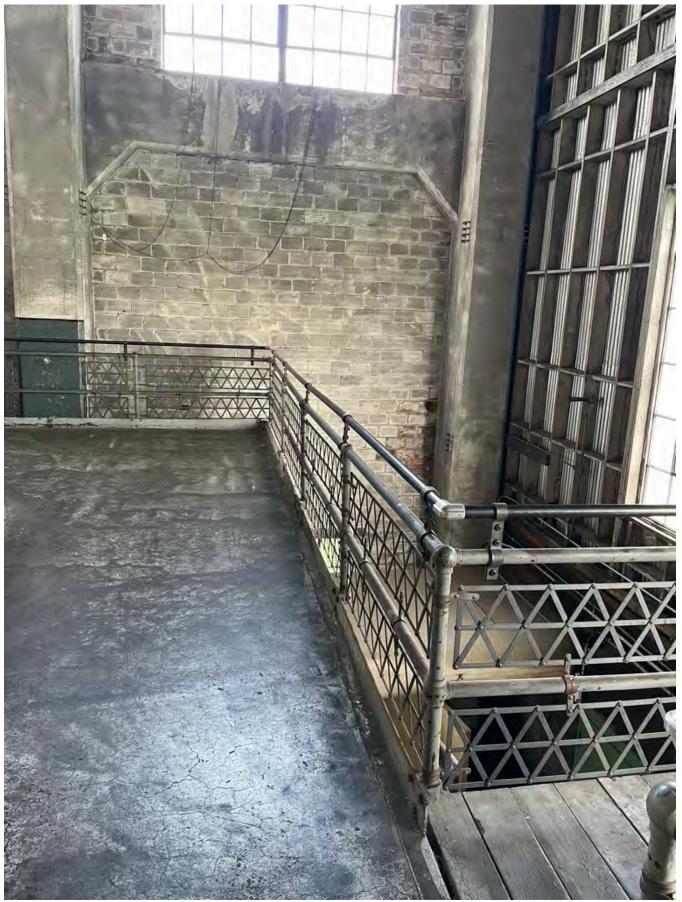
Handrail and Guardrail From Landing between 1<sup>st</sup> and 2<sup>nd</sup> Floor Looking up to 2<sup>nd</sup> Floor



Guardrail at 2nd Floor Landing



Guardrail at 2nd Floor East



Guardrail at 2nd Floor NE



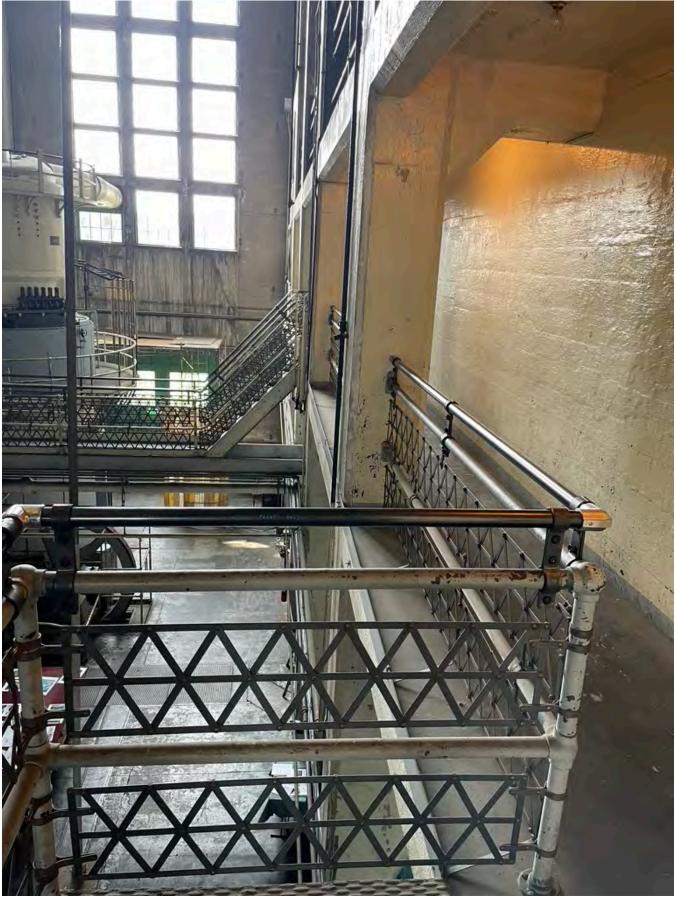
Guardrail at Second Floor NE



Guardrail at 2nd Floor Center with Gate to #2 Turbine



Guardrail at 2nd Floor N



Guardrail At 2nd Floor N



Guardrail at 2nd Floor N



Guardrail at 2nd Floor N at Bridge Stair



Guardrail at 2nd Floor NW



Guardrail 2nd Floor N at Bridge



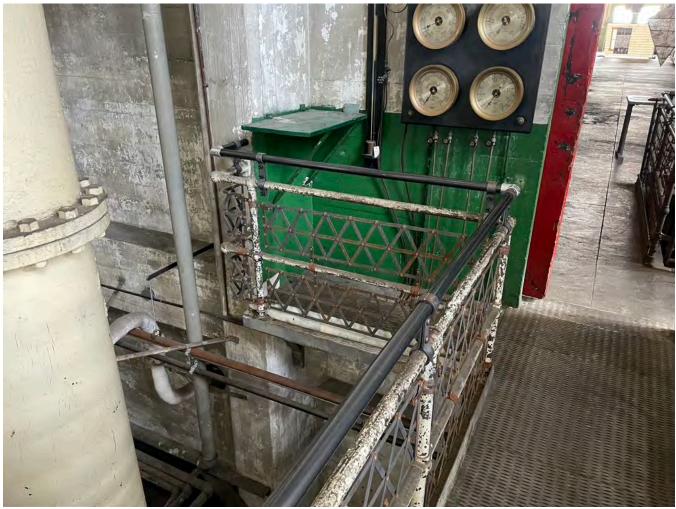
Guardrail at 2nd Floor Bridge to Boiler Room



Guardrail at 2nd Floor Bridge to Boiler Room at #1 Turbine



Guardrail at 2nd Floor Bridge to Boiler Room at #2 Turbine



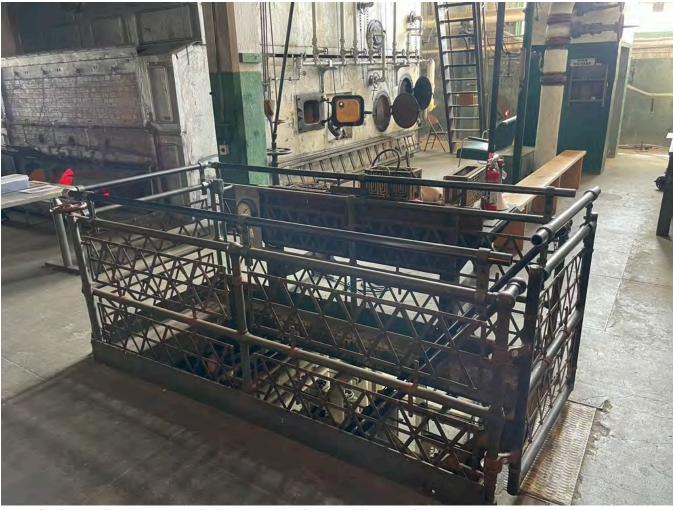
Guardrail at 2nd Floor Bridge at Boiler Room Entry



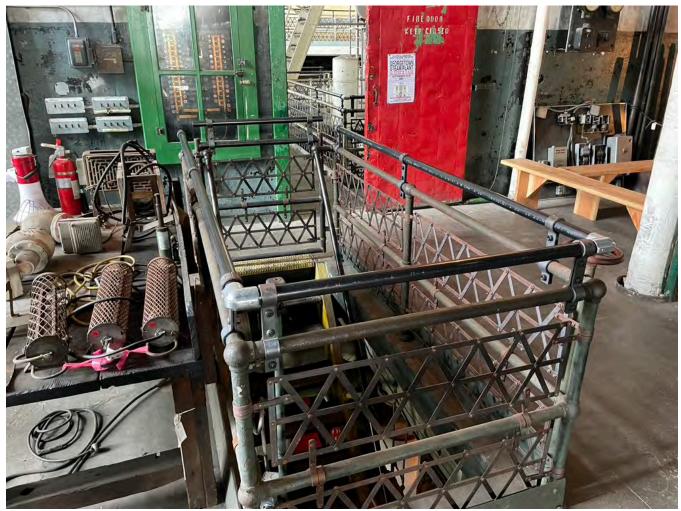
Guardrail at 2nd Floor Bridge at Boiler Room Entry



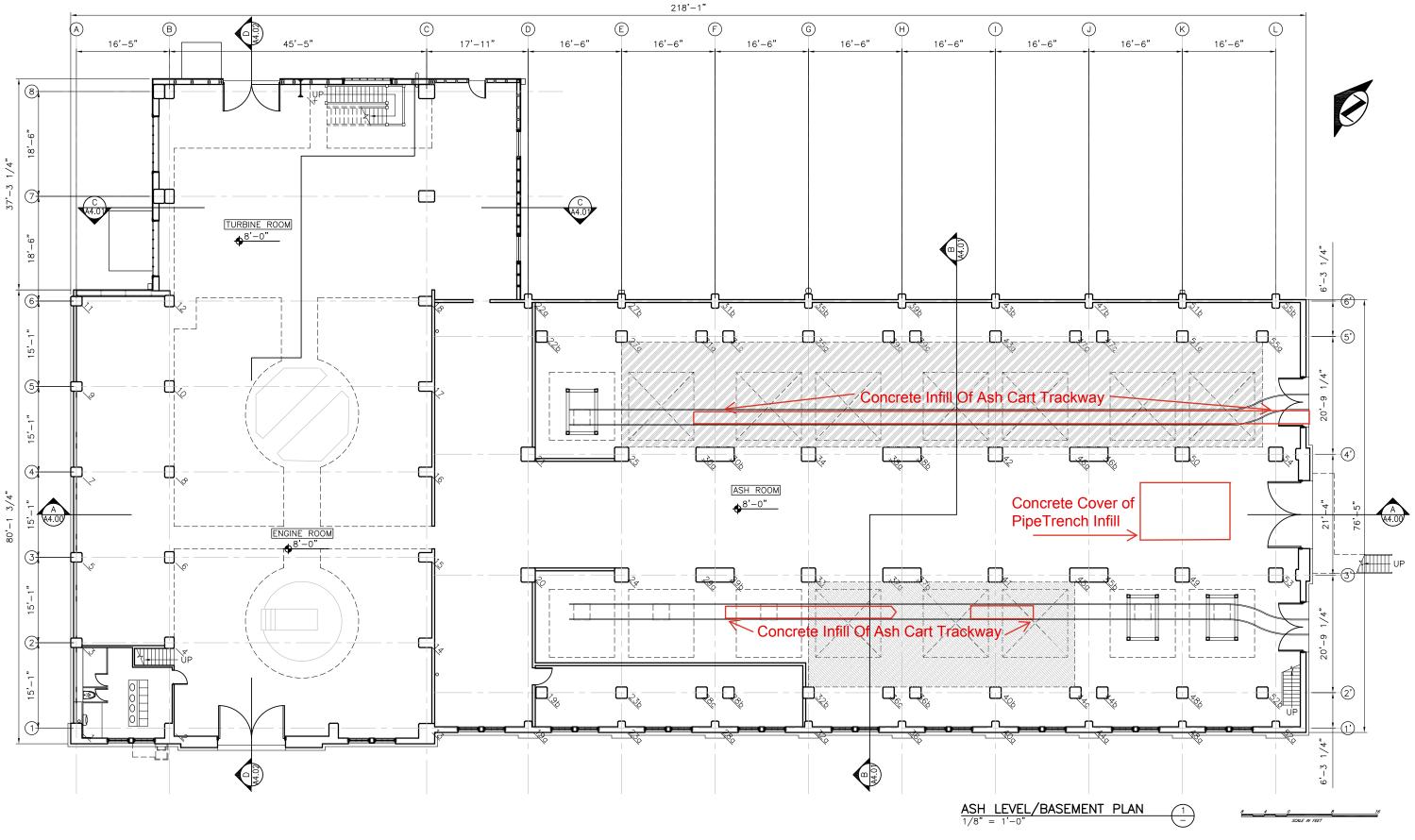
Guardrail at 2nd Floor Bridge Looking From Boiler Room Entry Across Turbine Room



Guardrail at Boiler Room N Including Gate to Ships Ladder to Ash Room



Guardrail at Boiler Room N Including Gate to Ships Ladder to Ash Room





Previous Existing Condition with Collapsing Debris Pile in Trench Below



Water Intake Pipe Trench Running N/S Under Ash Room. View from top of Debris Pile facing Down and North



Detail of upside Down Railroad Track Structure at Surface of Opening. Previously Used to Support Steel Plates to Cover Trench



Debris Pile Edge in Trench Prior to Stabilization



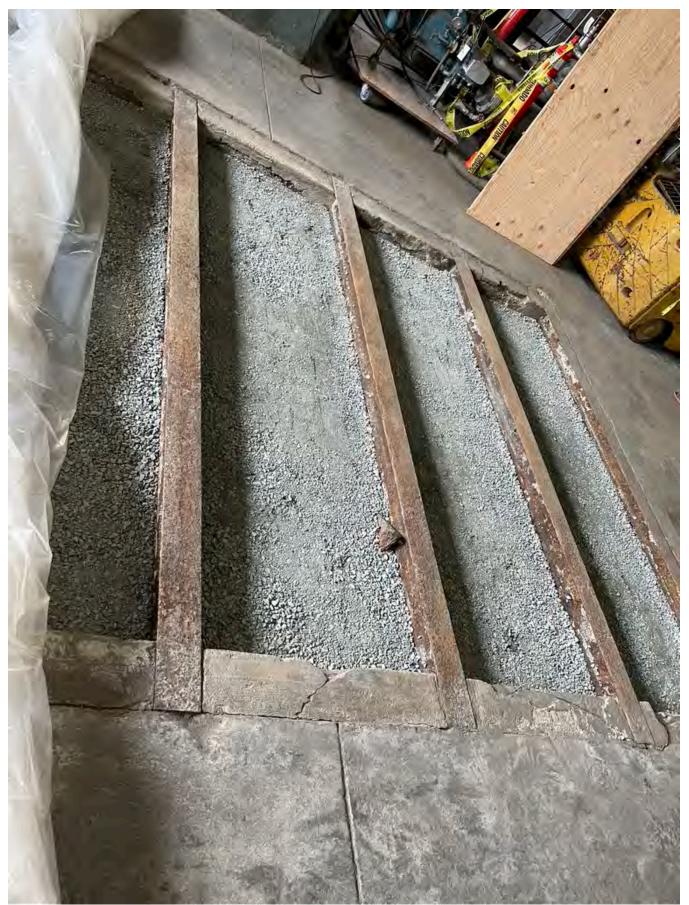
Debris Pile In Trench Prior to Stabilization



Debris Pile After Stabilization with Heavier Debris Edge Build Up for Structure



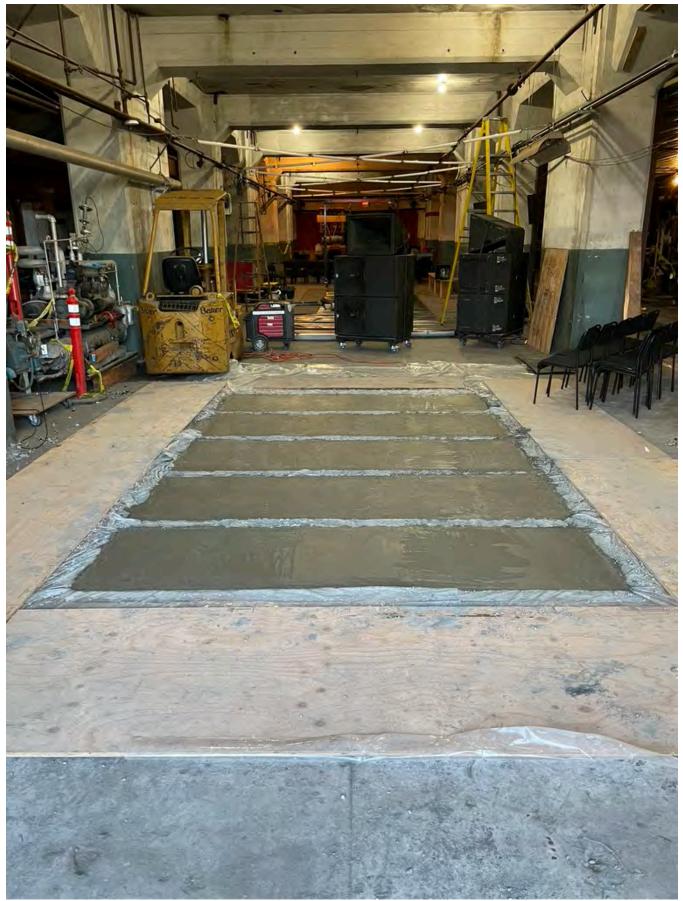
Debris Pile After Stabilization. Debris Transferred from Center to Edge of Pile and Compacted For Stabilization. See Far Edge With Built up Heavier Debris.



Debris Pile With Approximately 4" Deep 5/8"Minus Crushed Rock. Leveled and Compacted Approximately 4" Below Finished Surface



6 Mil Plastic Sheeting Over Gravel Base to Separate For Future Removal and Protect Existing Structure. Foam Infill at Tracks to Maintain Separation And Protect Existing Structure. Steel Wire Concrete Reinforcement Mesh for Imbedded Structure. Final Prep for Concrete Pour with Plywood Over Plastic Surrounding Pour Area to Protect Existing Building During Pour and Finishing.



Post Concrete Pour Prior to Protection Removal.



Fished Concrete Infill Over Debris Pile In Pipe Trench In Ash Room.



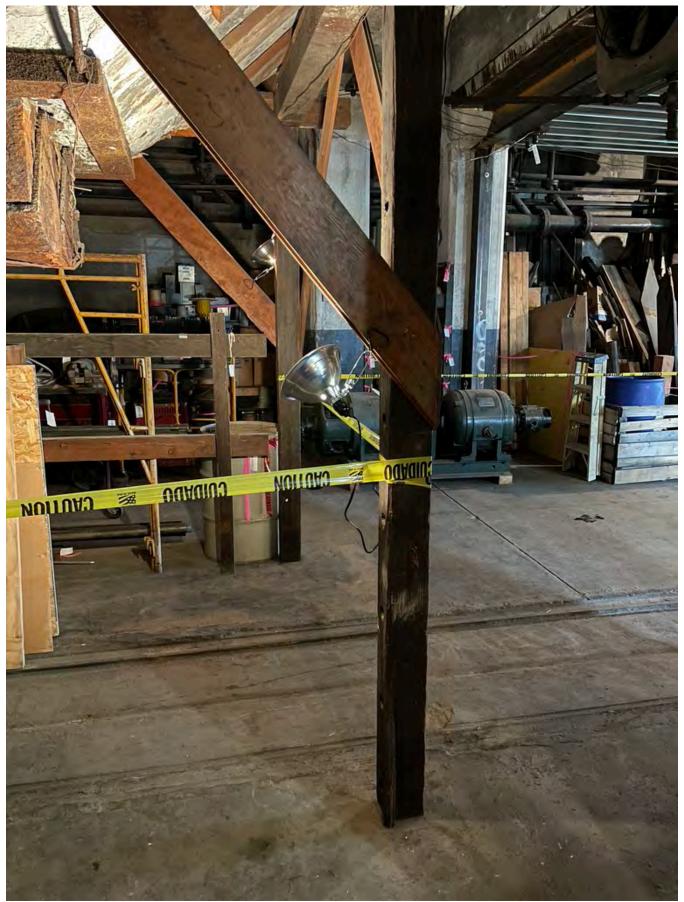
Ash Cart Track NW Ash Room North End prior To Concrete Infill



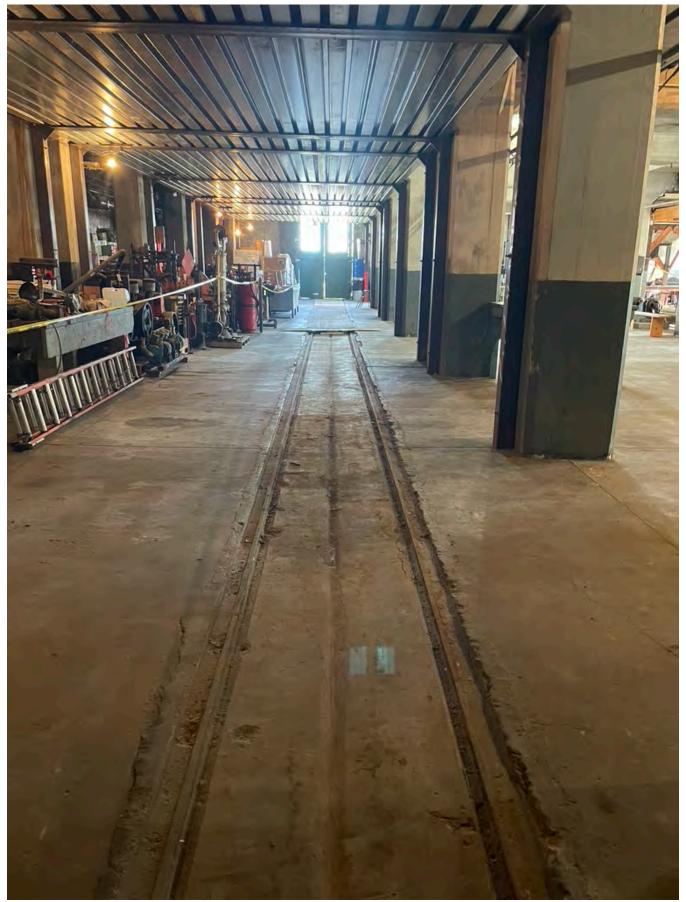
Ash Cart Track NW Ash Room prior To Concrete Infill



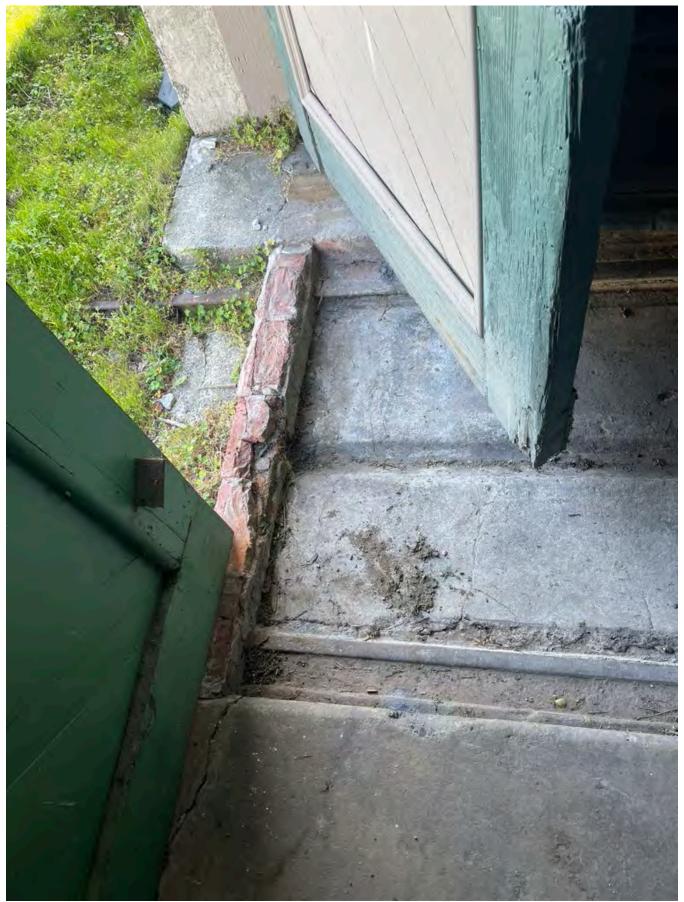
Ash Cart Track W Ash Room Prior to Concrete Infill



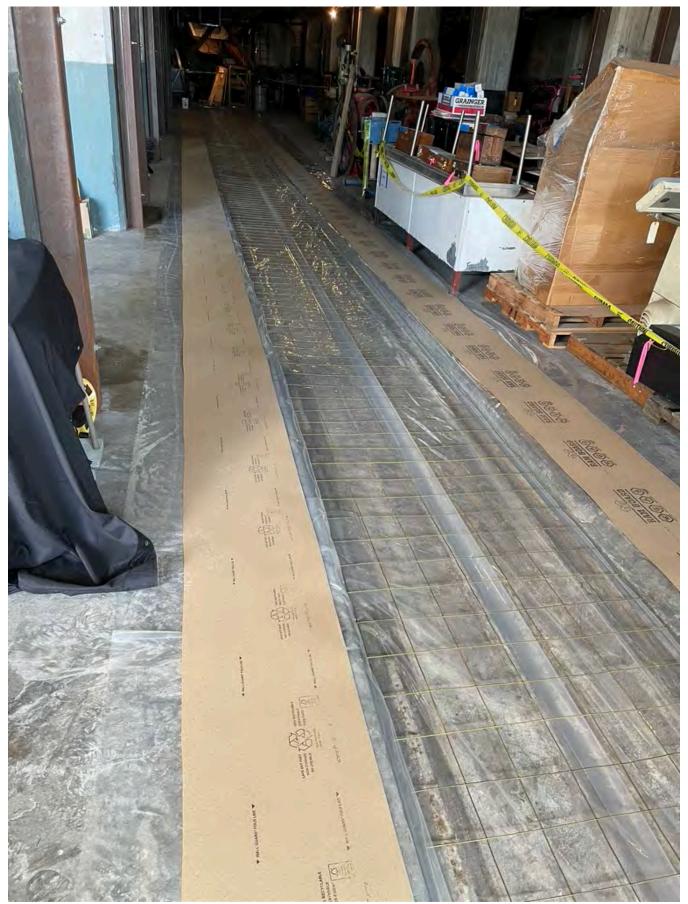
Ash Cart Track NE Ash Room Prior to Concrete Infill



Ash Cart Track E Ash Room Looking South Prior to Concrete Infill



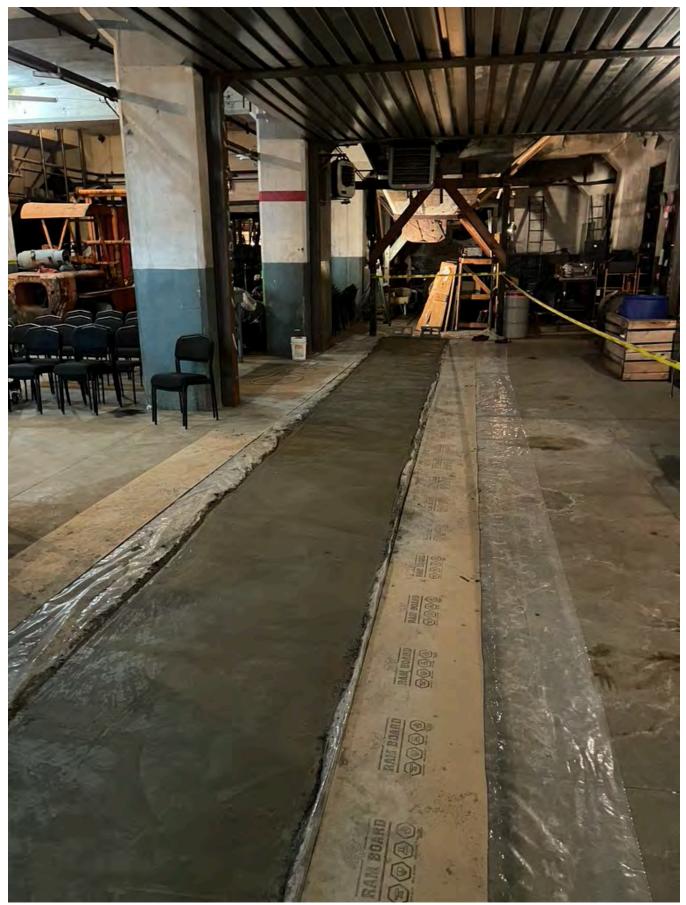
Ash Cart Track SE Ash Room Prior to Concrete Infill (South Extent of Infill at South Door)



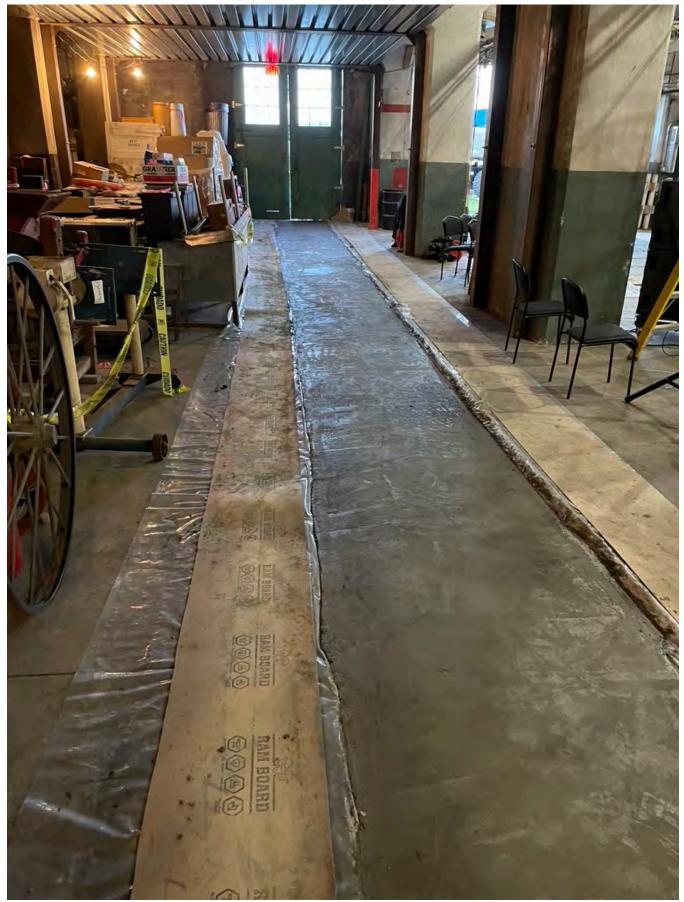
Ash Cart Track East Side Prepped for Concrete Pour with 6mil plastic sheeting for separation from existing trackway and track protection of surrounding areas during pour. Steel reinforcing mesh for concrete strengthening and ram board on each side for protection during pour. Standard prep on all track infill areas.



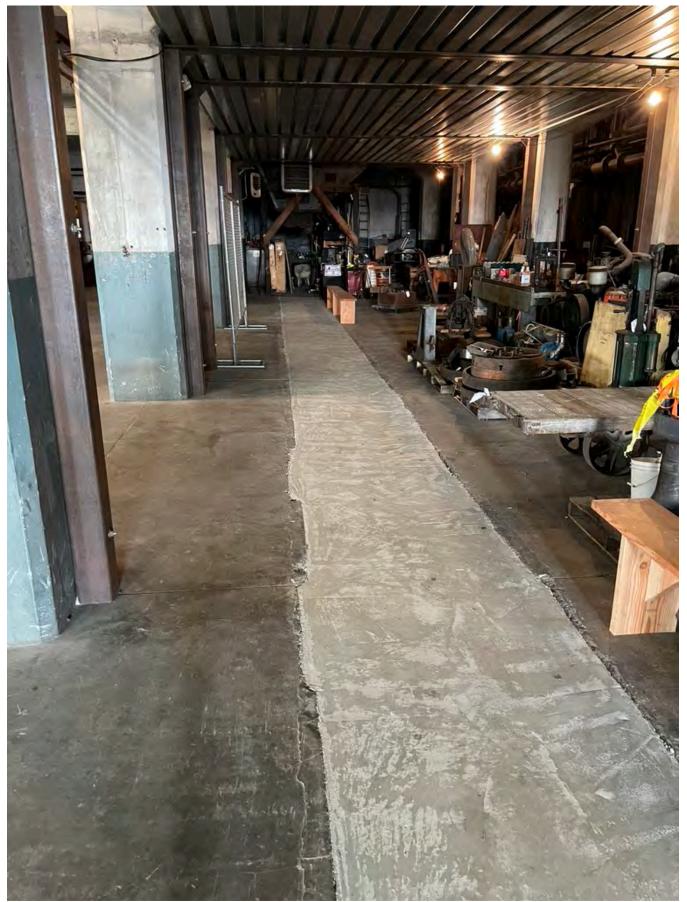
Same Ash Cart Track Prep As Above Facing South



Ash Cart Track East Ash Room Looking North During Concrete Pour and Finishing



Ash Cart Track East Ash Room Looking South During Concrete Pour And Finishing



Ash Cart Track E Ash Room With Completed Concrete Infill Looking North



Ash Cart Track East Ash Room with Completed Concrete Infill Looking South. Showing North Extent Preserving Open Trackway for Interpretation While Other Sections Are Filled. Also Showing Section View Of Poured Concrete at North Extent.



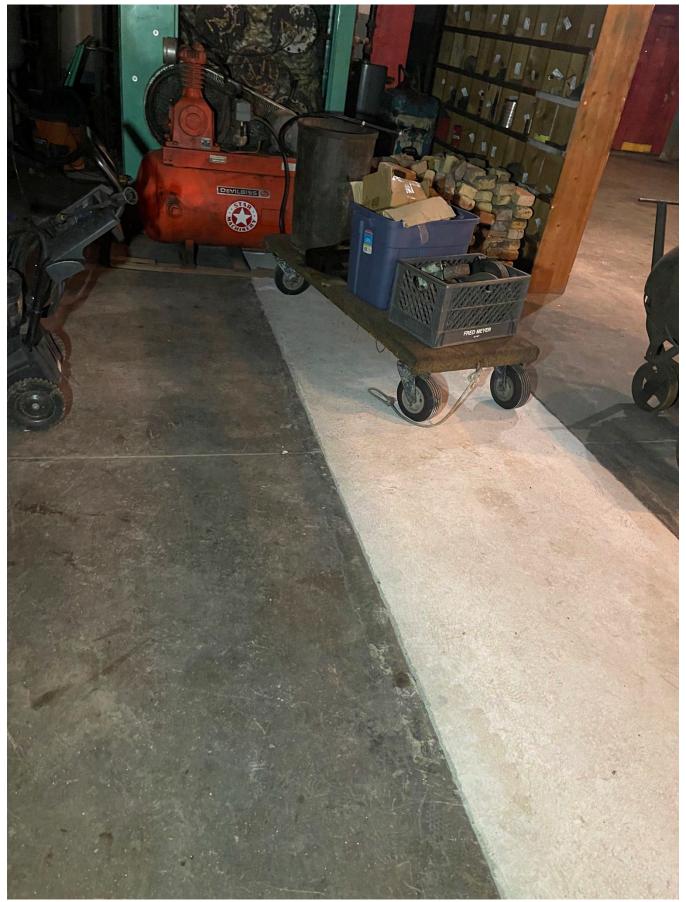
Ash Cart Track West Ash Room After Completed Concrete Infill. Note New Concrete Infill against Old Concrete Infill in Same Trackway.



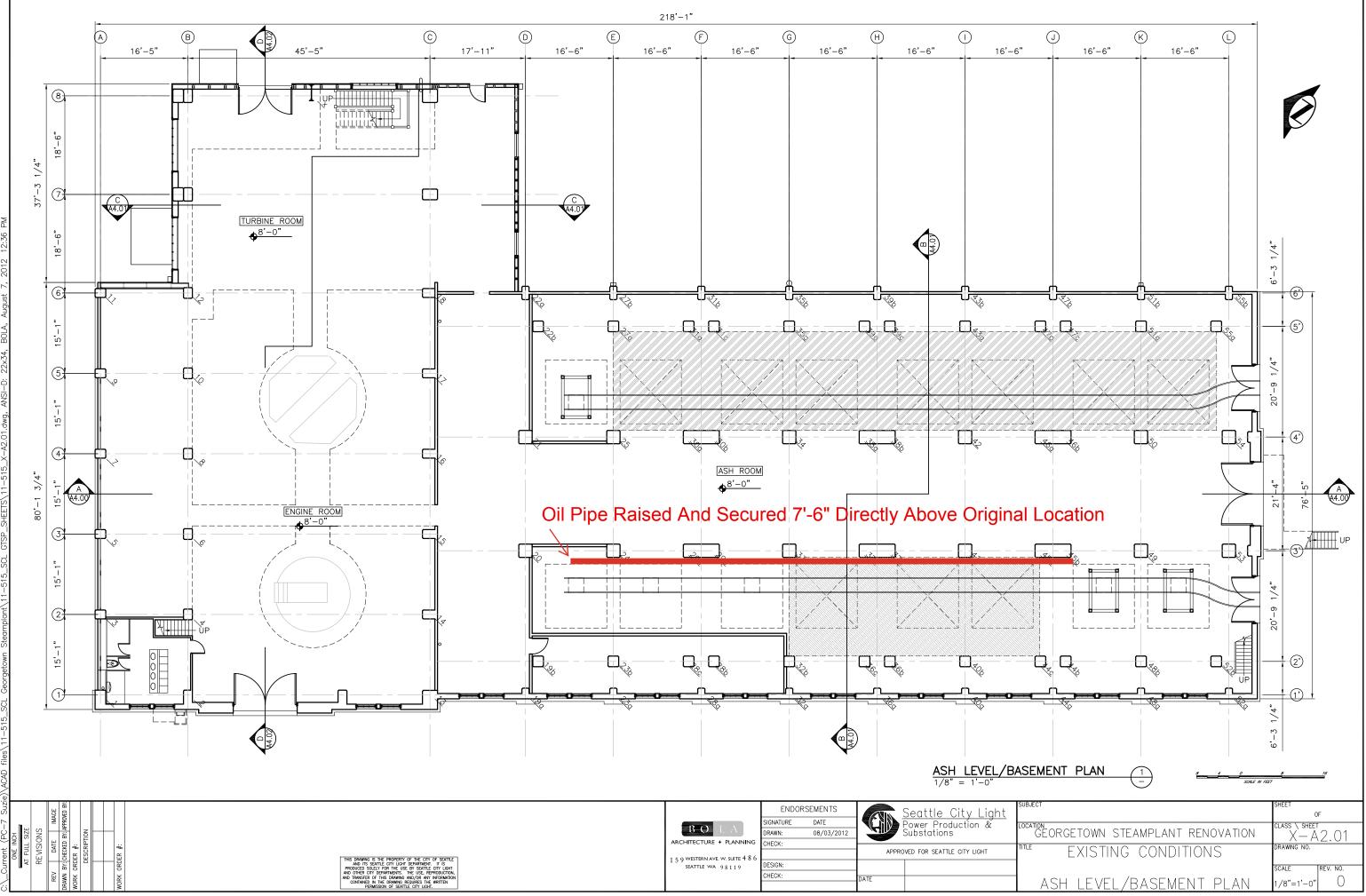
Ash Cart Track West Ash Room After Concrete Infill Completed. Note New Concrete Infill Against Old Concrete Infill in Same Trackway.

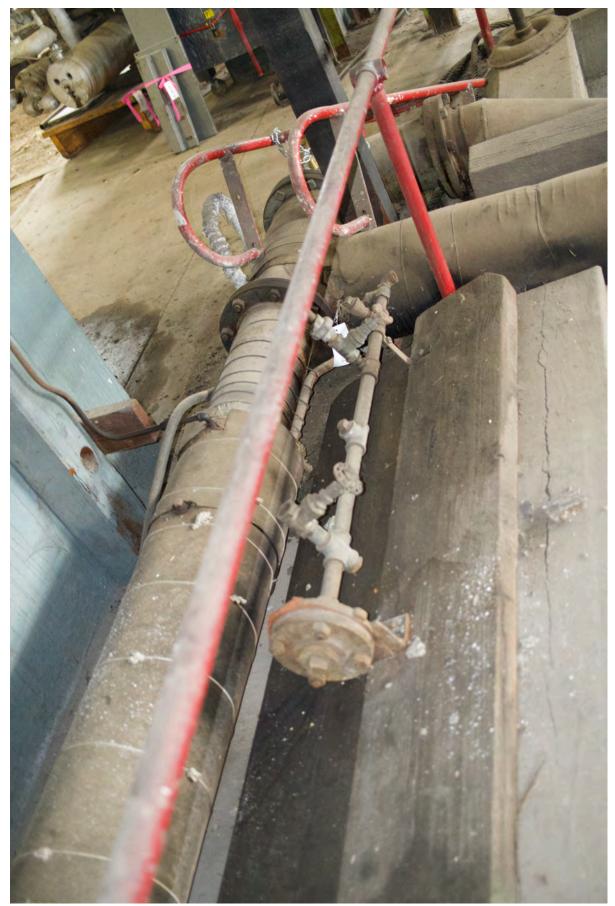


Ash Cart Track NW Ash Room After Completed Concrete Infill. Note New Concrete Infill Against Old Concrete Infill in Same Trackway.



Ash Cart Track NW Ash Room After Completion of Concrete Infill

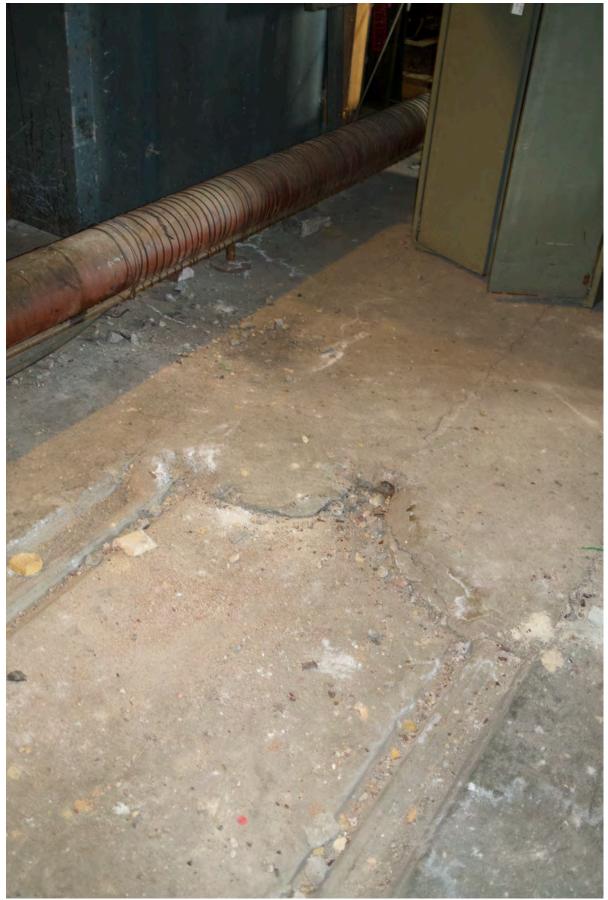




Oil Pipe SouthWest Ash Room South Extent Prior to Raising



Oil Pipe West Ash Room Prior to Raising



Oil Pipe West Ash Room Prior to Raising



Oil Pipe West Ash Room Prior to Raising



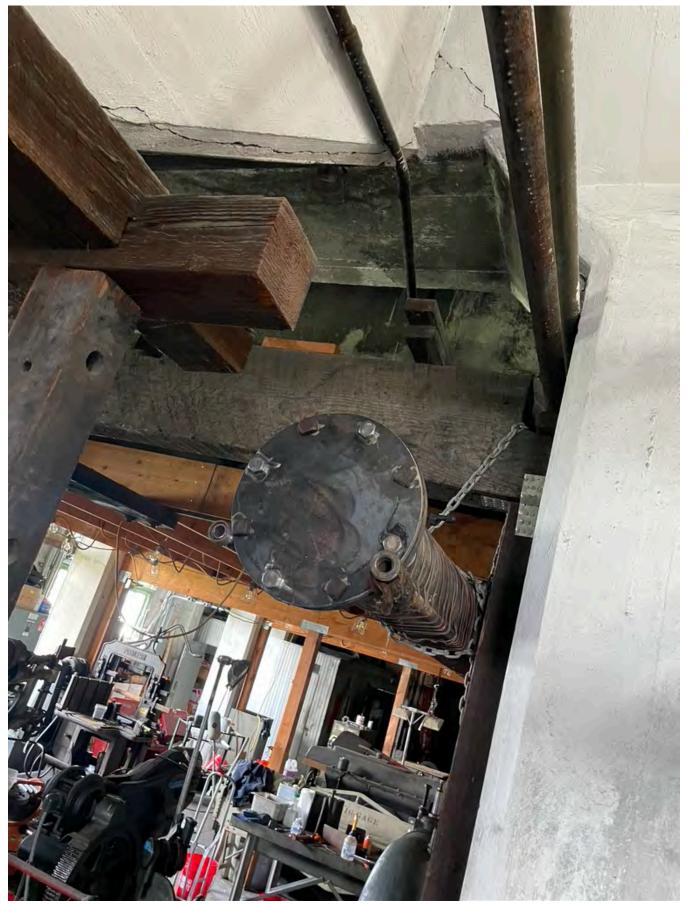
Oil Pipe West Ash Room Prior to Raising. Note Corrugated Sheet Metal Insulation Cover



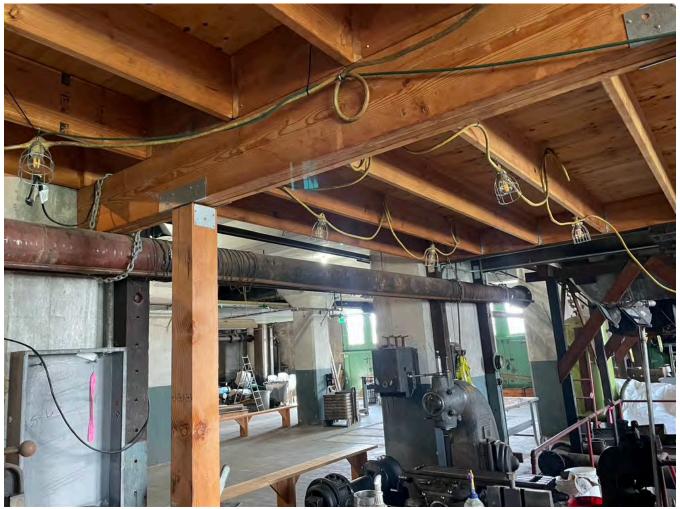
Oil Pipe Northwest Ash Room Prior to Raising. North Extent with Steam Lop heater Pipes. Apologies for out of focus as area has no lights.



Oil Pipe South Connection After Disconnection and Raising with New Sealing Plate and Neoprene Washer



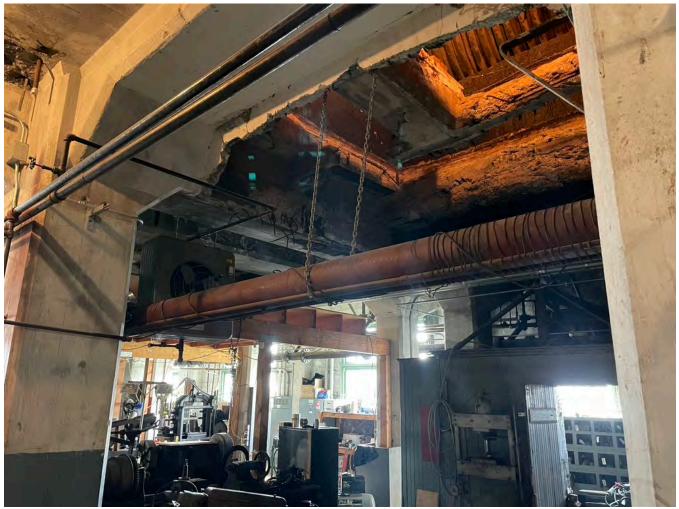
Oil Pipe West Ash Room After Raising. South Extent with Sealing Plate and Neoprene Washer. Note Steam Heat Lines Disconnected at Unions. Pipe Secured with Chain to Existing Structure.



Oil Pipe Southwest Ash Room After Raising. Secured to Existing Structure with Chain.



Oil Pipe Southwest Ash Room After Raising. Secured to Existing Structure with Chain.



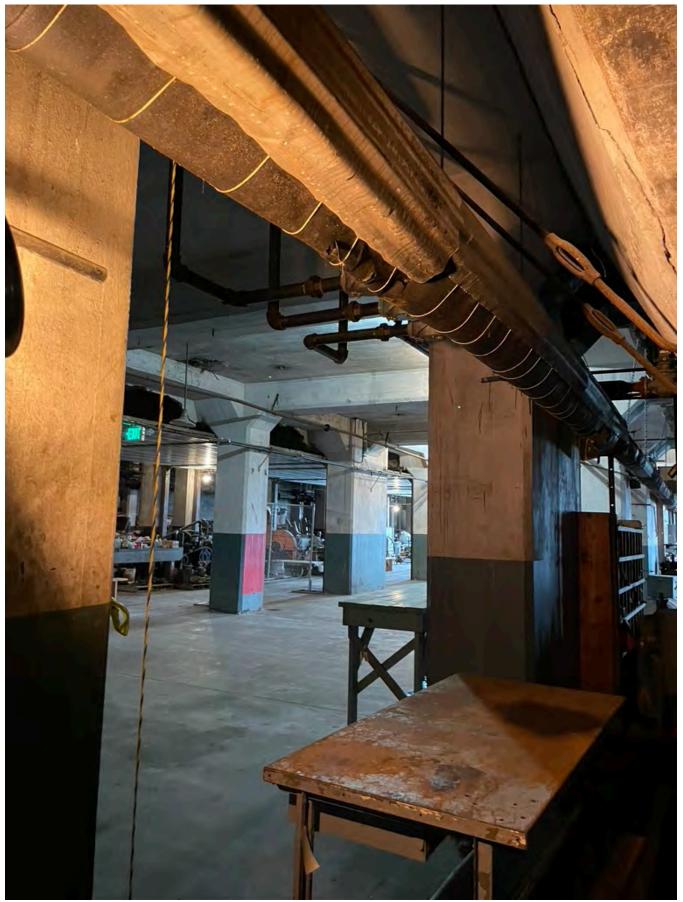
Oil Pipe West Ash Room After Raising. Secured to Existing Structure with Chain.



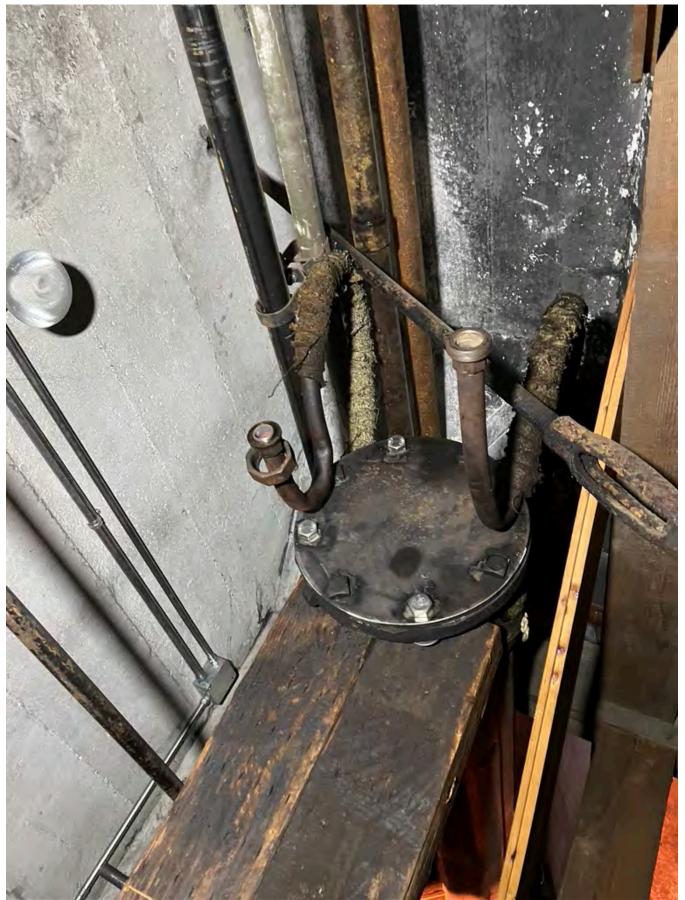
Oil Pipe West Ash Room After Raising. Secured to Existing Structure with Chain.



Oil Pipe Northwest Ash Room After Raising. Secured to Existing Structure with Chain.



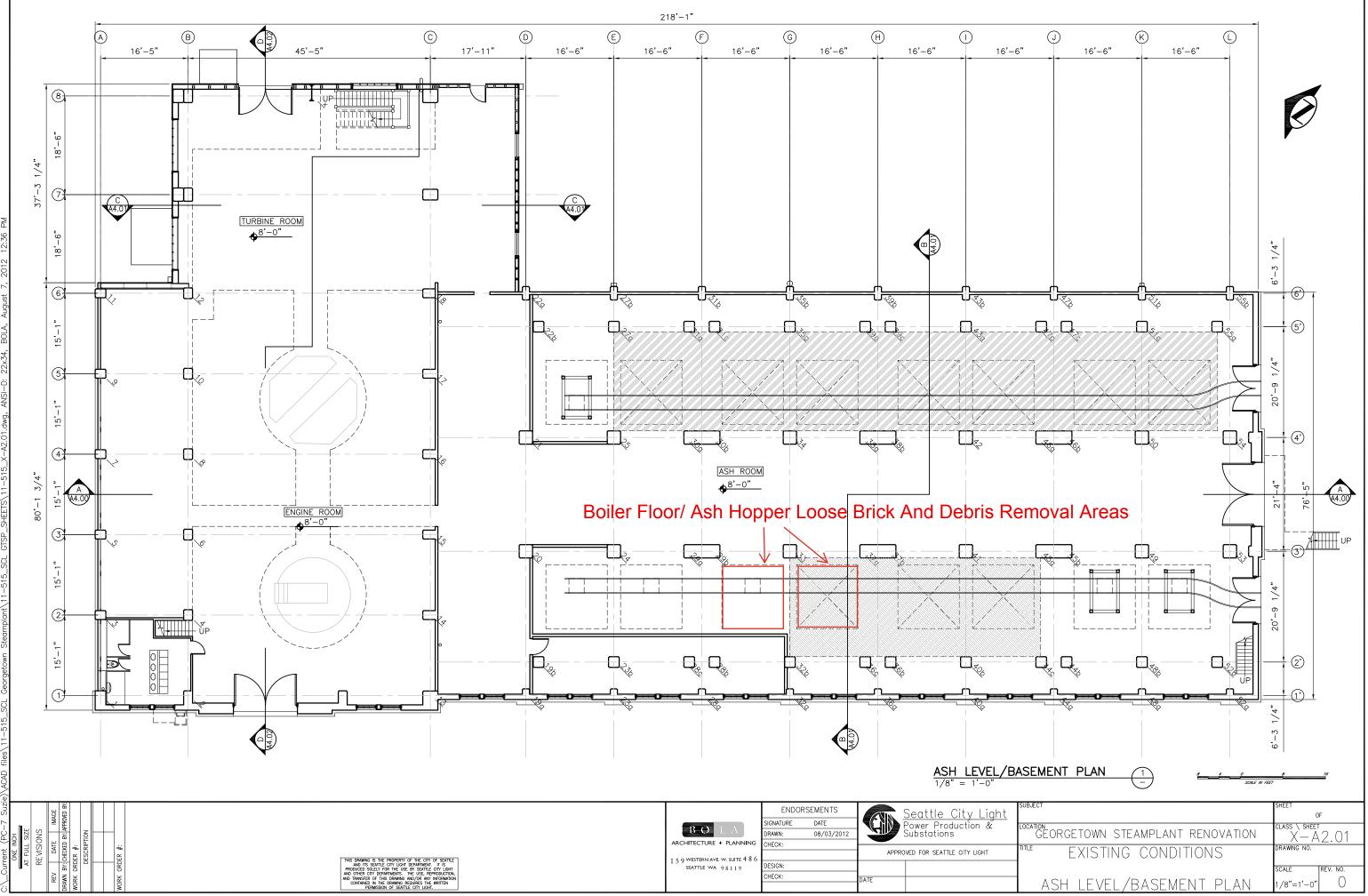
Oil Pipe Northwest Ash Room After Raising. Secured to Existing Structure with Chain.

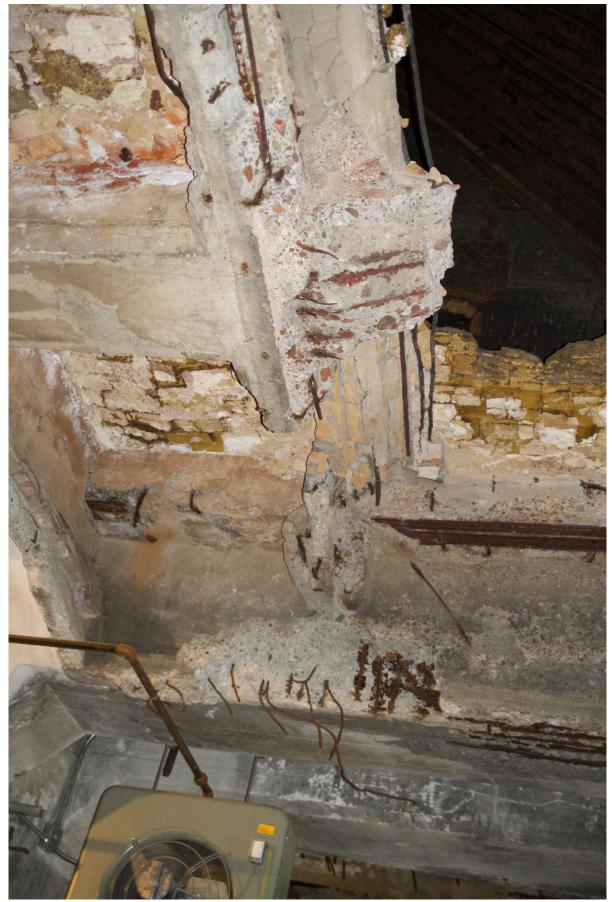


Oil Pipe Northwest Ash Room After Raising. Secured to Existing Structure with Chain and Braced on Solid Wood Post. North Extent with Sealing Plate and Neoprene Washer. Note Steam Heat Loop Pipes Disconnected at Unions.

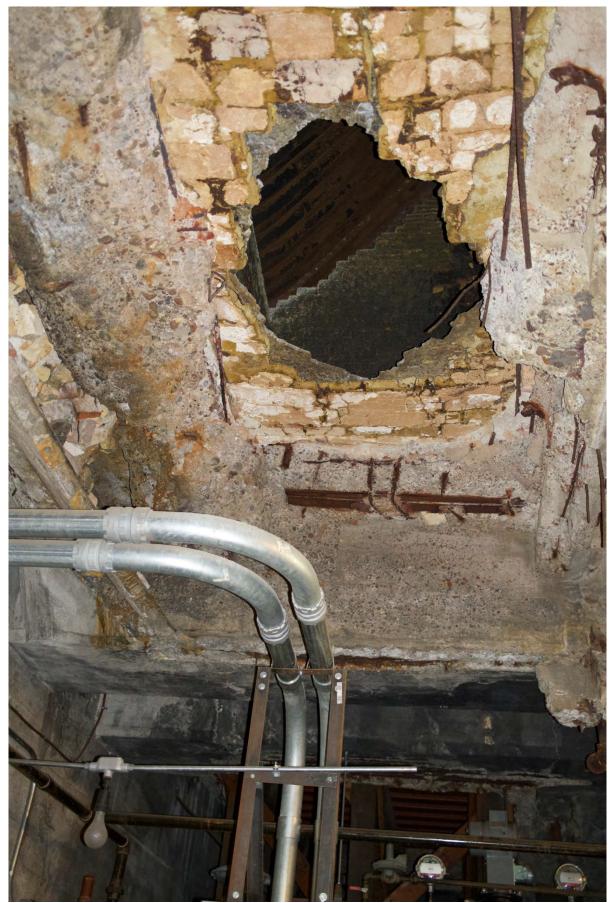


Oil Pipe Northwest Ash Room Remaining Lower Section Disconnected and Sealed with Sealing Plate and Neoprene Washer.

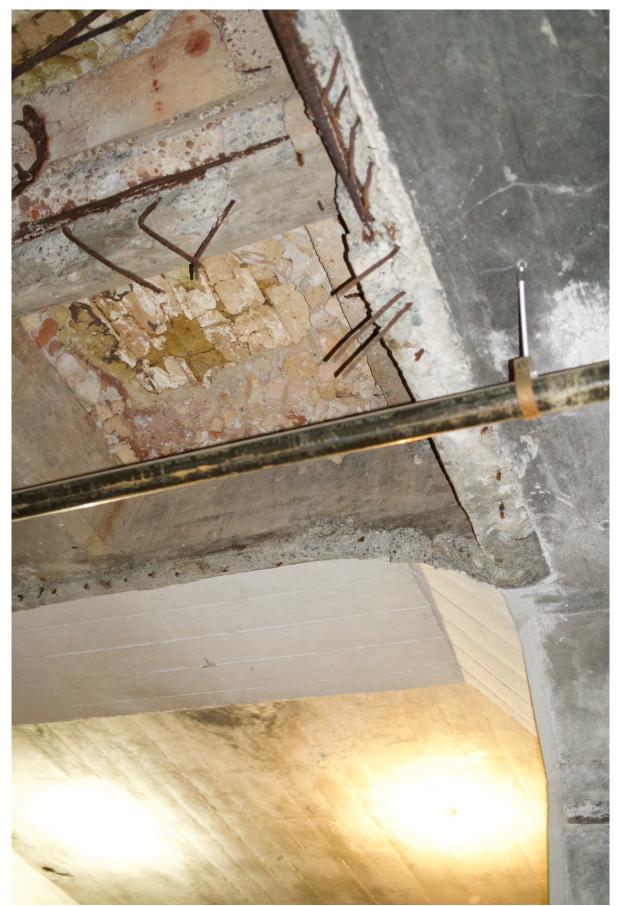




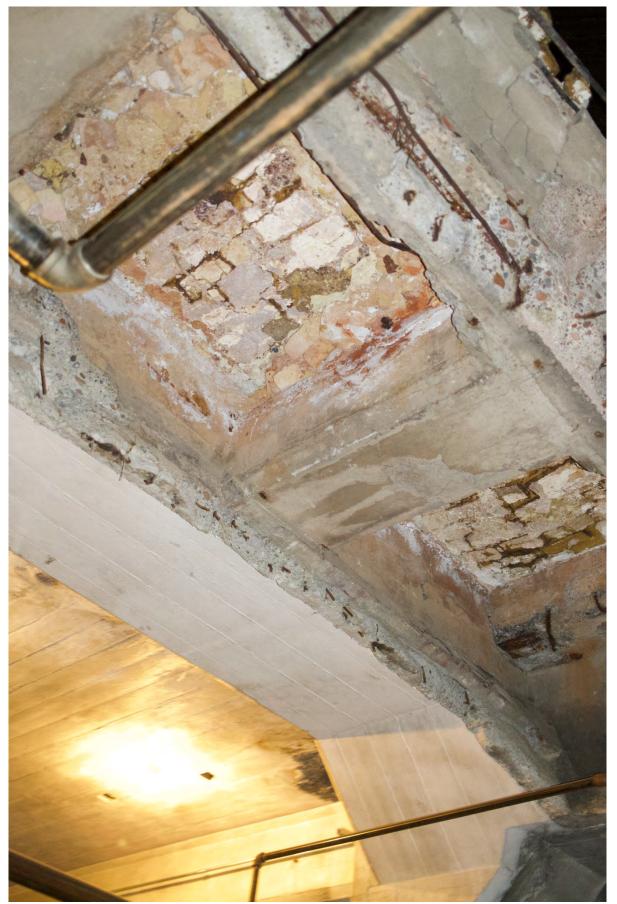
Boiler Floor/Ash Hopper Existing Condition With Loose Brick from Previous Hopper Removal



Boiler Floor/Ash Hopper Existing Condition With Loose Brick and Concrete from Previous Hopper Removal



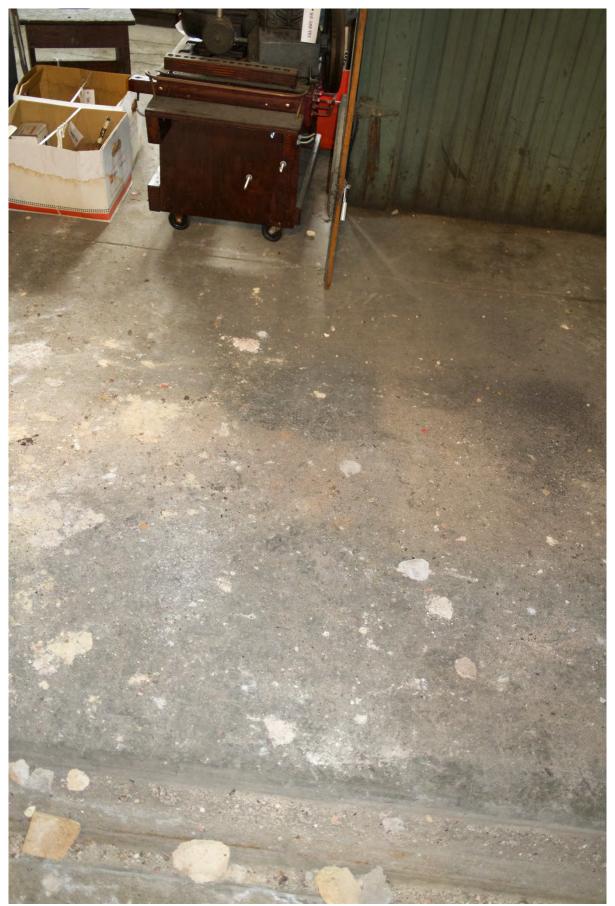
Boiler Floor/Ash Hopper Existing Condition With Loose Brick and Concrete from Previous Hopper Removal



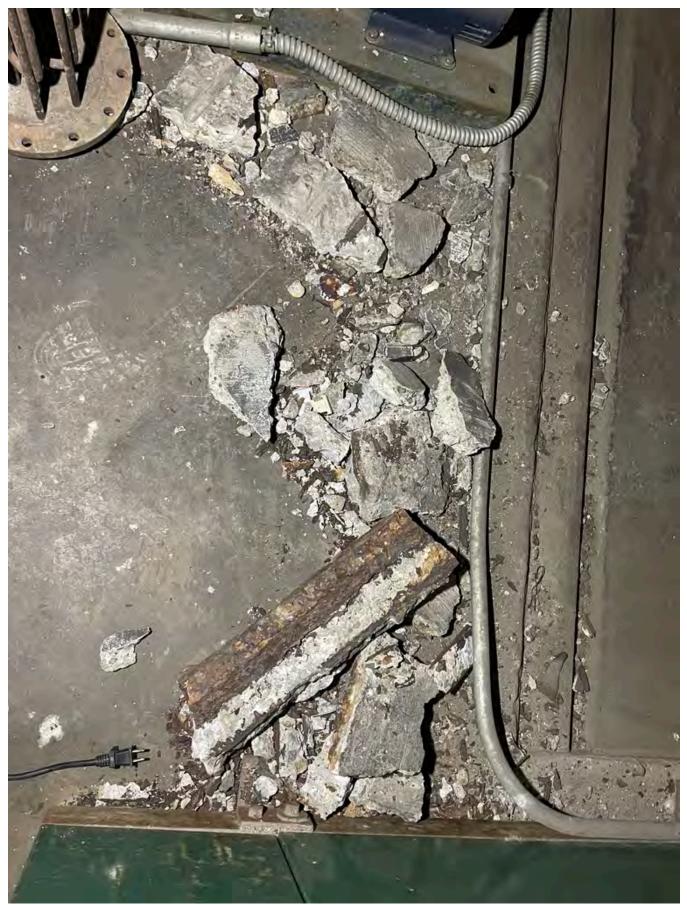
Boiler Floor/Ash Hopper Existing Condition With Loose Brick and Concrete from Previous Hopper Removal



Boiler Floor/Ash Hopper Existing Condition With Loose Brick and Concrete from Previous Hopper Removal



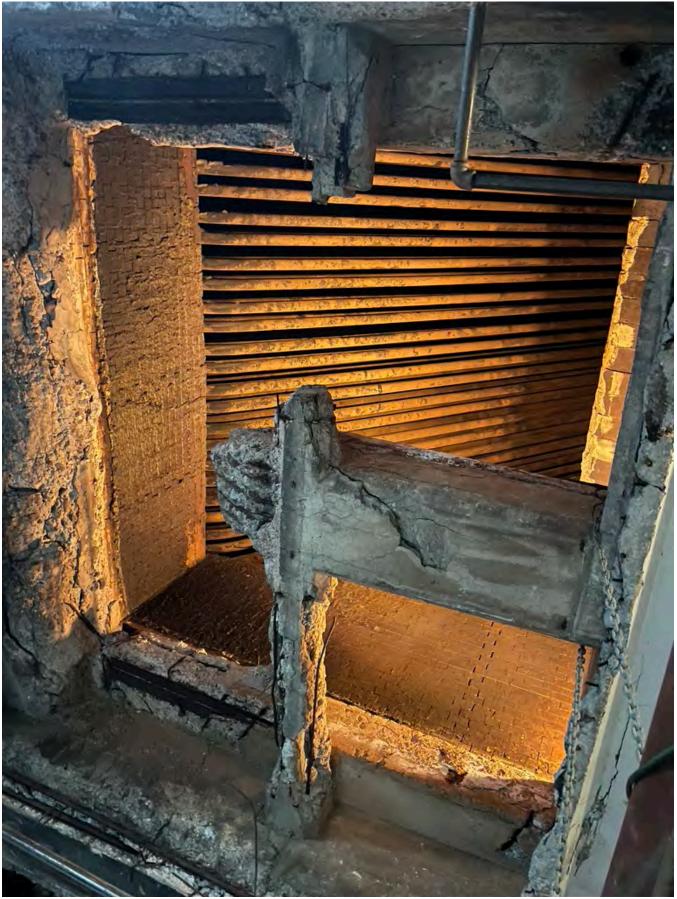
Brick and Debris Fallen From Boiler Floor and Previous Ash Hopper Removal Above. Full Bricks and Concrete Chunks Fell on a Regular Basis Prior to Loose Brick and Debris Removal Project.



Brick and Debris Fallen From Boiler Floor and Previous Ash Hopper Removal Above. Full Bricks and Concrete Chunks Fell on a Regular Basis Prior to Loose Brick and Debris Removal Project.



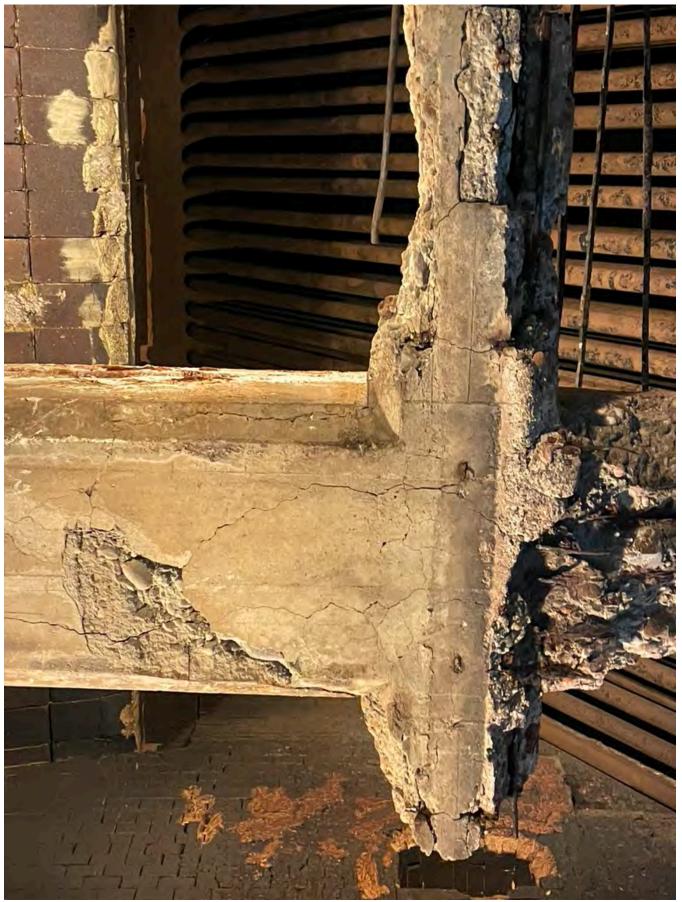
Bricks and Rebar Removed from Boiler Floor/Ash Hopper Above



Boiler Floor/Ash Hopper After Loose Brick and Debris Removal



Boiler Floor/Ash Hopper After Loose Brick and Debris Removal



Boiler Floor/Ash Hopper After Loose Brick and Debris Removal