

Recommendations from the  
**Georgetown Steam Plant Advisory Committee**  
regarding future restoration, use and management of the  
Georgetown Steam Plant, a National Historic Landmark, and  
a Seattle Landmark

Presented to Seattle City Light September 2017

Cover:

Exterior photo © Ethan Bickel, 2013

Interior photo © Otto Greule, 2015

Inside:

All photos © Seattle City Light unless otherwise indicated

## TABLE OF CONTENTS

Background, introduction to the committee .....	1-4
Executive Summary .....	6-7
Section 1: Programming .....	9-19
Section 2: Facility .....	20-25
Section 3: Operations .....	26-29
Section 4: Funding and Finance .....	30-35
Appendix	
A. Committee roster with bios	
B. Internal/External case study sheet	
C. Historic preservation and environmental sustainability	
D. Letter from committee to King County International Airport	
E. Documents and info re: access road	
F. Ordinance 111884 (Seattle landmarking of the plant)	
G. Renton History museum agreement	
H. Excerpts from Seattle Parks Foundation 2017 Open Space Framework	
I. Brief history of the Gilbreths	
J. HistoryLink article by John Caldbrick	
K. 2015 Seattle Times Sunday magazine article	

# History and Future of the Georgetown Steam Plant

## 2017

THE GEORGETOWN STEAM PLANT is a National Historic Landmark and a Seattle landmark. It was built between the years of 1906 and 1907 by Boston-based Stone & Webster, a conglomerate which held a dominant position in electricity generation and public transportation in the Seattle area during the early years of the twentieth century. Its first years of operation provided the power to run multiple electric streetcar lines in the rapidly growing city.

The plant was designed and erected under the supervision of Frank B. Gilbreth, head of a contracting and building firm with projects spanning the U.S. He and his wife, Lillian Moller Gilbreth, were major innovators in the areas of scientific management, time and motion studies and workplace efficiencies, shaping many modern practices which still benefit business owners and employees. In 1948, two of the couple's 12 children wrote a book, *Cheaper by the Dozen*, which was subsequently made into a movie starring Clifton Webb and Myrna Loy and humorously chronicled the family's busy, yet efficiently run, life.

The Georgetown Steam Plant was originally designed as a steel frame structure with brick curtain walls. However, a long wait time for those materials, coupled with the 1906 earthquake and fire in San Francisco, allowed Gilbreth to employ his innovative expertise in reinforced concrete designs. A new method at the time, the development of reinforced concrete effectively addressed the structural vulnerabilities of wood frame and brick buildings. The Georgetown Steam Plant is one of the first such buildings constructed on the West Coast.

From the beginning, the plant's primary role was to supplement and back-up the output of existing and planned hydroelectric plants that supplied the majority of power to the Northwest. While the availability of hydro resources resulted in only short periods of power production runs, the Georgetown Steam Plant marks the beginning of steam turbine technology that is still in use today.

## Major Dates and Milestones

- 1889** – Seattle’s first electrical railway systems
- 1906** – Design and construction of GTSP begins
- 1907** – Plant generates energy for the first time
- 1912** – Consolidation of Seattle Electric Company with five other regional utilities
- 1917** – Duwamish rechanneled, pump house built one mile southwest of plant
- 1928** – Boeing field built
- 1930** – Plant begins serving as back-up power generator only
- 1951** – Seattle City Light acquires plant along with all other Puget Power Seattle properties
- 1953** – Last power production run. Maintenance continues for back-up generation until 1977
- 1977** – Seattle City Light discontinues listing GTSP as a back-up generation resource and initiated internal surplus property review
- 1979** – Listed on the National Register of Historic Places
- 1980** – Designated a National Historical Mechanical Engineering Landmark
- 1981**– City Light and the Department of Community Development send joint recommendations to Mayor Charles Royer for interpretive center or museum use and pursue sponsorship/support by other organizations
- 1982** – City Light contracts for an independently prepared marketing and feasibility report
- 1983** – Mayor Royer convenes advisory group to determine potential uses of the plant
- 1984** – Becomes Seattle Landmark and National Historic Landmark
- 1984** – Non-profit Friends of the Georgetown Steam Plant forms and incorporates in 1986 with plans to develop a museum at the plant
- 1987** – Per Ordinance 113685, a five-year Lease/Purchase Option to the Friends is approved. The non-profit dissolves before the lease expires
- 1994** – The Georgetown PowerPlant Museum organization is formed
- 1995** – The Georgetown PowerPlant Museum obtains a temporary use permit for museum
- 2012** – City Light initiates changes leading to a discontinuation of the permit in 2014 and begins City Light tours and programs

THE GEORGETOWN STEAM PLANT ADVISORY COMMITTEE was formed as an outside and independent group representing a breadth of relevant expertise including non-profit management, operations and financing of museums and institutions, historic preservation, local government, community engagement, urban planning, neighborhood business, the arts, and history.

The committee wishes to advise Seattle City Light on the best ways to restore the building for diverse public access, transition its management to an economically self-supporting model of operation and preserve the historic integrity of a nationally significant landmark.

The 16-person committee convened over 10 meetings beginning in April of 2016, examining current and speculative aspects of the facility's potential to become an economically self-sustaining heritage and tourism venue serving the public and supporting the mission of Seattle City Light.

### **Georgetown Steam Plant Advisory Committee 2016/2017**

**Charles Beall**, Superintendent, Seattle Area National Park Sites, National Park Service

**Paula Becker**, Staff Historian, HistoryLink

**John Bennett**, Owner, John Bennett Properties

**Lath Carlson**, Executive Director, Living Computer Museum

**Hank Florence**, Historical Architect, National Parks Service (retired January 2017)

**Laurie Haag**, Vice President/COO, Museum of Flight

**Lendy Hensley**, Owner, City Catering

**Sarah Kavage**, Artist and Urban Planner

**Kji Kelly**, Executive Director, Historic Seattle

**Larry Kreisman**, Program Director, Historic Seattle

**Jennifer Meisner**, Historic Preservation Officer, King County

**Jennifer Mortensen**, Preservation Services Coordinator, Washington Trust for Historic Preservation

**Charlie Rathbun**, Arts Programs Manager, 4Culture

**Matthew Richter**, Cultural Spaces Liaison, Seattle Office of Arts and Culture

**Elizabeth Stewart**, Ph.D, Director, Renton History Museum

**David Unger**, Ph.D, Director of Curatorial Services, Museum of History and Industry

## **Seattle City Light Staff**

Environment, Land and Licensing Business Unit

**Lynn Best**, Ph.D, Chief Environmental Officer

**Julianna Ross**, Sr. Community Program Developer, Committee Liaison

**Meg Andres**, Administrative Specialist

**Michael Aronowitz**, Sr. Environmental Analyst

**Tim Croll**, Strategic Advisor

**Laurie Geissinger**, Strategic Advisor

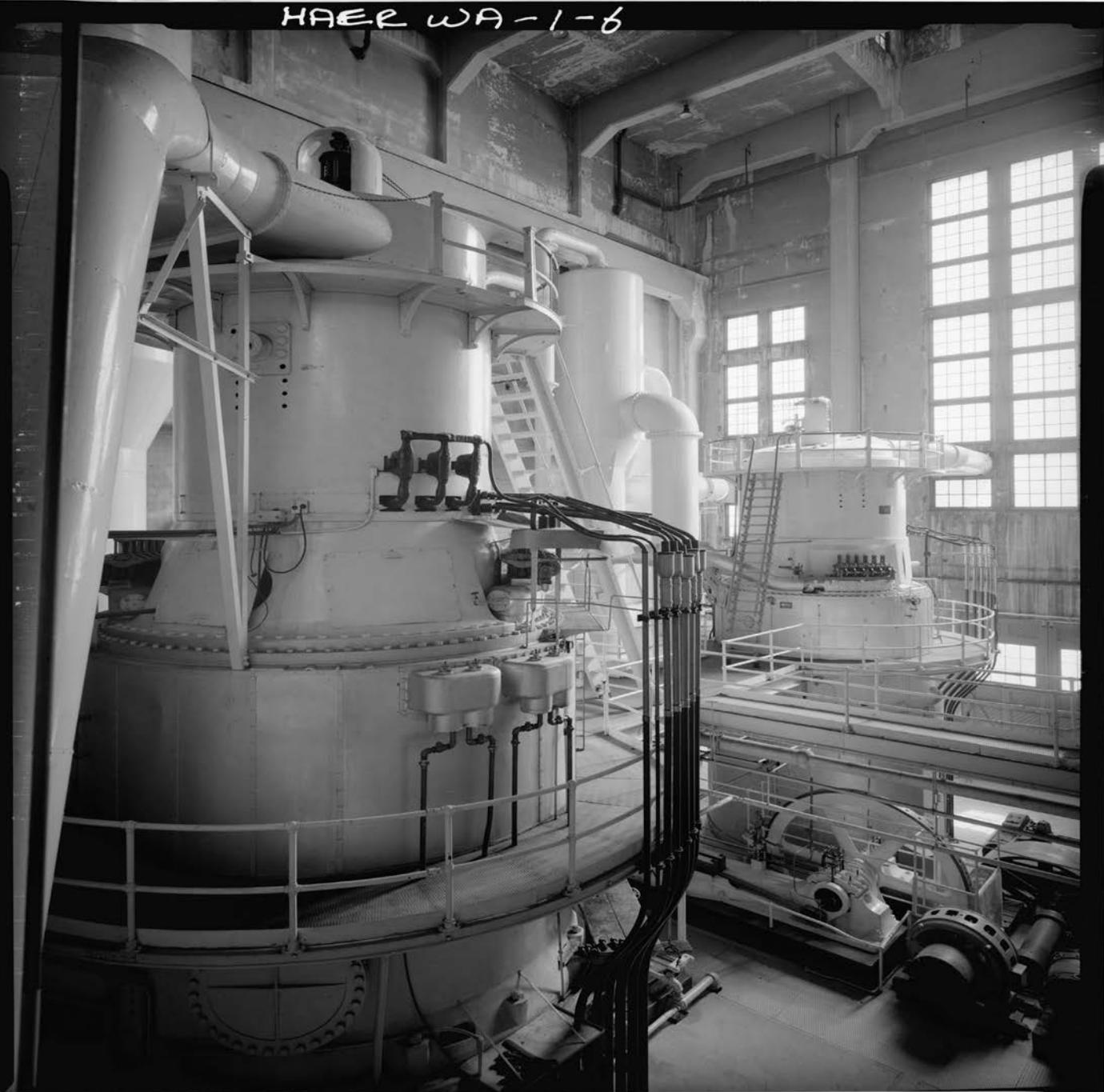
**Cierra Holland**, Business Unit Administrator

**Rebecca Ossa**, Historic Preservation Specialist

## **Other City of Seattle Advisors**

**AJ Cari**, Business Finance Specialist, Office of Economic Development

**Kenny Pittman**, Sr. Policy Advisor, Office of Intergovernmental Relations



Courtesy the Library of Congress

*As an engineering student, this is incredible! It's kept in great condition. – Alexis, Seattle*

*Awesome!! One of a kind! Tour guides fantastic!  
– Barbara, Redmond*

*Fascinating tour, good job! A building worth saving and celebrating. – Chris and Ken, Seattle*

---

# EXECUTIVE SUMMARY

---

SEPTEMBER 2017

The following report represents the work of the Georgetown Steam Plant Advisory Committee, an independent group of private neighborhood property and business owners, City and County employees, heritage, museum, tourism, and preservation professionals who volunteered their time between April 2016 and June 2017 to envision and articulate a viable and sustainable path forward for this important national resource. The plant is a National Historic Landmark, a National Historical Mechanical Engineering Landmark, a City of Seattle Landmark, and is also listed on the National Register of Historic Places.

Seattle City Light is to be commended for the time and effort paid to date to preserve, invest in, and protect this highly decorated and incredibly notable property. The plant is a diamond in the rough, an unpolished, yet completely preserved showcase for inspirational storytelling using the history of the building, its equipment, location and personal narratives. With continued commitment to the vision articulated within this report, City Light will enable the property to serve the public in many ways while helping build a creative, financially self-sustaining and meaningful future.

To all those passionate about expression, exploration, and innovation, the plant provides incredible opportunity for discovery, thought, creativity, and learning. Preserving and turning the property into a self-sustaining center for STEAM education—Science, Technology, Engineering, Arts, and Mathematics—will bring even greater national attention and respect to City Light for demonstrated leadership and creative, community-based thinking.

In fact, the community has already shown a strong propensity to support and actively participate in a wide variety of programming hosted by the plant as cataloged in this report. This active and diverse use over a short amount of time has inspired the Advisory Committee to contemplate, explore, and articulate an operating model based upon a diverse building use, generating consistent revenue, managed by a singularly focused operations and rental management team.

Not surprisingly there are challenges and costs associated with adaptively re-using and changing a 110-year-old industrial property into a public assembly space dedicated to Science, Technology, Engineering, Arts, and Mathematics. The plant needs additional investment to realize its tremendous potential. To preserve this exceptional facility, City Light has already undertaken important restoration and repair projects. Additional improvements will expand public access and create amenities which will increase diverse use and transform the property into a self-sustaining, fully functioning, and actively used site. The Advisory Committee emphasizes continued Seattle City Light investment to implement the findings of this report.

Finally, given the loss of the original access on 13th Avenue S., the importance of alternate road access provided by King County International Airport cannot be overstated. The potential of the plant to become an important regional cultural center will be impossible without this change. Further specific recommendations are found throughout this report and on the following page.

---

The Advisory Committee requests that Seattle City Light strongly consider taking the following near-term, next steps to not only protect their investment but to fully activate this important historic resource:

- 1) Retain the services of an architect to design a project which continues restoration of the plant and improves the usability and safety of the facility within historic preservation values, while allowing for necessary amenities which accommodate the wide variety of proposed uses detailed in this report.
- 2) In order to understand the needs of the proposed uses, distill the current Advisory Committee down to a smaller planning committee. In addition, assemble a cross-section of recent building users to assist the architect in a scope of work which enables maximum program development.
- 3) Engage with an existing non-profit or form a new non-profit and a.) enter into a Memorandum of Understanding highlighting project goals, roles, and responsibilities of each project partner, b.) create an operational management agreement based upon the terms set forth in the Memorandum of Understanding and, c.) enter into a long-term lease with the non-profit partner.

City Light has done an impressive job of preserving the Georgetown Steam Plant. Through your efforts, the property is now poised to take the next step and write the next chapter of its storied history. The Advisory Committee is proud to offer the following, more detailed, recommendations for your consideration.



Kji Kelly  
Advisory Committee Co-Chair  
Historic Seattle



Elizabeth Stewart  
Advisory Committee Co-Chair  
Renton History Museum



© Francis Zera

*The Georgetown Steam Plant is a surprisingly complete and still operable steam power plant after a career of nearly seventy-five years. It marks the beginning of the end of the reciprocating steam engine's domination in the growing field of electrical energy generation for lighting and power. The plant's three Curtis turbines, manufactured by the General Electric Company between 1907 and 1917, represent the first two generations of this American innovation.*

*The preservation of the Georgetown Steam Plant is a tribute to the City of Seattle and its City Light Department.*

**from designation as a National Historic Mechanical Engineering Landmark by the ASME (American Society of Mechanical Engineers), May 7, 1980,**

# 1.) PROGRAMMING

SITUATED AS IT IS at the nexus of technological innovation and U.S. and Seattle history, the Georgetown Steam Plant serves as continuous inspiration to students, technologists, photographers, historians, and artists, as evidenced by their persistent use of the space, especially since 1995. The public enjoys the results of these collaborations through free performances, art experiences, and the ability to learn from the building's intact equipment and unique history.

It is a rare venue that holds a natural attraction to people of all ages for many different reasons and propagates new knowledge and inspiration among all who visit.

As the building's owner and legal steward, Seattle City Light has taken significant steps in recent years to address conditions that have been obstacles to long-term preservation of the plant and its optimal public use. At the same time, the creative efforts of a host of volunteers, arts, history, and professional organizations and individuals has resulted in a stronger, more diverse constituency and vision for the future.

The plant exemplifies City Light's leadership in the movement to repurpose early 20th-century power for a carbon-neutral, innovation-positive future. Preservation of the building represents Seattle's recognition of the plant as an irreplicable monument to industry and innovation. We envision the plant's programs will acknowledge the role of creativity in advancing solutions to current and future challenges for generations of visitors.

*Thank you City Light for opening the space. It was*



## Events to Date

The following catalog reflects ongoing work and programs at the plant, as well as related efforts by others. Over just 300 hours of access during the past two years, approximately 5,000 people have visited the plant, often in conjunction with one or more of the following:

**Open Houses and Guided Tours:** Hosted by City Light with volunteer tour guides, the plant has been open to the public from 10 a.m.-2 p.m. every second Saturday of the month since October 2014, attracting an average of 180 attendees per open house, and often more.

A hobbyist club of retirees comes every month to set up an assortment of miniature model steam engines, enjoy social time, and share their knowledge with youth and others.

Guided tours cover the history of the plant and how it relates to the larger story of the growth of Seattle and City Light's contributions to civic life. Visitor log comments show consistent and strong enthusiasm for City Light's stewardship, the building and the tours, "Thank you for opening up this space!" "My favorite building in Seattle!" "AWESOME."



*great to see live art in the space!*

– Shane and Elizabeth, Seattle

Also remarkable are the number of repeat visitors and the fact they hail from all over the region, from Friday Harbor to Tacoma, Puyallup to Sammamish and beyond. Acceptance of small cash donations began in late 2015 and average \$160.00 per Saturday.



**Private Group Tours:** Available by appointment to public schools, educational institutions, professional organizations and non-profits, groups of up to 30 people may tour the plant on weekdays depending on staff availability.

Examples of groups touring the plant include Historic Seattle, University of Washington Schools of Engineering and Architecture, Society for Industrial Archaeology, Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Society, IEEE Industrial Applications Society, University of Nevada, Reno, Department of Mechanical Engineering, Museum of Flight Aerospace Camp Experience/Power and Propulsion, the Art Institute of Seattle, and several senior centers including the Des Moines Senior Center and the City of SeaTac Senior Program.

Except for public school tours, a per person fee of \$10 has been implemented beginning in 2017 for tours scheduled outside of the regular open houses.



*Seattle is known for high tech - this is an important place that represents a period in the history of science and technology - a very important landmark. — Kay, Minneapolis*

**Vocational Training:** The site is occasionally used during the open house hours by an instructor and students for their boiler operator classes through South Seattle College. They emphasize that the plant is an important and entirely unique resource. The historical equipment in place (in situ) is uncovered, unlike more modern facilities and equipment. This makes the plant an invaluable teaching resource as there is nowhere else students and tradespersons can enjoy this same degree of exposure to the mechanics and theory of their trade. Having a portion of the equipment able to run for demonstration is key to maximizing the revenue potential of this category.

**Arts Programming:** A rich mix of visual and performance artworks have been taking place, building on a history of special events and art installations by City Light and others. Recent programs have been initiated in partnership with the Duwamish community, King County, the commercial art world, and individuals.



Artist David Kane  
Duwamish Residency 2014  
photo © Juliet Shen

**Duwamish Residency program** – A recurrent residency of local artists focusing on the Duwamish River and its surrounding environment. Over two day periods, visual artists were given access to the plant in 2013, 2014 and 2016. Resulting artworks have been shown at King County 4Culture’s gallery in Pioneer Square.

**4Culture’s Site Specific and Tech Specific Programs** – These county-wide grant programs fund artworks matched with historic sites to interpret history through site specific art and performance and/or encourage the innovative use of technology in the creation and presentation of original works in partnership with public and private facilities. The plant became a host site beginning 2015 and will welcome a new Tech Specific presentation this fall.



*connect/reposition, Study of Time & Motion.* Original choreography, Tia Kramer and Tamin Totzke  
photo © Bruce Clayton Tom

**Duwamish Revealed Project** – Sponsored by Environmental Coalition of South Seattle (ECOSS), this four month, multi-site installation and performance series engaged artists, their work, and the public by creating site-specific work about the Duwamish River area, including the plant.

City Light, as a 4Culture Site Specific site steward (noted above), hosted an original dance work, *Study of Time and Motion*, by Tia Kramer and Tamin Totzke as part of *Duwamish Revealed*. The piece, created and first performed in the plant, merited sold out shows September – November 2015. The project generated a video and two performances at the Henry Art Gallery which built on the project.

Second visit - great place to sketch. Love having the music! – Gretchen, Redmond

**Commercial Video** – Examples include a performance by the Whim W'him dance company, led by former principal dancer of Pacific Northwest Ballet and a promotional yoga video produced by Cody, Inc., a local small business.



**Concerts and Recordings** – The plant has been the location of several performances and recording sessions ranging from punk rock (Big Black’s final show in 1987) to classical (an original piece for brass clarinet by local composer Nat Evans in 2014). The public enjoyed additional musical performances during several second Saturday Open Houses in 2016 including a site-specific work for brass, electronics and additional sound implements, a chamber ensemble and a choral performance.

**Film and Photography** – Professional and amateur photographers are drawn to the plant and create images that are used in many formats and venues, from gallery shows to album covers. The City of Seattle’s Office of Film and Music within the Office of Economic Development (OED), and the state film office, include the plant on a list recommended locations to producers. The OED actively promotes the film industry as a means of economic development and the plant receives regular and repeat requests from filmmakers and crews. Due to the 2003 City of Seattle ordinance 121317, film crews may use publicly owned facilities for a \$25/day permit fee paid to the Office of Film and Music and no other venue rental fees may be collected except actual costs for damage should it occur.

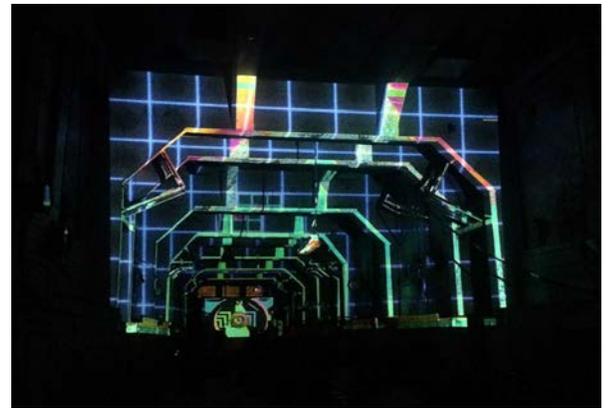




© Alex Garland, the Seattle Times

**Theater** – ARTBARN, a nationally recognized theater program producing one-time, site-specific performance events, and its collaborator, the local Satori Group, developed an immersive theater piece in 2016 which also played to sold out audiences. Their production, *We Remain Prepared*, was critically reviewed in The Seattle Times and was inspired by the history of the plant and Frank and Lillian Gilbreth, who played an instrumental role in construction of the plant and are credited with many work place efficiencies and industrial innovations still relevant today.

**Festivals** – January 2017 featured a 12-hour festival of light, sound and movement titled CORRIDOR, produced by a group of Georgetown artists under the moniker, Elevator. Funded in part by 4Culture, the festival included 25 artists creating installations, video projections, dance, and music around the theme of light. Many other ideas have been proposed by artists for future consideration.



**I love this place! A national treasure in Seattle.**

– Lacey, Seattle

## FUTURE DIRECTIONS

Committee discussions about potential future programming at the plant fell into two broad categories, **Educational** and **Arts, Culture and Community**. These areas of focus are mutually supportive and overlapping, with great potential to leverage and build on one another.

The current and future programming has revenue generating potential which can contribute to economically sustainable operations.

The degree of interest from both old and young presents the opportunity to create intergenerational programming. Educational opportunities abound in relation to Science, Technology, Engineering, Art, and Math (STEAM) as well as national, regional, and local history, including the environmental history of the Duwamish River and the surrounding Georgetown neighborhood.

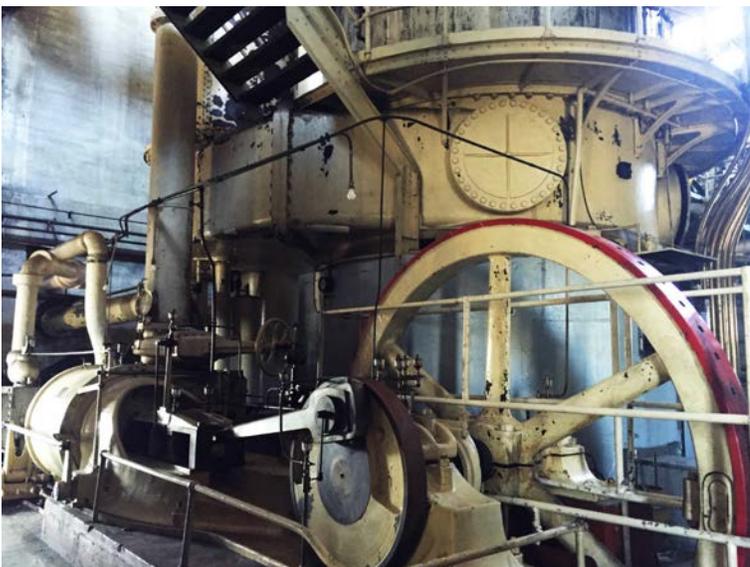
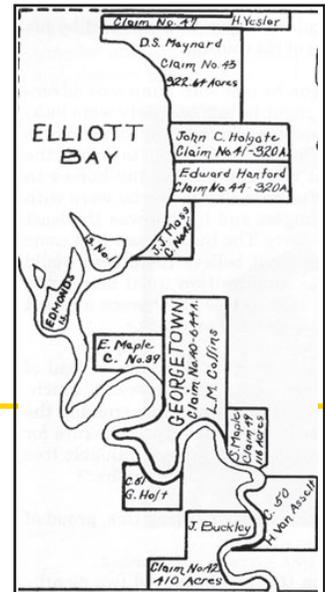
Planning for the future is the time to incorporate strategies and tactics which support the City of Seattle's Race and Social Justice Initiative (RSJI). The plant holds great potential to evolve new participant groups in STEAM-related learning and trades curriculum and also expose diverse communities to the arts and science in unique ways.

IN DEVELOPING PROGRAMMING RECOMMENDATIONS, the committee looked at past programming successes, as well as examples at a local, regional and national level. The following ideas are supported by the plant's historical use over the past several years, have revenue-generating potential, and capitalize on the plant's special attributes of place, history, and equipment.

Again, the incredibly unique and intact environment of the plant coupled with the variety of innovative uses it inspires makes it a perfect facility from which to operate around the concept of Science, Technology, Engineering, Art and Math, or STEAM. This educational approach to learning guides student inquiry, dialogue, and critical thinking. The end result is new opportunities for experiential learning, problem-solving, and working through creative processes, all critical skills for future innovators, educators, leaders, and learners of the 21st century.

## Educational Programming Recommendations

**Tours** – In addition to the current general history tours offered by City Light staff and volunteers, we see a demand for subject-based tours which focus on specific audiences and interests such as Seattle and Georgetown history, the Duwamish River history/ecosystem, architectural and industrial history, technical explorations of the equipment and engineering, and the history of electricity and City Light. Trained staff, docents, and outside instructors can accommodate field trips, day camps and classes with admission and/or rental fees.



**Interpretation** – The use of new technologies will be a boon to the plant as they supersede the need to install plaques and signage in the already visually stimulating environment. The interior of the plant is held to historic preservation standards and the reasons for this should not be compromised. New and emerging technologies also provide interpretation for self-guided learning opportunities and more equitable access to areas of the plant not available to the physically handicapped.

**Training** – The historic equipment of the plant provides a rare chance for people in the trades to see

what has been called “technology unhidden.” We believe the plant has the potential to serve as a technical training center for green jobs and the boiler/operator trades. This kind of activity also has the potential to involve community youth organizations like the Duwamish Valley Youth Corps. It will be advantageous to work toward getting some of the equipment running for demonstration purposes. This can involve contracting with qualified persons to manage apprenticeship opportunities and recruitment into the trades, while ensuring the plant retains the ability to maintain and operate parts of the equipment.



**Partnerships** – The educational and interpretive aspects of the plant present numerous opportunities to partner with local, regional, and even international organizations. Joint ventures and programming should be nurtured with MOHAI, Museum of Flight, Seattle Public Schools, Friends of Georgetown History, National Park Service, and the Smithsonian. We recommend pursuing collaborations through the hosting of temporary exhibits or open storage of related models and equipment, possibly including presentations by experts under the partner organization’s auspices. The plant can also seek partnerships which allow the facility to focus on STEAM-related programs and national, regional, and local history. One of the most consistent partners for the plant will invariably be the community, and as a venue, the plant can forge new connections through STEAM meet-ups, STEAM Maker events, and inventor shows.



# Arts, Culture and Community Programming Recommendations

**Arts Activation** – Working in partnership with the Seattle Office of Arts and Culture, 4Culture and other regional arts organizations, the potential of arts programming in the plant is limited only by the imagination of staff and outside artists, musicians, technologists, makers, scientists, educators and grant-funders.

We envision a future that includes theater, dance, music, visual, and multi-media offerings attracting new and established audiences. Allowing artists the opportunity to access, research, explore and interpret the plant creatively will provide unique interpretive opportunities and contribute to educational offerings through tours and camps and the outcome of artist residencies.

The plant is especially engaging for site specific works because of the broader context in which it exists. It offers an important opportunity to connect to larger historical and environmental themes while more tightly weaving the plant itself into the fabric of the city as a great historic asset. Artistic and creative interpretive events using theatrical vignettes add yet another layer of creativity and increases accessibility to the plant's history.

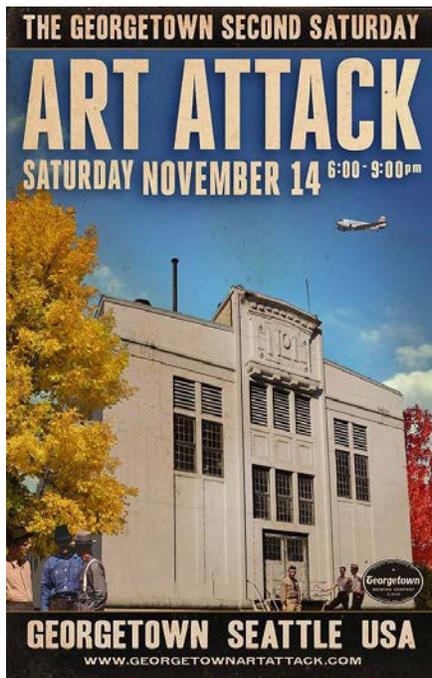


photo © Bruce Clayton Tom

## Near-term Recommendations



- Create a programming sub-committee, including those interested from the current advisory committee and others, to help develop processes through which to solicit and evaluate proposals for arts programs in the plant. The committee should include members from the neighborhood as well as traditionally marginalized communities.
- Favor proposals which provide an interpretive element regarding the plant's history, historical significance, and those that explore the plant's connection to the ecology of the river, land and overall environmental context.
- Task sub-committee with exploring the use of the City of Seattle's 1% for Art program for programming and/or installations at the plant.
- Continue taking specific steps to ground the plant's future in racial and economic equity by promoting open houses and arts events to non-traditional media outlets and contribute to the City of Seattle's Equity and Environment Agenda.



**Culture and Community** – Sited in the heart of the creative Georgetown neighborhood, the plant is a natural and much desired space for all kinds of community engagement including oral history projects, garden shows, craft fairs, and outdoor movie nights and offers the opportunity to build partnerships with local and neighborhood organizations. We encourage any entity running the facility to consider these connections and how to best manage sustainable operations with equitable public access.

**Near-term Recommendations**

- Consider supporting the formation of a “Friends of the Georgetown Steam Plant” group to advise on types of activities and appropriate fees to support them. Collaborate on a shared mission statement to establish a stronger connection to the surrounding neighborhoods and involve people from diverse socio-economic groups.

**Film and Economic Development** – Per Seattle Municipal Code, the City incentivizes film production by offering \$25/day film permits for filming on all City property including the Georgetown Steam Plant. This low fee structure helps the City support the growth and sustainability of the local film industry and is a key component of the City’s investment in supporting the film industry. Though film production in the plant does not currently generate revenue, it employs local talent and skilled labor with family wage jobs while exposing the plant in a favorable manner to new audiences and collaborations.

**Near-term Recommendations**

- Allow continued film production to local filmmakers on a case-by-case basis as staff time and construction schedules allow.
- With Seattle’s Office of Film + Music, explore the possibility of allowing use of the facility for occasional film training purposes. This training would teach and possibly certify filmmakers how to manage unique aspects of shooting in sensitive environments, thereby providing a service to other area facilities and setting new standards for film production in Seattle.



© Tom Reese

**Special Events and Venue Rentals** – In addition to the committee, approximately 20 event planners and heritage tourism professionals have toured the plant over the past year, unanimously finding it full of potential. They envision an occupancy of 1,000 people once the plant’s core and shell rehabilitation is complete, including outdoor areas, and the ability to host corporate and private events. They suggest that special events will contribute a healthy percentage of the operating budget in the plant’s future. More details are provided in the financial projections.

### Near-term Recommendations

- Progress on improving egress and making structural improvements to the Ash Room.
- Explore developing policies which may allow a small number of private special events under current restrictions.

THE PHYSICAL ATTRIBUTES OF THE PLANT offer unique opportunities unavailable almost anywhere else. Visionary performers and creators are already recognizing these opportunities and bringing City Light their plans and ideas. It remains for the owner/operator of the plant to harness these opportunities as sustainable sources of earned income, as well as occasions for community engagement, education, innovation and creativity.



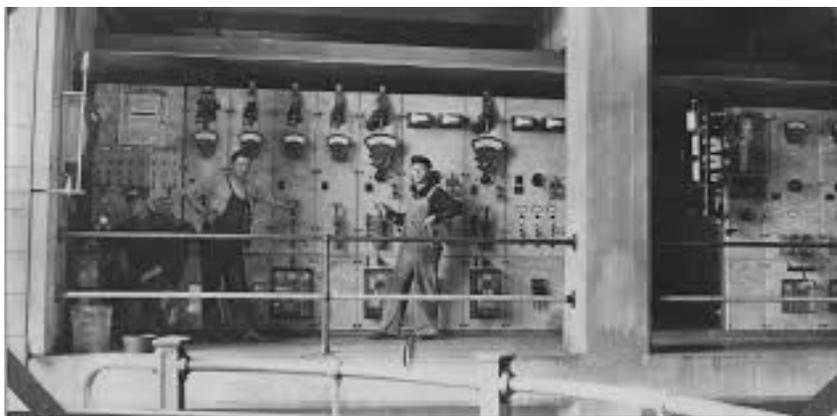
© KOMO News

## 2.) FACILITY

Now celebrating its 110th year, the plant has significant needs befitting its age. As the legal owner and steward of the building, City Light has undertaken many restoration and repair projects to preserve this exceptional facility and expand public access. Most of the projects City Light undertakes address the all-important safety and integrity of the building's core and shell.

### Current Building and Site Conditions

- 2012 — Soil remediation completed in coordination with State Department of Ecology.
- 2012 — BOLA Architecture hired to compile historic structures report (HSR).
- 2013 — City Light engaged leading expert in restoration of historic concrete.
- 2014 — Four-year project to restore and rehabilitate 175 original wood doors and windows began with the National Parks Service. Expected completion summer 2018.
- 2014 — Interior lead and asbestos abatement and encapsulation completed 2014 in publicly accessible spaces.
- 2014 — Installed new code-compliant light switches (adjacent to vintage knife switches).
- 2015 — Space heaters installed in 2015 and hooked up in 2016 to maintain regular temperature and protect concrete.
- 2015 — Safety rails designed and produced in-house and installed throughout.
- 2015 — City Light and King County sign MOA to design new public access to the plant.
- 2016 — Concrete "sounding" diagnostic completed. This is the first step for complete repair of exterior concrete walls.
- 2016 — City Light awarded \$100K from King County's recent Building for Culture grant, to be directed at implementing exterior concrete repairs on the south elevation.
- 2016 — City Light recommended as priority #19 of 35 projects for \$750K from Washington State's Heritage Capital Project Fund, to be directed at implementing exterior concrete repairs. Final award announcements pending passage of capital budget.
- 2017 — New roof being installed 2017-2018.



*Incredible place with much historical and community value. — Dan, Shoreline*

*Please preserve this amazing history resource!*

— Judy, Lynnwood

### **Facility Strengths**

The plant has undeniable appeal to diverse audiences and is widely considered a civil, mechanical and electrical engineering masterpiece. It is also one of the only places like it in existence, especially with its original equipment intact.

The building is a direct representation of Seattle and Georgetown history, Seattle's aspirations as a world-class city, the Gilbreths, and early energy generation. To those passionate about engineering and technology, the equipment presents a paradise of discovery, thought and learning. Artists continue to reinterpret the threads of history and technology into varied works presented to the public and other simply revel in the chance to enjoy a building of such unique historical significance. The plant also plays a role in a positive public image for City Light, as evidenced by the hundreds of documented comments from visitors across the region.



### **Facility Challenges**

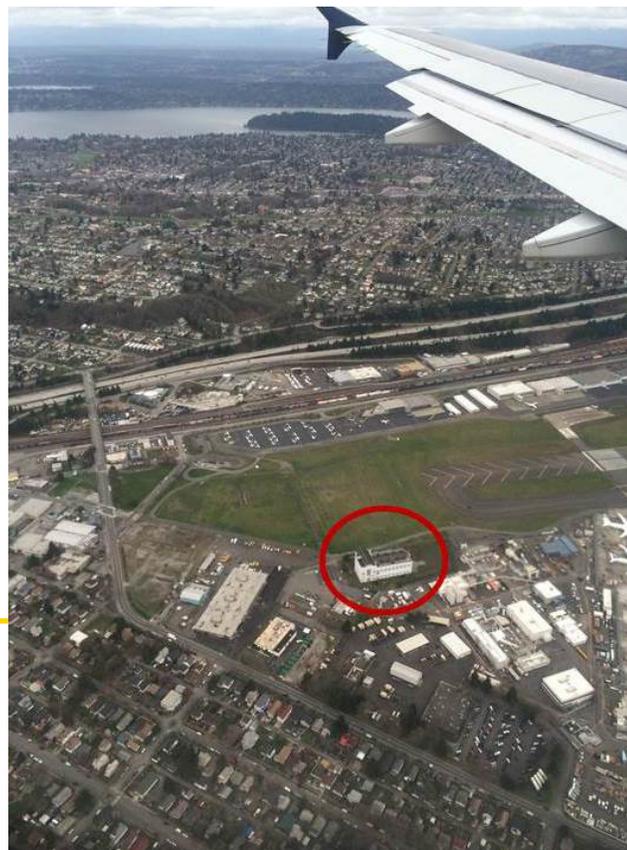
Since the plant was built long before modern safety codes, the committee recognizes challenges which, left unaddressed, will impede operating regular public programs. In many cases the elements which make the plant less accessible and safe are also what makes it so unique and fascinating and contribute directly to its historic landmark status. Usability and safety of the building can be improved in a manner consistent with historic preservation requirements. Creative activities and videos can be employed to offer engaging interpretive experiences for visitors regardless of their physical abilities.

Having been designed for industrial work in the early 20th century, the plant has some hazardous egress paths. At least two paths of egress are currently not as clear as they could be due to needed repairs to doors, wall, or floor. Trip hazards exist and, like the catwalk and stairs mentioned above, offer equal parts danger and charm. For example, ADA access to the upstairs boiler room will always be compromised because the sole route of access is a catwalk and steep stairwells.

The facility's location next to King County International Airport also presents some challenges, but ones that can be addressed. Airplane noise may impact the building's ability to host certain types of events (weddings and keynote addresses for example). Conversely, visitors experience the thrill of seeing planes of many types take off and land and event planners specifically mention the public's desire for an "airport experience."

The current lack of an access corridor that provides line-of-sight visibility from Ellis Avenue S. makes it difficult for visitors to find the plant and creates other limitations. This issue is being worked on by the City and the County and an inter-agency agreement on a plan and construction of improved access is imperative to the future success of this facility and its ability to serve the public. Improving access is key to increased visibility, the visitor experience, building visitation numbers and attracting and securing viable partnerships for programs and operations.

Finally, pedestrian safety is a continual challenge in the Georgetown neighborhood, and it is difficult for vehicles and pedestrians to navigate the entrance in its current state. This undermines the plant's connection to the street network and to the adjacent Georgetown business district. Between construction of the new access road and continued political advocacy from the Georgetown community, it is hoped further traffic improvements will be forthcoming in the general area which will benefit both the at-large community and visitors to the plant.



## Stewardship and Capital Improvements to Date

City Light took an important step toward restoration of the Georgetown Steam Plant in 2012 when it contracted with BOLA Architecture + Planning for both a Historic Structure Report (HSR) and a Cultural Landscape Report (CLR). These necessary documents guide current and future decisions about preservation priorities and building uses.

This initial step has enabled City Light to move forward with several projects vital to preserving the core and shell of the plant, including contracting with the National Park Service to restore all the wooden doors and windows.



Small space heaters have been installed to maintain a minimum temperature in the building, reducing harm to the concrete. Security improvements are planned.

Two large components of the plant's full restoration are in the works including a complete roof replacement. Restoration of the exterior concrete is also pending and a grant award of \$100K from 4Culture (Building for Culture) and the recommendation of \$750K from Washington State Historical Society (Heritage Capital Projects Fund) validate the importance of the plant as one of just two dozen National Historic Landmarks in Washington state.

The road access relocation negotiations represent even more progress which is critical to the plant's ability to become an economically self-sustaining facility.

City Light harnesses a unique combination of funding sources to accomplish restoration projects for the plant, including environmental cleanup and mitigation monies, grants, and capital improvement and facilities maintenance funds.

## **Site Access**

Use of the original access road to the plant, via vacated 13th Avenue S., was restricted in 2000 due to security concerns of King County International Airport and other considerations. Closure of this road for access to the steam plant had impacts which resulted in a period of identifying alternatives and consultation among concerned parties, finally leading to an agreement between City Light and King County to actively pursue alternative access from Ellis Avenue in 2015.

The Agreement Between King County and the City of Seattle for Georgetown Steam Plant Access Relocation and Construction Project - Design Phase, July 2015 covers the cost of preparing 100% engineering plans for a new public access road and view corridor via a permanent public easement from Ellis Avenue. The plans are based on a concept level plan worked on by both agencies and supported by the committee. Engineering design has progressed to 60% with SEPA review and further consultation proceeding (see Appendix D plan schematic and letter of support).

Negotiations for the new public easement and a construction phase agreement are underway. The goal is to reach 100% plan approval plus signature of the construction phase agreement by fall of 2017 and begin construction of access improvements in spring 2018.

## **Zoning**

The Georgetown Steam Plant is approximately 20,000 square feet in size and zoned General Industrial 2 (IG2) which is compatible with proposed future uses of the building. Per the City of Seattle Department of Construction and Inspections, a museum use of this building would be unlimited in its permitted square footage. Were a restaurant to be considered, it would be limited to 5,000 square feet. Retail use, like a museum gift shop, is also permitted, up to 25,000 square feet.

The property is adequate to also accommodate an accessory building or other amenities (see future directions below).

**Fascinating tour, good job! A building worth saving and celebrating. – Chris and Ken, Seattle**

## **FUTURE DIRECTIONS**

The building and grounds of the steam plant offer the potential to incorporate additional amenities which would make the facility more accessible, creating a unique destination for education, technology, arts and community activities. These improvements also allow the plant to bring in additional revenue. New ADA restrooms, an elevator and an outbuilding designed to serve as a conference/event center are all worthy of future consideration.

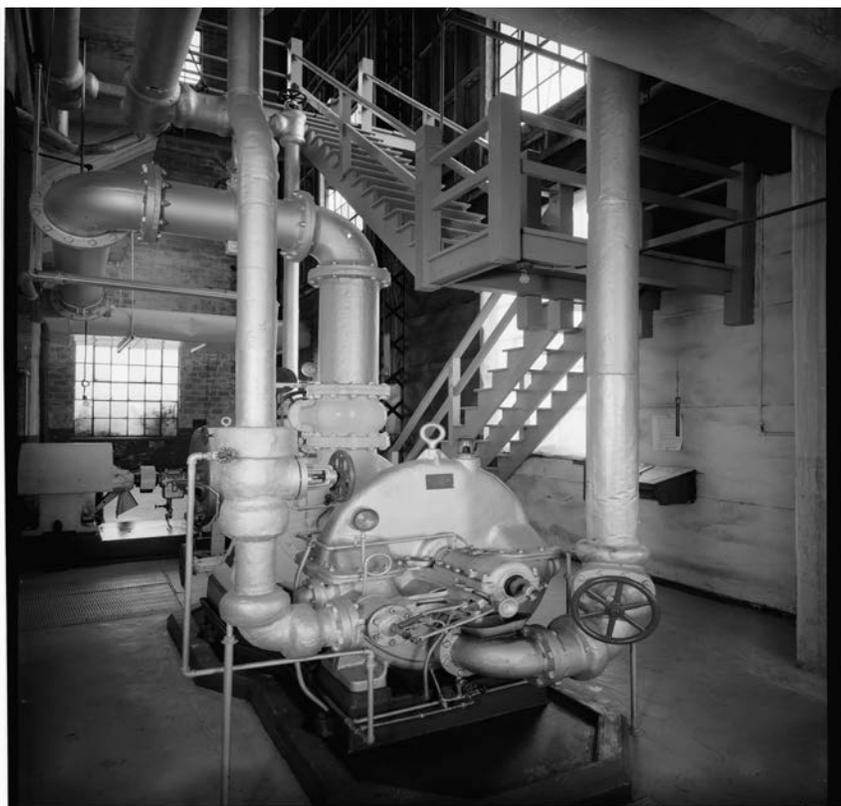
# Facility Recommendations

**Safety and Egress** – To facilitate continued public access, priority should be given to permissible modifications which contribute to more standard safety egress, starting with fixing things that are broken (doors and floors) and moving on to things needing to be installed (like exit signs and sprinklers). Clear policies regarding permissible occupancy and uses should be created based on current conditions and updated as necessary.

**Housekeeping and Preservation** – Perhaps working with UW Museology graduate students, develop an interpretive plan to begin defining and implementing proper housekeeping maintenance, including instructions for products and application methods for cleaning furniture, floors, walls and other surfaces. Expand stewardship to address issues like peeling paint and rust. Make the downstairs restroom operable.

The committee feels strongly that the interior of the plant should be let to speak for itself and that future operations should not depend on interpretive signage. Leave the equipment areas of the plant as-is to the extent possible and when faced with decisions, opt for actions that are reversible, or that contribute to a more valuable experience for visitors by using plexiglas instead of plywood, for example.

**Operable Demonstration Equipment** – Progress on getting some of the equipment running again for demonstration purposes, which will expand the plant's appeal to diverse audiences and possibly test programs that train the trades, like South Seattle Community College's boiler operator classes.



*Fascinating to see the historical workings of this important piece of history.*  
– Eric, Seattle

Courtesy the Library of Congress

## 3.) OPERATIONS

OVER THE COURSE OF OUR meetings, the committee considered different management models and how they might or might not succeed in opening the plant to significantly more public access and use, while affording the costs of ongoing programming, operations, staffing, and building maintenance. As questions about necessary capital improvements, zoning and road access were answered, input from the nearby community was also considered.

The degree of passion and interest the plant generates among diverse groups is a unique strength of the plant as a venue for arts, technology and history. The many facets of the plant's influence, from education to arts, technology to trades, creates a broad base of supporters and ideally several funding streams. In evaluating operational models, we kept in mind the historical significance of the building and the fact that it will need restoration in phases.

**Community** – The plant is located across the street from the eastern edge of homes facing Ellis Avenue and is within sight distance of the Old Georgetown City Hall. It has been called the mascot of Georgetown and is a highly visible icon of the neighborhood's industrial past, present and future. Soon it will be a short walk away from the new Mini Mart Art Park, a contemporary arts venue conceived and managed by Sutton Beres Culles, a renowned creative team of Seattle artists. There is an established business and entertainment district with a host of popular restaurants nearby.



Old Georgetown City Hall, Seattle

People of the Georgetown community maintain active communications and are experienced in working with government officials and industry, especially on topics related to vehicle traffic and pollution. They advocate strongly for amenities and safety improvements in their neighborhood. Restoration and activation of the plant offers a distinct benefit to the Georgetown community and they approve of the plant's current uses and support more events and increased access in the future.

**Identity** – With proper stewardship, the plant will offer valuable goodwill and earned media for its owner/operator, generating a stream of good news stories in education and the arts and providing thousands of people the chance to see early technology in person while learning about Seattle history from within one of its only National Historic Landmarks.

**Impacts** – By becoming a new community/arts hub and an innovative facility for STEAM learning, the plant can maximize its impact across diverse communities, in turn building a strong network of support for future operations and restoration projects. The plant can play a role in guiding new generations into careers in science, technology, engineering, arts, and math and collaborate with organizations like the National Park Service, MOHAI and Museum of Flight. Likely to become one of Seattle's popular heritage tourism destinations, an activated steam plant will also contribute economically to the Seattle area economy through related food and entertainment expenditures by visitors.

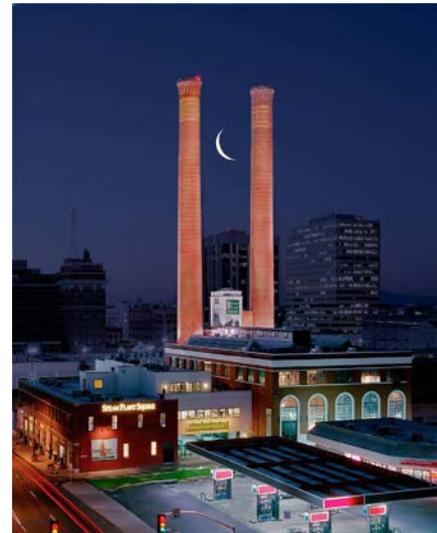


CONSIDERING THE POWERFUL cultural potential of the plant and tempering it against the additional investment needed to wholly preserve the building and bring it up to code for more access and occupancy, we discussed various models of owning and/or operating a historic building which would result in economically sustainable operations long-term.

**Private** – We first considered a private owner who could possibly convert part of the building into a restaurant, or possibly integrate a new building onto the existing structure. However, our experience is that museum restaurants, or those situated in other public facilities, do not offer return on investment. There is also no desire to compete with existing and future restaurants in the neighborhood or subvert the historical features of the building.

Private developers finance large projects and need a return on their investment. The degree to which the project can generate revenue sets the standard for what uses the building accommodates. We see no scenario where a private developer would achieve even a modest return after rehabbing the building, unless a truly commercial enterprise, like a hotel, was allowed to dramatically modify the building and land.

Another possible downfall is that developer businesses can fail, once again leaving the building's future in question. It is also possible that in the quest for increasing revenue, the mission of a private entity will change over time, bending away from the original points of agreement regarding stewardship and operations of the building.



The old Steam Plant  
photo © 2010 Experience Spokane

**Public + Non-Profit** – Though municipalities can accept tax-deductible donations up to \$15,000, most cities choose to retain ownership of a historic property in partnership with a non-profit, leveraging the strengths of each in preserving and creating an economically sustainable cultural asset.



Langston Hughes Performing Arts  
Institute, Seattle

Partnering with a nonprofit extends the breadth of the facility's fundraising potential and also limits the financial burden among parties. It firmly establishes the building as a cultural asset and heritage destination. Models can be found in Dallas and New York and even nearby, in the Renton History Museum. These partnerships involve long term agreements, ranging from 20 – 70 years.

In some cases the non-profit raises all the money to build out a restored facility and is in charge of raising funds for and managing programming, staff and further building improvements. In exchange, a city provides capital and operating support to help meet basic security, maintenance, core and shell improvements, administration and energy costs. The institutions then operate as publicly-owned facilities and provide accessible cultural space and programming to diverse audiences.

There are numerous examples of public/private partnerships involving the City of Seattle and non-profits including Museum of Flight, Nordic Heritage Museum, Bathhouse Theater, Langston Hughes Performing Arts Institute, and Town Hall.

**Public + Private** – Not all potential partners are non-profit so we considered for-profit facility and venue operators who provide arts, entertainment and educational services. At a local level, Teatro Zin Zanni would be one example. There are also organizations like PARC Management LLC based out of Florida who partner with others to jointly develop, own and operate facilities. They purchased Federal Way's Wild Waves Theme Park and also run the NASCAR SpeedParks, among many other properties nationwide.

*Great job – we'll be back with friends.*  
– Brian and Beverly, Federal Way

What will happen in the building? Who will manage it? How will it be funded? These are the main questions for which our committee was formed to offer advice.

What should happen in the building? The focus will be for the new owner/operator to decide, but it's clear there is enough diversity of interest that either all or some of the current activities can be supported and expanded to generate operating revenue.

How it will be funded is the more difficult question. We find advantage in partnering with a mission drive non-profit which will act in keeping with the requirements of the landmark status and the desired programming of the general public and Georgetown community. Non-profits also have access to a variety of funding sources including grants, individual gifts, sponsorships, memberships, admission fees, gift shops, classes, and workshops.

However, unless it is a well established non-profit capable of managing a capital campaign for a major infrastructure project, the money from the above sources is not likely to combine in a timely way to achieve the significant capital investment currently required in the plant.

## Operations Recommendations

WITH PRESERVATION OF THE BUILDING being the foremost obligation, our recommendation to City Light is that the utility maintain ownership of the building and invest in improving vital components of the building and complete all restoration activities pertinent to the core and shell. Then, in partnership with either an existing or a new non-profit, establish a long-term lease agreement with daily operations including staffing, programming, marketing and general facility maintenance transferred to the non-profit to manage and fund.

Entering into an agreement with a master tenant like this will allow City Light to stipulate the approved uses which may include interpretation of history, educational programs, historic preservation learning, access to the arts and community engagement.

A commitment from City Light to proceed should lead to discussions with compatible, local non-profits followed by disseminating a Request for Qualifications (RFQ), which again could mandate approved uses. The RFQ process will help in gaining exposure for the plant's potential and possibly attract numerous possible partners and ideas worth incorporating into final plans.



*Fantastic piece of history. Great tour guides. Save it!*

– Kendall, Seattle

*Industrial beauty.* – George, Auburn

*Wonderful tour, keep it for all to see and learn from.*

– Dale and Tina, Kirkland

## 4.) FUNDING AND FINANCE

WE UNDERSTAND CITY LIGHT'S long term goal for the Georgetown Steam Plant is to preserve the historic integrity of this nationally significant landmark in a manner that is financially self-sustaining and increases public access and use of the facility by diverse communities.

Although funding needs for capital improvements to the plant remain substantial, City Light's consistent stewardship has eliminated the need for costlier, emergency repairs which are common among historic buildings. The utility's decision to maintain a degree of engagement with the public, allowing them into the plant for the open houses and providing some arts and educational programming, not only offers beginning data on which to base future projections but a foundation of public support that would not be available had the building been closed and/or mothballed. Many examples exist which show a lack of this stewardship increases redevelopment costs exponentially.



Building 18, Magnuson Park  
Seattle



exterior, Vanity Ballroom, Detroit



interior, Vanity Ballroom, Detroit

Capital Funds for rehabilitating historic buildings are typically some of the hardest to come by. Grant programs are extremely competitive and prescriptive, private partners struggle with a low financial return on their investment in comparison to building new, and many owners of historic buildings are undercapitalized and ineligible to apply for public funding or accept tax deductible donations.

These challenges breed partnerships, often public/private, where the strengths of each partner can be leveraged for the whole. As a potential partner, City Light's strengths include having accomplished part of the steam plant's capital improvements through a unique combination of grants, clean up, and Capital Improvement Program (CIP) funds as well as a mission which embraces conservation, education and science-based information.

As a committee, we recognize the plant's daily operations must be economically sustainable and independent of support from City Light. Fortunately, as a cultural asset, the plant has many advantages. One of only 24 National Historic Landmarks in Washington State, its designation confers enhanced marketability to tourists and regional visitors. With consumer spending on heritage tourism rising, the uniqueness and location of the steam plant bode well for its potential to also contribute economically.

Its location is ideal, situated where built, in the seat of historic Georgetown. It is part of a constellation of complementary facilities like the Museum of Flight and the future arts-oriented Mini Mart City Park, along with dozens of small and locally owned businesses. It is also of note that already the Georgetown Steam Plant attracts all ages and repeat visitors, some attending several open houses per year.

The following pro forma operations budget accounts for many potential revenue sources and expense estimates. The numbers were extrapolated from actual data where possible or calculated in consultation with various committee members. Preliminary assumptions accompany the budget.

*Just wow!* – Barling family, Los Angeles

*A visual feast.* – Patty, Ellensburg

*Third visit, love this place!* – K., Redmond



© Otto Greule

**Estimated Annual Operating Expenses/Income**

Assumptions:  
 Plant is open 30 hours per week plus special events (variable)  
 Daily operations and maintenance assumed by private or non-profit partner  
 Major restoration and occupancy permits have been completed/obtained  
 Does not factor in CPI or inflation  
 Does not include launch phase of operations

1.)	Attendance: Timeframe:	28,414 Year 1	28,414 Year 2	28,414 Year 3	32,893 Year 4	32,893 Year 5	32,893 Year 6	39,044 Year 7	39,044 Year 8	39,044 Year 9	39,044 Year 10
<b>Income</b>											
2.) Admission	\$ 10.00	\$ 284,140.00	\$ 284,140.00	\$ 284,140.00	\$ 328,930.00	\$ 328,930.00	\$ 328,930.00	\$ 390,440.00	\$ 390,440.00	\$ 390,440.00	\$ 390,440.00
3.) Cash donations on site	\$ 1.60	\$ 45,462.40	\$ 45,462.50	\$ 45,462.50	\$ 52,628.80	\$ 52,628.80	\$ 52,628.80	\$ 62,470.40	\$ 62,470.40	\$ 62,470.40	\$ 62,470.40
4.) Contributed Income	33% of total	\$ 50,000.00	\$ 75,000.00	\$ 100,000.00	\$ 125,000.00	\$ 150,000.00	\$ 175,000.00	\$ 200,000.00	\$ 225,000.00	\$ 250,000.00	\$ 300,000.00
5.) Retail (gifts/souvenirs)	\$ 1.75	\$ 49,724.50	\$ 49,724.50	\$ 49,724.50	\$ 57,562.75	\$ 57,562.75	\$ 57,562.75	\$ 68,327.00	\$ 68,327.00	\$ 68,327.00	\$ 68,327.00
6.) Venue rentals	\$ 6K - \$9K	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 400,000.00	\$ 400,000.00	\$ 400,000.00	\$ 650,000.00	\$ 650,000.00	\$ 650,000.00	\$ 650,000.00
7.) Private tours	\$ 10.00 4x/month \$ 20.00 2x/month	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00	\$ 14,400.00
8.) Day rate for commercial uses (film, photography shoots)	4x/year	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00
9.) Memberships	\$ 30.00	\$ 85,242.00	\$ 85,242.00	\$ 85,242.00	\$ 98,679.00	\$ 98,679.00	\$ 98,679.00	\$ 117,132.00	\$ 117,132.00	\$ 117,132.00	\$ 117,132.00
10.) Commissions	10%	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
11.) Fundraising gala and other events		\$ 10,000.00	\$ 15,000.00	\$ 25,000.00	\$ 45,000.00	\$ 50,000.00	\$ 55,000.00	\$ 75,000.00	\$ 85,000.00	\$ 95,000.00	\$ 150,000.00
12.) Sponsorship		\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 45,000.00	\$ 45,000.00	\$ 45,000.00	\$ 45,000.00
13.) Educational rentals		\$ 1,000.00	\$ 1,500.00	\$ 2,000.00	\$ 2,500.00	\$ 300.00	\$ 3,500.00	\$ 4,000.00	\$ 4,500.00	\$ 5,000.00	\$ 6,000.00
	<b>TOTAL INCOME</b>	<b>\$ 796,568.90</b>	<b>\$ 827,069.00</b>	<b>\$ 862,569.00</b>	<b>\$ 1,196,300.55</b>	<b>\$ 1,224,100.55</b>	<b>\$ 1,257,300.55</b>	<b>\$ 1,668,369.40</b>	<b>\$ 1,703,869.40</b>	<b>\$ 1,739,369.40</b>	<b>\$ 1,845,369.40</b>
<b>Expense</b>											
14.) Employee wages, and benefits		\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00	\$ 255,021.00
15.) Postage		\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Office Supplies		\$ 6,215.00	\$ 6,215.00	\$ 6,215.00	\$ 6,215.00	\$ 6,215.00	\$ 6,215.00	\$ 8,392.00	\$ 8,392.00	\$ 8,392.00	\$ 8,392.00
Office equipment		\$ 3,105.00	\$ 3,105.00	\$ 3,105.00	\$ 3,105.00	\$ 3,105.00	\$ 3,105.00	\$ 4,140.00	\$ 4,140.00	\$ 4,140.00	\$ 4,140.00
Telephones		\$ 11,886.00	\$ 11,886.00	\$ 11,886.00	\$ 11,886.00	\$ 11,886.00	\$ 11,886.00	\$ 15,850.00	\$ 15,850.00	\$ 15,850.00	\$ 15,850.00
Insurance		\$ 12,639.00	\$ 12,639.00	\$ 12,639.00	\$ 12,639.00	\$ 12,639.00	\$ 12,639.00	\$ 16,852.00	\$ 16,852.00	\$ 16,852.00	\$ 16,852.00
Legal		\$ 1,800.00	\$ 1,800.00	\$ 1,800.00	\$ 1,800.00	\$ 1,800.00	\$ 1,800.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00	\$ 2,400.00
Accounting/Audit/Bank Fees		\$ 11,028.00	\$ 11,028.00	\$ 11,028.00	\$ 11,028.00	\$ 11,028.00	\$ 11,028.00	\$ 25,732.00	\$ 25,732.00	\$ 25,732.00	\$ 25,732.00
16.) Memberships and dues		\$ 1,710.00	\$ 1,710.00	\$ 1,710.00	\$ 1,710.00	\$ 1,710.00	\$ 1,710.00	\$ 2,280.00	\$ 2,280.00	\$ 2,280.00	\$ 2,280.00
Marketing, exhibits, programming, special events		\$ 120,000.00	\$ 120,000.00	\$ 200,000.00	\$ 247,639.00	\$ 247,639.00	\$ 247,639.00	\$ 263,514.00	\$ 263,514.00	\$ 263,514.00	\$ 263,514.00
17.) Utilities		\$ 69,000.00	\$ 69,000.00	\$ 69,000.00	\$ 69,000.00	\$ 69,000.00	\$ 69,000.00	\$ 92,000.00	\$ 92,000.00	\$ 92,000.00	\$ 92,000.00
Equipment Maintenance		\$ 20,200.00	\$ 20,200.00	\$ 20,200.00	\$ 20,200.00	\$ 20,200.00	\$ 20,200.00	\$ 26,933.00	\$ 26,933.00	\$ 26,933.00	\$ 26,933.00
Grounds Maintenance		\$ 8,400.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00	\$ 11,200.00	\$ 11,200.00	\$ 11,200.00	\$ 11,200.00
Fire Safety		\$ 7,200.00	\$ 7,200.00	\$ 7,200.00	\$ 7,200.00	\$ 7,200.00	\$ 7,200.00	\$ 9,600.00	\$ 9,600.00	\$ 9,600.00	\$ 9,600.00
Security/Alarm		\$ 6,300.00	\$ 6,300.00	\$ 6,300.00	\$ 6,300.00	\$ 6,300.00	\$ 6,300.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00	\$ 8,400.00
Elevator		\$ 11,400.00	\$ 11,400.00	\$ 11,400.00	\$ 11,400.00	\$ 11,400.00	\$ 11,400.00	\$ 15,200.00	\$ 15,200.00	\$ 15,200.00	\$ 15,200.00
Replacement reserve		\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00
	<b>TOTAL EXPENSE</b>	<b>\$ 753,404.00</b>	<b>\$ 753,404.00</b>	<b>\$ 833,404.00</b>	<b>\$ 931,043.00</b>	<b>\$ 931,043.00</b>	<b>\$ 931,043.00</b>	<b>\$ 1,017,514.00</b>	<b>\$ 1,017,514.00</b>	<b>\$ 1,017,514.00</b>	<b>\$ 1,017,514.00</b>
	<b>Projected Variance:</b>	<b>\$ 43,164.90</b>	<b>\$ 73,665.00</b>	<b>\$ 29,165.00</b>	<b>\$ 265,257.55</b>	<b>\$ 293,057.55</b>	<b>\$ 326,257.55</b>	<b>\$ 650,855.40</b>	<b>\$ 686,355.40</b>	<b>\$ 721,855.40</b>	<b>\$ 827,855.40</b>

## Income Assumptions

1.) Attendance:

LOW: Plant is open 30 hours a week (Tues – Sat) plus special events (variable). Total regular visitation over 1,560 hours x **17 ppl/hour** – 26,520 per year

HIGH: Plant is open 30 hours a week (Tues – Sat) plus special events (variable).

Total regular visitation over 1,560 hours x **42 ppl/hour** – 65,520 per year

Reflects 5% growth of attendance year over year

2.) Admission: To be determined. Affects private tour and membership data.

3.) Cash donations: With very little solicitation, current donations over approximately 18 months = \$.80 per visitor. Would expect to at least double this with better solicitation.

4.) Contributed Income: Stats show museum type institutions average 33% of annual revenue from individual/corporate donors. These projections take a conservative approach and build up slowly.

5.) Retail/Gifts: Museum Store Association report 2014 gives averages for different types of museums. Projected for the plant = \$1.75 per visitor. Retail typically contributes 5 – 15% of a museum's revenue.

6.) Venue Rentals: a baseline of \$7,000 per event was used for projections, based on expertise of area event planners. Number of events and their fees will increase over time.

7.) Tours for special groups and topics (tech, arts, history) @ \$15 per person including admission. After hour tours \$20 per person. Average group size 20.

4 per month @\$15 = \$1,200/month; \$14,400 per year.

2 per month @ \$20 = \$800/month; \$9,600 per year.

8.) Commercial Photography Shoots: \$3,000 day rate x 4x/year = \$12K

9.) Memberships: It is projected that memberships will be popular based on the fan base of the steam plant, but this comes with expenses. Estimate \$30 per membership (\$45 for family) with 10% of visitors opting for membership.

10.) Commissions: 10% on food and drink from special events; conservative guesstimate.

- 11.) Fundraising Gala and other events: Conservative estimate for one annual event plus several smaller supporting events.
- 12.) Sponsorships: Corporate support of specific programs.
- 13.) Educational Classroom Rentals: Fees collected as part of other organization's summer camps, trainings, etc.

**Expense Assumptions**

- 14.) Beginning employee wages and benefits (projections do not account for wage increases):

Executive Director	1 FTE	\$38.46 x 40 hours	\$1,538.40 per week
Program staff	1 FTE	\$29.00 x 40 hours	\$1,160.00
Development Officer	.5 FTE	\$31.25 x 20 hours	\$625.00
Education Coordinator	.5 FTE	\$30.00 x 20 hours	\$600.00
		Sub-total weekly salaries	\$3,923.40
		Taxes/Benefits add 25%	

- 15.) Administrative costs: Based on two-year averages provided by Renton History Museum.

- 16.) Revenue generating expenses: Based on two-year averages provided by Renton History Museum.

- 17.) Facility expenses: Based on formulas provided by Historic Seattle

Insurance	\$1.45 x 20,000 sq. ft.
Utilities	\$1.13
Grounds Maintenance	\$0.08
Fire Safety	\$0.12
Elevator	\$0.19
Replacement reserve	Committee recommendation

# Finance Recommendations

IN ADDITION TO ITS EXCELLENT location and potential for a diversity of economically sustainable programming, funding of the restoration of the Georgetown Steam Plant is eligible for both New Market Tax Credits and Federal Historic Tax Credits. Under ideal conditions, each of these tax credit programs can represent a savings of up to 20% of eligible capital expenses.

Structuring the financing of a project using one or both tax credit programs takes time and outside expertise. We recommend deciding as soon as possible on City Light's plans and schedules for further restoration work if the intent is to explore these options which could conceivably trim \$1M or more from out of pocket costs.

## Near-term Recommendations

- Evaluate remaining restoration costs and seek consultation to determine potential financing scenarios involving the use of New Market Tax Credits and/or Federal Historic Tax Credits.
- Maintain current momentum and standard of public access so that the future master tenant is positioned for successful outcomes as outlined in this report's financial projections and to keep the project eligible for grant funding.



This 1965 photograph shows one of the periodic tests conducted on the Georgetown Steam Plant until the 1970's to make sure the facility was ready to generate power in case of an emergency.

Though the plant last supplied energy in the early 1950's, it was maintained and staffed by City Light for decades longer, thereby enabling the utility to purchase federal electricity at far cheaper rates than it could otherwise. In some years, this could save rate payers upwards of a million dollars and its actions simultaneously preserved the plant for future generations to learn from.

# APPENDIX

## Georgetown Steam Plant Advisory Committee Professional Biographies

**Charles Beall** is superintendent of the **Seattle Area National Park Sites**, which include the **Klondike Gold Rush National Historical Park** (Seattle unit), the **Bainbridge Island Japanese American Exclusion Memorial** (a unit of Minidoka National Historic Site), the **Outdoor Recreation Information Center** at REI's Seattle flagship store, and the **Seattle Trails & Rails** partnership with Amtrak. He also serves as the National Parks Service liaison with the **Wing Luke Museum of the Asian Pacific American Experience**, an affiliated area of the NPS. He holds a master's degree in environmental management from the **University of Maryland, University College**, and bachelor's degrees in biological sciences and environmental studies from **Sacramento State University**. He worked 10 years at **North Cascades National Park Complex** in various positions, including acting superintendent, chief of interpretation and education, and interpretive supervisor. He has also worked as an education specialist at **Badlands National Park** in South Dakota. He began his career as an interpretive park ranger at the **National Mall and Memorial Parks** in Washington, D.C.

**Paula Becker** is a writer and historian. She is the author of the book *Looking For Betty MacDonald: The Egg, The Plague, Mrs. Piggle-Wiggle and I* (**University of Washington Press**, fall 2016), and co-author (with Alan J. Stein) of the books *The Future Remembered: The 1962 Seattle World's Fair And Its Legacy* (**Seattle Center Foundation**, 2011) and *Alaska-Yukon-Pacific Exposition: Washington's First World's Fair* (**History Ink/HistoryLink** in association with University of Washington Press, 2009). More than 300 of Paula's essays documenting all aspects of Washington's history appear on HistoryLink.org, the online encyclopedia of Washington state history, where she is a staff historian.

**John Bennett** is owner of **Bennett Properties** in Georgetown and has purchased and restored historic buildings for over 25 years. He is active in the West Seattle and Georgetown neighborhoods as a member of both the **Southwest Seattle Historical Society** and **Friends of Georgetown History**. He strives to offers properties with unique character while maintaining affordability for small businesses and residents.

**Lath Carlson** is Executive Director of the **Living Computer Museum**, one of three museums under the Vulcan, Inc. umbrella. He leads the museum's daily operations, programming, exhibitions and events and also oversees the development of the museum's educational and public programs, and the expansion of its interactive technology experiences. Prior to joining the Living Computer Museum, Carlson was vice president of exhibits and content development for **The Tech Museum of Innovation**, where he transformed the museum into a community resource for innovation through facilitated museum experiences. Prior to that, Carlson was a senior lecturer at **The University of the Arts in Philadelphia** where he taught exhibition materials and technologies in the **Museum Exhibition Planning and Design Masters Program**. Carlson has received multiple award honors and recognition through the **Noyce Foundation**, **The Institute of Museum and Library Services**, **The American Alliance of Museums**, **Association of Science-Technology Centers** and **The American Institute of Architects**.

**Hank Florence's** career with the **National Park Service** has placed him in three regional offices (Seattle, Santa Fe, and San Francisco), and two National Parks (San Antonio Missions National Historic Park and Golden Gate National Recreation Area). His materials conservation and resource preservation experience ranges from work on back country log structures in the damp climate of the Pacific Northwest to work on adobe and stone resources of the arid Southwest. Most recently, Hank has provided technical assistance to areas served by the National Park Service in the Pacific Islands including Hawaii, American Samoa and Micronesia. As the program lead for the **Cultural Partnership Program for the Pacific West Region of the NPS**, Hank provided support to the **Pacific Northwest Preservation Field School**, a partnership that includes the University of Oregon, Oregon State University and State Parks and State Historic Preservation Offices in Idaho, Washington, and Oregon. Hank also represented the National Park Service on the **Ebey's Landing National Historic Reserve Trust Board**, the governing body that manages the Reserve in partnership with the City of Coupeville, Washington, Island County, Washington State Parks and the National Park Service.

**Laurie B. Haag** is Vice President and Chief Operations Officer of the **Museum of Flight** and manages museum operations within the areas of facilities, sales, aircraft collections and restoration. She joined the museum in June 2007 and has over 30 years of experience in project and program management in private, public and nonprofit environments. Prior to joining The Museum of Flight, Haag served as Deputy Director and Interim Director at the **Museum of Glass** in Tacoma, Wash., and Special Assistant to the General Manager at the **Contra Costa Water District** in Concord, Calif., managing projects in excess of \$100 million. She holds a BS degree in Construction Management from the **University of Florida** and an MBA in Business Administration from **Santa Clara University**.

**Lendy Hensley** is founder and President of **City Catering Company**. Now 21 years in business, City Catering has been named Seattle's Most Creative Caterer by **Seattle Magazine** with a client list including **Nordstrom, Microsoft, MOHAI** and the **Frye Art Museum**. Under Hensley's leadership, the overall company sales exceed \$10 million and as the exclusive caterer for the Frye Art Museum, the company has been an important partner in developing a wider base of visitors and event attendees for the museum. Hensley has a BA in Economics from the **University of Texas** at Austin.

**Sarah Kavage** is an artist and urban planner who creates large-scale place-based projects. She has developed installations for the **City of Seattle, King County, the City of Redmond, the City of Bellevue, the City of Kent, the Olympic Sculpture Park**, and others. Industrial Harvest, her Chicago-based exploration of food, commodities trading, and the economy was featured in the **Chicago Reader, Public Art Review, the BBC, and SITAC X** in Mexico City. She recently served as Co-Artistic Director for *Duwamish Revealed*, a site-specific exhibition and event series along and about the Duwamish River in Seattle in 2015. *Duwamish Revealed* featured nearly 100 artists and performers and relied on numerous community partnerships to celebrate the river's landscape and its complex history. She has a Masters' Degree in Urban Planning from the **University of Washington**, over 15 years of professional urban planning experience, and is currently serving as a consulting researcher for **ArtPlace America** on the topic of public art and public health.

**Kji Kelly** is Executive Director of **Historic Seattle**. Prior to accepting his current position, he served the organization in a variety of other roles, including asset and property manager, director of real estate, and deputy director. Kji's background and expertise is in construction management, specializing in restoring, adaptively re-using, and maintaining historic structures. He has worked for the **Pennsylvania Capital Preservation Committee**; the **North Carolina Department of Cultural Resources**, Historic Sites Division; and the Facilities Management Department at **Duke University**. Kji has a B.A. in American Studies and Political Science from **Dickinson College**, and certificates in both Construction Management and Commercial Real Estate from the **University of Washington**.

**Larry Kreisman** is Program Director for **Historic Seattle** and has initiated a diverse array of educational programs and events on architecture, design arts, and built heritage. Larry is co-author with Glenn Mason of *The Arts and Crafts Movement in the Pacific Northwest* and author of *Made To Last: Historic Preservation in Seattle and King County*, and numerous other books. He is an Honorary Member of **AIA Seattle**, and received the Washington State Historic Preservation Officer's Award for Outstanding Career Achievement in Historic Preservation. Larry has a B.A. from **City College of New York**; a M.A. in English literature from the **University of Chicago**; and a Master of Architecture degree from the **University of Washington**. Larry also led the consultancy team which created the original marketing report for the plant in 1982.

**Jennifer Meisner** assumed her position as King County's Historic Preservation Officer in 2015. With over 20 years of experience in historic preservation, Jennifer has worked as a Community Development Specialist with the **City of Seattle's** Historic Preservation Program focusing on the **Pioneer Square Preservation District**, Executive Director of the **Washington Trust for Historic Preservation**, Principal of **Heritage Matters Preservation Consulting**, and briefly as a Strategic Advisor with **Seattle City Light** focusing on redevelopment of the Georgetown Steam Plant. Jennifer is an Affiliate Assistant Professor of Urban Design and Planning at the **University of Washington**, where she earned a Master of Architecture and Certificate in Historic Preservation and has taught courses in preservation planning since 1995. Jennifer served on **4Culture's** Historic Preservation Advisory Committee (2006-2015) and Board of Directors (2009-2015). She is currently an ex-officio member of the 4Culture Board serving as liaison to the King County Executive and a member of the Washington State Heritage Capital Projects Fund Advisory Committee. Jennifer was honored with the Washington State Historic Preservation Officer's Award for Career Achievement in 2014.

**Jennifer Mortensen** is the Preservation Services Coordinator at **Washington Trust For Historic Preservation**, Washington's statewide advocacy group for architectural preservation. She recently completed an MS in Architecture History/Theory with a certificate in Historic Preservation from the **University of Washington**. For her thesis, she researched the significance of versatility in the preservation of concrete-frame industrial buildings in the Midwest. She also holds a BA of Theatre Arts in Scenic Design from **Brigham Young University**.

**Charlie Rathbun** manages the Arts Program for **4Culture** where he coordinates the work of the Arts Advisory Committee, the Local Arts Agency Network, the Sustained Support Program and the Site Specific Program. He's worked with both the **Seattle Arts Commission** and the **NEA Theater Fellowship program** and joined the **King County Arts Commission** in 1987 to help coordinate the Performa '87 Festival of New Works. He moved to Seattle from the east coast in 1982 to co-found the **New City Theater**. In New York City Charlie worked as an artist assistant for site specific installations and as an actor and production assistant for several theater organizations.

**Matthew Richter** is Cultural Space Liaison with the **Seattle Office of Arts and Culture**. He was the founding director of both the **Consolidated Works** contemporary arts center and the **Rm 608 gallery** for visual and performing arts. Prior to joining the city, he worked for **Shunpike**, where he spent two years building the Storefronts Seattle program. He has served as the Performance Editor of *The Stranger*, and is a nationally published writer. He has created a series of Dinner Theater productions at **On the Boards** and elsewhere, and has lectured internationally on the state of the arts.

**Elizabeth P. Stewart** has been the Director of the **Renton History Museum** in Renton, WA since 2006. She was previously Research Historian for a state-operated African American history museum, the **Banneker-Douglass Museum**, in Annapolis, MD for six years. She has a B.A. from the **University of South Carolina** and a Ph.D. in American History from **American University** in Washington, DC. While completing her degrees, Elizabeth worked at **McKissick Museum** in Columbia, SC and the **Smithsonian Institution's National Museum of American History**. She chaired **4Culture's** Heritage Advisory Committee from 2011 to 2013, and serves as a peer reviewer for AAM's Museum Assessment Program. She serves as a resource for the **City of Renton** on historic preservation, heritage interpretation, cultural planning, and cultural management issues and led the development of a Museum Master Plan for the City of Renton 2009-2010. She also serves as Vice President of the **Washington Museum Association Board**.

**David Unger** is Director of Curatorial Services for the **Museum of History and Industry (MOHAI)**. He previously held the position of Director of Interpretation for the **American Textile History Museum** in Lowell, MA. He has a B.A. in anthropology from the **University of Chicago** and a Ph.D. in History of Science from **Harvard University**.

## **City of Seattle owned facility comparisons**

**Bathhouse Theatre** was converted from an old 1927 bathhouse on Green Lake by the City of Seattle in 1970. It operated with its director as a Seattle Parks and Recreation employee for two years until the city's arts budget was slashed. The director then leased the space from the city and operated the theatre until his company closed in 1999.

Still owned by the city, the building is now managed and programmed by Seattle Public Theater which leases it for \$500.00/month in exchange for providing free educational programs. Seattle Parks and Recreation is responsible for core and shell improvements and maintenance.

**Langston Hughes Performing Arts Institute** (LHPAI, as renamed in 2001) was constructed as a synagogue in 1897 at 13th Avenue and Washington Street in the Central District of Seattle. The building was sold to the City of Seattle in 1969 to provide Central Area citizens with a community center.

After 45 years as a program of the Seattle Department of Parks and Recreation, the center experienced a substantive change in 2013, when its management was transferred to the City of Seattle Office of Arts and Culture. The department fostered a community led three-year review and engagement process with the vision of transforming Langston Hughes Performing Arts Institute into an independent and thriving arts organization.

A new and separate non-profit, LANGSTON, has been established to provide strong stewardship for this important African American arts and cultural hub in Seattle. The non-profit is based out of the LHPAI building, which is still operated by the Seattle Office of Arts & Culture. The City of Seattle owns the building and employs key staff to take care of daily building operations, rentals, technical support, and maintenance.

## **Public Utility owned facility comparisons**

**The Skagit Tours** have been a City Light tradition since the 1930's. These days, there are a variety of tour choices ranging from 1.5 to 4.5 hours with ticket fees of \$30 to \$45. Meals and boat rides are included in some ticket packages. Tours run from July into September each year.

City Light is required by its Federal Energy Regulatory Commission (FERC) license to offer some type of tours, but the number, type and participant cost are not specified.

In 2016 4,500 people participated in the Skagit Tours; most visitors are from outside City Light's service area. These visitors are spread over about 400 hours of program/tour time. The visits generated \$160,000 in annual revenue.

The Tours are managed by City Light and two other partners: the National Park Service (NPS) and the North Cascades Institute (NCI). Each of the three partner agencies provide two summertime employees for a total staff team of six, all at City Light's expense. The NCI also

manages reservations for the tours. Counting City Light's payment to the NPS and NCI and its own staff costs and boat costs, it expends perhaps \$350,000/year on the tours, with approximately 50% of the costs subsidized by revenue.

Advertising has a low budget with a few ads, a website, posters, rack cards at various locations, and typically an annual bill stuffer. There would be some synergy for cross-promotion between the Skagit Tours and a future Georgetown Steam Plant due to the electrical history connection. The Skagit Tours have been a generator of good will for City Light for over 80 years from Skagit Valley merchants, Washington State residents and our own customers.

**The Cedar River Watershed Education Center** ("Ed Center") is owned and operated by Seattle Public Utilities (SPU) operated as a regional education facility created as a gathering place to connect people with the source of their water. Its educational programs began with the Secondary Use Ordinance of 1992 which prohibited unsupervised public use of the drinking supply's watershed and in exchange provides educational programs and recreational opportunities outside the watershed. The Ed Center also provides a meeting space for regional environmental groups for a reasonable cost. The "mandate" for the Ed Center is merely City policy; there is no state or federal requirement for the City to establish the Ed Center.

By providing opportunities for thousands of visitors to learn about the complex issues surrounding the region's drinking water, forests and wildlife, the Ed Center had 28,000 visitors in 2016 within about 1,200 hours of programming.

Currently there is no outside entity involved in the operation of the Ed Center. It is run by an in-house staff of about 5.5 FTE employed by the City of Seattle. The annual budget is about \$700k/year, excluding maintenance. The center generates about \$25,000 - \$30,000 of revenue each year. The majority of the costs related to the center are borne by the regions water rate payers, as was the capital cost of construction.

The center is promoted via e-newsletter (distribution list of 3,500) and has an annual advertising budget of \$7,000 - \$8,000. It cross-promotes with the Rattlesnake Lake recreation facility (not a City operation) that is located down the road.

The Ed Center and its associated programs, which include supervised tours in the closed watershed, are considered the "crown jewel" of Seattle Public Utilities. They are also universally supported by SPU's wholesale customers whose schoolchildren get equal access to the Center's programs. One lesson learned in developing the Ed Center was from an early effort to create an outside entity associated with the Ed Center and the wider watershed. The "Friends of the Cedar River Watershed" was such a group but always seemed in search of a mission and could not sustain themselves independently from SPU. They have since disbanded.

## **PRESERVATION IS GREEN**

A note from Washington Trust for Historic Preservation

On its most basic level, the practice of historic preservation is the practice of conserving resources. Not only do restoration and redevelopment consume less energy than demolition and new construction, but preservation also recovers the worth of past energy investment. Demolition and new construction not only consume present-day energy, but negates and wastes the past energy investment made in a building. Preservation is a remarkably effective method of sustainability.

### **Cultural Benefit**

Architecture is a direct and substantial representation of history and place. By preserving historic structures, we are able to share the very spaces and environments in which the generations before us lived. Historic preservation is the visual and tangible conservation of cultural identity.

Architecture is one aspect of our heritage with which we can interact and adapt. Some buildings have specific historic context and must be meticulously and exactly preserved. Most buildings, however, must be lived in, interacted with and maintained by the public. These buildings change with us, thus recording a piece of each generation's story. We have an obligation to respect this community resource and preserve it for future generations. Preservation works within the established history and location of cities and towns to build on the rich culture already at hand.

In addition to solidifying a community's past, preservation can help strengthen a community's future. Historic buildings help create vibrant, cultural areas that draw tourism, art, festivals, and other activities which in turn draw investment, revenue, and economic growth. A dynamic historic neighborhood or district can be the centerpiece of community life: a place to shop, invest, create and live. Simultaneously, preservation can be a tool to boost economy and quality of life.

Local residents benefit through interpretive components such as learning and recreational activities that complement an historic site's didactic offerings and illustrate a special meaning between its past, present and future. The more the community is involved, the more attractive and effective an area will become for locals and visitors.

### **Economic Benefit**

In the past, historic preservation has been considered a luxury practice, but in recent years, research of the economic and public benefits have revealed that it is a powerful tool in sustaining local economy, creating jobs, and even generating capital. The aesthetic, cultural and historical benefits of preservation are well known, but now, communities are realizing that there are positive economic effects also.

February 3, 2017

The Honorable Dow Constantine  
Executive, King County  
King County Chinook Building  
401 5th Ave., Suite 800  
Seattle, WA 98104

Dear Executive Constantine:

We write to you as members of the Georgetown Steam Plant Advisory Committee. The Advisory Committee was formed by Seattle City Light (SCL) to develop recommendations on future, sustainable programming, funding and management structures for the Georgetown Steam Plant, a National Historic Landmark built in 1906. Our committee members come from the local community and the fields of art, business and historic preservation as well as from three regional museums, the Museum of Flight, MOHAI and the Renton History Museum.

Having worked most of the past year on evaluating programming ideas, community benefits and potential financing, we are excited about the prospect of the steam plant becoming one of the region's most unique and significant heritage and cultural destinations. We are pleased the Georgetown Steam Plant has been recommended for \$750,000 from the Washington Heritage Capital Fund and was also awarded \$100,000 from the recent Building for Culture program administered by King County. We see a very bright future for the plant in providing unique educational, arts and cultural experiences to diverse King County communities for generations to come.

However, as our recommendations are being formalized for submission to City Light, there is one issue we see as standing in the way of continued progress and that is the need to expedite the creation of a permanent public access corridor to the plant as described in King County Ordinance 13237.

As early as 1998, King County recognized the Georgetown Steam Plant as a valued community and national asset that could be affected by future development at King County International Airport (KCIA). Ordinance 13237 identified the need for a permanent public access corridor to the plant, and Seattle City Light and KCIA are currently carrying out an agreement signed in 2015 to collaborate on the design of this public access corridor. We greatly appreciate your efforts to help the parties to reach this agreement.

We support the new access plans as developed so far. We also realize that a construction phase agreement is necessary between the County and City Light. Your continued support in expediting the completion of this access corridor and removal of the largest barrier to the Georgetown Steam Plant's revitalization would be very helpful, timely, and much appreciated.

Thank you for your assistance in this matter and your support for preserving significant historical buildings such as the Georgetown Steam Plant. The successful completion of this project will be as much a monument to interjurisdictional cooperation as it will be to early twentieth century industrialization. Please feel free to contact any one of us directly or via Julianna Ross at julianna.ross@seattle.gov if you wish to discuss the project, our comments or related matters with the advisory committee.

Sincerely,



Charles Beall, Superintendent  
Klondike Gold Rush Museum  
National Park Service



Paula Becker, Staff Historian  
HistoryLink



John Bennett, Owner  
John Bennett Properties



Lath Carlson, Executive Director  
Living Computer Museum + Labs

**HANK FLORENCE**

Hank Florence, Historical Architect  
National Park Service



Laurie Haag, Vice President and COO  
Museum of Flight



Lendy Hensley, Owner  
City Catering



Sarah Kavage, Co-Artistic Director  
Duwamish Revealed



Kji Kelly, Executive Director  
Historic Seattle



Larry Kreisman, Program Director  
Historic Seattle



Jennifer Mortensen, Hist. Preserv. Coordinator  
Washington Trust for Historic Preservation



Charlie Rathbun, Arts Program Manager  
4Culture



Matthew Richter, Cultural Spaces Liaison  
Seattle Office of Arts and Culture



Elizabeth Stewart, Director  
Renton History Museum



David Unger, Director of Curatorial Services  
MOHAI

Cc: Harold Taniguchi, Director, King County Department of Transportation  
Randy Berg, Director, King County International Airport  
Lynn Best, Chief Environmental Officer, Seattle City Light  
Mike Fong, Chief of Staff, Office of Mayor Edward B. Murray at City of Seattle  
Kenny Pittman, Senior Policy Advisor, City of Seattle  
Jennifer Meisner, Historic Preservation Officer, King County



Georgetown Steam Plant

Proposed Entry Drive  
at Ellis Avenue South

## GEORGETOWN STEAM PLANT – AERIAL VIEW

## ENTRY POINT FROM ELLIS AVENUE - EXISTING CONDITIONS



VISUALIZATION OF ENTRY DRIVE CONCEPT FROM ELLIS AVENUE



## ENTRY DRIVE CONCEPT



### TECHNICAL DETAILS AND ALIGNMENT FEATURES

- Two 12-foot drive lanes
- One 8-foot public sidewalk
- Vehicular drop-off at the Steam Plant entrance
- Wide view corridor from Ellis to the Steam Plant
- Green Stormwater Infrastructure (GSI) measures for drainage
- Parking for cars and busses
- Monument and gateway signage at Ellis Ave.

## DRIVEWAY ENTRANCE CONCEPT

JEF:jrs  
2/3/84

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

ORDINANCE 111884

AN ORDINANCE relating to historic preservation, imposing controls upon the Georgetown Steam Plant, a Landmark designated by the Landmarks Preservation Board under Chapter 25.12 of the Seattle Municipal Code (Ordinance 106348).

WHEREAS, the Landmarks Ordinance, Chapter 25.12 of the Seattle Municipal Code (Ordinance 106348), establishes a procedure for the designation and preservation of structures and areas having historical, cultural, architectural, engineering or geographic importance; and

WHEREAS, The Landmarks Preservation Board after a public hearing on May 16, 1979, voted to approve the nomination of the Georgetown Steam Plant in Seattle as a Landmark under Code Chapter 25.12; and

WHEREAS, after a public hearing on July 15, 1981, the Board voted to approve the designation of the Georgetown Steam Plant as a Landmark under Code Chapter 25.12; and

WHEREAS, on November 18, 1981, the Board and the owners of the designated property agreed to controls and incentives; and

WHEREAS, the Board recommends to the City Council approval of controls and incentives; Now, Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. That the designation by the Landmarks Preservation Board of the Georgetown Steam Plant more particularly described as:

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 57°33'42.1" East 173.78 feet; thence South 32°27'58.4" East 361.60 feet to the South line of said Tract D; thence along the South line of said Tracts B, C, and D South 66°37'59" West 228.32 feet; thence North 37°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.

1 as a Landmark based upon satisfaction of the following criteria  
2 of Code Section 25.12.350:

- 3 1.) It is associated in a significant way with a signifi-  
4 cant aspect of the cultural, political, or economic  
5 heritage of the community, city, state or nation; and  
6 2.) It embodies the distinctive visible characteristics  
7 of an architectural style, or period, or of a method  
8 of construction;

is hereby acknowledged.

9 Section 2. The following controls upon alteration of the  
10 landmark are hereby imposed.

11 A Certificate of Approval must be obtained or the time for  
12 denying a Certificate of Approval must have expired before the  
13 owner may make any significant changes that would involve  
14 alterations to or deterioration of the following features of the  
15 Plant: The entire structure, all existing parts of the entire  
16 steam producing and electricity generating systems within the  
17 Plant, including all mechanical and electrical components,  
18 supports, auxiliary machinery, and such decorative features as  
19 original meters, panels and gauges. Any in-kind maintenance  
20 and repair of the above features and characteristics shall be  
excluded from the Certificate of Approval requirement.

21 Section 3. Enforcement of this Ordinance and penalties  
22 for its violation shall be as provided in Section 25.12.910 of  
the Seattle Municipal Code.

23 Section 4. The City Clerk is hereby directed to record this  
24 ordinance with the King County Director of Records and Elections,  
25 deliver two copies to the City Historic Preservation Officer,  
26 400 Yesler Building, and deliver one copy to the Director of  
27 the Department of Construction and Land Use.

28

(To be used for all Ordinances except Emergency.)

Section 5. This ordinance shall take effect and be in force thirty days from and after its passage and approval, if approved by the Mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

Passed by the City Council the 10<sup>th</sup> day of September, 1984, and signed by me in open session in authentication of its passage this 10<sup>th</sup> day of

September, 1984. *W. J. ...*  
President of the City Council.

Approved by me this 17<sup>th</sup> day of September, 1984.  
*Charles ...*  
Mayor.

Filed by me this 18<sup>th</sup> day of September, 1984

Attest: *Jim Hill*  
City Comptroller and City Clerk.

(SEAL)

Published \_\_\_\_\_ By: *Paul Duce*  
Deputy Clerk.

CITY OF RENTON  
Museum Management Agreement



**Article A Scope:**

This Agreement defines the respective responsibilities and obligations of the City of Renton, (“City”) and the Renton Historical Society (“Society”) regarding the operation of the Renton Historical Museum (“Museum”) located at 235 Mill Avenue South, situated within the City of Renton, King County, Washington, and programs directly associated with its management support and overall operation.

**Article B Recitals:**

The City of Renton is a municipal corporation of the State of Washington. The Renton Historical Society is a 501 (c) (3) federally recognized non-profit educational/charitable organization. The Renton Historical Museum is the physical structure, staff, collections, exhibits and archives. The Museum Supervisor is a City of Renton employee.

**Article C Limitations:**

This Agreement specifically does not prohibit either party from carrying on any other activity or participating with any public or private agencies, organizations, and individuals or by accepting contributions, gifts or mitigation money to be applied to either party's portion of the planning, engineering, construction, administration, operation, and preservation of the Museum, collections or activities as authorized by the City’s policy or Society’s charter, bylaws, or mission statement.

**Article D Governing Law:**

The most current laws of the State of Washington and the City of Renton shall govern this Agreement, and the services performed under this Agreement. Jurisdiction and venue for any suits filed in connection with this Agreement shall be in the King County Superior Court of the State of Washington.

**Article E Building, Land and Collection Ownership:**

1. The City retains legal ownership of the real property now recognized as the Renton Historical Museum - formerly the Main Fire Station, located at 235 Mill Avenue South. The City agrees to provide the use of the Museum premises as an in-kind contribution to the Society for the duration of this Agreement in exchange for the valuable considerations provided by the Society and upon the terms and conditions set forth herein. The City reserves the right to inspect the aforesaid premises and facilities (and any other spaces provided by the City for Museum activities) at any and all reasonable times throughout the term of this Agreement; provided that it shall not interfere unduly with Museum security or activities or Society's operations. The right of inspection reserved to the City hereunder shall impose no obligations on the City to make inspections to ascertain the condition of the facilities, and shall impose no liability upon the City for failure to make such inspections.

2. The Society may continue to hold and own any current or future private property. The Agreement does not affect the Society's ownership of the artifacts, archives, other historic materials, fixtures, exhibition materials, furniture, equipment, and other personal property held within the Museum building; provided that, the City retains ownership of all loaned City public records and collections, and the supplies, fixtures, equipment, and furniture purchased by the City.
3. The Society shall continue in its role as custodian of community historical collections and repository for such historical materials in the Renton community. Public records of the City can be gifted to the Society only if and when specific conditions have been met. Gifting of City public records to the Society shall be accomplished by means of a Museum Gift Agreement, detailing the records being gifted and signed by the Society, the appropriate City Department Administrator or a designated Director, and the City Records Officer. An original of all Gift Agreements must be filed with the City Clerk.
4. The City may lend public records, historical artifacts and materials to the Society for its interpretive and research use, provided that the lending of such records and materials conforms to the professional standards of the City's Records Management Program and the Society's collection management policies. Loaning of City public records, historical artifacts and materials to the Society shall be accomplished by means of a Museum Loan Agreement, detailing the records being loaned, and signed by the Society, the appropriate City Department Administrator or a designated Director, and the City Records Officer. An original of all Loan Agreements must be filed with the City Clerk.
5. The Society may lend Society-owned historical artifacts and materials to the City for its interpretive and research use, provided that the lending of such materials conforms to the professional standards of the Society's Collection Management Policies and that the terms of any such loan are mutually agreeable to the City and the Society.
6. The City may acquire and use copies of photographic images owned or held by the Society and such usage shall be governed by terms and conditions outlined in the Society's Photograph Reproduction Policy. The City should pay material costs only or be able to use images at no fee and pay for reproduction services on its own, provided that the City agrees not to provide copies of Society-owned images to third parties without the Society's written permission. Staff research costs by the Society on behalf of the City shall be paid by the Society to the extent such costs do not consume more than 25% of available staff time for no longer than one (1) week.
7. The Society understands that all e-mail messages in the City's e-mail system are public records and fall within the City's Records Management System. Therefore, they must be maintained according to the approved retention and disposition schedules. They are also subject to Public Disclosure under City policy and State law.

**Article F Roles and Responsibilities of the Society to the City:**

1. The Society shall perform the following services, in collaboration with a City-employed Museum Supervisor, for the benefit of the City and its people:
  - A. Collect and preserve artifacts, archival materials, photographs and the historical record of the greater Renton community.
  - B. Help raise funds in support of the Museum programs contemplated by this Agreement.
  - C. Assist the City to develop long-term or strategic plans for Museum purposes.

- D. Develop and implement a Museum volunteer program, including but not limited to a docent (tour guide) program and collections assistants.
  - E. Provide historical services to the City in developing plans, policies, and agreements.
  - F. Develop and maintain exhibits, publications, audiovisual materials, and other interpretive materials in the primary Museum facility and in satellite locations.
  - G. Provide Museum services in support of tourism development, economic revitalization and community events.
  - H. Provide staff required for a minimum of 20 hours per week for public access to the Museum.
  - I. Provide adequate insurance coverage for the activities conducted within the Museum facility.
  - J. Maintain a 501 (c) (3) charitable status.
2. The Society shall operate as follows:
- A. Agree to not discriminate regarding any services, membership, staff, or activities to which this Agreement may apply directly or indirectly through contractual, hiring, or other arrangements on the grounds of race, color, creed, religion, national origin, gender, age, or where there is the presence of any sensory, mental, or physical handicap (ADA), and shall commit no trespass upon any public or private property in performing any of the work described in this Agreement.
  - B. Agree that its Articles of Incorporation, Bylaws and Policies shall adhere to the provisions cited herein.
  - C. Retain the right to adopt and modify standard museum and archival policies and procedures regulating activities specific to Museum operations, the management and use of collections, the use of facilities, and other functions, as it deems necessary or appropriate, but not inconsistent with this Agreement.
  - D. Adopt and adhere to a professional code of ethics to guide its operations, based upon the codes developed by the American Association for State & Local History, American Association of Museums and the Society of American Archivists.
3. The Society shall take the following operational actions:
- A. Prepare and submit to the City an annual report, including a statement of financial condition and a projected annual budget. This report will review the operations for the previous year and define the goals and objectives for the Museum in the coming year.
  - B. Agree not to use assets for lobbying, furthering the election or defeat of any candidate for public office, conducting voter registration drives, supporting any partisan political activity or pursuing any activity outside its federally authorized non-profit mission.
  - C. Comply with all applicable laws, ordinances, regulations and codes of any government having jurisdiction over the Society or its functions. This section shall apply not only to the Society but also to anyone employed or retained by the Society.
  - D. Contract for work on the Museum facility or its systems only with City approval, except for routine interior maintenance including painting of interior surfaces. Such approval shall not be unreasonably withheld.

**Article G Scope of Services & Responsibility of the City to the Society:**

The City shall perform the following services:

1. Provide a Museum Supervisor to perform duties and responsibilities as per City of Renton, Job Description AS-2090.
2. Authorize the Community Services Administrator, or a designated Director, to serve as the City contact for the Society Executive Committee.
3. Provide water, electricity, gas, sewer, waste removal, and grounds-keeping services for the Museum.
4. When expertise and time is available, City personnel will be provided to assist with exhibit installation, and other related tasks.
5. Provide all security and fire safety systems and maintenance.
6. Provide for building maintenance, repair and improvement of the exterior, roof, foundation and building systems of the Museum and other City-owned space provided for Museum related activities.
7. Assist the Society in developing plans and proposals for a Museum facility that meets professional standards of environmental control, collection management capacity, security, programming flexibility, and public access. Additionally assist the Society in its obligations to protect whatever image rights the Society may have with regard to using society materials.
8. Provide property insurance coverage for the Museum building and City-owned furniture, fixtures and equipment.
9. Provide printing and mailing services for the quarterly publication and other printed matter for projects furthering the mission and goals of the Society as related to the Museum and that clearly benefits Renton citizens. Funding will be limited to 2003 funding levels adjusting annually for inflation.
10. Provide limited clerical support to assist the Museum Supervisor with his/her responsibilities in serving the general mission of the Society as directly related to the Museum.
11. The City will provide network connectivity and support to the Museum building, maintaining all network related equipment. Connectivity will include internet access, email and access to the Museum's data base program. All Museum staff/volunteers will operate using the City policies/guidelines related to technology. The City will maintain the existing low-voltage networking infrastructure. No devices shall be connected to the City's network without the express approval of the City's Information Services Division . Service levels under this agreement will be the same as that provided to City Departments and will be priced accordingly as part of the annual budget process. The City will provide, upon mutual agreement of the parties, technology consulting services related to the business activities at the Museum.

The City will provide computer replacement services to the Museum at the same cost as City-purchased equipment. This will be budgeted separately as part of the Museum's annual appropriation.

**Article H Future Commitments:**

The City makes no commitment to support, and assumes no obligation for future support, of the activity contracted herein except as expressly set forth in this Agreement.

1. Should anticipated sources of revenue to carry out the terms of this Agreement not be available to the City, the City will be released from contracted liability with the Society for that portion of the Agreement for which funds are not available.
2. In the event the City notifies the Society that funding is no longer available for all or a portion of the services to be provided pursuant to this Agreement, the Society is released, upon written notification from the City, from any obligation to provide said services.
3. Should funding no longer be available, the City will strive to give the Society one hundred eighty (180) days notice.

**Article I Museum Governance:**

1. The Museum operations will be governed jointly by the Society and the Community Services Administrator or his/her designee, in accordance with the terms and conditions of this Agreement and by policies and procedures established by the Society for Museum operation, provided that they do not conflict with the terms of this Agreement.
2. The Society shall provide input as required by the City for any other Museum personnel hired by the City.
3. The Board, Board Committee, and general membership meeting minutes and agendas shall be a matter of public record and shall be filed with the City Clerk.

**Article J Additional Personnel:**

1. The Society and/or City may, at their discretion, hire additional part-time or full-time Museum staff. Should the City hire additional museum staff, such City staff shall be subject to City personnel policies and control.
2. The work of all paid Museum personnel; whether funded by the City or the Society, through grants or other sources, will be directed by the Museum Supervisor.
3. The Museum Supervisor will direct the work of Museum staff and volunteers. Personnel related actions, such as discipline, evaluation, and hiring/firing will be done by the Society for Society employees.
4. All Museum volunteer staff members will report directly to the Museum Supervisor or personnel assigned by the Museum Supervisor.
5. Working Relationship: The Society and the City agree that each will collaborate with respect to the services provided pursuant to this Agreement. Nothing in the Agreement shall be considered to create the relationship of employer and employee between the parties. Neither the Society nor any employee of the Society shall be entitled to any benefits accorded City employees by virtue of the services provided under this Agreement. The City shall not be responsible for withholding or otherwise deducting Federal Income Tax, Social Security, contributing to the State Industrial Insurance Program, or otherwise assuming the duties of an employer with respect to the Society, or any employees of the Society. The Society shall provide the City with sufficient proof of its 501 (c) (3) non-profit status, including IRS number and business license, if required.

**Article K Legal Indemnification:**

1. The Society shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses, or suits including attorney fees, arising out of, or in connection with, the performance of this Agreement, except for injuries, and damages caused by the sole negligence of the City.
2. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by, or resulting from, the concurrent negligence of the Society and the City, its officers, officials, employees, and volunteers, the Society's liability hereunder shall be only to the extent of the Society's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Society's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. The parties have mutually negotiated this waiver. The provisions of this section shall survive the expiration, or termination of, this Agreement.
3. Insurance: The Society shall maintain \$1,000,000 in Commercial General Liability Insurance. The Society shall also provide the City a Certificate of Insurance and a copy of the endorsement naming the City as an additional insured. The insurance certificate will provide for a forty-five (45-day) written notice prior to policy cancellation. The City reserves the right to request a certified copy of the policy.
4. Legal Expenses: In the event that legal action is initiated by either party to this Agreement against the other to enforce any obligations arising out of or disputes concerning the terms, and conditions of this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees, costs and expenses.

**Article L Amendments:**

This agreement may be amended by mutual written consent of the City and the Society, provided that any amendment to this Agreement shall be formally ratified by both parties. Should either party to this Agreement be aggrieved by any act, or omission of the other party, or its officers, employees or agents, in the performance of obligations or responsibilities described in this Agreement, the aggrieved party shall have the right to notify the other party in writing to request a meeting to seek resolution of any grievance, dispute, or issue that may arise. The meeting shall be convened no later than fourteen (14) days following receipt of the written notice. At such meeting, either or both parties may propose amendments to the terms of this Agreement or changes to operating procedures involved in performance of this Agreement's obligations or responsibilities. The parties, by mutual consent, may request outside advice, assistance, mediation, or arbitration in conducting such meetings.

**Article M Disputes and Remedies:**

If a dispute should arise between the City and the Society, they shall promptly meet and both shall attempt in good faith to resolve the dispute. Any unsettled disputes between the City and Society shall be decided by a suit filed in an appropriate court of jurisdiction unless the parties mutually agree otherwise. If suit is filed in a Superior Court, the suit shall be decided according to the Mandatory Arbitration Rules (MAR) regardless of the issues involved in the dispute. The MAR Arbitrator shall determine the validity and enforceability of a lien, if any. The parties expressly waive their right to a trial de novo (appeal), and further expressly agree to accept the Arbitrator's decision as binding and final. In the event that legal action is initiated by either party

CITY OF RENTON  
Museum Management Agreement



**Article A Scope:**

This Agreement defines the respective responsibilities and obligations of the City of Renton, (“City”) and the Renton Historical Society (“Society”) regarding the operation of the Renton Historical Museum (“Museum”) located at 235 Mill Avenue South, situated within the City of Renton, King County, Washington, and programs directly associated with its management support and overall operation.

**Article B Recitals:**

The City of Renton is a municipal corporation of the State of Washington. The Renton Historical Society is a 501 (c) (3) federally recognized non-profit educational/charitable organization. The Renton Historical Museum is the physical structure, staff, collections, exhibits and archives. The Museum Supervisor is a City of Renton employee.

**Article C Limitations:**

This Agreement specifically does not prohibit either party from carrying on any other activity or participating with any public or private agencies, organizations, and individuals or by accepting contributions, gifts or mitigation money to be applied to either party's portion of the planning, engineering, construction, administration, operation, and preservation of the Museum, collections or activities as authorized by the City’s policy or Society’s charter, bylaws, or mission statement.

**Article D Governing Law:**

The most current laws of the State of Washington and the City of Renton shall govern this Agreement, and the services performed under this Agreement. Jurisdiction and venue for any suits filed in connection with this Agreement shall be in the King County Superior Court of the State of Washington.

**Article E Building, Land and Collection Ownership:**

1. The City retains legal ownership of the real property now recognized as the Renton Historical Museum - formerly the Main Fire Station, located at 235 Mill Avenue South. The City agrees to provide the use of the Museum premises as an in-kind contribution to the Society for the duration of this Agreement in exchange for the valuable considerations provided by the Society and upon the terms and conditions set forth herein. The City reserves the right to inspect the aforesaid premises and facilities (and any other spaces provided by the City for Museum activities) at any and all reasonable times throughout the term of this Agreement; provided that it shall not interfere unduly with Museum security or activities or Society's operations. The right of inspection reserved to the City hereunder shall impose no obligations on the City to make inspections to ascertain the condition of the facilities, and shall impose no liability upon the City for failure to make such inspections.



# Contents

Acknowledgments ..... 9  
 Executive Summary ..... 9

## PROJECT BACKGROUND

1. Project Overview

- The Neighborhood ..... 12
- Community Needs ..... 12
- Opportunities ..... 13
- Research Methodology ..... 13

2. About Georgetown

- Maps: Regional Context, Duwamish River Valley Trail Network, Georgetown ..... 14
- History ..... 16
- Timeline ..... 18
- Quality of Life ..... 19
- Mobility Maps ..... 24
- Service Gap Analysis Maps ..... 25

## PUBLIC OUTREACH

3. Public Outreach

- Community Input ..... 28
- Outreach Process ..... 29
- Key Findings ..... 31

## CONCEPT DESIGNS AND FUTURE EFFORTS

4. Concept Designs & Future Efforts

- Site Recommendations ..... 38
- Connectivity Opportunities ..... 39
- Priority Sites ..... 46
- Airport Way S. .... 46
- 5th Avenue S. .... 50
- Georgetown Dog Park ..... 54
- Pedestrian and Bicycle Connections to South Park ..... 58
- Gateway Park North ..... 62
- S. Michigan Street ..... 66
- Intersection of S. Michigan St., Corson Ave. S. and S. Bailey St. .... 70
- Pedestrian and Bike Connections to S River St ..... 74
- Corson Avenue S. .... 78
- Ellis Ave S. .... 82
- Overall Guidelines ..... 86

5. Implementation and Next Steps

- Roles & Responsibilities ..... 89
- Funding Opportunities ..... 89

## APPENDIX

A. Other Priority Sites

- Mini Mart Art Park ..... 92
- Ruby Chow Land Sculpture ..... 93
- Old Rosso Nursery Site ..... 94
- Old Steam Plant ..... 95
- Georgetown Playfield ..... 96
- 1st Avenue Boat Ramp/Overlook ..... 97
- Wet Weather Treatment Station ..... 98
- Railroad Spur Behind Airport Way Businesses ..... 99
- Railroad Spur along S. Michigan Street ..... 100
- Vacant Property behind Old City Hall ..... 101

B. Related Plans and Policies

- Plans, Documents & Findings ..... 104

C. Supporting Maps and Documents

- Public Ownership Map ..... 118
- DRCC Healthy Communities Map ..... 119

D. Community Comments

- Community Comments ..... 122

## PROJECT OVERVIEW

Seattle Parks Foundation, in partnership with the Georgetown Steering Committee, launched the Georgetown Open Space Vision Framework project in May 2016 as a way to engage with and better understand the open space needs of Georgetown residents, workers, and business owners. The project team asked these individuals to identify their priorities for improved parks, streetscapes, green spaces, and recreational facilities within the neighborhood. Based on their feedback, the team developed this vision framework for a network of improved open spaces in Georgetown.

This document is intended to serve as a reference for Georgetown community groups, civic leaders, public agencies, and Seattle Parks Foundation, and to help guide actions and investments over the next 10 or so years. The project team hopes that the development and implementation of the framework will contribute to improved health and well-being in Georgetown and will help strengthen relationships among community members.

### THE NEIGHBORHOOD

The Georgetown neighborhood lies along the east bank of the Duwamish River in South Seattle. The evolution of Seattle's "oldest neighborhood" from its beginnings as a riverfront Native American settlement is readily apparent. Historic architecture is found throughout the neighborhood, and the original oxbow shape of the river led to many streets not conforming to the city's north-south/east-west grid. All of these layers of history provide the foundation for the diversity of people who call Georgetown home.

This gritty, eclectic neighborhood has a character unlike any other in Seattle. It is a haven for artists, brewers and winemakers, small eateries, the freight and fabrication industries, and an array of home design businesses. At the center of the Duwamish Manufacturing/Industrial Center (M/IC) are Georgetown's residential areas, which are served by a lively pedestrian-scale commercial area along Airport Way S. Larger industrial areas flank the north, west, and south edges of the neighborhood.

Several heavily used transportation corridors—including Interstate 5, E. Marginal Way S, rail lines, and King County International Airport (Boeing Field)—run along the neighborhood's edges, creating barriers to safe pedestrian and bike travel. Residential areas in Georgetown, once linked by the river, are now fragmented. Within this frenetic urban environment, quiet retreats and safe ways to access nearby

open green space are few.

### COMMUNITY NEEDS

This vision plan aims to prioritize viable open space improvements identified by Georgetown residents, business owners, and employees. The early stages of community engagement identified several general areas for improvement:

#### River Access:

Reconnecting the community to the Duwamish River is a high priority among community members. Earlier in its history, the neighborhood was primarily residential with a peak population of 7,000. Georgetown's residential areas and commercial core was originally built along the river (as shown in the accompanying maps and graphics). That connection was severed when a new, deeper channel was excavated in the early 1900s, straightening the river to better serve industry. The meandering route of the original channel is echoed in the curved shape of large industrial blocks to the southwest of Georgetown's current commercial center. Present-day industrial use of the river limits water access for residents and workers. Finding a way to re-establish this connection remains an important goal.

#### Streetscape and Intersection Improvement:

Several wide arterial streets cross and encircle the neighborhood. The lack of opportunities to develop new open space on publicly owned property calls for a closer look at the street rights-of-way. Creative solutions to increase tree canopy and connectivity might include parklets, micro-parks, "streeteries," and vertical gardens. Streets account for approximately 30% of the neighborhood's surface area. While they connect important community destinations, many are unsafe for pedestrians and cyclists and have been severely damaged by large truck parking. Adding sidewalks where they are missing, improvements to existing sidewalks, safer street crossings, and safer train crossings are high priorities among Georgetown residents.

#### Neighborhood Greening:

Vacant land on public property is limited in Georgetown, which has few well-established parks. Increasing the number and square footage of open green spaces is a priority for many Georgetown residents and workers, along with increasing the number of trees along neighborhood streets. Selection of tree species should take into account all of the typical constraints, including truck driver and train operator sightlines, overhead power lines, and proximity to corridors used by large vehicles.

In some spots, new curbs, gutters, or sidewalks will be needed to delineate boundaries for movement before new landscape can be introduced.

Residents also strongly support creating more green buffer zones along roadways in and around residential areas, by planting trees along the streets and increasing the overall tree canopy. Street trees can also make sidewalks more comfortable to walk along and can help define safe routes, increase foot traffic for local businesses, mitigate airborne pollution, reduce the "heat island" effect, lower levels of ground-level ozone, and generally improve the quality of life for residents and workers.

#### Dog Park:

Off-leash space for neighborhood dogs is the most requested open space improvement. Georgetown currently has no off-leash dog parks, and no dog parks are within walking distance of the neighborhood. The closest ones are at Westcrest Park in West Seattle and Genesee Park in Columbia City. An off-leash dog park would serve residents as well as workers who take their dogs to work. (Trupanion, a new local pet insurance business, has over 220 pets approved to come to work with their owners).

#### Maintain Neighborhood Character:

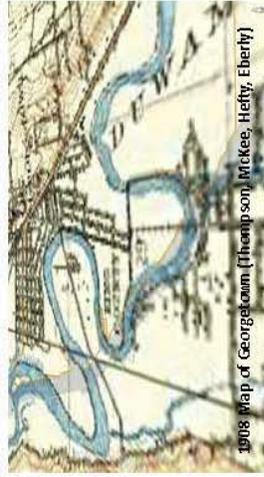
Georgetown is a tight-knit community with a creative, tenacious, and adventurous character. Some residents are legitimately concerned that the neighborhood is succumbing to residential and industrial gentrification. Many families in the area are under financial pressure to find more affordable housing out of the city. Industrial business interests fear that rezoning and redevelopment within the neighborhood could eliminate affordable industrial spaces in Georgetown. The desire to have improvements reflect and preserve the unique character of the neighborhood while deflecting rampant gentrification is widespread. This will require open space improvements on an appropriate scale as well as solutions that promote healthier coexistence of the various community members who live, work and play here.

#### Internal Neighborhood Connections:

Georgetown occupies about 2 square miles, more than a third of which is King County International Airport (Boeing Field) land. Circulation around the neighborhood is severely constrained by busy arterials, rail lines, and truck traffic. Most crossings are unsafe for pedestrians and cyclists, and the neighborhood feels fragmented as a result. The lack of identifiable and safe routes and crossings also contributes to a sense that the distances between amenities are greater than they really are.



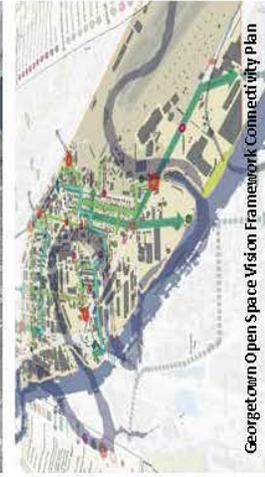
Mid-19th Century Waterlines Project - Burke Museum



1908 Map of Georgetown (Thompson) McKee, Hefty, Eberly



Present Day Aerial | Connectivity Plan (Rendered Overlay)



Georgetown Open Space Vision Framework Connectivity Plan

The terrain is flat, however, which offers a natural advantage when considering future bike, pedestrian, and transportation-related improvements.

**Neighborhood/Regional Connections:**

Georgetown's closest residential neighbors are South Park to the southwest and Beacon Hill to the east. Reaching these neighborhoods on foot or by bike presents many challenges. Getting to South Park requires crossing E. Marginal Way S, and then crossing the Duwamish at either the South Park Bridge or the 1st Ave South Bridge. Getting to Beacon Hill requires crossing the I-5 corridor at one of two bridge connections. Many points along the way feel unsafe to residents due to lack of continuous sidewalks, a dearth of safe crossings, insufficient bike lanes, proximity to freight, homeless encampments, and generally dilapidated roadways. Improving facilities and connections for pedestrians and bicyclists will help residents better access all open space and public resources in the three communities. It will also help connect two regional trails: the Chief Sealth Trail on Beacon Hill and the Duwamish River Trail in South Park.

**OPPORTUNITIES**

It is challenging to identify publicly owned land in Georgetown that could be easily developed into new public open space. The two most promising sites are at Gateway Park North, an informal waterfront open space (on Seattle Department of Transportation (SDOT), Seattle Parks and Recreation, and Port of Seattle property), and an undeveloped space over the southern end of "The Flume," a linear site adjacent to Fire Station 27, Boeing, United Refrigeration, and the Aero Motel (on Seattle City Light, SDOT, FAS, and Boeing property).

Additional projects have the potential to provide new or improved open space destinations:

- Georgetown Playfield (Seattle Parks and Recreation)
- Mini Mart City Park (SuttonBeresCuller)
- Georgetown Wet Weather Treatment Station (King County Wastewater Treatment Division)
- Georgetown Steam Plant (Seattle City Light)
- S. River Street End (SDOT)
- Georgetown Urban Farm & Food Forest
- King County International Airport Master Plan

Substantial land can be found on abandoned rail spurs, disused storage areas, and informal gravel parking lots. The project team did significant networking and outreach to look for owners of

underutilized spaces on private property, but it was unable to connect with the owners of some of the most promising sites within the space behind Old Georgetown City Hall.

Better pedestrian and bicycle routes throughout the neighborhood are critical to improving access to existing open space, and they would offer additional benefits to local businesses and businesses. Many partnership opportunities are possible for adding public art, wayfinding and signage, historical interpretive elements, and improved pedestrian and bike infrastructure. Local connectivity upgrades that align with regional circulation priorities could also help capture more funding, support, and partnerships.

**RESEARCH METHODOLOGY**

The project team relied on several tools and methods for gathering the information that led to the recommendations in this report. They include:

**Census Data:**

Census data was gathered to understand neighborhood demographics (i.e. who lives and works in Georgetown, ethnicity, ages, household income, etc.).

**Plan and Policy Review:**

The research team reviewed information on zoning within the neighborhood to understand where people live and work, and how land might be developed in the future. Many plans and studies have been completed over the past fifteen years that are relevant to this planning effort. These documents, plans, and studies were all reviewed for relevant findings and recommendations.

**Transportation and Circulation Data:**

Various city transportation and traffic studies help illustrate where and how automobile, pedestrian, and bicycle traffic travels and uses the transportation infrastructure today. This data shows not only how all modes of transportation are using the street and trail network, but where accidents occur most frequently, and where the gaps and "hot spots" in the bicycle and pedestrian that, when addressed, will improve safety, mobility and access to community resources.

**Community Outreach:**

This was the single most important tool used to develop the recommendations in this report. The project team asked people who live and work in Georgetown how they use the neighborhood's public spaces (parks, trails, sidewalks, playgrounds, business core, etc.), how these spaces could

serve them better, and what improvements they'd like to see to Georgetown's public lands. The team used surveys, one-on-one interviews, small focus groups, three public forums, and a document launch party to reach community members.

**Agency Stakeholder Outreach:**

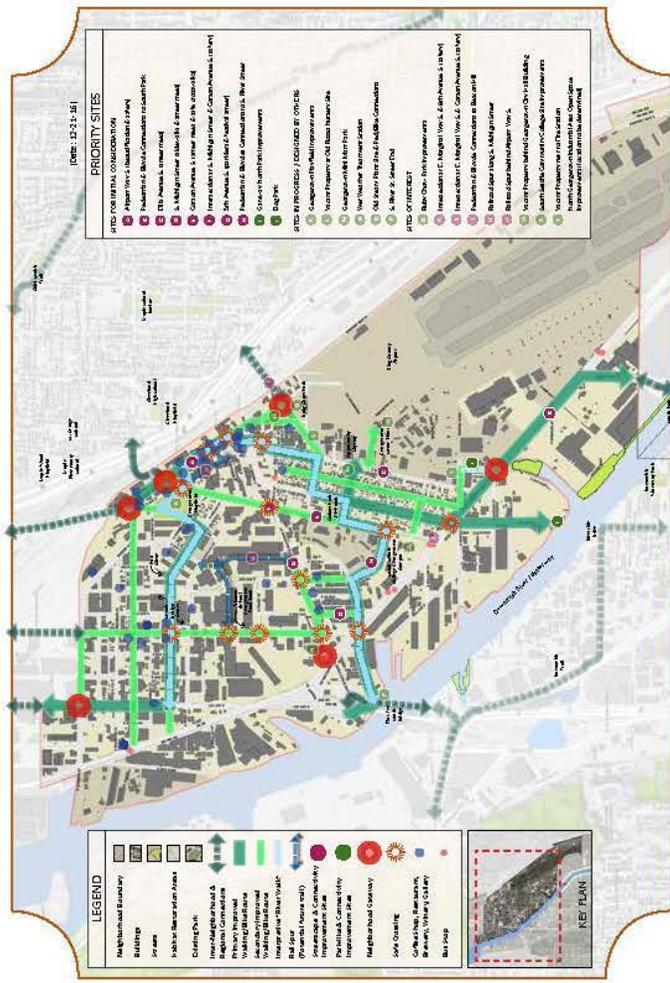
Many public agencies are engaged in projects in Georgetown or are studying ways to better meet the needs of this underserved community. They include the City of Seattle, King County, Port of Seattle, and Washington State Department of Transportation. The project team met with representatives from all of these agencies to understand what projects are underway, what public resources might be available, and how the public

sector, private sector, and Georgetown community might work together to better invest in and achieve public priorities. The team also met with local business interests, including regional freight and other industries.

**Field Research:**

The team spent a great deal of time exploring the community by bike, foot, and car in order to better understand the information gleaned from the other modes of research. This firsthand experience helped the team understand how Georgetown's public spaces are being used and how the open space network might be improved.

**GEORGETOWN OPEN SPACE VISION FRAMEWORK**



# HISTORY

## Pre-Colonial History to European Settlement

The Duwamish River Valley was created as a result of geological forces and natural weathering during and after the last ice age, about 10,000 years ago. Over the millennia, a river delta formed at the confluence of four rivers, with the Duwamish River traveling through it in a series of tightly meandering bends. The delta would flood periodically, leaving organic sediment that formed the basis of rich soil, plant, and animal ecologies.

The river delta, with its abundance of fish, game, shellfish, and edible plants, was an ideal settlement for the Duwamish Tribe. They called their settlement *Tuwwelbel*. The river also provided an easy means of travel throughout the region. While the climate and resources were agreeable year-round, the Duwamish people chose to move among several villages during the course of the year.

The first American-European to explore settlement in the region was John Holgate, who traveled up from the Portland area seeking to take advantage of the government's push to settle the western part of the continent. Holgate initially failed to file a successful claim, but he ultimately became part of a surge of white people who settled in the river valley.

The first pioneer settlement in what would become the city of Georgetown was called Duwamish. It was established in early 1852, and the Collins, Maple, Van Asselt, and Holgate families were early settlers there. In 1855, they built a blockhouse called Fort Duwamish to protect against attacks by native tribes during the Indian Wars of 1855–56. The attacks were spurred by the signing of the Treaty of Medicine Creek in 1854, which stripped local tribes of their territories. The war consisted of several battles resulting in only a few lives lost on each side, but it resulted in the American-European population taking control of the region.

## A Town Emerges

In the mid- to late 1800s, a variety of institutions were built to support the town of Duwamish. In the 1870s, the first "poorhouse" was erected to serve the region's sick and poor population. It was later managed by the Catholic church and was eventually relocated to the region's first hospital on an adjacent property. A horse-racing track opened near the settlement, along with saloons. A post office was built across the river.

A ferry service was established, becoming the main mode

of transportation for burgeoning Puget Sound settlements. It would later be supplanted by trains and streetcars. By the 1870s and 1880s, train routes connected the region with the rest of the country. In the 1880s, a developer named Julius Horton bought and platted two square miles of territory along the Duwamish River and began selling lots. He named the area after his son George.

In the early 1890s, an electric streetcar connected Georgetown to Seattle, and in 1902 Georgetown became a stop on the electrified Everett-Seattle-Tacoma Interurban Railway. The interurban's train cars were housed in "car barns" in Georgetown when they were not in use, and many employees of the interurban lived in the area.

Natural resources were central to Georgetown's economy. Clay was extracted from local hills to make bricks that would be used in the building and rebuilding of Seattle. Hops became a reliable crop along the river delta, leading John Clausen and Edward Sweeny to build a brew house in 1883. This eventually became the Seattle Brewing and Malting Company, the precursor to Rainier Beer Brewing Company.

## Early Industry

For the next two decades, much of the growth in Georgetown was fueled by breweries and saloons. The Seattle Brewing and Malting Company grew to become the fourth largest brewery in the country and the sixth largest in the world. It employed primarily German and Belgian immigrants, which significantly affected the ethnic mix of the neighborhood. By 1903, Georgetown had five grocery stores, seven saloons, and four churches.

In 1904, the citizens of Georgetown voted to become an incorporated city, largely to protect the saloon and beer industry, which was under pressure from laws intended to shut down saloons. The first mayor of Georgetown, John Mueller, was superintendent of the Seattle Brewing and Malting Company. The city offices were initially located on company premises but soon moved to a new city hall building. In 1905, it moved to another new building.

The brewing and railroading industries became Georgetown's largest employers. In 1907, a steam power plant was built to supply electricity to the interurban rail line, breweries, and factories. By 1910, the population of Georgetown had grown to more than 7,000 as people moved there to be closer to their jobs. Another source of population growth was the Alaska-



1890 Map of Duwamish River Delta and Georgetown

Yukon gold rush, which helped fuel a booming recreation scene in Georgetown. A number of saloons and brothels were open 24 hours a day.

As industry and the population of the city grew, pressure mounted for Georgetown to be annexed by the city of Seattle. Neighborhood residents largely held out until the need for better water and sewage infrastructure and pressure from business interests looking for expansion opportunities convinced them otherwise. In 1910, the citizens of Georgetown voted to become part of Seattle.

## 20th Century Changes

The annexation of Georgetown marked the end of the independent city and the beginning of significant shifts in the neighborhood. One of the first changes was to the physical landscape. The same year as annexation, Seattle citizens voted to levy taxes to dredge and straighten the Duwamish River. The project was undertaken in two phases that would span more than 20 years. It was precipitated by a desire to control flooding in the river valley and enable industries to build cheap factory sites with shipping facilities. Parts of Georgetown that had been along the river ended up as far as a half-mile inland. Soil excavated for the project was used to fill in the mud flats and create new land for industrial development.

The second major change to the neighborhood in the early part of the century affected the economic and social character of the neighborhood. In 1916, prohibition began in Washington State. Coupled with anti-German sentiment from World War I, prohibition drove breweries and saloons out of Georgetown. Many jobs disappeared with them.

With its supply of cheap land targeted at industry, Georgetown began to diversify economically. In 1923, Seattle passed its first zoning code, classifying all of Georgetown as industrial

land. Until the zoning code was changed in 1942 to establish residential areas, this had a significant impact on development and led to a decline in the residential population. Looking at school enrollment as an indicator, a clear pattern is discernible: school enrollment in the neighborhood peaked in 1925, at about 650 students. By 1927, enrollment had dropped to just over 400. The 1960s saw further declines in Georgetown's student population, until the last Georgetown school closed in 1971 and the remaining elementary school students were transferred to the new Maple Elementary School, in Beacon Hill. In 1981, the main building of the former XXXXX Georgetown School, next to Georgetown Playfield, was torn down to make way for office and warehouse structures.

Mirroring the exodus of residents was the closing of institutions such as the community library in 1948 and a movie theater a few years later. In 1956, the Seattle Comprehensive Plan called for residential areas in Georgetown to be phased out to allow for more industry.

With the construction of I-5 in the 1950s and 1960s, the neighborhood was further altered. Historic buildings and residences were demolished to make room for the freeway. Already separated from South Park to the west by the river, Georgetown became physically isolated from the neighborhoods to the east as well. I-5 also allowed freight and workers to move quickly into and out of the area, completely bypassing what was once the residential core of the neighborhood. People could move further from their jobs in Georgetown and commute in easily. As a result, businesses that served residents declined.

The continued growth of industry in the neighborhood contributed significantly to the rise of Seattle as a major city. Perhaps the most important company was Boeing, which moved from Lake Union to Georgetown between 1916 and



Historic brick house structures along Airport Way.



Straightening of the Duwamish River, 1913



Overlay of historic alignment of the river over Georgetown aerial.

at the expense of the environment, including pollution caused by poor waste management practices. The national Clean Water Act of 1972 laid the groundwork for recognizing the environmental damage. In 2001, the lower Duwamish waterway was designated a Federal Superfund site. The surrounding lands were analyzed for the leaching of contaminants left by local industries. Lawsuits have led to cleanup efforts along the Duwamish.

**Modern Day Georgetown**

Through all of the changes over the past two centuries, Georgetown has continued to be a lively and eclectic community. It remains a confluence of residents, industry, and commercial destinations. The neighborhood is dotted with relics of its industrial origins: old brick and sandstone brewery buildings now house a chocolate shop, art galleries, design businesses, a wholesale flower market, and small breweries. Other historic buildings within the neighborhood hold bars, shops, art studios, restaurants, and coffee shops. Equinox Studios, an enclave of artists and artisans, is housed in a World War II-era factory building. The architectural regalia of the former Hat 'n' Boots gas station, which was located along E. Marginal Way S, is now a sculptural icon at Oxbow Park. Ruby Chow Park offers views of the original Boeing Field complex as well as planes landing and taking off from the airfield.

Georgetown's residential community remains tight-knit, with a core of longtime residents. Newer residents have been attracted to the neighborhood by the low cost of housing compared to the rest of Seattle, which in turn has led to investment in new apartment complexes on the edges of the neighborhood core. The neighborhood hosts several festivals during the year that attract citywide attention; the most popular ones include the annual Georgetown Carnival and the Dead Baby Downhill bicycle race.

Industries related to airplane, train, river, and trucking transportation remain prominent within Georgetown. The Duwamish Manufacturing/Industrial Center (MIC) plays an important role in the economic health and growth of Seattle as well as the state. It accounted for more than 57,000 jobs in 2013, and it supports the largest concentration of family-wage industrial jobs in the Puget Sound region, generating substantial tax and export revenues. After transportation and utilities, the main uses of industrial land in Georgetown are industry and warehousing. A branch of South Seattle College opened near the residential heart of the neighborhood in 2008 to

provide training primarily in the manufacturing, transportation, distribution, logistics, and construction fields.

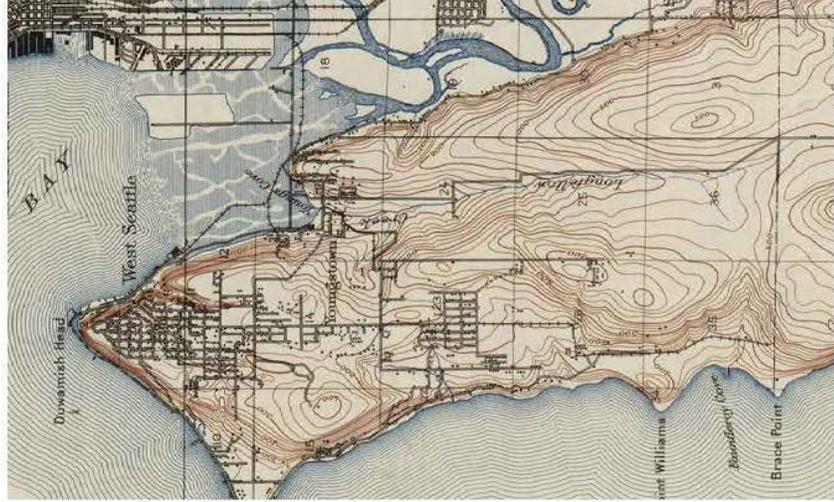
From the days when Native Americans made their home on the meandering shores of the Duwamish River, Georgetown has changed as much as any community in our region. What remains to be seen is whether the neighborhood can grow and adapt to meet the needs of all community members, including residents, businesses, and industry.

**Sources**

- FOGHI Website (2016)
- Historic Property Survey Report: Georgetown, Seattle (1997)
- Duwamish M/C Land Use and Policy Study (2013)
- Duwamish Valley Vision Report and Map



The Hat 'n' Boots at Oxbow Park



Department of the Interior U.S. Geological Survey, surveyed in 1899 by A.H. Thompson (geographer), R.H. McKeel (topographer), culture revised in 1908 by J.G. Hefty and C.F. Ehler

# TIMELINE



A Duwamish Woman

8th Avenue Bridge

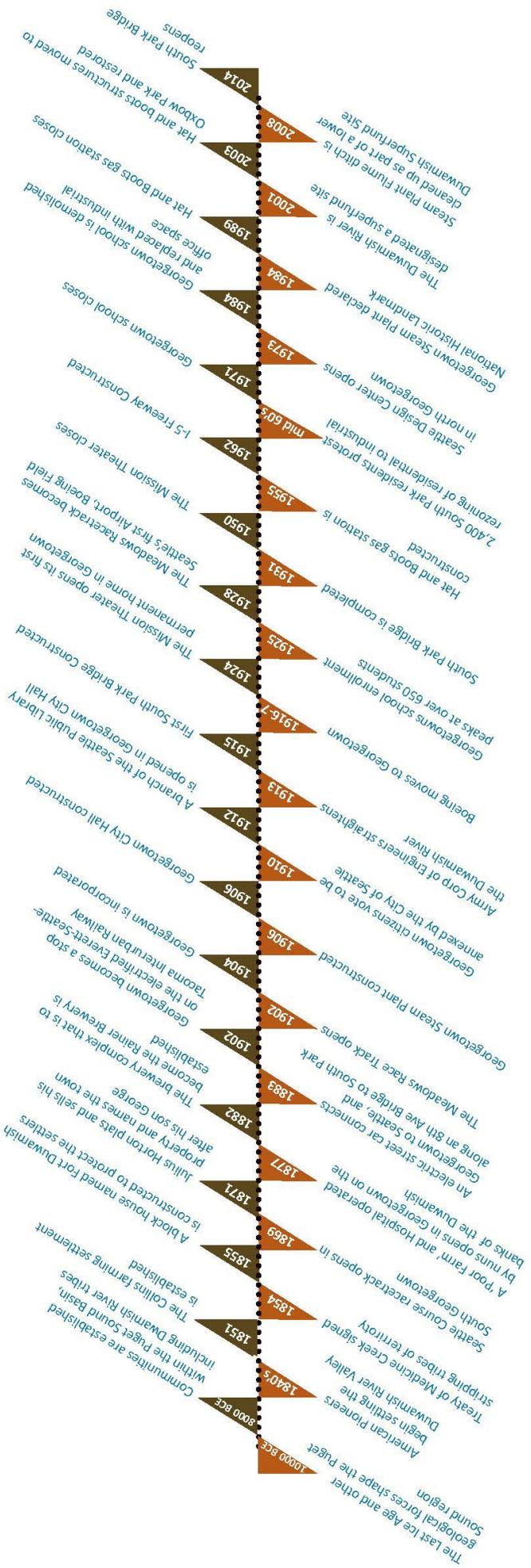
The Meadows Race Track

Steam Plant Building

Duwamish River Channelling

Ludlie & Airport Way

Airport Way Brewery Complex



Georgetown Brewing

All City Coffee

Historical Neighborhood Signage

Hat 'n' Boots in Oxbow Park

Dead Baby Downhill



## SITE RECOMMENDATIONS

Findings from the project team's data analysis, field research, and community outreach informed the recommendations in this section, which encompass 20 sites and the connections between these sites and throughout the neighborhood with a preliminary connectivity plan.

The 20 sites fall into three categories:

- Priority Sites
- Sites in Progress or Designed by Others
- Sites of Interest

This chapter provides an overview of all three categories but addresses only the first category, Priority Sites, in detail. The other two categories are addressed further in Appendix A.

The Priority Site sheets include four pages (see examples, far right):

1. A general overview of project location, size, owner, history, site photos, and stakeholders.
2. Site analysis, community comments, a graph indicating where to find community support, and a graph identifying the most requested site amenities.
3. A preliminary site plan taken to 10% Concept Design (see description of what that includes in the yellow box, to the right), and a design narrative.
4. Potential partnership opportunities, funding opportunities, and inspirational imagery of potential design elements.

All recommendations and design suggestions are based on community input and very preliminary coordination with agencies and land owners.

### Priority Sites

These 10 sites selected were identified as having the greatest potential to be improved in the near future. They are developed as preliminary 10% concept designs (see description, this page):

- Airport Way S
- 5th Ave S
- The Georgetown Dog Park
- Connections to South Park
- Gateway Park North
- S Michigan St
- S Michigan St Intersection

- Pedestrian/Bike Connection to S River St
- S Corson Ave
- Ellis Ave S

### Sites in Progress/Designed by Others

These seven sites were seen as important by the community but are already being designed, have been designed, or are awaiting construction. This vision framework acknowledges the importance of these sites to the community but is focused on sites with the greatest potential for community action.

The sites in this category are:

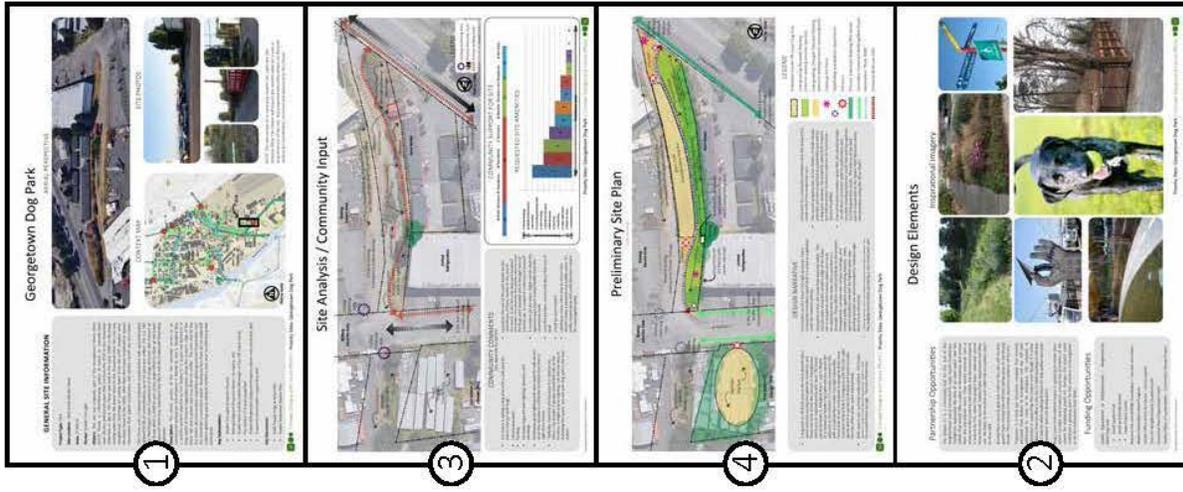
- Mini Mart Art Park
- Ruby Chow Land Sculpture
- Old Rosso Nursery Site
- Old Steam Plant
- Georgetown Playfield
- 1st Ave Boat Ramp/Overlook
- The Wet Weather Treatment Station

### Sites of Interest

These three sites were seen as important by the community, but the project team was unable to reach the owner or owners to determine the availability of the site for consideration. Again, the project team wanted to focus on sites on sites with the greatest potential for immediate community impact. However, these three sites have great potential and should be considered for future efforts.

These sites include:

- Railroad Spur Behind Airport Way Businesses
- Railroad Spur Along S Michigan St
- Vacant Property Behind Old City Hall



1

3

4

2

## 10% Concept Design

The "conceptual design phase" is an important early step in the process of guiding a project from idea to implementation.

Concept design offers a preliminary analysis of a project's constraints and opportunities. It explores how a site may be constructed with an initial look at geometry, circulation, activities, form, and function.

Designs will continue to evolve as projects move into later stages of development. This will include additional coordination with land owners and public agencies to provide thorough vetting of budgetary, maintenance, and regulatory considerations.

Projects which move forward will need to follow the city's requirements for more detailed design development, permitting and community process

Sample Priority Site Design Sheets: General Overview, Site Analysis/Community Comments, Preliminary Site Plan, and Design Elements.

# Ellis Avenue S.

## AERIAL PERSPECTIVE



## GENERAL SITE INFORMATION

**Project Type:** Streetscape  
**Site Location:** E. Marginal Way S. to S. Angelo St.  
**Length:** 3,125 Linear Feet  
**Owner:** City of Seattle

**History:** Ellis Ave. S. is the eastern boundary of the residential core in Georgetown, running from E. Marginal Way S. to S. Bailey St. The main vehicular route veers south to become S. Albro Pl. before reaching S. Bailey St., however, S. Albro Pl. was one of two historic bridges that crossed over the train tracks to Beacon Hill. Maps from before the construction of I-5 show it as a much larger bridge than the one to the north.

Ellis Ave. S. runs parallel to the Flume—the route that connected the Old Steam Plant to the Duwamish River to draw water for the plant's operation. The historic site of the Old Steam Plant is south of Ellis Ave. S., as is the site of the Old Rosso Nursery, where three generations of the Rosso family grew plants and sold them to the surrounding community. Along the north side of Ellis Ave. S. are many historic homes dating from the turn of the 20th century.

Ellis Ave. S. also serves as a divider between the residential core of the neighborhood and King County International Airport.

**Description:** Ellis Ave. S. is the southern boundary of the southern residential core in Georgetown, running from E. Marginal Way S. to S. Bailey St. The main vehicular route veers south to become S. Albro Pl. before reaching S. Bailey St., however, while Ellis Ave S. is a connector route for some freight, it is used less frequently than S. Michigan St. to the north.

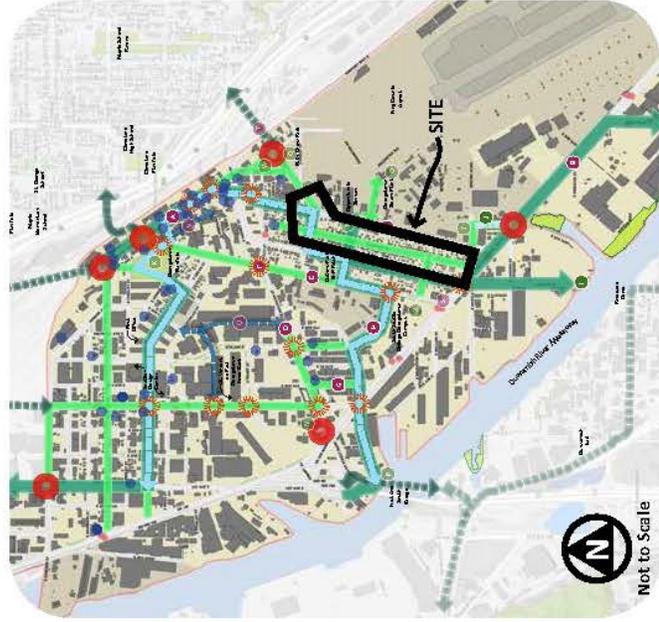
### Key Stakeholders:

- Seattle Department of Transportation
- Seattle City Light (property owner)
- Boeing (adjacent property owner – no stance on the project yet)
- King County International Airport
- Fire Station 27
- Local residents
- Local businesses

### Key Existing Documents:

- Seattle Pedestrian Master Plan
- Seattle Bicycle Master Plan
- Steam Plant Design Development
- Mini Mart Park Design
- Seattle Right-of-Way Improvements Manual

## CONTEXT MAP



## SITE PHOTOS



# Preliminary Site Plan

(10% DESIGN)



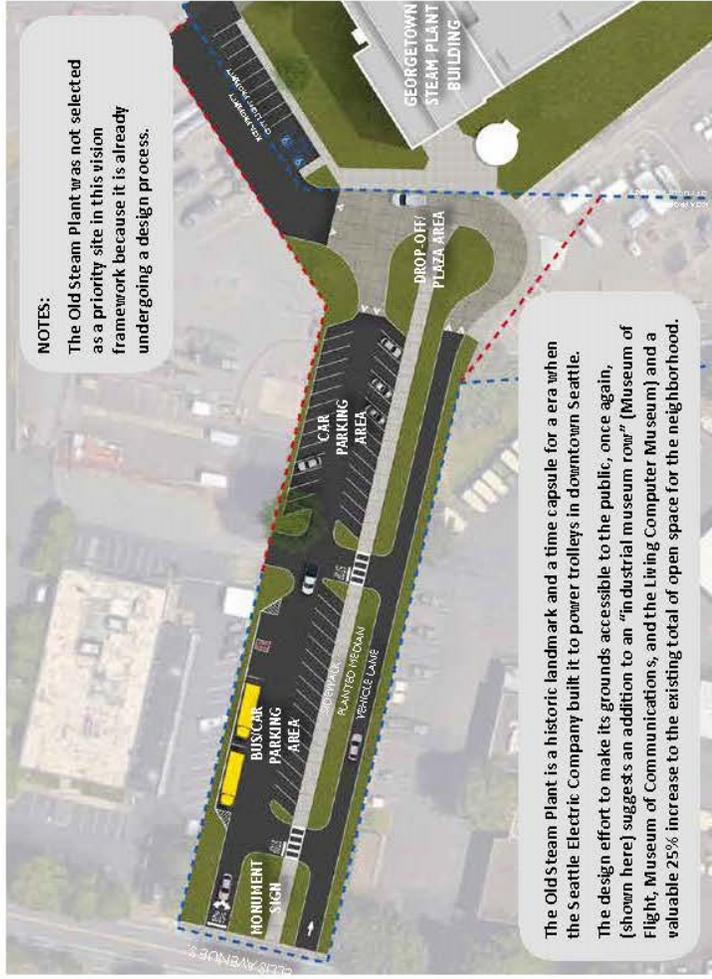
## DESIGN NARRATIVE

- Ellis Ave. S. defines the eastern edge of the residential core and has unrealized potential as a buffer and a connector.
- All homes that front Ellis are directly across the street from King County International Airport and various airport-related functions. Increasing the quantity and quality of streetscape plantings and trees will provide a needed buffer against traffic on Ellis Ave. S. as well as the visual and noise impacts of the airport.
- Although plane noise cannot be blocked by trees, this should not preclude a coordinated effort between SPOOT and all adjacent property owners to augment the quality, beauty, functionality, and safety of this corridor. The presence of multiple environmental stressors makes open space improvements critical.
- Proposed landscape plantings along the eastern edge of the right-of-way are constrained by existing fence lines and pavement. Coordination and partnership around any de-paving efforts will be needed, and street trees should need to be sized and selected appropriately.
- If fence lines along the eastern edge of Ellis Ave. S. cannot be shifted to create more room for landscape improvements, a decision will need to be made regarding whether plantings or pavement for walkways are more valuable here. Fences might have the potential to be used as canvases for art pieces.
- Any new open space or residential development should augment the quality and quantity of plantings along this corridor.
- Additional opportunities for landscape and street tree improvements are possible beyond those proposed here.
- Other nearby projects which are already being designed (Mini-Mart, Art Park, Steam Plant, Old Rosso Nursery site, and others) should maximize open space amenities and destinations should be designed and built to maximize open space and connectivity improvements.
- The airport is committed to improving the boundary between the airfield and the Geotown community. This is part of its Master Plan Update evaluation process, which is currently in the public input phase.
- The airport is working with Seattle City Light to provide a new access driveway from Ellis Ave. S. to the Old Steam Plant.
- The airport is committed to maintaining Ruby Chow Park as a vital part of the community's open space.
- Partner with businesses along S. Albro Pl. to explore tactical urbanism improvements such as parklets, streeteries, micro parks, and green walls.
- The traffic circle at the intersection of S. Albro Pl., S. Hardy St., and 13th Ave. S. presents an opportunity to collaborate with the airport for a pavement to parks effort with art.

## LEGEND

- Safe Crossing / Traffic Calming
- Gateway Art Installation Opportunity
- Wayfinding Installation Opportunity
- New & Restored Street Tree Plantings
- Potential Streetscape Art
- Potential Open Space Improvements
- Primary Improved Walking/Bike Route
- Secondary Improved Walking/Bike Route
- Interpretive "River Walk"

# Old Steam Plant



**NOTES:**  
The Old Steam Plant was not selected as a priority site in this vision framework because it is already undergoing a design process.

The Old Steam Plant is a historic landmark and a time capsule for an era when the Seattle Electric Company built it to power trolleys in downtown Seattle. The design effort to make its grounds accessible to the public, once again, (shown here) suggests an addition to an "industrial museum row" (Museum of Flight, Museum of Communications, and the Living Computer Museum) and a valuable 25% increase to the existing total of open space for the neighborhood.

## COMMUNITY COMMENTS

(See Appendix for full list)

- Better access to Steam Plant (mentioned multiple times)
- Steam Plant Park
- Ped park (on south leg of property)
- Coffee shop, snack stand for museum visitors, attractions to bring people to steam plant; "Trash cans / garbage pick up"
- Narrative, tours, music events
- Dog Park

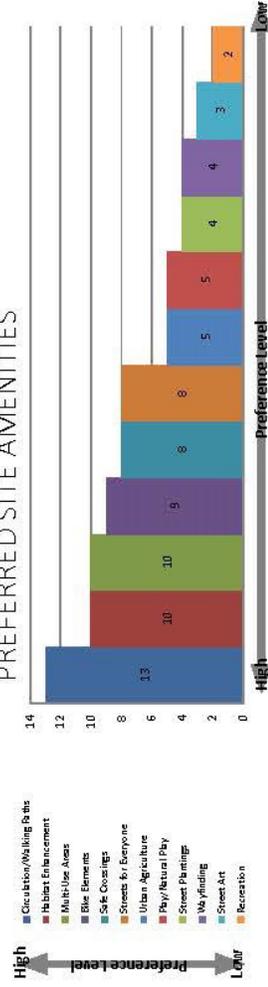
## INSPIRATIONAL IMAGERY



Food-trucks and remediated brown sites

■ Both Workers & Residents ■ Residents ■ Workers ■ Neither Workers nor Residents ■ No Data

## PREFERRED SITE AMENITIES



## Frank and Lillian Gilbreth - a brief biographical history

Frank and Lillian Gilbreth. (2017, April 26). New World Encyclopedia

Frank Bunker Gilbreth (1868 – 1924) was an American engineer, an early advocate of scientific management and a pioneer of time and motion studies. Lillian Evelyn Moller Gilbreth (1878 – 1972) was one of the first working female engineers holding a Ph.D. The Gilbreths are considered the founders of modern industrial management, who sought to improve workers' productivity while making their work easier.

### Early life of Frank Gilbreth

Frank Gilbreth was born in Fairfield, Maine. His family had lived in New England for generations, and his father ran a local hardware business. After the death of his father in 1871, Frank's mother took her family first to Andover, Massachusetts, and then to Boston, in order to provide the best education for her children. Frank eventually graduated from English High School in Boston in 1885, and had passed an entrance exam to the Massachusetts Institute of Technology, but decided not to go to college.

Gilbreth started his career as a bricklayer's apprentice. He learned about the job by watching the movements of senior workers. It was there that he first tried to find "the one best way" to complete a task. He quickly progressed in his job, becoming a foreman and eventually a superintendent.

In 1895, Gilbreth started his own contracting company. The motto of the company was "Speed Work," with the goal to eliminate all waste time and reduce costs. As bricks were gradually being replaced by the use of concrete, Gilbreth patented numerous innovations that helped his company's business. For example, he invented a concrete mixer that sped up the process of making concrete. His firm was gradually able to significantly reduce the time for finishing its projects, becoming famous across the States. Its projects included dams, canals, factory buildings, and the entire town of Woodland, Maine. Gilbreth eventually expanded his business to England. On October 19, 1904, Frank Gilbreth married Lillian Moller.



### Early life of Lillian Moller

Lillian Evelyn Moller was born in Oakland, California, the oldest of nine children of William and Annie Delger Moller. After graduating from high school, she attended the University of California, Berkeley, graduating with a B.A. (1900) and M.A. (1902). Moller was the first woman in the university's history to give a commencement speech at her graduation, in 1900. Her major was in modern languages and philosophy, and her goal was to teach English.

Moller completed her dissertation to obtain her Ph.D. from the University of California but did not receive the degree because she was not able to complete the residency requirements. Moller married Frank Gilbreth in 1904. The couple had 12 children.

## The Gilbreths

The Gilbreths applied their management techniques in running their large household. They created a Family Council, with a purchasing committee, a budget secretary, and a utility committee. Two of their children later wrote humorous accounts of their family life, *Cheaper by the Dozen* and *Belles on Their Toes*.

Under Lillian's persuasion, Frank Gilbreth changed his career from construction to management. In 1908, Frank published his first book, *Field System*.

After their marriage, Lillian Gilbreth had to handle several major responsibilities—her studies, her family, and their family business. She worked as a systems manager in her husband's consulting business and had helped her husband in his projects. In 1910, the Gilbreths moved to Providence, Rhode Island, and Lillian Gilbreth decided to enter Brown University to complete her doctoral studies in psychology. She earned her Ph.D. in 1915, her dissertation entitled, *The Psychology of Management*. It was the first degree granted in industrial psychology.



The Gilbreths started to apply their expertise—Lillian in psychology, and Frank in the expedience of motion—to find the link between psychology and management. The couple wrote numerous books and articles. In 1913, the Gilbreths started the Summer School of Scientific Management, where they taught their method. The school was attended by academic and industry professionals from around the world.

In 1914, Frank Gilbreth went to Germany to visit industrial plants and establish new laboratories. He also spent time in teaching and consulting. At the beginning of World War I, as the wounded soldiers started to arrive in the hospitals, Gilbreth helped improve surgical procedures and introduced motion-picture photography for the education of surgeons. He eventually became an expert in rehabilitation of the injured. When the United States entered the war, Gilbreth enlisted and joined the Engineers Officers Reserve Corps. However, he developed heart problems and his family moved to Nantucket, Massachusetts, to facilitate his recovery. On Gilbreth's proposal, the first international management congress in history was held in Prague, in 1924. Frank Gilbreth died suddenly of heart failure on June 14, 1924, at age 55, in Montclair, New Jersey.

## Later life of Lillian Gilbreth

After her husband's death, Lillian Gilbreth moved her family to California, and continued their family business. Numerous famous firms, such as Macy's, Johnson & Johnson, Sears, and Dennison Co. hired her consulting company to train their employees. She also started a new school called Gilbreth Research Associates but closed it several years later.

She received 22 honorary degrees from schools such as Princeton University, Brown University, and the University of Michigan. She served as visiting professor at Stanford, Harvard, Yale, and the Massachusetts Institute of Technology. In 1935, she joined the Purdue University faculty as a professor of management, becoming the first woman professor in the engineering school.

During World War II, she worked as a consultant at the Arma Plant in Brooklyn, New York, which handled Navy contracts. In 1948, she started teaching at the Newark College of Engineering in New Jersey. She also taught in Formosa from 1953 to 1954, and at the University of Wisconsin in 1955.

She received the Hoover Medal from the American Society of Civil Engineers in 1966, and was awarded the Gantt Gold Medal from the American Society of Mechanical Engineers and the American Management Association. She was a Fellow of the American Psychological Association. Lillian Gilbreth died in Phoenix, Arizona, on January 2, 1972.

### **Work**

The Gilbreths were pioneers in the field of industrial engineering. Frank Gilbreth discovered his vocation when, as a young building contractor, he sought ways to make bricklaying faster and easier. This grew into collaboration with his eventual spouse, Lillian Moller, who studied the work habits of manufacturing and clerical employees in all sorts of industries to find ways to increase output and make their jobs easier. He and Lillian founded a management consulting firm, Gilbreth, Inc., focusing on such endeavors. Their Summer School of Scientific Management trained professionals to implement new ideas about management.

They were concerned with the mental and physical health of the workers. Through analyzing complex machinery they invented new tools and methods to simplify their use. Their work led to a better understanding of the importance of the well-being of the individual in a business setting.

The Gilbreths were able to reduce all motions of the hand into some combination of 17 basic motions. These included grasp, transport loaded, and hold. Frank Gilbreth named the motions therbligs, "Gilbreth" spelled backwards with the th transposed. He used a motion picture camera that was calibrated in fractions of minutes to time the smallest of motions of the workers.

### **Work with physically challenged**

During World War I, Frank Gilbreth worked to improve treatment of injured soldiers. He first observed the motions of the injured soldiers, and then taught them new methods to manage their daily activities.

Frank Gilbreth also helped improve surgical procedures in hospitals. He was the first to propose that a surgical nurse serve as "caddy" (Gilbreth's term) to a surgeon, by handing surgical instruments to the surgeon as called for. Gilbreth also devised the standard techniques used by armies around the world to teach recruits how to rapidly disassemble and reassemble their weapons even when blindfolded or in total darkness.

### **Pioneer in ergonomics**

After the death of her husband, Lillian Gilbreth turned her attention toward household work and increasing the efficiency of kitchen appliances. Working for General Electric, she interviewed over 4,000 women and collected data on simple household chores, such as collecting garbage or washing dishes. She then used the data to design the proper height for sinks, stoves, and other kitchen appliances.

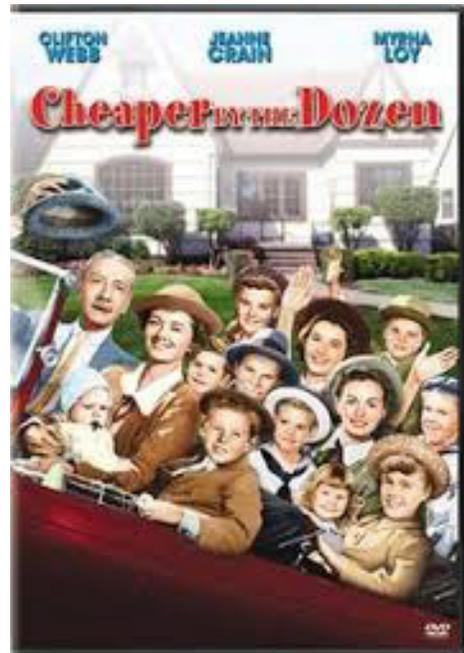
She patented numerous appliances that made work in the kitchen easier. In her two works, *The Homemaker and Her Job* (1927) and *Living with Our Children* (1928), she wrote that home needs to be happy place to live, where everyone would achieve fulfillment. Since wives and mothers needed to be effective managers of their homes, Gilbreth tried to find optimal combinations of items in a typical home to make their lives easier.

The Gilbreths were, above all, scientists who sought to teach managers that all aspects of the workplace should be constantly questioned, and improvements constantly adopted. Their emphasis on the "one best way" and the therbligs predates the development of continuous quality improvement (CQI) (George 1968: 98), and the late twentieth century understanding that repeated motions can lead to workers experiencing repetitive motion injuries.

Lillian Gilbreth is considered "The First Lady of Engineering" and was the first woman elected into the National Academy of Engineering. She was among the first theorists of industrial management to emphasize the importance of psychological variables in management.

In 1984, the United States Postal Service issued a postage stamp in her honor. She and husband Frank have a permanent exhibit in The Smithsonian National Museum of American History and her portrait hangs in the National Portrait Gallery.

Frank and Lillian Gilbreth often used their large family as a sort of an experiment. Their family exploits are lovingly detailed in the 1948 book, *Cheaper by the Dozen*, written by son Frank Jr. and daughter Ernestine. The book inspired two films of the same name.

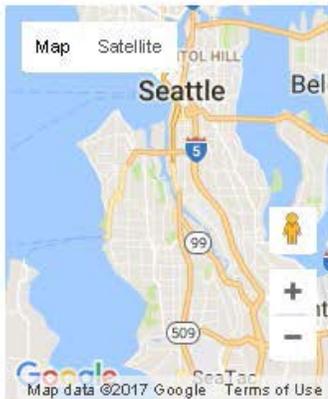


# Georgetown Steam Plant (Seattle)

By John Caldbick | Posted 3/22/2016 | HistoryLink.org Essay 11189

 Email  Share  Tweet

This essay made possible by:  
Seattle Office of Arts & Culture  
King County



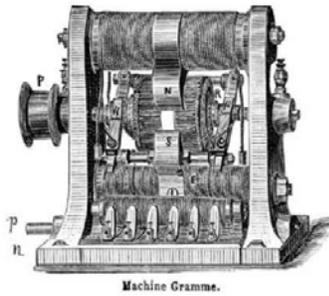
Georgetown Steam plant viewed from west, 1920

Photo by Asahel Curtis, Courtesy UW Special Collections (Neg. No. A. Curtis 39579)

The Georgetown Steam Plant was built by the Boston-based Stone & Webster utilities conglomerate, which held a dominant position in electricity generation and public transportation in the Seattle area during the early twentieth century. By the time the plant began operating in 1907, much of the company's electricity came from hydropower, with steam generation used to increase peak-load capacity and as back-up against service interruptions. In later years the Georgetown plant remained largely idle, although it was maintained in operating condition for decades. In 1951 Seattle City Light purchased Stone & Webster's Seattle properties, including the Georgetown facility. Its boilers and generators were fired up only on rare occasions in the years since. The plant's overall contributions to electricity production were minor but the innovative methods and materials used to build it, the intact early-twentieth-century steam-generating equipment it houses, and the involvement of pioneering efficiency expert Frank Gilbreth in its design and construction give the Georgetown Steam Plant significant historical importance. The plant, located near Boeing Field in South Seattle, has been designated a National Historical Mechanical Engineering Landmark and a National Historic Landmark.

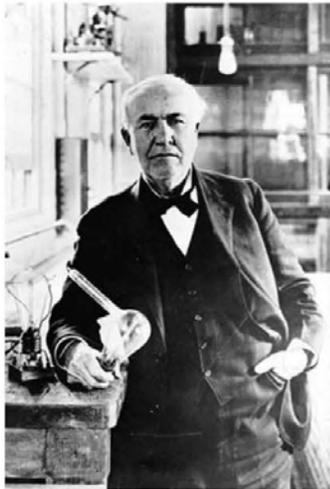
## Electrifying Events

Electricity went from novelty to necessity with remarkable speed. Just eight years after a Belgian, Zénobe Théophile Gramme (1826-1901), demonstrated the first commercially feasible direct-current (DC) dynamo, American inventor



**Direct-current dynamo, Zenobe Theophile Gramme (1826 -1901), ca. 1871**

Courtesy Nouveau Dictionnaire Encyclopedique Universel Illustré



**Thomas Alva Edison (1847-1931) holding incandescent light bulb, ca. 1880**

Courtesy Wikimedia Commons

Thomas Alva Edison (1847-1931) unveiled an incandescent bulb in 1879 that used DC current to produce artificial light, something so useful and desirable that it ensured public demand for the still-mysterious force that made it possible. Three years later, the world's first hydroelectric plant produced direct current from a dynamo on the Fox River in Wisconsin.

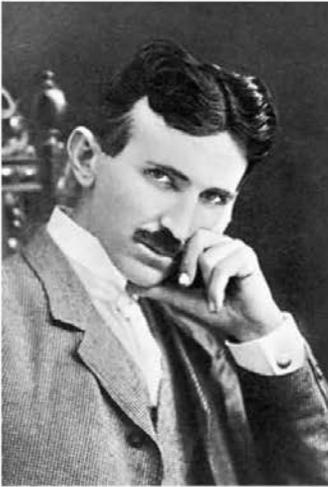
But DC quickly lost potency with distance and was practically useless more than about a mile from its source. In 1887 Nikola Tesla (1856-1943) developed a complete system of generators, transformers, and motors that produced and used alternating current (AC), which could travel much farther than direct current. Industrialist George Westinghouse (1846-1914) backed Tesla and bought many of his patents, then waged a long battle against Edison, who had bet on direct current. In 1895 the Westinghouse Electric & Manufacturing Company installed three Tesla-designed hydroelectric generators at Niagara Falls that sent alternating current by wire 20 miles to Buffalo, something DC could not do. Edison fought on for years but alternating current became America's standard for most purposes, and that is what the Georgetown Steam Plant was built to produce.

### **Seattle Electric Lighting**

In 1886 the Edison-backed Seattle Electric Lighting Company installed in a shed on Jackson Street a reciprocating steam engine that powered a dynamo to produce direct current for a few nearby customers and a handful of street lights. This was reputed to be "the first central station system for incandescent electric lighting west of the Rocky Mountains" ("Puget Sound Power ...").

By March 1889 Frank Osgood (1852-1934), owner of a horse-drawn streetcar service in Seattle, had an electric streetcar system, the first on the West Coast, up and running in the city, using direct current from a steam plant on Pike Street. Osgood's streetcars rattled on uninterrupted during the Great Seattle Fire that swept the city three months later. This demonstration of reliability stimulated public demand for electricity and that demand encouraged a stampede of investors hoping to capitalize.

Because direct current had to be used near its source and because young Seattle was full of optimistic entrepreneurs, a profusion of small, steam-powered electrical plants cropped up around the city, each serving only nearby



**Nikola Tesla (1856-1943)**

Courtesy Wikimedia Commons



**Charles A. Stone (1867-?), left,  
and Edwin S. Webster (1867-  
1950)**



**Lillian Moller Gilbreth (1878-  
1972), Frank Gilbreth (1868-1924)**

Courtesy American Society of  
Mechanical Engineers

customers and streetcar lines. It did not take long, however, for ownership of the city's electric and streetcar systems to be consolidated.

### **Consolidation**

Charles Stone (1867-?) and Edwin Webster (1867-1950) started their careers together as consulting engineers and ended up running one of the nation's largest electrical and urban-transportation conglomerates. By the early 1900s they operated power plants in six states and controlled electric lighting systems and railways in a number of cities.

Their company, Stone & Webster, turned its attention to Seattle in 1898, working first with William J. Grambs (1862-1943), who became Stone & Webster's local agent in 1899. On January 19, 1900, Grambs incorporated the Seattle Electric Company, which soon had gathered under Stone & Webster's management nearly all of the steam-powered generating plants in the city.

By 1902 Stone & Webster controlled all the streetcar companies in Seattle and almost all the city's electricity production, and had completed an electric interurban rail line linking Tacoma and Seattle. In 1912, the Seattle Electric Company and Stone & Webster's streetcar and interurban holdings were combined to form the Puget Sound Traction, Power & Light Company. In 1918, Seattle purchased the company's streetcar lines in the city and the following year the word "Traction" was removed from the company name.

### **Water and Steam**

Hydroelectric generation emerged early as the clear choice in the water-rich Northwest. In 1904 Stone & Webster completed the Electron Power Plant in the Cascade foothills southeast of Tacoma, where a 10-mile-long wooden flume carried water from the Puyallup River to an



**Foundation, Georgetown Steam Plant Boiler House, May 18, 1906**

*Concrete System*



**Staging for Boiler House exterior, Georgetown Steam Plant, June 13, 1906**

*Concrete System*



**Interior view, construction staging, Georgetown Steam Plant, June 15, 1906**

*Concrete System*



**Workers pour concrete, Boiler House roof, Georgetown Steam Plant, September 8, 1906**

*Concrete System*

artificial lake. This fed into a penstock, which directed the flow over the blades of a waterwheel connected by a shaft to an AC generator. The electricity was sent along transmission lines to Seattle, nearly 50 miles distant, and to Tacoma, 32 miles away.

In 1908 another Stone & Webster company bought the hydropower plant at Snoqualmie Falls, which when built in 1899 was the first in the region. In 1910 the company put in a second powerhouse just downstream from the falls, and in 1911 Stone & Webster opened a hydroelectric project that tapped the White River and created Lake Tapps in Pierce County as a reservoir from which to feed the generators.

Even with all this hydropower, steam generation met a critical need. The more indispensable electricity became, the more necessary it was to ensure a reliable and adequate supply. The complexity of Stone & Webster's electrical grid offered multiple avenues to failure. Without adequate backup, interruptions in supply and the occasional inability to meet peak demands could not be avoided.

Also, by 1906 Stone & Webster's near-total monopoly over Seattle's electrical supply had come to an end. In 1902 the city's voters overwhelmingly approved a \$590,000 bond measure to finance a municipal hydropower plant on the Cedar River. In 1905 the city Lighting Department (later Seattle City Light) took over Seattle's street-lighting circuits from the Seattle Electric Company and began providing power to city residents. Facing competition, Stone & Webster sought to ensure reliability by building generating capacity well beyond normal demands. A decade later, early Seattle historian Clarence Bagley summed up the important role of the company's steam plants in this effort:

"In order to provide for any contingency, four powerful steam plants are maintained, one each at Tacoma and Everett and two in Seattle. Despite the fact that water power is so dependable that not 1 percent of the current is generated annually by the steam plants, these are kept in readiness for instant action in an emergency. It is this state of constant preparedness that makes the company's service so perfect" (*History of Seattle*, 442)

Stone & Webster's service was never "perfect," but it did try. For its second Seattle steam plant (the first had been built on Post Avenue in Pioneer Square in 1902), the Seattle



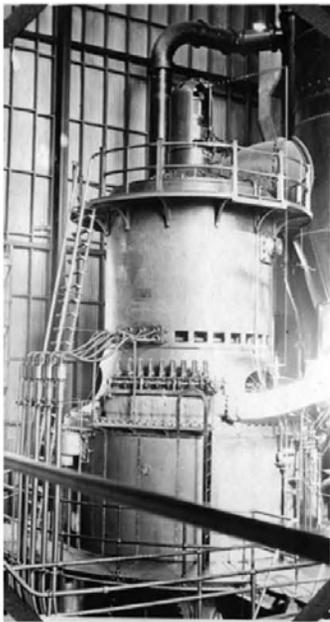
**Nearly complete Engine House, Georgetown Steam Plant, November 10, 1906**

*Concrete System*



**Workers manning electrical switchboard, Georgetown Steam Plant, May 1, 1909**

Courtesy Seattle Municipal Archives (Item No. 171372)



Electric Company in 1906 purchased 18 acres of land along the east bank of the Duwamish River in Georgetown, then still an independent city (it was annexed into Seattle in 1910). The Duwamish provided a virtually limitless source of water to convert to steam and to cool the condensers that closed the loop and returned the water, considerably warmer, to the river. Land there was inexpensive, and the transmission line from the Electron hydropower plant passed nearby. Stone & Webster's car barns and maintenance shops were already located in Georgetown, and the tracks of its Seattle-Tacoma interurban passed in close proximity.

### **The Remarkable Gilbreths**

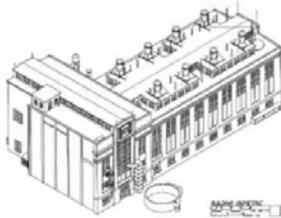
*The Seattle Times* reported on March 30, 1906, that workers had broken ground that day for the construction of the Georgetown Steam Plant, although a decision was yet to be made whether it should be built of steel and brick or reinforced concrete. The article also noted that Frank Bunker Gilbreth Sr. (1868-1924), a well-known expert in both methods, had been hired to design and build the facility.

Gilbreth was trained as a bricklayer in his youth and soon was seeking ways to make that trade less arduous and more productive. Watching his fellow bricklayers, he noticed that they were almost all doing the job a little differently, and with more stooping, walking, and reaching than seemed necessary. He developed a systematic approach that reduced the number of motions needed to lay a single brick from an average of 18 to five and increased the productivity per worker from an average of 125 bricks per hour to 350. Gilbreth had found his true calling, and he went on to build a very successful career in what he called scientific management.

In 1904 Gilbreth married Lillian Moller (1878-1972), who would later earn a doctorate in psychology. The couple became perhaps the world's first professional efficiency experts, studying films of workers to ferret out wasted effort and streamline production across a range of occupations. They identified 18 basic units of activity that in combination could complete any specific task, which became known as "therbligs," from "Gilbreth" spelled backward ("Pioneers in Improvement ..."). The couple somehow also found time to have 12 children, two of whom later wrote *Cheaper by the Dozen*, a best-selling book about the family that was twice made into a movie, in 1950 and

**Curtis vertical steam turbine for 8,000-kilowatt generator, Georgetown Steam Plant, May 1, 1909**

Courtesy Seattle Municipal Archives (Item No. 171373)



**Drawing, Georgetown Steam Plant, 1979**

Courtesy Historic American Engineering Record



**East facade, Boiler House (left), Engine House (right), Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy Historic American Engineering Record (Image No. HAER WA-1-3)



**Curtis vertical steam turbine**

again in 2003.

Gilbreth also created a systematic approach to building with reinforced concrete, a material first used for substantial construction in the 1880s. He developed step-by-step methods for engineers and workers, detailing how to proceed from the first shovel in the dirt to the finished product. By 1906 he was recognized as a leading expert in building power stations, dams, and other large reinforced-concrete structures.

Shortly after Gilbreth arrived in Seattle he learned that getting the necessary structural steel for a brick building would cause considerable delay. Then, on April 18, 1906, San Francisco was hit by a massive earthquake. The failure there of several steel-framed brick buildings gave additional support to a decision to build the Georgetown plant using reinforced concrete, a material far more resistant to seismic forces and the vibration of heavy machinery.

### **A Gilbreth System in Practice**

Gilbreth had workers excavating the site before the ink had dried on the contract. Two pile-driving crews shadowed the excavators, each assigned to pound in half of the 1,712 pilings that would anchor the structure to the land. Gilbreth later wrote that "a series of athletic contests was begun" as the two crews competed to finish first (*Concrete System*, 131). Encouraging such presumably friendly competition between crews was a standard Gilbreth practice on this and other projects.

Everything at Georgetown was done on a just-in-time basis. While the pile-driving was underway, the working drawings for the foundation were being finalized, and as the foundation was being poured, the drawings for the superstructure were prepared. To ensure timely arrival of the concrete's steel reinforcing rods, Gilbreth dispatched a freight expert to the mill in Pittsburgh to supervise the loading of the material onto flatcars and to accompany the shipment to Seattle. With the shipment underway, exterior staging was erected to the full designed height of the building on all four sides. From this scaffolding the forms for the building's walls could be built in stages and concrete poured as each stage was completed. Four double elevators were used to hoist lumber, steel reinforcing rods, and mixed concrete from ground level to where it was needed.

While crews worked on the exterior walls from the staging, others toiled in the cavernous interior, assembling steel-

**No. 1 (foreground), Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy  
Historic American Engineering  
Record (Image No. HAER WA-1-6)



**Condenser (rear) and governor, Curtis vertical steam turbine No. 1, Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy  
Historic American Engineering  
Record (Image No. HAER WA-1-11)



**Curtis horizontal steam turbine No. 3, Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy  
Historic American Engineering  
Record (Image No. HAER WA-1-14)

reinforced forms for the concrete columns and girders that would tie the structure together and bear the weight of the floors, equipment, and roof. Two concrete-lined tunnels were run to the Duwamish River, one bringing water to be converted to steam and for cooling and the other returning the water to the river after it was condensed back into liquid form. (In about 1917 an ongoing project to channelize the Duwamish moved the river some distance from the plant, requiring the addition of a pumping station for intake water and extension of the discharge tunnel.)

By all accounts, the construction was carried to completion with barely a hitch. In his book *Concrete System*, published in 1908, Gilbreth could write with justifiable pride:

"We have recently designed, detailed, and constructed and guaranteed for a well-known firm of Boston engineers, a power station built entirely of reinforced concrete in Seattle, Washington. Even the coal bunkers, ash hoppers, and girders for the 30- and 50-ton travelling cranes, and the six girders of the roof over the engine house, 64' 2" long, are of concrete. As this power station was finished within the required time and below our estimated cost, and is a success from every standpoint, it is a good job for our men to study in order to copy those points that will make for success on future work" (*Concrete System*, 131).

### The Boiler House

The architectural design of the Georgetown Steam Plant was Neo-Classical Revival, a rather overblown, monumental style that became popular in the 1880s for government and industrial buildings. Although detailed specifications are beyond the scope of this essay, a general description is helpful.

The entire structure is oriented in a roughly northwest to southeast direction and is adjacent to what is now the northwest corner of King County International Airport (Boeing Field), whose main runway opened in 1941. The steam plant's foundation slab measures 80 feet by 218 feet, and the building it supports comprises two main sections, the Boiler House and the Engine House, separated by a six-inch-thick interior wall of reinforced concrete. The structure's maximum height, measured at the roof of the clerestory atop the Engine House, is approximately 80 feet.



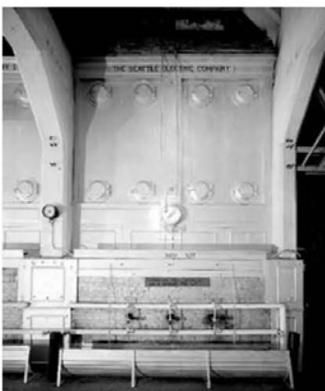
**Looking north, Turbine No. 1 (left), Turbine No. 2 (right), Engine House, Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy Historic American Engineering Record (Image No. HAER WA-1-17)



**West entrance, Engine House, Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy Historic American Engineering Record (Image No. HAER WA-1-1)



**One of 16 boilers, Boiler House,**

The Boiler House is the larger of the two sections at 153 feet long and 76 feet wide and is divided into four levels. The exterior façade on the west has nine architectural bays separated by concrete pilasters, each bay having a set of two sash windows at the level of the third floor. Above the windows are recessed shutters used for ventilation. The east façade is also divided into nine bays, but windowless. A 268-foot Weber concrete chimney served the boilers until it and another tall stack were removed as flight hazards and replaced with induced-draft fans connected to low roof vents.

Oil was the fuel used for the first nine years of plant operations, but much of the original equipment in the Boiler House was designed to handle coal. A sloped conveyor belt on the exterior of the building's narrow south end carried coal to the fourth floor; from there the force of gravity alone did almost all the work. A continuous horizontal conveyor dropped coal from the fourth floor into eight funnel-shaped bunkers on the third, from which it was fed into boilers arrayed in two rows of eight on either side of the second floor. The residue of the burnt coal dropped into hoppers on the first floor and was deposited for disposal into two ash cars that ran on rails along the length of the Boiler House.

When the use of coal ended permanently in the 1940s, the exterior conveyer was removed and the high portal on the south wall of the Boiler House was sealed and replaced by a rectangular cast-concrete pediment, to which in 1985 a detail reading "No. 1" was added. At least one source says that the "No. 1" signified that the Georgetown plant was the first of five that were planned, the other four never being built. This explanation seems unlikely, as Georgetown was not the first -- it was preceded by the company's steam plant on Post Street, built in 1902. Also, by the time the Georgetown plant's coal portal was sealed in the 1940s, and even more emphatically by 1985, hydropower's complete dominance made it unlikely that any new steam-generation plants would be built in the area. If the prominent "No. 1" has some other significance, it is not apparent from the

**Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy Historic American Engineering Record (Image No. HAER WA-1-24)



**Boiler level, Boiler House, Georgetown Steam Plant, July 1979**

Photo by Jet Lowe, Courtesy Historic American Engineering Record (Image No. HAER WA-1-28)



**Boiler level, Boiler House, Georgetown Steam Plant, January 14, 2016**

HistoryLink.org Photo by John Caldbick



**South facade, sealed coal portal at top, Georgetown Steam Plant,**

record.

### The Engine House

Set perpendicular to the Boiler House at its north end is the smaller Engine House, where the steam produced by the boilers was used to generate electricity, then condensed back into water and returned to the Duwamish.

The west façade of the Engine House is divided into three bays, the center one having two rows of three tall windows each that extend from above the main entry doors and are topped at the roofline by a triangular cast-concrete pediment bearing the date "1906." The bays to its left and right each have a pair of tall sash windows under two smaller, fixed windows. The reinforced-concrete portion of the north wall is divided into five architectural bays, but otherwise featureless. Behind this wall is much of the plant's electrical equipment -- the switchboard, wire room, circuit breakers, and exciters (used to create an initial magnetic field in the generators).

In 1918 a 36-foot extension was added on the eastern end of the Engine House to make room for a 10,000-kw generator and related equipment. Its northern face is blank save one small window and an entry door. Lighter masonry sheathed in corrugated metal was used here, at least in part to provide a pressure-relief valve in the event of an explosion inside the building. This was not an excess of caution -- in April 1908, when the plant was practically new, a steam pipe in the Boiler House burst with a blast heard all over Georgetown. Two men were seriously hurt and one, Chief Engineer George Tucker, died of scalding injuries 10 days later.

### The Age of the Turbine

Before the advent of hydropower, reciprocating steam engines were the only practical way to generate electricity in commercial quantities. Heated water was converted to steam in a pressurized boiler, then piped to a reciprocating engine where it was used to push pistons up and down. This up-and-down motion had to be converted to rotary motion through a flywheel, which was connected by a shaft to a generator. Reciprocating steam engines were reliable, but massive, heavy, and inefficient.

The first practical steam *turbine* engine was developed in the 1880s in England. In 1896 Charles Gordon Curtis (1860-1953) patented a new design that was one-eighth the weight

**July 1979**

Photo by Jet Lowe, Courtesy  
Historic American Engineering  
Record



**Sealed coal portal with "No. 1"  
added in 1985, south facade,  
Georgetown Steam Plant,  
January 12, 2008**

Photo by Joe Mabel, Courtesy  
Wikimedia Commons

and one-tenth the size of any yet developed. It would revolutionize the steam-generation industry, only to be supplanted by something even better just few years later.

Although steam turbines are complicated machines, they operate on a simple principle that is much more similar to hydropower generation, which also relies on turbines, than to the reciprocal steam engines they replaced. They extract thermal energy directly from steam by directing it at high pressure through sets of blades or "buckets," roughly analogous to those used by turbines in hydroelectric plants (where water, rather than steam, is the motive force). No more pistons going up and down, no more flywheels -- just steam spinning turbine blades to produce electricity, and a power-to-weight ratio that rendered all predecessors instantly obsolete. (By 2015 nearly 80 percent of the world's electricity was generated by steam turbines. The Northwest is an exception due to its wealth of hydropower.)

General Electric bought Curtis's patents in 1901 and retained him as a consultant to continue working on the design. In 1903 he collaborated with a GE engineer, William LeRoy Emmet (1859-1941), to develop a steam turbine that stood on end and was only 25 feet tall, yet generated up to 5,000 kilowatts of electricity, an output that was soon increased. This design instantly became the gold standard for steam generation.

### **Georgetown Generation**

The Georgetown Steam Plant's first Curtis vertical turbine, producing 3,000 kilowatts of electricity, was tested on August 3, 1907. The turbine worked fine, but the attached generator almost immediately burned out and would do so three more times in quick succession. On December 17, 1907, a second, 8,000-kilowatt vertical turbine was added, but its generator also failed the next month. After intervention by experts from Stone & Webster's home office the problems were resolved, and both vertical steam turbines were fully operational by March 1908.

Turbine and generator technology continued to advance rapidly. In 1911 the smaller generator at Georgetown was reconfigured to increase its output to 5,000 kilowatts, but Curtis and GE had something better in development. The 36-foot extension added to the Engine House in 1918 was built to house one of the next generation of steam turbines, a 10,000-kilowatt Curtis. Technically far ahead of the vertical turbines, this one lay horizontally on a raised

platform adjacent to the two vertical units. Although the impetus for its addition was increased electrical demand arising from America's entry into World War I, the new machine was not ready for use until seven months after the war ended, and by then it was barely needed at all.

### **Its Place in History**

The Georgetown Steam Plant was in large part an expensive exercise in preparedness, built only to add incrementally to the Seattle Electric Company's capacity during periods of heavy demand or transient interruptions in the supply of hydroelectricity. In the fall and winter of its first years, when low water levels lessened that supply, Georgetown typically operated from 6 to 10 a.m. and from 3 to 8 p.m. Even when new, much of the time its boilers were banked and its turbines at rest. In 1916 only 1 percent of Stone & Webster's electricity came from steam; the total rarely exceeded 5 percent, with most of it fed into the company's streetcar system.

In 1930, much of the Georgetown plant's already marginal contribution was rendered unnecessary when Puget Sound Power & Light completed its Shuffleton steam plant in Renton. By 1948 Georgetown was operating only about 100 hours a year. In 1951 Seattle City Light purchased the plant, and it last produced electricity for use by the public in the harsh winter months of 1952-1953. A few test runs were done in later years, most recently in 1972 and 1974, but Georgetown's boilers have been cold and its turbines at rest ever since.

The Northwest's economic growth was powered largely by electricity generated by the force of moving water from the region's abundant rivers, with steam generation playing an ever-decreasing role. But steam turbines still produce most of the rest of the world's electricity, and the Georgetown Steam Plant boasts the only two surviving and theoretically operable Curtis vertical steam turbines of the more than 1,000 that were sold by General Electric in the early years of the twentieth century. The massive reinforced-concrete structure that houses them was one of the first major uses of that new material on the West Coast, designed and built by the now-fabled Frank Gilbreth. The plant was designated a National Historical Mechanical Engineering Landmark by the American Society of Mechanical Engineers in 1980 and was designated a National Historic Landmark and a Seattle Historic Landmark in 1984. A significant chapter in the history of electrical and

## infrastructure development in the Northwest is embodied in the Georgetown Steam Plant.

---

**Sources:** Welford Beaton, *The City That Made Itself* (Seattle: Terminal Publishing Company, 1914); Clarence B. Bagley, *History of Seattle from the Earliest Settlement to the Present Time* (Chicago: The S. J. Clarke Publishing Company, 1916), 442; Seattle City Council Ordinance No. 2447, "Union Electric Company -- Lighting Contract," approved November 16, 1892; Frank B. Gilbreth, *Concrete System* (New York: The Engineering News Publishing Company, 1908), 131-174; "Puget Sound Power & Light Company," Harvard Business School Lehman Brothers Collection website accessed January 19, 2016 ([http://www.library.hbs.edu/hc/lehman/company.html?company=puget\\_sound\\_power\\_light\\_company](http://www.library.hbs.edu/hc/lehman/company.html?company=puget_sound_power_light_company)); "Seattle Electric Company Georgetown Steam Plant," National Register of Historic Places Inventory -- Nomination Form, National Park Service website accessed February 3, 2016 (<http://focus.nps.gov/nrhp/GetAsset?assetID=f7b26d18-e744-45e9-9404-3653b8181989>); "Railroads Will All Unite," *The Seattle Times*, May 13, 1899, p. 1; "A Giant's Power," *Ibid.*, August 1, 1899, p. 8; "Under One Head," *Ibid.*, January 22, 1900, p. 8; "Work Started on Power House," *Ibid.*, March 30, 1906, p. 4; "Engineer's Burns Prove Fatal," *Ibid.*, April 10, 1908, p. 4; "Plant at Lake Tapps Now Serves Seattle," *Ibid.*, November 12, 1911, p. 12; Melvin L. Fredeen, "Georgetown -- Seattle's Standby Power Supply," *Ibid.*, May 20, 1973, pictorial section, p. 11; "Seattle's Streetcar History," *The Seattle Times*, December 23, 2007 (<http://www.seattletimes.com/>); Maureen O'Hagan, "Tour an Electric Time Machine: The Georgetown Steam Plant," *Ibid.*, May 14, 2015; "Dynamo," Princeton University Joseph Henry Apparatus Project website accessed February 3, 2016 (<https://www.princeton.edu/ssp/joseph-henry-project/dynamo/Dynamo.pdf>); "Steam Engine," New World Encyclopedia website accessed January 19, 2016 ([http://www.newworldencyclopedia.org/entry/Steam\\_engine](http://www.newworldencyclopedia.org/entry/Steam_engine)); "Emergence of Electrical Utilities in America," Smithsonian National Museum of American History website accessed January 19, 2016 (<http://americanhistory.si.edu/powering/past/h1main.htm>); "The War of the Currents: AC vs. DC Power," U.S. Department of Energy website accessed January 19, 2016 (<http://energy.gov/articles/war-currents-ac-vs-dc-power>); "AC Power History and Timeline," Edison Tech Center website accessed January 19, 2016 (<http://www.edisontechcenter.org/AC-PowerHistory.html>); "Generators & Dynamos," Edison Tech Center website accessed January 20, 2016 (<http://www.edisontechcenter.org/generators.html>); "Steam Turbines," Edison Tech Center website accessed February 7, 2016 (<http://www.edisontechcenter.org/steamturbines.html>); "Zénobe Théophile Gramme (April 4, 1826- January 20, 1901)," ScienceScript website accessed January 20, 2016 (<http://sciencescript.org/blog/2015/04/04/zenobe-theophile-gramme-april-4-1826-january-20-1901/>); "History of Hydro," National Hydropower Association website accessed January 23, 2016 (<http://www.hydro.org/tech-and-policy/history-of-hydro/>); Thomas W. Prosch, *A Chronological History of Seattle from 1850 to 1897* (Seattle: Thomas W. Prosch, 1921?), 330; "Pioneers in Improvement and Our Modern Standard of Living," *IW/SL News*, September 1968, pp. 37-38, available at The Gilbreth Network website accessed January 27, 2016 (<http://gilbrethnetwork.tripod.com/bio.html>); "Overview of Hydropower in the Northwest," Foundation for Water and Energy website accessed January 27, 2016 (<http://fwee.org/education/the-nature-of-water-power/overview-of-hydropower-in-the-northwest/>); "Fuel Mix," Seattle City Light website accessed January 28, 2016 (<http://www.seattle.gov/light/FuelMix/>); "Georgetown Steam Plant," ASME Dedication Program, The American Society of Mechanical Engineers website accessed January 31, 2016 (<https://www.asme.org/getmedia/66377be2-dedc-411d-b1d0-c0ab0adf55bb/45-Georgetown-Steam-Plant.aspx>); "Frank B. Gilbreth's Research: The Quest of the One Best Way," *Quest Newsletter* website accessed January 31, 2016 (<http://gilbrethnetwork.tripod.com/qv1n2.html>); "Scientific Management: Frank and Lillian Gilbreth," Accel website accessed February 3, 2016 ([http://www.accel-team.com/scientific/scientific\\_03.html](http://www.accel-team.com/scientific/scientific_03.html)); Paul Dorpat and Genevieve McCoy, *Building Washington* (Seattle: Tartu Publication, 1998), 278-284; David Wilma, Walt Crowley, and the HistoryLink Staff, *Power for the People: A History of Seattle City Light* (Seattle: History Ink/HistoryLink.org, 2010); *A Century of Service: The Puget Power Story* ed. by Robert C. Wing and Robert C. Cumbow (Bellevue: Puget Sound Power & Light Company, 1987) 52-53, 87; Leslie Blanchard, *The Street Railway Era in Seattle* (Forty Fort, PA: Harold E. Cox, 1968); *HistoryLink.org Online Encyclopedia of Washington State History*, "Street Railways in Seattle" (by Walt

Crowley, "Frank Osgood tests Seattle's first electric streetcars on March 30, 1889" (by Walt Crowley), "Seattle Steam Heat & Power Company (Enwave Seattle)" (by John Caldbick), "Edison agents turn on first central incandescent lighting plant west of the Rockies in Seattle on March 22, 1886" (by Gregg Lange and Walt Crowley), "Seattle voters approve electric utility bonds on March 4, 1902, leading to creation of Seattle City Light" (by Walt Crowley), and "Cedar Falls hydroelectric plant begins lighting Seattle streets on January 10, 1905" (by Gregg Lange), <http://www.historylink.org/> (accessed February 14, 2016).

---

**Related Topics:** [Buildings](#) | [Infrastructure](#) | [Landmarks](#) | [Science & Technology](#)

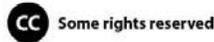
---

< PREVIOUS FEATURE

NEXT FEATURE >

---

**Licensing:** This essay is licensed under a Creative Commons license that encourages reproduction with attribution. Credit should be given to both HistoryLink.org and to the author, and sources must be included with any reproduction. Click the icon for more info. Please note that this Creative Commons license applies to text only, and not to images. For more information regarding individual photos or images, please contact the source noted in the image credit.



---

**Major Support for HistoryLink.org Provided By:** The State of Washington | Patsy Bullitt Collins | Paul G. Allen Family Foundation | Museum Of History & Industry | 4Culture (King County Lodging Tax Revenue) | City of Seattle | City of Bellevue | City of Tacoma | King County | The Peach Foundation | Microsoft Corporation, Other Public and Private Sponsors and Visitors Like You

SUBSCRIBE

DONATE

THE FREE ENCYCLOPEDIA OF WASHINGTON STATE HISTORY



Pacific NW Magazine

## Tour an electrical time machine: The Georgetown Steam Plant

Originally published May 14, 2015 at 10:03 am Updated May 16, 2015 at 9:49 pm



The Georgetown Steam Plant was built in 1906-07 and was designated a National Historic Landmark in 1984. This is one of two vertical turbine generators. Within a few years, the turbines were considered... (Benjamin Benschneider / The Seattle Times)

**Here is one secret of its allure: It's kind of creepy.**

By

**Maureen O'Hagan**

*Special to The Seattle Times*

IF YOU VISIT the Georgetown Steam Plant, you're likely to notice a few things immediately: It is cold — so cold that your feet will begin to ache through your boots. It smells of . . . something. Old concrete? Mildew? It is also dirty, with peeling paint and dusty remnants from decades of disuse.

But you will look past all that. Because this gritty, long-dormant building somehow manages to be enthralling. Although essentially unused for 60 years — and on life-support before that — the plant has the feel of a living thing. There is a phone system that still rings. There is a tool board marked with the outlines of a hammer, wrenches and screwdrivers. There is an office with a desk where a manager used to sit.

And, amazingly, the steam plant's 100-year-old machinery still works. In fact, its turbines are said to be the last surviving examples of a technological achievement that helped transform the country.

## **See the steam plant**

**What:** Tours of the Georgetown Steam Plant.

**When:** The plant is open the second Saturday of each month from 10 a.m. to 2 p.m., with guided tours available at 11 a.m. and 1 p.m.

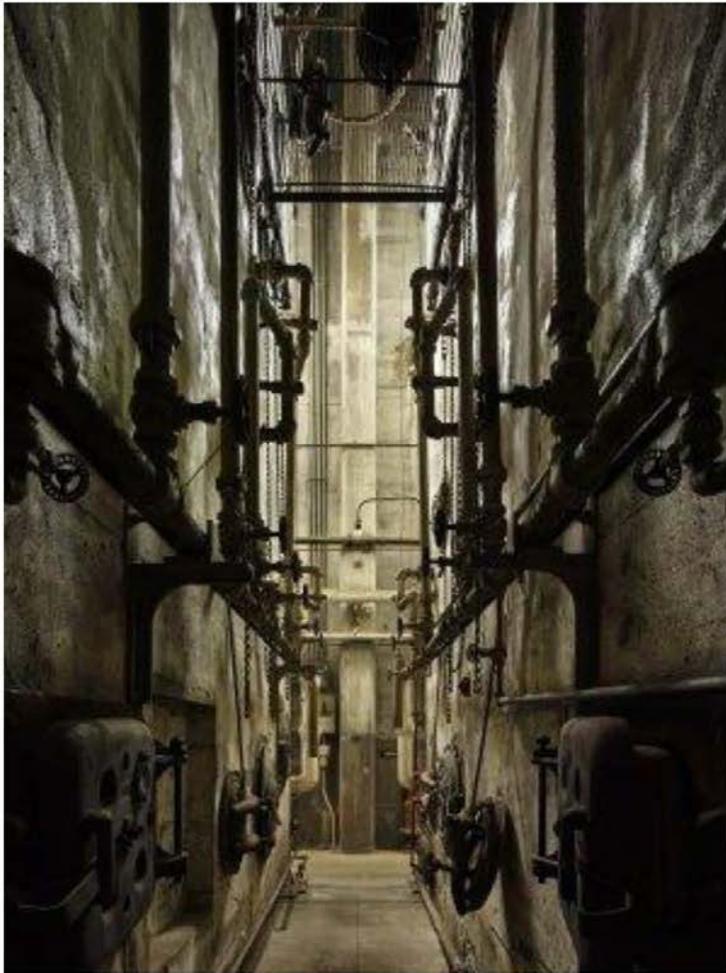
**Where:** 6605 13th Ave. S., Seattle. The plant is located adjacent to Boeing Field. Access is from the east side of Ellis Avenue South, opposite South Warsaw Street.

**Cost:** There is no admission charge, and reservations are not required. For groups of 15 or more, call 206-763-2542.

"It's a tribute to the pioneers of electricity," says Lynn Best, Seattle City Light's environmental affairs and real estate division director.

You might not be the kind of person who is interested in electrical pioneers. I know I wasn't when I first visited the building on a public tour in November.

Nor am I the sort of person who has much of an interest in industrial technology. I just thought it would be interesting for my mechanical engineer boyfriend. Yet delving into the steam plant's history has given me a new perspective on how Seattle became the city it is today. I found myself compulsively Googling "how does coal become electricity?" and telling my photographer friends about this little-known visual gold mine.



The view between two boilers offers a sense of the “creepy”... (Benjamin Benschneider / The Seattle Times)

“This building,” Best notes, “has the ability to get people to really care about it.”

Indeed, by the time the tour group walked out the door on that crisp afternoon, the building had hooked a few more.

HERE IS ONE SECRET of the steam plant’s allure: it’s kind of creepy. There are hidden corners and mysterious valves and dim lighting. On one visit, the shop phone suddenly rang loudly throughout the building, even though it probably hadn’t been used since the 1970s. The place is eerie enough, in fact, that it has been used for a zombie photo shoot.

“They say it’s haunted,” says Pepe O’Baya, City Light’s senior capital projects coordinator. City Light owns the building and is in the process of refurbishing it for increased public use.

The creep factor stems partly from the fact it is practically unchanged since 1907, when its first steam turbine was fired. It’s kind of like walking into a museum, only it’s the sort of museum you don’t normally see: dirty, rugged, real. That gritty authenticity gives visitors a sense of discovery, as if they’ve just arrived in a time machine. Even the entrance, along the Boeing Field fence line, tucked behind nondescript flight-related businesses, is hard to find.



The plant has been owned since 1951 by Seattle City Light, which... (Benjamin Benschneider / The Seattle Times)

Of course, you aren't really discovering anything. Fascination with the building has been ongoing, even as access has been limited and upkeep has fallen behind. Big Black, a punk band, held its [last concert](#) here in 1987. In the late '80s, avant-garde trombonist Stuart Dempster led performances of a piece composed specifically for the building, featuring brass, strings and percussion, with a "Steamwhistled Teaservice" at the end. A play was staged here. Nonprofits have done tours. It has been a hub for miniature railroad aficionados and for hobbyists looking to show off homemade steam-powered contraptions. It's hard to imagine a roster more diverse.

“It has appeal to the techie, in-your-head, kind of people who say, ‘Oh my gosh, look at those boilers!’” Best says. “And it has appeal to the in-your-heart artist types.”

Tia Kramer and Tamin Totzke, artists who will stage a dance and video performance here this fall, say they were instantly smitten.

“There’s this energetic history that I immediately connected to,” says Totzke, a dancer.

Kramer, a video and performance artist, searched for the right words. “It’s like a monolithic monument to a really fleeting moment in time.”

Which leads to a second secret of the steam plant’s allure: It represents a technological advancement that swept the country and helped usher in the modern electrical age. Yet the facility was also becoming outdated within a year after opening.



A red light and horn are situated on this wall-mounted carbon dioxide meter. (Benjamin Benschneider / The Seattle Times)

IN 1984, THE Georgetown Steam Plant was listed as a [National Historic Landmark](#). This, says Rebecca Ossa, City Light's historic resource specialist, is a big deal. The Brooklyn Bridge is on this list. So is the Grand Canyon Lodge.

Part of what's exceptional here is the machinery. The plant houses the only operational examples of the world's first large-scale steam turbine, the vertical Curtis turbine generator.

If this doesn't immediately grab you, consider this: This machine "came to represent one of the most significant advancements in the history of industrial technology," according to the American Society of Mechanical Engineers. Now consider how that affected life in Seattle.

Around the turn of the 20th century, Seattle's population was exploding. Meanwhile, as electricity was introduced, it quickly spurred an increasing demand. If the supply didn't keep up with that demand, economic growth would stall. Businesses needed reliable electricity. It was needed for the city's impressive streetlights that attracted oohing and aahing crowds of tourists. It would power the city's streetcars, which helped fuel the real estate market, allowing middle-class families to live either inside or outside the city and still get to work on time. The region's transit system became "an advertisement for the city, as a moneymaking venture and as a stimulus to real estate development," according to the National Historic Landmark nomination.

But as demand increased, technology wasn't keeping up. The best technology of its day – the reciprocating steam engine – wasn't all that efficient. Bigger wasn't the answer, either. Larger machinery "literally shook the earth," according to an ASME dedication document.

An engineer named Charles G. Curtis found a solution. He designed and patented a new machine, the vertical steam turbogenerator, that was far more compact and efficient than its older cousin. Curtis sold the rights to General Electric and, within months, GE sold more than 1,000 of these generators across the country. An engineering marvel – one expert called it one of the

most “extensive and strenuous (jobs) in the art of engineering” — the design won prizes at the St. Louis Exposition of 1904 and the Lewis and Clark Exposition of 1905 in Portland.

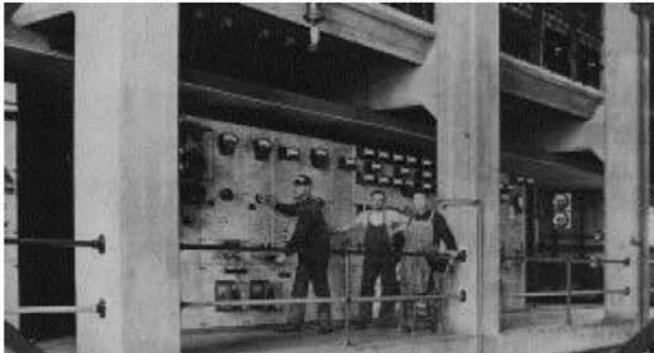


Oil still oozes from cables on the wall of the steam plant. (Benjamin Benschneider / The Seattle Times)

SO THE GENERATORS were a natural choice for the Georgetown Steam Plant, which was built by a private company in 1906-07 on a crook in the Duwamish River. The plant was mainly intended to power the company’s streetcar and railroad lines, one of which ran all the way to Tacoma.

The Curtis turbines that dominate the Georgetown plant's main wing today are what make the place unique. Although there were once thousands of these machines powering progress throughout the country, they have all gone by the wayside, and at the time the Georgetown plant was listed as a National Landmark, these were the only ones that not only survived, but could still run.

The plant itself, one of the first reinforced concrete buildings on the West Coast, is also notable. It was designed by well-known industrial engineer Frank Gilbreth, whose family life (he had 12 children) was the subject of the 1948 book and 1950 movie "Cheaper by the Dozen." Gilbreth is famous for his work on streamlining workers' movements. Everything about the steam plant was built for efficiency, from the fast-track construction method to the wing of superheated boilers.



Seattle Electric Company workers at the Georgetown Steam Plant, May 1,...  
(Courtesy Seattle Municipal Archi)

The Georgetown plant initially installed two vertical Curtis generators, rated at capacities of 11,000 kilowatts combined. But it didn't take long for the technology to become outdated. By 1908, just one year after the plant opened, GE had already started to abandon the original Curtis design. When Georgetown installed a third Curtis generator in 1917, it was built in a different, horizontal configuration than the first two and was much smaller, yet generated nearly the power of the other two combined. That's how fast technology was changing.

The truth is, the Curtis machines were already on the way out. As demand for electricity continued to increase, there was a shift toward hydropower, which could outperform Curtis exponentially, at a radically lower cost. Within a few years of Georgetown's opening, the region's electricity increasingly was being powered by water.

"The technology took off," says Ossa, "and left this poor steam plant in the dust."



This boiler-room panel features a pressure gauge from 1898. (Benjamin Benschneider / The Seattle Times)

By 1912, the plant was being used "only in cases of emergency," according to paperwork submitted for the National Landmark designation. Meanwhile, another development became a major blow to the plant. In 1913, work began to straighten the Duwamish waterway, putting an additional 3,668 feet between the plant and its water source. So much for Gilbreth's efficient design. Now, workers had to install an enormous flume down to the river.

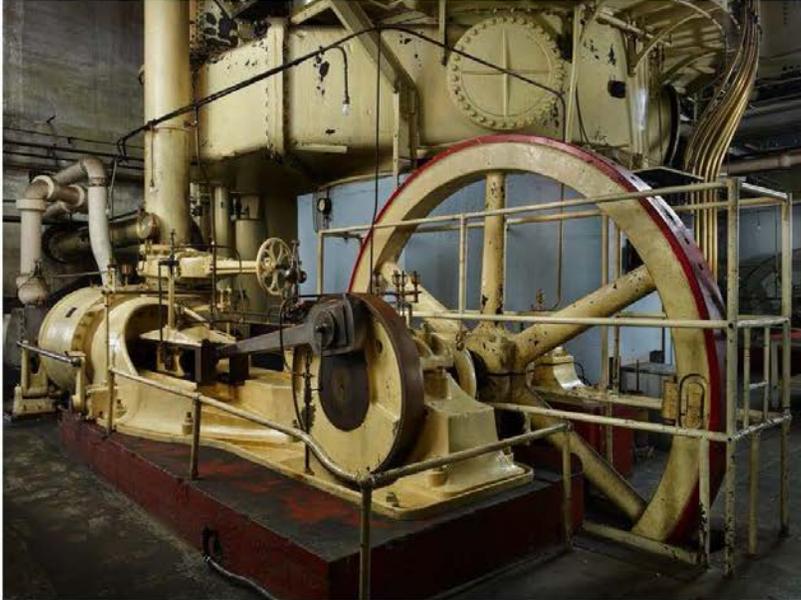
By the 1920s, the plant was no longer of much use at all. Its last production run was from November 1952 to January 1953, when a major water shortage limited the hydro plants' capacity, according to the Landmark documents. It was fired occasionally after that, mostly for tests.

The hot new technology was dead. Making a big splash upon its birth at the turn of the 20th century, it raced through its adolescence and adulthood, then quietly retired. Depending on how you count, most of its usefulness occurred over a matter of a few years, or at best, a decade or two. Yet without those few years of steady and reliable electricity that fueled a rapidly growing city and the development of "streetcar suburbs," Seattle would arguably have been a different place today.

IN A LITTLE-KNOWN National Park Service workshop on Whidbey Island, Scott Swenson and several other men are laboriously hand-scraping, glazing and painting windows that have been removed from the steam plant for restoration. The project, which will include more than 200 windows and doors, is expected to span four years, at a cost of about \$800,000.

City Light, which took over electricity delivery in Seattle and has owned the building since 1951, has plans to increase public access to the steam plant and turn it into a community hub. Since last fall, they have been conducting monthly public tours. Before that, City Light was required by the state Department of Ecology to complete extensive cleanup as part of the restoration of the Duwamish. It turns out that workers years ago had been using the land as a dumping ground for coal ash and other contaminants. Finally, restoration of the plant itself has begun in earnest.

"I have this vision of it being one of our great tourist attractions," Best says.



The Weiss air pump is located at the bottom of vertical generator No. 2.  
(Benjamin Benschneider / The Seattle Times)

In addition to the windows and doors, City Light also plans to rig up a decent heating system and make the roof watertight, among other improvements, with a two-year budget of about \$400,000. The aim is to make improvements, but retain the things that make the place unique.

“Our job isn’t really to make things better,” Swenson explains. “As much as possible, we want to retain the historic fabric.”

The National Park Service workers have been through this routine before, on a number of other historic preservation projects in the Northwest. Their work is meticulous, repetitive and painstakingly slow.



Control panels for Generator 1 and 2. Boiler room is beyond red fire door. The Georgetown Steam Turbine

In the 21st century, this is not how we typically do things. We are accustomed to technology changing before our eyes. The iPhone 4 makes way for the 5 and 6 and 7 in no time flat. What's old is tossed out. The thing that Georgetown reminds us is, 100 years ago, technology was changing just as quickly. But both the building and the machinery were designed to endure — and have. “Their survival” the National Landmark nomination says of the turbines, should “remind us all of a national movement into the Electric Age,” when stable supplies of electricity were key to economic growth. At the same time, the document continued, they are also “an ironic comment on how quickly what seemed paramount so soon became mundane.”

Mundane? Perhaps. But after decades of quiet waiting, the steam plant is poised for something new.

“It’s an integral part . . . ” begins one of the window-scrappers as he works.

Swenson continues: “Of who we are.”

*Maureen O’Hagan is a Seattle writer and editor. Reach her at [maureen.k.ohagan@gmail.com](mailto:maureen.k.ohagan@gmail.com). Benjamin Benschneider is a Pacific NW staff photographer.*

