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NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

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NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determination for individual properties and districts. See instruction in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Oregon Power Company's Springfield Substation

other names/site number City of Springfield Museum

2. Location

street & number 590 Main Street N/A not for publication

city or town Springfield N/A vicinity

state Oregon code OR county Lane code 039 zip code 97477

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [ ] statewide [X] locally.
(See continuation sheet for additional comments [ ].)

Signature of certifying official/Title Deputy State Historic Preservation Officer — January 5, 1996

Oregon State Historic Preservation Office

State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria.
(See continuation sheet for additional comments [ ].)

Signature of certifying official/Title

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

[X] entered in the National Register
See continuation sheet [ ].

[ ] determined eligible for the National Register
See continuation sheet [ ].

[ ] determined not eligible for the National Register.

[ ] removed from the National Register.

[ ] other, explain
See continuation sheet [ ].

Signature of the Keeper — Date

Edson H. Beall — 2-23-96

Entered in the
National Register

5.Classification

Ownership of Property
(Check as many boxes as apply)

[ ] private
[x] public-local
[ ] public-State
[ ] public-Federal

Category of Property
(Check only one box)

[x] building(s)
[ ] district
[ ] site
[ ] structure
[ ] object

Number of Resources within Property
(Do not count previously listed resources.)

Contributing	Noncontributing	
1		buildings
0		sites
0		structures
0		objects
1		Total

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

N/A

Number of contributing resources previously listed in the National Register.

N/A

6. Function or Use

Historic Function
(Enter categories from instructions)

INDUSTRY/energy facility
COMMERCE/TRADE/business

Current Functions
(Enter categories from instructions)

RECREATION/CULTURE/museum

7. Description

Architectural Classification
(Enter categories from instructions)

Late 19th & Early 20th Century American Movements: Chicago

Materials
(Enter categories from instructions)

foundation concrete
walls brick
roof asphalt
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

Narrative Description

Introduction

The Oregon Power Company Powerhouse Plant and Substation were constructed as part of a larger southern Willamette Valley electrical power system developed in 1911. In Springfield the Oregon Power Company constructed these two buildings approximately ¼ mile apart, the powerhouse positioned on the city of Springfield's historic millrace adjacent to 5th Street, and the substation on the corner of Main Street and Sixth Street downtown. The buildings were part of an electrical power transmission system stretching from Springfield to Albany, linked by a major transmission line completed by February 1911. These historically and functionally associated buildings were important in the formation of the city's twentieth century architectural character and local industrial development. They retain sufficient physical character and historic significance to convey their historic associations.

The Oregon Power Company powerhouse plant was positioned in the heart of the city's southern industrial district. On the south side of town a millrace was built in the mid-nineteenth century to foster industrial development, and was enlarged through time to meet expanding needs. Along side this millrace railroad tracks appeared at the end of the nineteenth century, solidifying the south side as an industrial zone. Soon after the turn of the century the need for electrical power development became acute for the city's expanding industry, by this time focused on industrial scale wood products production. In 1909 the H. M. Byllesby Company's representative, an Engineer White, assayed the city's electric power needs, and recommended construction of a second power plant, to supplant the Willamette Power Company's wood frame plant then operating. Actions undertaken on this recommendation resulted in the formation of the Oregon Power Company in 1910, and the construction of the new powerhouse and transmission substation in 1911.

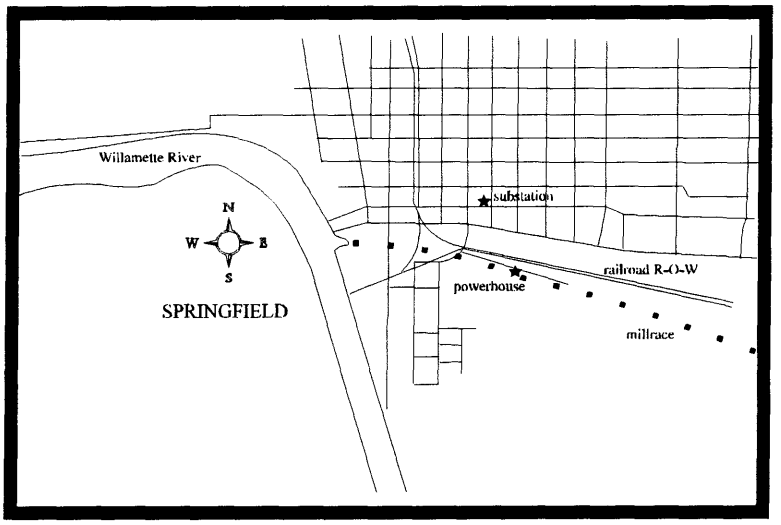

Figure 1. Location of Springfield's Oregon Power Co. substation and associated powerhouse plant..

Oregon Power Company Substation

The transmission and distribution of generated electrical power required linkages between the powerhouse and subsidiary structures. Power transmission lines ran from the Oregon Power Company powerhouse to downtown Springfield and over fifty miles beyond. The process of stepping down the very high loads of electric power transmitted by electrical lines fell to substations aligned along the power line easements. In Springfield the primary two story brick substation was located at the corner of 6th Street and Main Street (Figure 4). The

substation was built at the same time as the main powerhouse (1911), a ¼ mile southeast, and both possessed modern fire-proof construction. The substation building at 590 Main Street, now serving as the Springfield city museum, retains integrity of materials, workmanship, setting and location, and tangibly reflects the early twentieth architectural and industrial character of the city.

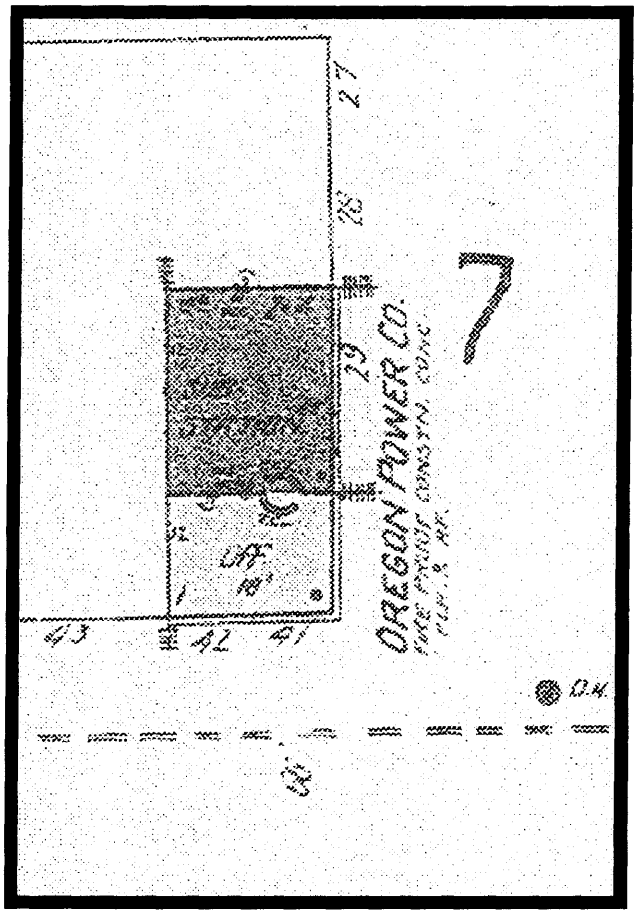

Figure 2. 1912 Sanborn plat of the Oregon Power Co. substation.

On the Sanborn Insurance Company plat produced the year after its construction (1912) the substation anchors the east side of the emerging downtown commercial district. The brick building depiction shows it divided into two main sections divided by fireproof wall and steel door. To this day the substation is a rectangular plan two story building (Photograph 1). The building's front section facade faces Main Street, and is a single story, step parapet roof section originally housing the power company's local office (Photograph 2-3). The building's rear section is two stories high, has a flat parapet roof (Photographs 4-5), and originally housed the substation electrical equipment on two floors. The rear section is attached to a two story walkway providing egress from the substation/museum second floor and ready access to Springfield's city hall. The main entry is now set on the ground level southwest corner of the building. The west elevation has no features other than the building's running bond brick cladding, and fronts a parking lot.

Resting on a concrete foundation the substation building features include common bond brick cladding. Stucco was applied (ca. 1940) over brick on the single story projecting office space. The first and second stories of the building's rear section are effectively divided by corbel brick work underlying a stone wrap-around cornice set between the first and second stories on the south and east elevations.

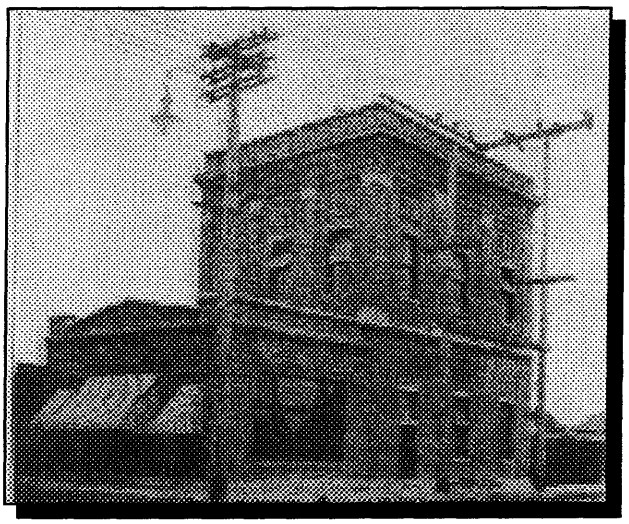

Figure 3. The Oregon Power Co. Springfield substation in 1911.

Building fenestration features 12/12 double hung sash windows; these windows are replacement sash which mimick the historic pattern. Tripartite front display windows are incorporated into the single story office section east and south elevations; again while these windows are replacements, conform to the historic pattern of window division, but are now less obvious due to mullion color no longer being white. On the lower story glass panel doors are set on the east and north elevations, and are topped by multi-light transoms. Two elevations (east and south) of the office space exterior walls have been stuccoed (ca. 1940) and exterior stenciling has been applied to roughly correspond to the original corbeled brickwork featured before stucco application. The exterior brick of the other lower story walls retain their brick cladding. While the vertical thrust of the rear section first and second stories is divided by corbel brickwork and a wraparound cornice, the office section features the stepped gable parapet on its roof, seemingly an attempt to lessen the industrial character of the building. Observed from the facade (south) elevation the first story office space exterior gives the building the look of a simple, common one-part commercial block, totally in character with this downtown setting. However, when connecting power lines were attached to the substation it was hard to disguise its industrial purpose. Without the attendant lines the building now fulfills two important functions: it bear witness to the city's commercial and industrial development, and its restrained arrangement of decorated recessed panels in between pilasters, corbeled brick work, and cornices lend it an institutional quality as a public building. The looming presence of the larger two story section makes it among the larger buildings in this small business district. In a setting that has several fine historic commercial blocks this building still stands out as it always has.

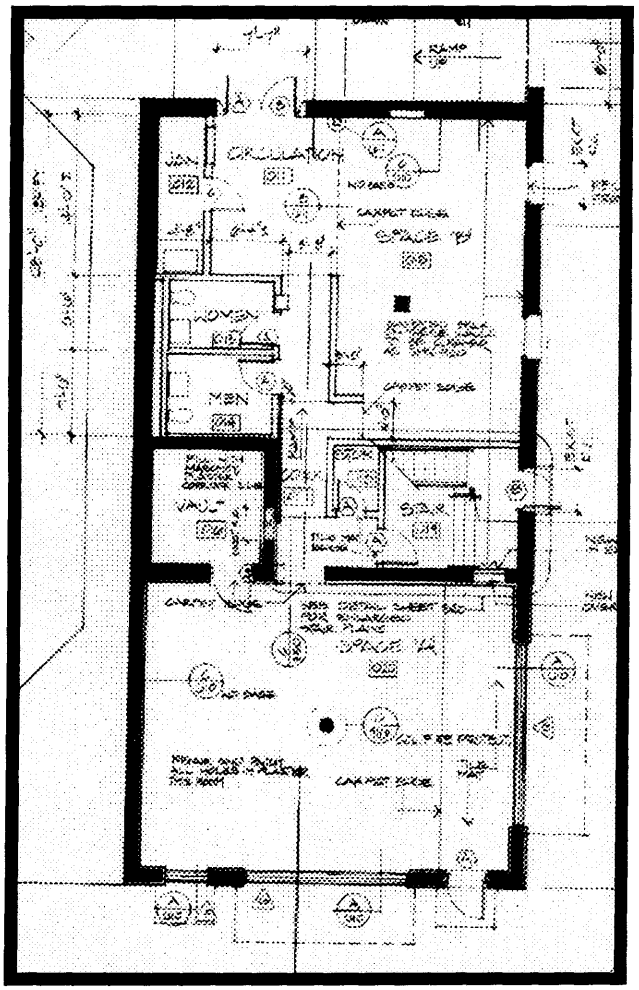

Figure 4. First floor interior plan. North is at the figure top. (Lutes/Sanetel/Architects 1980).

The second story of the rear building rises above the corbeled cornice of the lower story. The two main street facing elevations, the facade (south) and east elevation, feature white based and capped pilasters which divide each upper elevation into three bays. In each bay a single 12/12 double hung sash is set between white slip sills and lintels, and the top spandrel incorporates raised diamond-in-square brick ornamental panels. Corbel brick work above the window spandrels and pilasters forms a base to an entablature, metal cornice, and a prominent second story parapet.

The building interior is now accessed through double doors set on the northwest rear (north elevation). The 28' x 28'

space constitutes the rear half of the two story section, and is now the museum's reception area and gift shop (Figure 4). To the west a door leads into a janitors closet. A non-load bearing partition sets off the gift shop and main first story hall leading to the front room. The high ceilings of the original space have been retained and circular insulated transmission line portals are still clearly visible at the top of the east wall. An extended central hall leads from this rear room entry to the old 24' x 32' office space at the front. The steel fire door, at one time separating the front and rear spaces, has been removed (see Figure 2). The office space now houses a display area of the museum, and features large display windows in the original fenestration openings with the replacement window mullions matching the tripartite windows originally set in 1911. On the facade, a door, display window, and fixed window are set symmetrically across this south elevation. Midway through the central hall dividing the two first story rooms are restrooms, a storage vault, and a doorway, the latter opening into a stairwell housing the eastern ground floor entry and a dog-legged pattern set of stairs leading up to the second story. This upstairs space is now employed for museum displays. The upper story 32' x 38' space retains its unobstructed 25' high ceiling. A door near the northeast corner provides access to the connecting walkway leading to city hall. This walkway is part of a larger walkway structure which incorporates stairs from ground level, an elevator, and access to the city hall complex behind the museum building.

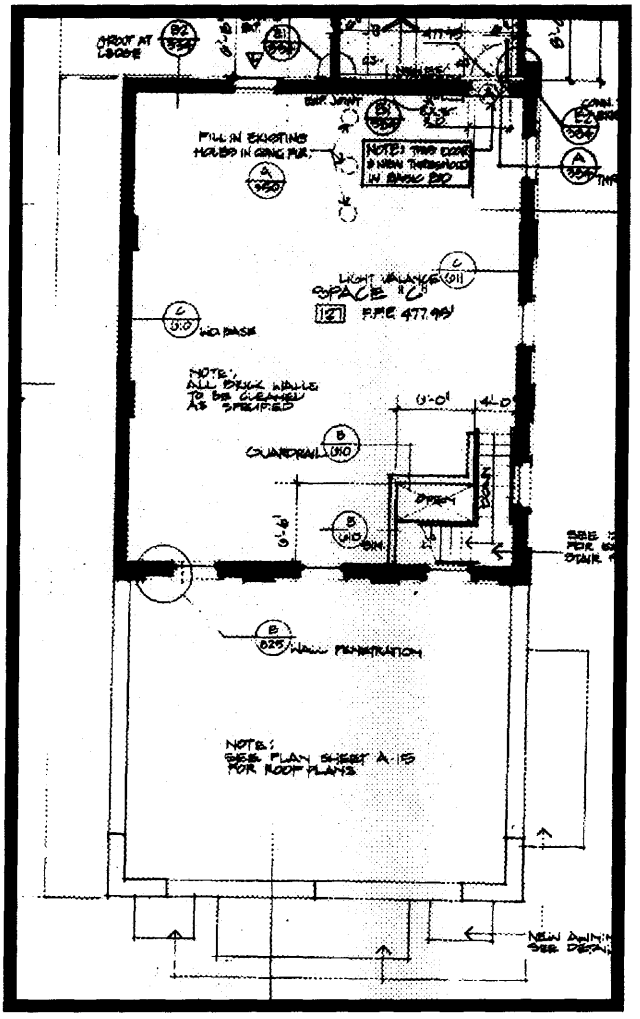

Figure 5. Second story substation interior. North is at the top of the figure. (Lutes/Sanetel/Architects 1980).

Stylistically, the substation and affiliated powerhouse plant building have been categorized as diminutive examples of Chicago School[1] building (McGinn 1990). This suggestion is certainly credible. The basic substation plan is rectangular and features terminating cornices between stories and atop the building. The relative verticality of the substation building stood in contrast to its immediate surroundings, with this aspect accented by the pilaster piers and fenestration, and restrained spandrel ornamentation. But the substation building lacks exposure of the internal skeleton and basic base, shaft and cornice arrangement Chicago School buildings so typically manifest. Also, while several of the substation display windows mimic tripartite Chicago Style windows, the remainder of

[1]Poppeliers, John C., S. Allen Chambers, Jr., Nancy B. Schwartz. Chicago School. In *What Style Is It?*. Washington D. C. : Preservation Press, pp. 72-75.

the fenestration does not repeat row after row of banded windows filling a large proportion of the wall space. Perhaps this building references aspects of then emergent Chicago School (certainly an influence with the Chicago-based Byllesby Engineering Company who built it), but it also references what has been described as Commercial Style architecture, stylistically more an identifiable type than aesthetically recognizable style, with ornamentation and surface treatment applied to standard forms as new elements or materials came into vogue (Panek; Whiffen). Actually, powerhouses and substations were in a sense engineered rather than architecturally designed. There were very real safety concerns in the older substation operations, where use of oil transformers, the threat of electrical line "spillage", and large scale transfers of electrical energy (often exceeding tens of thousands of volts) took place. Fireproof construction incorporating concrete, ceramic clay tile, and steel were among the noncombustible materials required to ensure safety and uninterrupted power production. The builder, Chicago's Byllesby Engineering, advertised itself as an engineering firm, and while favoring attractive buildings for its corporate image, was probably primarily motivated to produce functional buildings of restrained architectural expression.

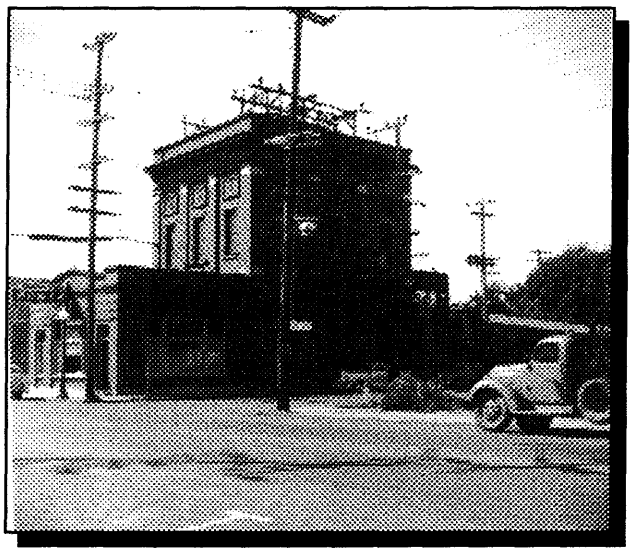

Figure 6. The Oregon Power Company substation ca. 1940. The Mountain States Power Company (a Byllesby affiliate) was housed here by this time.

In 1916 the Oregon Power Company was reorganized into the Mountain States Power Company, another Byllesby affiliate. Eventually the powerhouse and substation came into the possession of Pacific Power and Light and a sequence of private owners. By the mid-1970s the substation was being used for storage of electrical equipment, a campaign office , and small department store. The Springfield Historical Commission became involved in efforts to preserve both this building and the powerhouse in the late 1970s. When efforts by the city to purchase and renovate the adjacent Spring Village shopping center into city hall bore fruit, the substation became an integral component in downtown redevelopment largely through the diligence and prolonged effort expended by the Springfield Historical Commission. The firm of Lutes/ Sanetel/Architects refurbished the substation building for museum use and added walkway access to the adjacent city hall in 1980. This refurbishment necessitated that new spaces be integrated into the old substation, as depicted in Figures 4-5. Comparison of these figures with the historic pattern revealed on the 1912 Sanborn plat shows internal space has been reconfigured , though original walls, fenestration, and structural elements remained relatively unaltered. On the walls of the building, circular insulated transmission line conduits have been filled in, though are still readily apparent. Since the building has long since lost its original function, the web-like array of transmission lines no longer string to and from the building to distribution points through the city and beyond. As mentioned, stucco (ca. 1940) and stenciling (outlining the corbel brickwork now sheathed) have been applied to the office section of the building, although much of the character defining architectural

features of this parapet roofed section are intact, including massing, fenestration, and basic interior spacial configuration. Fenestration elements throughout the building have been upgraded with modern energy conserving replacements mimicking the historic pattern. The walkway is clearly distinct from the historic building, and subordinate to the ornamented wall planes formed by facade (south) and east elevations. Visually the building 's architectural character would be easily recognizable to a contemporary of its construction as home to the electrical substation, local utility company headquarters, and as one of the city's primary architectural reference points.

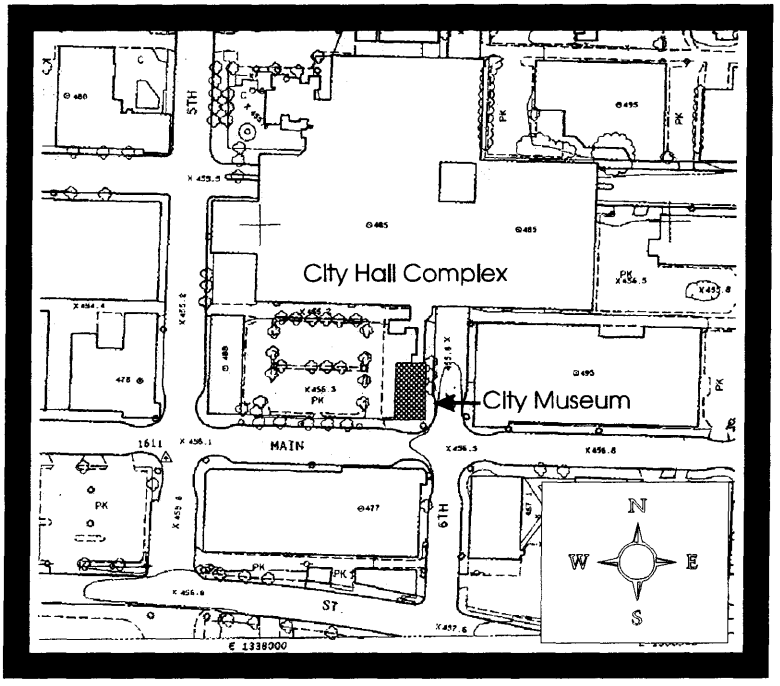

Figure 7. Substation site location in relation to adjacent features.

8.Statement of Si gnificance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[x] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history

[ ] **B** Property is associated with the lives of persons significant in our past.

[x] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

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

Property is:

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location.

[ ] **C** a birthplace or grave.

[ ] **D** a cemetery.

[ ] **E** a reconstructed building, object, or structure.

[ ] **F** a commemorative property.

[ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

INDUSTRY
ARCHITECTURE

Periods of Significance

1911

Significant Dates

1911

Significant Person(s)
(Complete if Criterion B is marked above).

N/A

Cultural Affiliation

N/A

Architect/Builder

Byllesby, H. M. & Company of Chicago

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

Previous documentation on file (NPS):

[ ] preliminary determination of individual listing (36 CFR 67) has been requested

[ ] previously listed in the National Register

[ ] previously determined eligible by the National Register

[ ] designated a National Historic Landmark

[ ] recorded by Historic American Buildings Survey
#_____

[ ] recorded by Historic American Engineering Record
#_____

Primary location of additional data:

[ ] State Historic Preservation Office

[ ] Other State Agency

[ ] Federal Agency

[ ] Local Government

[ ] University

[ ] Other:
Name of repository:
_____

The Oregon Power Company Substation is eligible for the National Register of Historic Places under criteria A and C, within the areas of INDUSTRY and ARCHITECTURE. The two story building at the corner of 6th and Main Streets in downtown Springfield embodies the early twentieth century industrial development and architectural expression of the city's second major era of expansion. On the local level of significance the substation's appearance, and that of its associated millrace power plant, evidence a pattern of assimilation common to early twentieth century American communities, where electrification penetrated the industrial, commercial and domestic spheres of life. The building is also associated with the expansion of southern Willamette Valley electrical power distribution, being a critical element in the rapidly expanding network of electrical, gas, and water utilities built and managed by Chicago's H. M. Byllesby and Company; operations then subsumed under the name Oregon Power Company. The current Springfield Museum is housed within the building, and attests to the prominent role this building has always played in defining the downtown commercial district 's architectural character. The building has clear historic associations, retains substantive architectural character, and has been adaptively used in a sensitive manner.

The Oregon Power Company Substation is functionally and historically related to the remnant portion of the nearby Oregon Power Company Springfield Powerhouse (1911). Due to their being separated by ¼ mile distance the decision was made to register the two buildings separately. The history of the Oregon Power Company is relevant to each building, therefore correspondence between this significance section and that of the powerhouse registration form is marked. Additionally, these two buildings are linked to a major, historically intact, Oregon Power Company substation in Albany, Oregon, and raises the possibility of other extant Willamette Valley historic resources. While time constraints preclude addressing these other properties, the multiple resources associated with these historic pattern of events merit future study and possible registration.

American electrical power development comes to Oregon

In a then audacious move, Oregon capitalist Henry Villard's trip to Thomas Edison's Menlo Park, New Jersey laboratory inspired him to electrify his newest steamer *Columbia,* then under construction. In July 1880 the ship's arrival in Portland showed how just a public display of electrical power was a potent force in shaping the media's and public's imagination, as the *Oregonian* hailed the technological exhibition in glowing terms. Villard had successfully garnered the first practical application of Edison's new technology, there would be more to come, and this event harbingered a future perhaps few Oregonians could envision. The formation and growth of Oregon's electrical power network would recast its home life, industry, and transportation into modern terms, and the Oregon Power Company was an integral component in this transformation.

When English scientist Michael Faraday fabricated the first electrical generator in 1821 the groundwork was laid for electrical power production on a practical level. However, it was not until the last quarter of the nineteenth century that knowledge of transferring mechanical to electrical energy could be suitably harnessed for light production. Development of electric telephony was dependent on only a small amount of electrical power, so the invention of the Morse telegraph (1837) or Bell's telephone (1876) could be realized without great power generation. Electrical power generation capable of sustainable lighting and industrial power production awaited the genius of Edison. Setting up what was arguably the first research and development laboratory Edison and his

staff had perfected the incandescent light by 1879. He quickly set about fashioning the circuitry to distribute electrical power to an array of points. He then moved to profit from his new invention, establishing the first commercial power station (1882) which provided lighting to eighty-five customers in the Wall Street financial district of New York, a purposeful choice to secure financial backing. The American electrical power industry was born.

Edison was the major proponent of employing direct current (DC) electric and machinery in his operations. He was confronted by competitors who astutely showed alternating current (AC) was much more practical and safe. The primary determinant in the eventual success of AC was that it was much more flexible in use, and capable of being distributed over wide distances. George Westinghouse and emigre-scientist Nicholas Tesla teamed to produce AC based generating equipment and countered Edison's prolonged, and unscrupulous, propaganda campaign against AC current. Westinghouse's masterful display of the flexibility and adaptability of AC machinery and circuitry at the 1892 Chicago World's Fair was the death knell of substantial DC power development in the United States.

By the 1880s moves to produce electrical power for consumer use in Oregon were underway. Scouting out the potential for supplying electrical power in Portland a group of entrepreneurs led by Parker F. Morley set out to found a utility company. Defying obstacles and a skeptical public Morley and his associates formed U. S. Electrical Light and Power Company in 1884 (Wollner 22). The firm quickly obtained the street lighting franchise in Portland and began to supply local incandescent lighting needs. The merger of US Power and the Oregon City Electrical Company (1888) under the name Willamette Falls Electric Company would open a new chapter in Oregon power history. In hiring engineer W. C. Cheney the newly formed company obtained one of the few experienced hydro-electric engineers capable of building such a powerhouse on Willamette Falls. Cheney oversaw the construction of the power station and transmission line extension to Portland, fourteen miles distant. An early advocate of AC current, Cheney ordered six massive alternating current generators from George Westinghouse's company for the powerhouse. The plant was completed, transmission lines strung, and on June 4, 1889 the first long distance transmission of electricity from Willamette Falls to Portland took place without complications. DC current was distributed first, with AC current conveyed by September the next year (Wollner 26). The first large scale electrical power transmission system had been set into operation in the Willamette Valley.

Culture historian David Nye (1990, 26-28) drew on the example of America's Middletown, Muncie, Indiana, as an exemplar for the process of electrification among the nation's small towns. Nye persuasively presents Muncie as a typical town where the sequence of electrical development followed a fairly well defined path. In most American communities late nineteenth century electrification began with a small series of privately funded initiatives providing a limited amount of power, like that of Portland's U. S. Power providing electricity to a select number of commercial or residential Portland consumers. Often communities might coevally begin a small scale street lighting or electrical transit company under public ownership. Experimentation with both both AC and DC systems were the rule in these early years, and the power station might be located in a basement, simple wood structure or modest spare building. First to be illuminated were public spaces, select commercial

operations, and the homes of the well-heeled. Public displays of electrical lighting drew large crowds before the novelty wore off. Overall, however, the direct impact of electricity on common residential life was limited initially, as only one in ten urban American residences had electricity by 1910 (Nye 239). Also, it was not until the beginning of the twentieth century that electrical power began to make substantial inroads into industrial power production. In 1900 scarcely 4% of industrial production was dependent on electrical power (though interior lighting was quickly adopted). Correspondingly, in the 30 years after Edison's first commercial electrical power facility was put into operation the impact of electrical power generation on the average American's life was limited. This was to change. At the close of the 1920s most urban American homes would be wired into electrical power networks. Industrial use of electricity for power would grow from the 4% in 1900, to 50% by 1920, and 85% by 1940. The transformation process that Nye describes as electrifying America owed a great deal to electrical power networks built in the two decades between 1910-1930, Springfield's own Oregon Power Company facilities were a part of this national transformation..

Springfield, Oregon development, industrial improvements and electrical power

The city of Springfield developed off a plat set in 1859, and developed into an incorporated city by 1885 (Sekora 12, 16). The city's growth was slow, and the town mainly served as a local agricultural service center and fostered small scale industry concentrated by a millrace first developed in 1853-4. With nearby Eugene securing the Oregon & California Railroad depot in 1871, Springfield stagnated, showing slow but persistent population growth to the end of the century. A ferry across the Willamette River was the main link to Eugene, the nearest rail outlet, until a bridge spanned the river in 1875. A series of other bridge improvements appeared in subsequent years. Industry sustaining the local economy included flour milling, saw milling and wood products manufacturing (Sekora 15). Entering 1890 Springfield's newly defined official boundaries showed the population was a little under 400 residents. In 1891 the town's fortunes took a turn for the better, as the Southern Pacific Railroad arrived from nearby Coburg, with a track extending to Wendling by 1900. A corresponding surge in population showed nearly 1400 residents in the town by 1910.

Coeval with the arrival of the Southern Pacific Springfield's future was further brightened. The prospect of a major industry came as native sons George and Tom Kelly returned from the Grants Pass area to embark on creating what became the Booth-Kelly Lumber Company. Joining in partnership with Robert and Henry Booth the brothers incorporated the lumber company in 1896, secured a Springfield mill by 1901 (which was quickly refurbished), and in the next year began full-scale production (Clarke 46-55; Sekora 19). From this time on the company would be a mainstay of the Springfield economy, albeit Booth and Kelly's direct control lessened when they secured outside capital. Their initial improvement of the south Springfield mill complex fixed this area's character as the community's primary industrial district. It also required serious consideration be given to securing sustainable power to run the mill and its ancillary operations. The old millrace was inadequate to produce the level of power required in this size of industrial operation. Correspondingly, a steam plant was hastily built to power the sawmill operation. With heightened production came a new challenge in scrap waste disposal. The mill owners turned this challenge into an opportunity to expand power operations.

The Eugene Electric Light Company (later Willamette Power Company) was recruited to build a wood-fueled

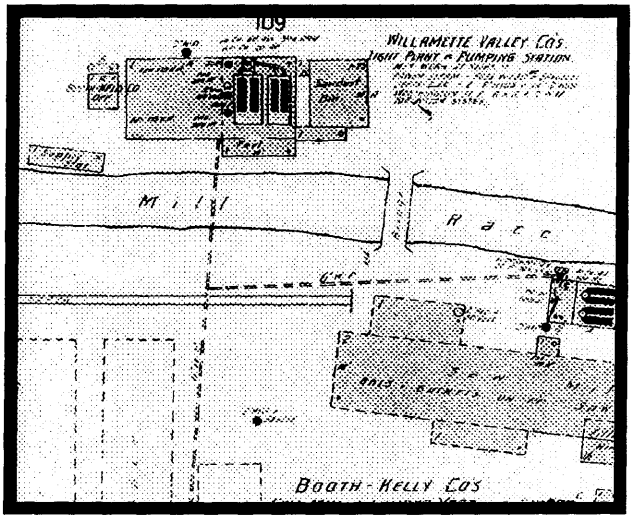

Figure 1. The town's first major power plant as shown on the Sanborn plat of 1907. The plant appears to have been just west of the current powerhouse location.

power plant for electrical production. By 1907 a $200,000 plant was completed and electric power production begun. The city benefited from this arrangement by securing street lighting via a franchise and the operation of electric-powered pumps for filling the city's main reservoir atop Old Baldy/Springfield Butte.

Meanwhile, what had been the city's primary business district along Mill Street shifted eastward in the first decade of the new century. Main Street rose in prominence as the town's commercial hub, and platted additions began to appear which shifted city growth east and north of the Willamette River (Sekora 13, 18). In the first two decades of the twentieth century the town experienced unprecedented growth, with businesses expanding from 34 in 1907 to 96 by 1920, and population rising from the 1890 level of 400 to just below 2000 by the early 1920s (Sekora 23). The preponderant number of these new inhabitants were employed by Booth-Kelly Lumber Company, leading to the appellation "Mill City" for Springfield (Sekora 19).

By 1909 the need to extend the Willamette Power Company's power plant capacity became acute, and new options were solicited as to the city's and local industry's future power needs. Springfield community leaders and Booth-Kelly representatives consulted with a representative of H. M. Byllesby Company, engineers and managers of electrical, gas and water utilities across the United States. Byllesby Engineer White's on-site inspection determined the city's needs were ill-served by the current arrangement, and he recommended the construction of a larger fireproof power plant and ancillary buildings to meet the rising power demands of Springfield's residential and industrial growth (Clarke 52; McGinn). With corporate headquarters in Chicago, H. M. Byllesby's firm had been formed in 1902. An early associate of both Edison (1881-1885) and George Westinghouse (1885-1891) Henry M. Byllesby himself had been directly involved in the formative years of the Portland General Electric Company (President, 1891-94), and the construction of the Willamette Falls power plant (*Byllesby Monthy News*; Wollner 26). In 1910 his engineering consulting and management firm expanded its Oregon operations by incorporating the Oregon Power Company in conjunction with maintaining Portland offices (Polk 307, 1765; Railroad Commission-Oregon 221, 226, 228). The company was correspondingly poised to provide just the services the firm's consultant recommended to the Springfield leaders.

Determined to play an integral role in development of Oregon utilities, the Oregon Power Company embarked on a prodigious south Willamette Valley expansion program between 1910-1911. This expansion was directly tied to the creation of Springfield's powerhouse and substation/office, and a network of Oregon Power Company affiliated operations stretching from Springfield north to Albany, Dallas, and numerous points in between. This

expansion would invest over $500,000 in plant and line construction and would transmit electrical power throughout the southern valley at a level theretofore unrealized, providing sufficient capacity to illuminate the residential and industrial sectors of each community (EGD 3/30/1911).

Beginning in the winter of 1911 Byllesby's affiliate Oregon Power Company began construction on what would become the mainstay of their southern Oregon network, the Springfield powerhouse. Awarding the contract to Sherman and Hunter, Eugene contractors, the powerhouse building was begun just east of the older frame powerhouse and immediately north of the Booth-Kelly lumber mill (General News-EW 512). At the same time work on a high capacity transmission line was begun from Springfield to extend northward. Eventually stretching over fifty miles the copper transmission line linked the future plant to Coburg, Harrisburg, Junction City, and terminated in Albany. Completed in February 1911 the line would become a critical link in distributing the Springfield power plant's electricity upon completion (EDG 2/22/1911).

Securing franchises for electrical service was critical to securing profitability. Oregon Power Company obtained franchises along its route by entering into negotiations with local municipalities. It first secured a franchise at Halsey (July 1911; JEPG 21), and later added Tangent, and Shedd as well as other transmission line communities. Oregon Power officially applied to Springfield for a franchise in March, but the city did not enter into a five year franchise agreement with the utility until May 1911(EDG 3/12/1911; 5/12/1911). Consolidation of electrical power plants was also critical to success; correspondingly Oregon Power Company bought out established utilities aligned along its proposed southern Willamette Valley transmission route. For instance, purchase of the Coburg plant (JEPG 192), the Harrisburg and Junction city systems (EDG 3/30/1911), and Brownsville's plant (General News EW 691, 1002; JEPG 343) lessened competition for Oregon Power in its new venture.

During the late winter and early spring local newspapers chronicled the progress of the new Springfield power plant and substation construction. With the completion of the south valley transmission line Oregon Power concentrated primarily on the Springfield buildings themselves. In March, brickwork had reached the powerhouse roof line and second story level of the Springfield substation (EDG 3/16/1911). By early May Oregon Power trumpeted the near completion of the power plant and substation in an advertisement in Eugene's newspaper (EDG 5/14/1911). However, local papers were strangely mute on the actual completion of the powerhouse and substation. Both facilities were in operation when a disastrous fire swept through the Booth-Kelly complex on July 29, 1911. The powerhouse remained unscathed except for incinerated power lines, clearly justifying the expense of fireproof construction (EDG 7/29/1911). In the early summer of 1911 the Oregon Power Company had successfully completed the major components in their southern Willamette Valley utility network. By December this accomplishment would merit detailed treatment in the region's main utility periodical, the *Journal of Electricity, Power & Gas*, a San Francisco-based publication serving the entire Pacific states region (Halloran 1911).

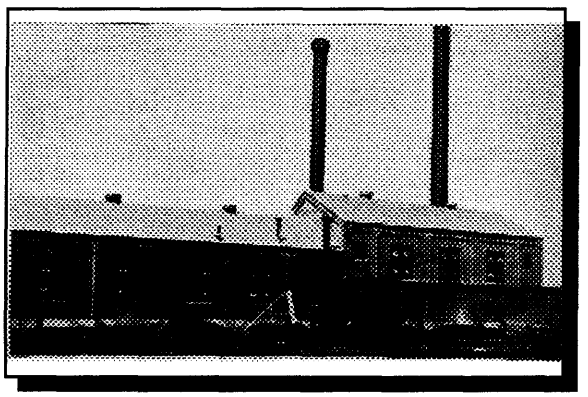

Figure 2. The powerhouse soon after construction in 1911.

The new Springfield power plant and substation were featured elements of the article. The powerhouse steam power plant had a 3,000 kilowatt capacity from three steam turbine units. These units were operated in conjunction with a horizontal Curtis turbine generator (2,500 k.v.a.), two 500-kw horizontal Allis-Chambers machines, and three 35-kw, 125 volt dynamos driven by horizontal Curtis turbines. The plant fuel requirements was filled by sawdust and scrap lumber from the nearby mill. A special conveyor system was employed to deliver the wood fuel to the boiler's dutch ovens in the steam plant. The generated electricity was conveyed from the plant via copper transmission lines stretching 2,500 feet northwest to the Springfield substation. The 33,000 volt power arriving at the substation was transferred through transformers and conveyed at varying voltages (11,550-33,000 volts) via the aforementioned transmission line to distribution point substations northward, and stepped down to power the city's own electrical power grid. The article goes on to state that Albany's substation conveyed power to Corvallis and Philomath, that Dallas was nearly integrated into the system, which would extend service to Monmouth and Independence, making the entire system span more than 75 miles in distance. Lastly, the new powerhouse also provided power for Springfield's city water works, powering deep well water and conveying it by pipes to the city's primary reservoir. In addition, the city gas supply was run by Oregon Power, who normally attempted to provide the fullest array of utilities to each of its service communities.

At the time of its construction the Oregon Power Company substation building was the eastern anchor for the newly emerging Main Street downtown business district. Springfield's commercial development originally focused on Mill Street, but the twentieth century brought dramatic change to the town, as Main Street increasingly drew new businesses and residential development shifted eastward. The construction of the Bell Theater (1910), Fry & Rankin Building (1911), Sutton's Place (1909) and Oregon Power Company office/substation (1911), among other commercial properties, helped reorient the commercial focal point of the city. The 1910 extension of the Portland, Eugene and Eastern Railway interurban line into the downtown added to Springfield's emerging urban character.

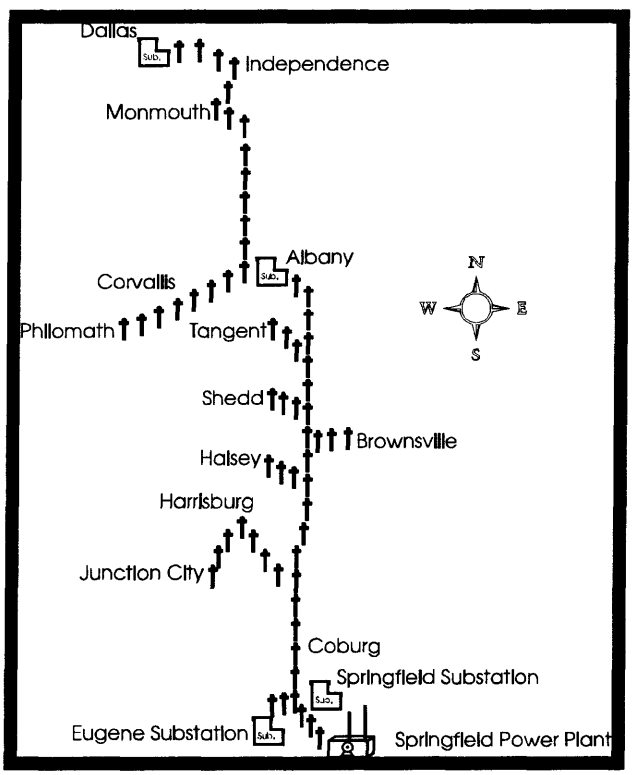

Figure 3. The extent of Oregon Power Company's Willamette valley network in 1914.

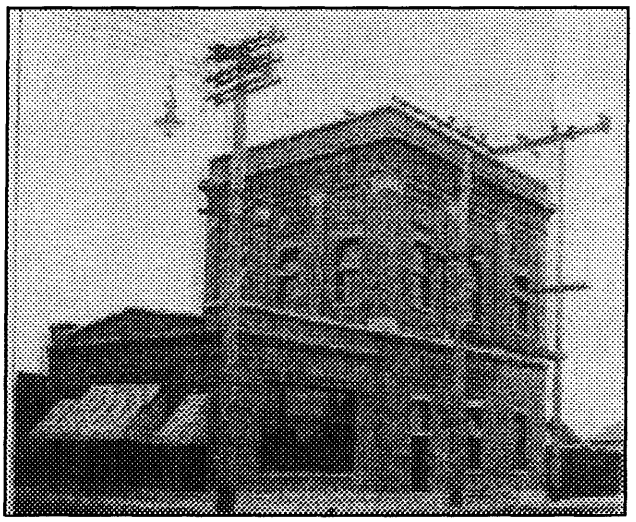

Figure 4. The Oregon Power Company Substation soon after completion in 1911.

Architecturally, the substation acted as a visual reference point on the eastern downtown area. Comparatively speaking the building was in contrast to a number of simple two-part commercial blocks aligned along Main to the west. Between 1907-1912 the 200-300 blocks of Main became the anchor of the emerging twentieth century commercial district, with the I.O.O.F. Block, Bell Theatre, Master Woodmen's Lodge Block, Fry and Rankin Block and Stevens-Perkins Building all conforming to the rectangular plan, two story and rudimentarily ornamented commercial style building commonly found in downtown districts. Contrastively, the substation could be defined as an amalgram, in its representing a small-scale version of Commercial Style architecture with the facade office section representing a one-part commercial block subordinate to a vertically projecting two-story rear section. The Commercial Style in actuality is more an identifiable type than an aesthetically recognizable style, with ornamentation and surface treatment applied to standard forms as new elements or materials came into vogue (Panek; Whiffen). Perhaps this building references aspects of Chicago Style (certainly an influence with the Chicago-based Byllesby Company which built it), in its basic rectangular plan with a terminating cornice, spandrel ornament, and verticality the building stood in contrast to its immediate surroundings. The latter aspect was accented by the pilaster piers and fenestration found on the primary elevations. However, powerhouses and substations were in a sense engineered rather than architecturally designed. There were very real safety concerns in the older substation operations, where the use of oil switches and transformers, the threat of electrical line "spillage", and large scale transfers of electrical energy (often exceeding tens of thousands of volts) took place. Fireproof construction incorporating concrete, ceramic clay tile, and steel were among the noncombustible materials required to ensure safety and uninterrupted power production. The builders, Chicago's Byllesby Engineering, advertised itself as an engineering firm, and while favoring attractive buildings for its corporate image, was probably primarily motivated to produce functional buildings of restrained architectural expression.

With the completion of the Oregon Power substation and powerhouse Springfield fully entered into the modern electrical era. The significance of the substation lies in it appearance on the scene as an important architectural component in the formulation of a Main Street commercial district, and in embodying an significant element in the twentieth century industrial development of Springfield. The relevant National Register period of significance is correspondingly limited to the substation's first appearance in Springfield; namely the year 1911. However, the Oregon Power Company continued operations under its name until 1916, when the company came under the control of Mountain States Power, another Byllesby affiliate serving the wider mountain West, and maintaining their main Oregon office in Albany (Railroad Commission-Oregon 1917, 192). Both Oregon Power and Mountain States continued to dispense electricity, natural gas, and water to southern Willamette Valley communities. Just before the onset of World War II a comprehensive survey of Oregon electric power generating

plants recorded the Springfield plant as one of two steam-powered generating plants operated by Mountain States Power (the second was located at Tillamook). The plant was capable of generating over 4,000,000 kw hours in power in the previous year, still employed wood fuel, and was furnished with two power units possessing a 7,000 kw power generating capacity (Federal Power Commission). In 1954 Mountain States Power Company was merged with Pacific Power and Light (Gillespie 1985, 5).

Efforts to preserve the Oregon Power Company powerhouse and substation were made by the Springfield Historical Commission in the late 1970s. By 1975 the old substation was being used for electrical equipment storage. At the millrace powerhouse the ancillary storage and conveyor system, originally funneling wood fuel to the old steam boilers, was demolished in 1976. Shortly thereafter the eastern one-half of the old powerhouse--the old steam boiler section itself--was slated for demolition in August, 1978. The historical commission interceded in a last ditch effort to save the old powerhouse, which had severely deteriorated over the years. Though expressing sympathy with preservation, the owners of the powerhouse, the Springfield Utility Board, nonetheless felt safety and financial considerations demanded the eastern section of the powerhouse be torn down. This accomplished, the board has preserved the western half of the powerhouse, adaptively employing this section as a city's water pumping station.

The move to preserve the downtown substation met with better success. First, the property was granted local landmark status by the Springfield Historical Commission. Subsequently, the local architectural firm Lutes/Sanatel/Architects proposed to integrate the substation into a wider 1980 redevelopment scheme. This proposal would refurbish the nearby Spring Village shopping center into a city hall center. The substation would serve as a city museum linked to the city hall via a two story walkway. The city accepted the proposal, preserved the substation, and opened the museum under a full-time director in 1981. The substation has served as the city museum since that time.

Sources Referenced & Consulted

Clarke, David W. *The Springfield Millrace and Early Mills.* Springfield, OR: Springfield Historical Commission, 1983.

Electric World (Editorial staff). *The Electric Power Industry, Past, Present and Future.* McGraw-Hill: New York, 1949.

Federal Power Commission. *Directory of Electric Generating Plats, January 1941.* Washington, D. C.: Government Printing Office, 1941.

Gillespie, Glenn (ed.). *The Pacific Power Story, 75 Years of Service.* Portland: Pacific Power, 1985.

Northwest Electric Light and Power Association. *Proceedings of the Fifth Annual Convention.* Portland: Published by the Association, 1912.

Nye, David E. *Electrifying America: Social Meanings of a New Technology, 1880-1940.* Cambridge, MA:MIT Press, 1990.

Panek, R. T. *American Architectural Styles, 1600-1940.* Dover, MA: Architectural Styles, 1976.

Polk, R. L. & Company, Inc. *Polk's Portland City Directory.* Portland: R. L. Polk, 1911, pp. 307, 1765.

Railroad Commission of Oregon. *Seventh Annual Report.* Salem, OR: State Printing Department, 1914.
---. *Eighth Annual Report.* Salem, OR: State Printing Department, 1915.
---. *Tenth Annual Report.* Salem, OR: State Printing Department, 1917.

US Department of Commerce, Bureau of the Census. *Central Electric Light and Power Stations and Street and Electric Railways.* Washington D. C.: Government Printing Office, 1912.

US Department of Commerce & Labor, Bureau of the Census. *Central Electric Light and Power Stations.* Washington D. C.: Government Printing Office, 1905.

Whiffen, Marcus. *American Architecture Since 1780: A Guide to the Styles.* Cambridge, MA: M.I.T. Press, 1969.

Wollner, Craig. *Electrifying Eden: Portland General Electric, 1889-1965.* Portland: The Oregon Historical Society, 1990.

Newspapers

Albany Evening Herald [AEH]
March 18, 1911

Eugene Daily Guard [EDG]
January 28, 1911
February 6, 1911
February 22, 1911
March 12, 1911
March 16, 1911
March 29, 1911
March 30, 1911
May 5, 1911
May 9, 1911
May 12, 1911
May 13, 1911
May 14, 1911
June 11, 1911
June 19, 1911
July 29, 1911

Eugene Weekly Guard [EWG]
April 30, 1911
May 28, 1911
July 9, 1911

[Eugene] *Twice-a-Week Guard* [TWG]
January 23, 1911
January 28, 1911
February 26, 1911
February 6, 1911
February 13, 1911
February 20, 1911
February 26, 1911
March 16, 1911
March 30, 1911

Eugene Register Guard [ERG]
[All On File, Lane County Historical Society Museum, Clippings File]
"Old power stations may be preserved." August 4, 1978.
August 8, 1978
September 7, 1980
"Study may generate county museum." n.d.
"New museum prposed for old PP & L building." n.d.

Maps

Sanborn Map Company. Springfield, Lane County, Oregon, 1907. On File, Kerr Library, Oregon State University, Corvallis, OR.
---. Springfield, Lane County, Oregon, 1912. On File, Kerr Library, Oregon State University, Corvallis, OR.

Periodicals

Adams, C. F. Fireproof Substations. *Journal of Electricity, Power, and Gas* 26.6 (Feb. 11, 1911):130-131.

Byllesby Monthly News. 4.4 (May 1924):2-11.

Byllesby Convention in Chicago. *Electrical World* 57.4 (Jan. 26, 1911): 15-16.

General News. *Electrical World.*[EW]
February 23, 1911
March 16, 1911
April 6,1911
April 20, 1911
September 30, 1911
October 14, 1911

Industrial and Commercial News. *Electric World* [EW]
April 6, 1911

Halloran, A. M. The Oregon Power Company. *Journal of Electricity, Power and Gas* 27 (24) (December 9, 1911):545-549.

News Notes. *Journal of Electricity, Power, and Gas.*[JEPG]
February 15, 1911
February 25, 1911

April 1, 1911
April 15, 1911
May 20, 1911
June 24, 1911
July 1, 1911
July 15, 1911
July 22, 1911
August 12, 1911
September 16, 1911

Trade Notes. *Journal of Electricity, Power, and Gas.* [JEPG]
August 19, 1911

Miscellaneous

Chicago Historical Society. H. M. Byllesby [Biographical File]. On File, Chicago Historical Society, Chicago, IL.

Lutes, Sanetel, Architects. Springfield Civic Center [Architectural Plans]. On File, City of Springfield Museum, Springfield, OR.

McGinn, Barry. Springfield Utility Board Steam Plant. [1990]. National Register of Historic Places Registration Form. Ms. on File, City of Springfield, Community Development Department, Springfield, OR.

Sekora, Lynda. *Springfield, Oregon Historic Context Statement.* Ms. On File, City of Springfield, OR. 1991.

10.Geographical Data

Acreage of Property .15 acre Eugene East, Oregon 1:24000

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
A.	10	498620	4876800	B.			
C.				D.			

[ ] See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Hugh Davidson

organization Public Historian date June 1995

street & number 427 SW Madison, Suite D-200 telephone 503/754-7751

city or town Corvallis state OR zip code 97333

Additional Documentation
Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with the SHPO or FOP for any additional items)

Property Owner
(Complete this item at the request of SHPO or FOP.)

name City of Springfield

street & number 225 North Fifth Street date June 1995

city or town Springfield state Oregon zip code 97477

Verbal Boundary Description and Justification

The boundaries of this historic building, the Oregon Power Company Substation, are restricted to a significant portion (East 24' and West 31') of Lots 7-8, Block 9 of Kell y's Addition, Springfield, Oregon. The lot parcels contain only this building and comprises the historical site and setting associated with the property. The lots encompass approximately .15 acre.

According to the above description, the nominated area is otherwise identified as Tax Lot 8500, Section 35, Township 17 South, Range 3 West of the Willamette Meridian, in Springfield, Lane County, Oregon.

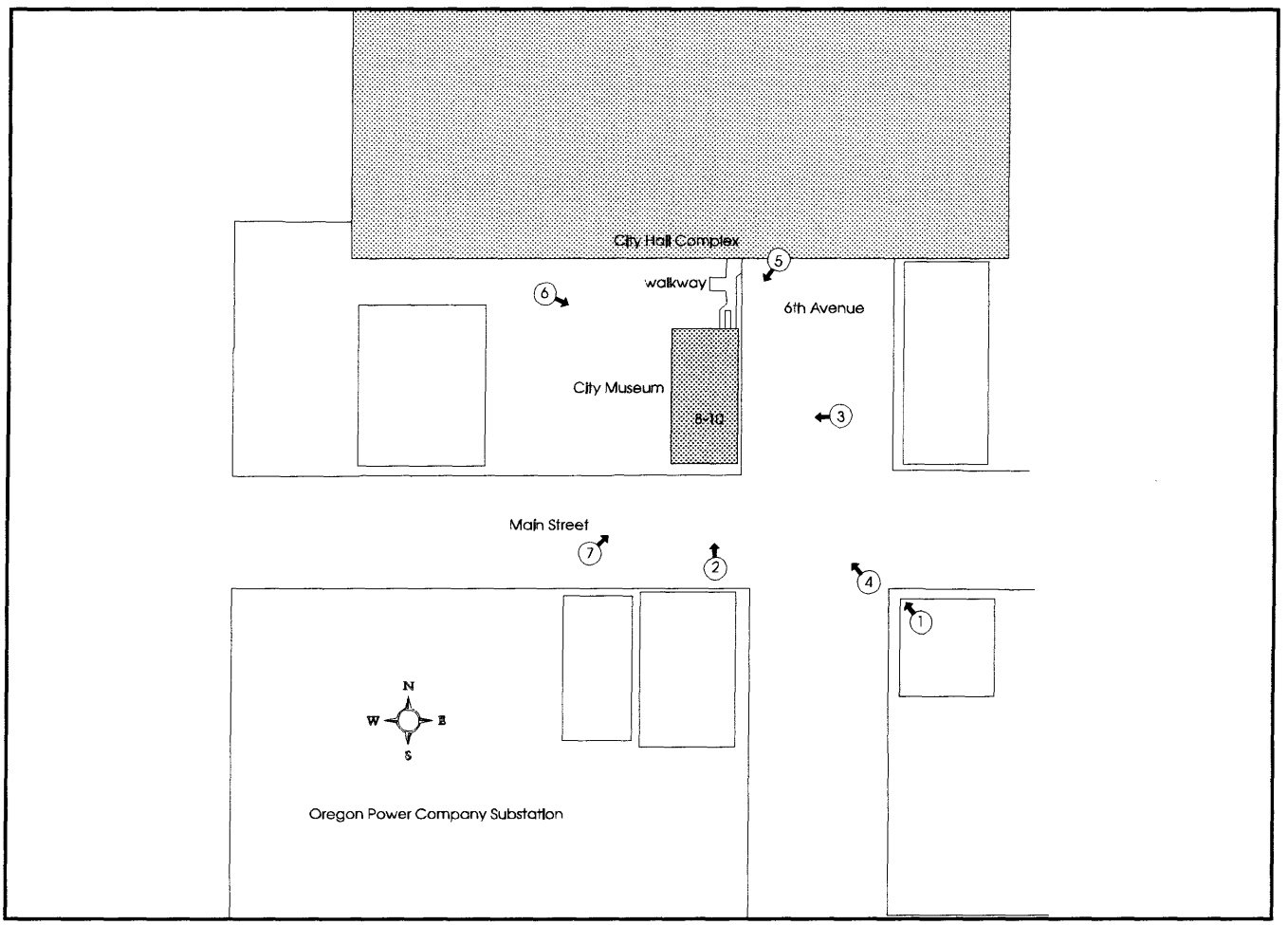

Figure 1. Location of photographs taken.

All photographs include the following information:
Property: Oregon Power Company Springfield Substation
Location: Lane County, OR
Hugh Davidson
June 1995
Negatives: City of Springfield, OR Development Services Department

Description: substation, view NW
Photograph Number: 1

Description: substation facade (south) elevation, view north
Photograph Number: 2

Description: substation east elevation, view west
Photograph Number: 3

Description: substation second story south and east elevations, view NW
Photograph Number: 4

Description: substation east and north elevation, view SW
Photograph Number: 5

Description: substation west elevation, view SE
Photograph Number: 6

Description: substation west and south elevations, view NE
Photograph Number: 7

Description: interior near main (north) entry, view SE
Photograph Number: 8

Description: interior of first story museum display area (south room), view SE
Photograph Number: 9

Description: interior of second story museum display area, view SW
Photograph Number: 10

See Map 17 03 35 2 4