

# PRAIRIE LINE TERMINAL SECTION

CATALOG OF CHARACTER-DEFINING FEATURES



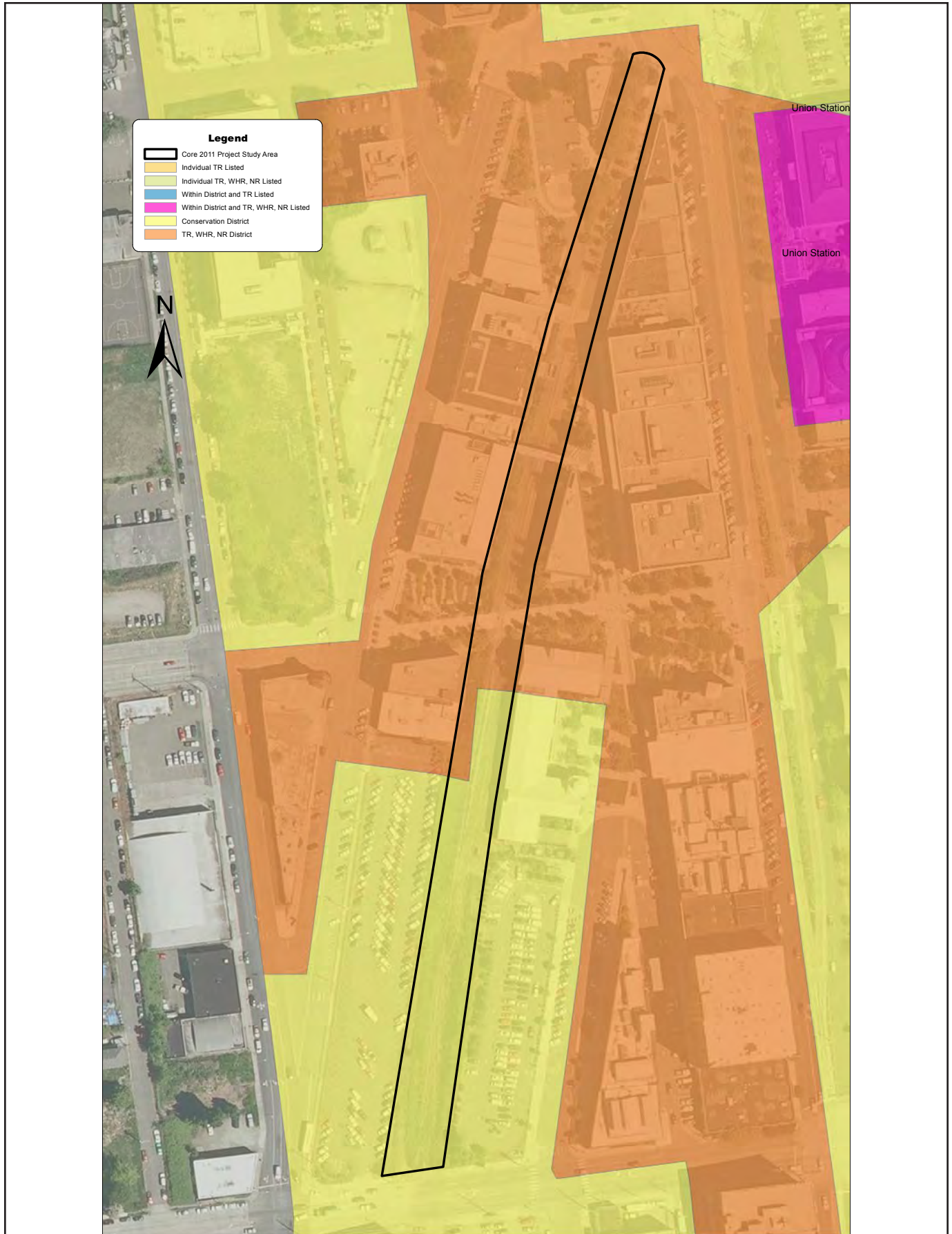


# METHODOLOGY

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Project team members included Michael Sullivan, Principal, Spencer Howard, Partner with expert consultation and historic images provided by Jim Frederickson, Brian Ferris, Chuck Soule, and Daniel Cozine.

Artifacts Consulting, Inc. staff conducted site visits surveying the length of the property in February of 2011. Staff digitally photographed character-defining features and spaces and compared existing features with historic right-of-way drawings and maps. Project team members consulted with University of Washington Tacoma personnel on proposed work, as well as past alterations. Staff conducted archival research at local repositories including the Washington State Historical Society, Tacoma Public Library, and the Washington State Library to identify additional background materials, historic photographs and original drawings. Report writing, layout and production were undertaken, February through April, 2011.



# 1.0 CATALOG



*Downtown crossing. Source Jim Frederickson.*

The following sections introduce the Prairie Line's history and physical components. The historical significance section provides contextual background to aid in understanding the operation and influence the Prairie Line, Terminal Section exerted on the community at large and the immediate vicinity. The catalog of character-defining spaces and features that gives an overview of the line's general configuration and the major components to aid in locating and understanding working interactions of these individual parts.



Undated rendering of the Tacoma Hotel. Source: Chuck Soule, Jim Bell Collection.



# 1.1 HISTORICAL SIGNIFICANCE

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The Prairie Line is the name given to the section of the Northern Pacific Railroad that runs from Tenino Washington to the terminal city of Tacoma. This section of tracks was laid in 1873 and brought the northern transcontinental railroad to its western conclusion at the Pacific Ocean. While the name refers to the direct, expedient route of the line across the “burnt prairie” east of the Nisqually River delta, it is most commonly associated with original path of the railroad through downtown Tacoma.

The diagonal score of the Prairie Line that cuts across Tacoma’s south downtown hillside can be thought of as the stopped hand of a clock. It precisely marks a very specific moment in the history of the northern transcontinental railroad and the development of the American far west. During the last months of 1873, the completion of the western most section of the railroad was approaching an intractable deadline. If not completed and in operation to a salt water terminal by December, the Charter for the Northern Pacific Railroad would default and 40 million acres of land grant might well be lost. By July the rail line was completed to Tenino and on the 14th of that month it was announced that the Pacific terminal would be at Commencement Bay where only a rugged little town existed.

The undermining truth was that the NP was starved for operating cash and entangled in a race to both save the charter chronologically and cover the remaining ground geographically. A direct route for the line was surveyed and work crews pushed through the fall and early winter to cross the prairies and river delta leading to Tacoma. In November they passed the lakes above Steilacoom and began laying track down the streambed of modern day Nalley Valley knowing that the last steep drop to saltwater would have to cut diagonally across the hillside overlooking Commencement Bay. The most powerful and advanced steam locomotive available was brought to the task of descending the grade so engineers could angle as direct a route as possible. In the rain of early December 1873 Chinese contract laborers put down the wood ties and iron rails that followed the most precise descent to saltwater. At the sandy shoreline the first working engine toppled over on the beach but by December 16 the last spike was ceremonially driven and the Pacific Terminal of the Northern Pacific Railroad was reached.

The diagonal right of way and final section of the transcontinental line running from the shoulder of Nalley Valley to the shadow of I-705 remained in service until April 2003. The main tracks have not wandered, the gauge between rails and length of the wood ties has not changed and the underlying contour of the grade continues to accurately reflect the hurried railroad building completed that rainy winter almost 140 years ago. The slight bow in the line as it crosses 19th street was caused by a steep hump in the terrain before the ground flattens approaching the Pacific Avenue crossing. From the intersection at 19th the line straightens on a flat gentle grade down to the shoreline opening up the first view of saltwater on a rail path that runs east to the Great Lakes. Standing between the rails at Pacific Avenue, rain soaked workers probably caught the first glimpse of the Pacific and the fulfillment of Abraham Lincoln’s dream of a northern transcontinental.

Once in operation the terminal section of the Prairie Line served as a trunk for the development of Tacoma, sprouting rail sidings that served industrial and shipping facilities all along the line. In the warehouse district that makes up the University of Washington Campus today, a constantly changing spider web of rail spurs and sidings served the brick warehouses, loading docks, and freight yards that gave form to the district. Tacoma’s first passenger station sat on the west side of the line just above Pacific Avenue. It was physically moved to the site of Union Station in 1892 and then replaced with the Reed & Stem designed landmark building there today in 1911.



A series of maps following the chronology section illustrate former buildings and sidings located within the study section. These were pulled in GIS from railroad maps and Sanborn Fire Insurance Maps.

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## 1.2 CHRONOLOGY

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The following chronology was provided by Brian Ferris from his *History of the Northern Pacific Prairie Line*:

*In 1864 President Abraham Lincoln signed legislation which chartered the Northern Pacific Railroad to complete a line between the mid-west and Puget Sound. The legislation included the reward of a 40-million-acre public land donation. With that challenge in place, each of the local communities attempted to persuade the Northern Pacific Railroad to choose them as the western terminus. Great prosperity and development would result for the chosen community. The list of finalists for the terminus included: Olympia, Steilacoom, Tacoma, Mukilteo and Seattle.*

*By 1870, the Northern Pacific (NP) had raised enough money in bond sales to begin the line westward from Minnesota. In addition, a line was started north from Kalama, Washington, located approximately 40 miles north of Portland on the Columbia River. This line was to connect with the Puget Sound western terminus. By the end of 1871, about 21 miles of rail had been laid. In June of 1872, construction was in full swing with a full crew of 800 men and two locomotives. The men were paid \$2.25 per day.*

*One of the locomotives involved in the construction was the famous “Minnetonka,” one of the first locomotives in Washington State. After serving the NP in its early years, the Minnetonka was run by the Rayonier logging railroad near Hoquiam until 1933, then traded back to the Northern Pacific for restoration and preservation. It was still in operating condition a century later and used by NP in exhibitions.*

*With the exception of a delay to build a bridge crossing the Cowlitz River, the line moved rapidly northward reaching the small community of what was to be named Tenino by October of 1872. Regular service began in November over the 65-mile line between Kalama and Tenino.*

*Due to financial difficulties for the NP, a major washout on the newly constructed segment, and the uncertainty of the location of a western terminus, construction was stalled at Tenino for over eight months. During this time, many rumors circulated about the terminal choice. Olympia experienced a major land boom in speculation that the city would be chosen.*

*In May of 1873, construction began again in the general direction of Olympia. After years of study, on July 14, the Northern Pacific Board finally chose Tacoma on Commencement Bay for the Puget Sound terminus. Immediately the line was surveyed in a eastward direction from Tenino toward Tacoma. Some land had to be deeded back to Olympia when it was named as the terminus. Not only was Olympia not selected as the terminus, it was bypassed altogether. The capitol city eventually built its own narrow gauge railroad to connect with the NP mainline at Tenino. It was called the Olympia and Tenino, then the Olympia and Chehalis Valley Railroad, finally the Port Townsend Southern Railroad.*

*The tracks were complete to the Yelm, Washington area by the fall of 1873 and the Nisqually River crossing was finished by late September. The work proceeded through the prairie to where Roy, Washington is now located, and on to Lakeview and the South Tacoma area. The construction was delayed four miles southwest of Tacoma in October due to a shortage of iron and money.*

*The 40-mile segment between Tenino and Tacoma was completed on December 27, 1873 and service began on January 5, 1874. Established stations were located at (in order from South to North): Tenino, McIntosh, Rainier, Yelm, Roy, Hillhurst, Lakeview, South Tacoma and Tacoma.*



*Business was not booming in the early years on the Pacific Division line as it was known. One mixed passenger and freight train per day each direction was scheduled between Kalama and Tacoma from 1873 to 1877. Other freight trains were run on an as-needed basis. A line was completed between Hunters, Oregon, and Portland on the Oregon side of the Columbia River. With a transfer ferry across the Columbia from Kalama to Hunters, the Tacoma-Portland run went into service on October 9, 1884. The Oregon side ferry terminal moved to Goble, Oregon on June 14, 1890. The long awaited transcontinental route from St. Paul, Minnesota, was completed over Stampede Pass on July 3, 1887. The initial transcontinental train began service between St. Paul, Minnesota and Portland, Oregon as #1 The Pacific Mail (westbound) and #2 The Atlantic Mail (eastbound).*

*With the arrival of the railroad in the late 1800s, several businesses sprang up in the Yelm area near where the rails crossed a wagon road to Olympia. Edgar Prescott in his book "Early Yelm" quotes a Yelm pioneer James Mosman as saying "The railroad never gave us much in the way of service". Evidently, the only facility was a wood platform and trains had to be flagged for passengers to board -- with a white cloth during the day, by lighting a newspaper at night. Often the signals were ignored by the "highballing" train crews in a hurry to complete their run to Tacoma. Incoming freight was left somewhere in the vicinity of the platform.*

*Fed up with the poor service to the area, James Mosman approached the NP about setting up a manned agency at Yelm. The NP laughed at the idea claiming the area accounted for only \$11.00 per month in revenue. Mosman proved there was much more business than the NP noted by meeting every train for the next month, noting its freight (marsh hay and dairy products) and passenger business far exceeded the \$11.00 figure. He presented his findings to officials who agreed to let him act as agent and gave him 15 percent of revenue from ticket sales and express. In the first two weeks, Mosman's take was \$120.00. The NP eventually granted a recognized agency for Yelm.*

*Mosman's next demand was that a depot be built. The NP once again turned him away and he took his case before the Interstate Commerce Commission at Olympia to argue that the amount of business at Yelm warranted a depot building. The Commission granted the depot be established and the structure was finally built sometime around 1912.*

### 1.2.1 1910 - 1920 PRAIRIE LINE OPERATIONS

*In 1909 a Columbia River bridge at Vancouver, Washington was completed dispensing with the ferry crossing at Kalama. This provided the NP with a continuous rail line from Portland, Oregon to Seattle, Washington. The August, 1909, NP Public Timetable shows the following eight daily passenger trains (four each direction) between Seattle and Portland over the Prairie Line:*

- # 1 & 2 North Coast Limited
- # 7 & 8 Portland/Seattle Express
- #13 & 14 Vancouver/Portland Special
- # 34 & 34 Puget Sound Limited

*In January 1910, the Union Pacific Railroad (UP), also known as the Oregon, Washington Railroad & Navigation (OWR&N), reached an agreement granting their trains trackage rights on the line from Portland to Tacoma. In June 1910, a similar agreement was signed with the Great Northern Railroad (GN). The November 1913, GN Public Timetable shows the added six daily passenger trains over the line. With the addition of the other railroads, activity was at an all time high for the mostly single track line. Louis T. Renz reports in his book "The History of The Northern Pacific Railroad" that daily totals from the three railroads were 22 passenger trains and 18 freight trains -- and those figures were on the increase.*



In May 1914 the following Seattle-Portland passenger trains were scheduled over the Prairie Line:

- Northern Pacific
- # 401 & 402 Portland Night Express
- # 407 & 408 Portland Local
- # 413 & 414 Portland Special
- # 433 & 434 Evergreen State Limited
- Union Pacific (Oregon, Washington Railroad & Navigation)
- # 511 & 512 Shasta Limited
- # 561 & 562 Portland Local
- # 563 & 564 O & W Owl
- # 569 & 570 Oregon-Washington Express
- Great Northern
- # 455 & 460 Portland Owl
- # 457 & 456 Portland Local
- # 459 & 458 Portland Limited

In addition, NP ran the following trains Grays Harbor Trains over the Prairie Line between Tacoma and Lakewood:

- # 421 & 422 Grays Harbor Limited
- # 423 & 424 Grays Harbor Express
- # 465 & 466 Puget Sound Express

These trains headed west from Lakeview to Nisqually on the American Lake Line towards Grays Harbor destinations of Hoquiam and Moclips.

The need to improve the operations became evident. The NP contracted to have the line from Tenino to Kalama double tracked, straightened, and reduced in gradient. The same had already been completed on the Kalama-Portland segment in 1909.

Since a portion of the “Prairie Line” south of Tacoma contained 2.2 miles of 2.2% grade, the NP surveyed a much flatter grade into Tacoma. The new line was to diverge at Tenino, follow the grade of the NP-owned Port Townsend Southern Olympia branch for six miles to Plumb, and then head northeast toward Nisqually and Steilcoom. The line followed the Sound to Point Defiance, entered a tunnel at Ruston to the Commencement Bay side of the Point, then turned south into Tacoma.

Since the new line was at water level and contained no grades to speak of (.3% maximum), the NP did not complain about increasing the length of the Tenino-Tacoma segment from 39.18 to 43.71 miles. This line was completed with double track in December 1914 which corresponded with the opening of Tacoma’s new Union Station. The GN and UP were given a choice of moving operations to the new “Point Defiance Line” or to continue using the Prairie Line. The UP rerouted all passenger and freight business to the new line on December 15, 1914 whereas the GN decided to keep all operations on the Prairie Line. The NP moved most of its mainline freight and passenger business to the new line. The June, 1916, NP Public Timetable shows only one NP Seattle-Portland passenger train and one Grays Harbor train (Tacoma-Lakeview) remaining on the Prairie Line.

## 1.2.2 1920S & 1930S OPERATIONS

In the 1920s, timetable stations were located at (in order from South to North):

- West Tenino (which was interestingly located east of the mainline Tenino station)
- McIntosh
- Wetico

This report commissioned by the University of Washington Tacoma (UWT) and  
performed under subcontract to THA Architects .

*Cover image Prairie Line linking down to the waterfront.*

*Photograph courtesy of Jim Frederickson.*



- Rainier
- Yelm
- Roy
- Hillhurst
- Lakeview
- South Tacoma
- 15th St Tower

*Of these West Tenino, Rainier, Yelm, Roy, and Lakeview had depot buildings and handled train orders via telegraphers. South Tacoma not only hosted a depot and train orders, but was the location of NP's shop facilities. The line was double tracked between South Tacoma and 15th St near Tacoma Union Station. Rainier was the north base of the Castle Rock helper engine district.*

*Industries in the 1920s included:*

- *Tenino: Russell Shingle Mill Co., Mutual Lumber, Tenino Stone Co., Feed and Fuel Warehouse, Union Oil Co., Western Quarry Co., and Standard Oil.*
- *McIntosh: Green River Lumber Co., Johnson Creek Lumber*
- *Wetico: Interchange with Skookumchuck Railroad (the Weyerhaeuser Timber Company logging railroad later known as the Chehalis Western Railroad).*
- *Rainier: Lindstrom Hardforth Lumber Co. (originally built as Bob White Lumber Co )*
- *Yelm: 2 mile logging branch line owned by the Gruber-Docherty Lumber Co.(originally built as Harstad Lumber Co.), Standard Oil,*
- *MP 24: McKenna Lumber Co. Spur, Triangle Lumber Co.*
- *Roy: Standard Oil, Frank Betchard Lumber Mill & Logging Road connection,*
- *South Tacoma: South Tacoma Lumber co., Morris Furniture Co. Saxton Lumber Co.*

*The August, 1921 Union Pacific Public time tables shows the GN running four passenger trains daily, two each way, on the line and the NP running passenger service between Tacoma and Lakeview only and then down the American Lake line. By 1926, the GN cut its passenger service to two daily passenger trains, one each way. The NP was running four passenger trains which included the westbound and eastbound Grays Harbor trains on the Tacoma to Lakeview segment, and the westbound and eastbound Willapa Harbor train to and from South Bend. A July 26, 1926 dispatcher's train sheet for the Tacoma-Tenino segment lists two through GN freights each way and a GN local freight. The NP shows a way freight running from Tacoma to Camp Lewis and return.*

*As was the case for most industry and business, the 1930s saw great decline for railroad business which resulted in many line and station closures. The Prairie Line was no exception to this as services were further cut back. By 1935, only Yelm, Lakeview and South Tacoma hosted telegraph operators (days only) between Tacoma and Tenino.*

*In 1933 each railroad (NP, GN, and UP) cut back to operating one passenger train each way between Seattle-Portland. The GN continued to run its daily passenger train contribution to these Seattle-Portland "Pool Trains" over the Prairie Line throughout the 1930s. This train ran across the "Drawbridge Line" in Tacoma which crossed the City Waterway just north of Union Station in Tacoma and necessitated backing out of Tacoma Union Station after the southbound station stop, and backing into Tacoma Station on the northbound run. A helper engine was usually added to the southbound to pull the train out the steep Union Station stub track and provide pusher service up the 2.2% grade between Tacoma and South Tacoma. A small tower named 15th St. Tower located just north of Tacoma Union Station handled all the operations in this area.*

*The GN ran daily Seattle-Portland time freights #671 and #672 as scheduled second class trains. The NP was down to one Grays Harbor passenger train, which used the Tacoma-Lakeview segment. NP also provided local freight service.*



### 1.2.3 THE WAR YEARS

As World War II efforts increased, traffic increased on the line as it was used as an alternate route for troop trains to and from Tacoma. GN's time freights #671 and #672 often ran with 3 or 4 sections. Two new time table stations were added in the McChord Airforce base area: McChord Field MP 29.5 in 1940, and Mobase MP 28.1 in 1942. In 1943, the Yelm and Lakeview telegraph offices were manned 24 hours with three shifts or "tricks" to handle increased traffic.

The April 23, 1942, NP employee Tacoma Division timetable shows the line as the Fourth Sub-Division Main Line (Prairie Line) with the following scheduled daily GN trains: passenger trains # 459 and #562; time freight #671 and #672. NP ran daily (except Sunday) passenger trains # 423 and #422 (Seattle-Hoquiam) over the Tacoma to Lakeview segment of the Prairie Line.

Juaquin Miller, father of Donald R. Miller, resident of Yelm, was assigned as agent at the Yelm site and other small local agencies on the NP during the late 1930s and 1940s. Don Miller recalls the thrill of attempting to flag down a large scale steam locomotive with a heavy load and a full head of steam to make the small grade into Yelm. He also recalls there were two desks back to back in the agency: one for Northern Pacific business, and one for Great Northern business.

The Prairie Line lost its through passenger service on August 8, 1943 as the GN moved the Seattle-Portland pool passenger train over to the double track Point Defiance line. The scheduled GN time freights #671 and #672 were also moved on this date over to the newer more efficient main line. There was an agreement activated for the NP to handle the previous GN freight business. Jim Frederickson, retired NP dispatcher, recalls a possible cause for the move due to the city of Tacoma complaining about the long GN trains tying up the many grade crossings between downtown Tacoma and South Tacoma.

### 1.2.4 RECENT YEARS

In the post-war years the traffic dwindled back to a secondary or branch status with logs and lumber products the main commodities carried. The NP canceled the Seattle - Hoquiam passenger trains #422 and #423 in February 1956 thus marking an end to regularly scheduled passenger service on any portion of the line. The Yelm agency closed in the late 1959 and the depot, which stood near where the current city hall is, was subsequently dismantled leaving a wood platform which still stands in the overgrown brush today. This period of time also witnessed the last runs of remaining steam locomotives as the NP finished converting to all diesel power.

For Freight service, the line saw the near daily NP Mobase local which worked industries at McChord, Roy, Yelm, Rainier and ran as far south as Wetico to interchange log cars with the Weyerhaeuser Timber railroad: Chehalis Western. The industry base in the Tenino area was worked by the Tacoma-Portland local off the double track main line.

In 1962, the north end of the sub-division was changed as, 15th St Tower was closed and operations were transferred to a newly created train order station: UP Jct. In 1966, the South Tacoma train order station closed. By October 1967, Lakeview, the last manned station between Tacoma and Tenino, ceased operations.

According to Jim Frederickson, the railroad would reroute some Point Defiance main line trains that carried modern oversize freight cars over the Prairie Line as there was limited height clearance under the approach to the Drawbridge Line in Tacoma. These cars, including special ones containing Boeing airplane parts, would also be set out in Tacoma or Tenino by through trains and handled by the Mobase Local to the other end of the line. Jim also remembers the line being oc-

*casionally used in conjunction with the adjacent American Lake line to simulate double track for detours if the Point Defiance main line was blocked by slides along the sound.*

*In 1970, both the Northern Pacific and the Great Northern lost their individual identities when they merged with the Chicago, Burlington & Quincy and the Seattle, Portland & Spokane to make one large company: the Burlington Northern (BN).*

*In 1973 the restricted clearances of the Point Defiance line was suddenly improved due to an errant routing of a 20' high Boeing airplane car under the 18'5" high Drawbridge line approach. After evaluating the damage to the bridge, BN decided to abandon the Drawbridge line. As a result, the need for the Prairie Line as an alternate route was eliminated. The Prairie Line then officially terminated at Tacoma's Half-Moon Yard, located north of Union Station. With the closing of several mills around the Tenino area and the ceasing of log hauling by the BN, local traffic dwindled to next to nothing by the 1980s. A 1984 BN employee timetable instructed "Between Rainier and Tenino Jct. - Expect to find cars stored on main track" -- meaning this portion of the line was out of regular service.*

*In 1986, BN severed the "Prairie Line" from the main line at Tenino and took the line south of Yelm out of service. Thus Yelm is currently the end of the line. Until a flood which damaged the Nisqually River bridge in 1996, Burlington Northern - Santa Fe (BNSF) still ran the local freight, "The Mobase Local" which ventured approximately once a week to Yelm to deliver a boxcar or two to Amtech Inc. The City of Yelm is looking at options to keep its rail link in place and has purchased the Roy-Yelm segment from BNSF.*

*In April of 2003, BNSF took the northern most 2.1 miles of the Prairie Line out of service. Due to the cost involved in constructing a crossing for the Tacoma Sounder light rail, the Sounder agreed to pay for refurbishing the American Lake line if BNSF would abandon the Prairie line through downtown Tacoma. Tacoma trains now travel to Nisqually on the Point Defiance line and back-track to reach the still intact segment of the Prairie Line between South Tacoma and Roy. Occasionally BNSF crews deliver grain cars to the Wilcox Farms at the Roy elevator. The American Lake line segment still sees occasional BNSF train movements of military equipment between Fort Lewis and Tacoma.*

*The northern portion of the Prairie Line may be rebuilt someday as Washington State Department of Transportation has identified the Lakeview-Tacoma segment along with the American Lake Line (Nisqually-Lakeview) as a future high speed passenger corridor.*

*The future for the southern portion of the line is more bleak for future rail service. In the mid-1990s, the Thurston County Parks and Recreation Department purchased the right-of-way from Yelm to Tenino. The rails and ties have been removed and plans are under way to add this segment to the growing Thurston County "Rails-to-Trails" system. This east-west trail will link with the north-south ex-Chehalis Western Logging Railroad right-of-way at Wetico. Although the rails are still in place from Yelm to Tacoma and BNSF still owns the right of way, the fate of the once proud "Prairie Line" is at stake. A railroad line that was once argued over and coveted as the most important item for development for local Northwest communities is now ignored and will probably disappear quietly without anyone noticing -- and with no chance of ever being re-built.*













# CONTRIBUTORS

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The authors of this report wish to extend our gratitude to the following entities and individuals who assisted greatly in the preparation, review and editing of this report. The authors of this report extend their deep gratitude to the volunteers and historians associated with the Northern Pacific Railroad. In particular Jim Frederickson, Daniel Cozine and others, provide invaluable insight into the historic operation of the corridor and identifying the various parts of the railway. They shared wonderful images of the corridor that otherwise would have been unavailable. Their collective knowledge and enthusiasm for the subject of railroads is a tremendous regional asset. Members of the University of Washington Architectural Review Commission provided guidance. Personnel from the University of Washington including Milt Tremblay and Lanie Ralph providing overall coordination and site access. Reuben McKnight, Tacoma Historic Preservation Officer, Washington State Department of Archaeology and Historic Preservation, Washington Trust for Historic Preservation, Washington State Historical Society, and the Washington State Library.





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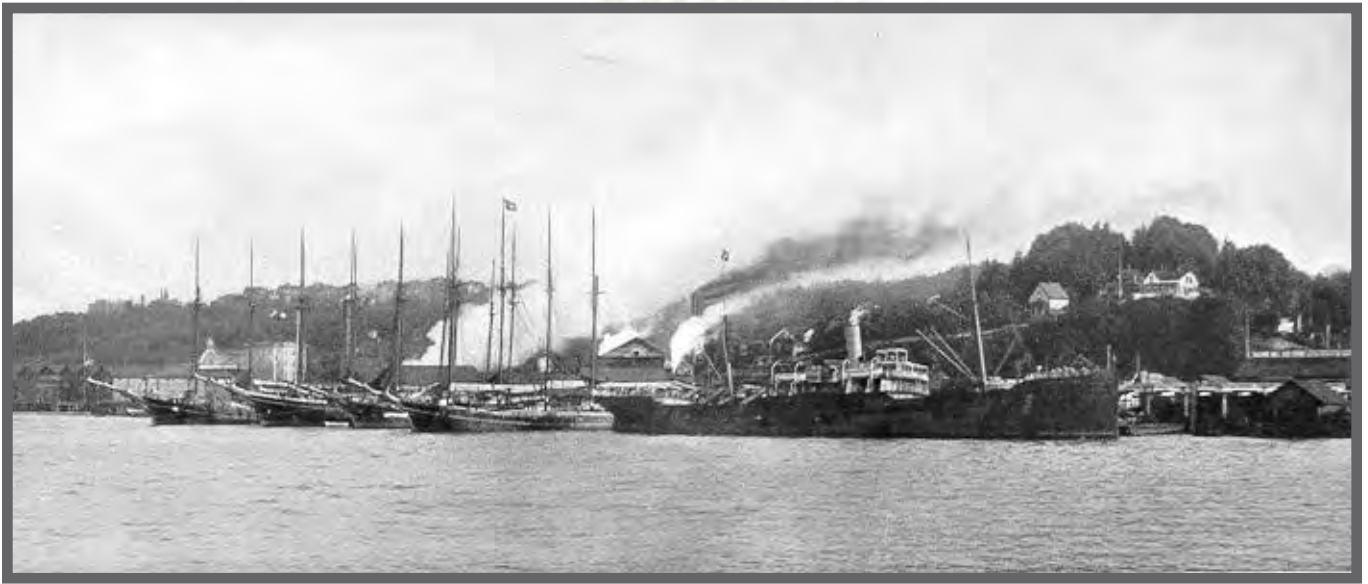
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# OVERVIEW



*Tacoma waterfront to which the Prairie Line connected. Source: Jim Bell Collection.*





# INTRODUCTION

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The following Character-Defining Features Catalog provides an inventory of historically and architecturally significant spaces and features for the Terminal Section portion of the Prairie Line. The project site is bounded on the north by South 17th Street and to the south by South 21st Street and runs generally along a north/south axis in Tacoma through the University of Washington Tacoma campus. Identification of these character-defining elements undertaken pursuant to the National Park Service guidelines.

The northern portion of this line resides within the Union Depot-Warehouse Historic District, listed to the Tacoma, Washington Heritage and National registers of historic places. The southern portion resides within the Union Station Conservation District. The line represents a contributing element within both districts; however the nomination does not specifically identify the line. As such, proposed changes are subject to review by the Landmarks Preservation Commission utilizing the Union Station Design Guidelines and the *Secretary of the Interior's Standards for the Rehabilitation of Historic Properties*.

This project commenced in response to the process stemming from the proposed pathway development from South 17th Street to South 21st Street. The intent of this catalog is providing base-line data to inform the project as to the type and extent of character-defining features for the property as well as preliminary treatment guidelines. These guidelines are intended to aid in preserving features during construction and to assist with their integration within the final pathway design. The term pathway encompasses both bicycle and pedestrian routes allowing for a combination or either of these, as at the time of this report preparation, the specifics have yet to be designed.

The map on the following page provides an overview of the core project area and its relationship relative to the two districts. A core project area is used as some elements of research and contextual study expanded outside this core area. The core area however comprises the right-of-way and resource location. The base aerial was accessed from ESRI in 2011. Historic districts and individual properties obtained from the City of Tacoma's GIS Historic Properties & Districts layer downloaded in January of 2011. This layer was last updated by the city as of February 4, 2010.



# 1.3 CHARACTER-DEFINING SPACES

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The following spaces contribute to the overall character of the property. Engineered and built as part of the railway's original construction, these spaces exemplify the engineered design, functional relationship with surrounding buildings and right-of-ways, materials, feeling and functional attributes of the railway's original functions. All spaces along the right-of-way maintain and contribute to the collective character; the following however are notable for the importance of their functional relationships.

The purpose of the following catalog of character-defining spaces is to facilitate compliance with the two core goals of the *Secretary of the Interior's Standards for the Treatment of Historic Properties*: 1) Preserve the property's historic materials, and 2) Preserve the property's distinguishing visual and physical character. The approach employed by Artifacts Consulting, Inc. in developing this catalog follows guidelines established in the National Park Service Preservation *Brief 17 Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*.

This catalog facilitates quick reference during rehabilitation projects to the original assemblies of the railway's character-defining elements. Spaces are listed alphabetically. The data on each space provides information on general description, and small thumbnail images for identification.






The vast collection of character-defining spaces fall into two main groupings:

- *Those individually attributed to the property's character, and,*
- *Those contributing collectively to the property's character.*

Examples of the first category include main line right-of-way and street crossing spaces. Examples of the second category include sidings and junctions.







### 1.3.1 SPACES




SPACE	DESCRIPTION	IMAGE(S)
Crossing, Commerce St	The Commerce Street crossing intersects the main line right-of-way at an acute angle on an approximately north/south axis. Commerce Street provided an important vehicular access route to the back loading bays of buildings fronting Jefferson Avenue north of the crossing and buildings fronting Pacific Avenue south of the crossing.	
Crossing, S 17th St & Pacific Ave	The S 17th Street and Pacific Avenue crossing represents an important intersection of the city's transportation corridors and street grid. The main line right-of-way crosses the street grid at the intersection of S 17th Street and Pacific Avenue before continuing on to the waterfront.	
Crossing, S 19th St	<p>The S 19th Street crossing provided a continuation of the street grid and a route for east/west vehicular access.</p> <p>This has since been converted to a pedestrian only crossing and S 19th Street between Jefferson Avenue and Pacific Avenue closed to vehicular traffic.</p>	
Crossing, S 21st St	The S 21st Street crossing provided a continuation of the street grid and a route for east/west vehicular access. S 21st Street crosses both the main line and the Brewery Spur were crossed at this location.	
		



### 1.3.1 SPACES

SPACE	DESCRIPTION	IMAGE(S)
Crossing, Overhead	Overhead crossings provided a means for businesses with operations located on either side of the main line right-of-way to move personnel and materials.	
Junction	Point of intersection for main line and siding with associated switching equipment.	
Right-of-Way, Main Line	<p>The main line right-of-way scribes a unique arc through the city's street grid oriented towards the waterway. This right-of-way defined the route of Jefferson Avenue and shaped building forms at each intersecting block.</p> <p>Building set-back to either side corresponded to railroad operating widths for working car and locomotive clearances. Building proximity correlated to loading bay access for ease of loading and off-loading rail cars.</p>	 

### 1.3.1 SPACES

SPACE	DESCRIPTION	IMAGE(S)
Right-of-Way, Brewery Siding	The Brewery spur right-of-way provide a direct link to the main line for distribution and receiving purposes. Low-speed track section.	
		
Right-of-Way, Siding	This loading spur provided a direct link to the main line for distribution and receiving purposes. Low-speed track section.	



# 1.4 CHARACTER-DEFINING FEATURES

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The purpose of the following catalogs of character-defining features is to facilitate compliance with the two core goals of the *Secretary of the Interior's Standards for the Treatment of Historic Properties*: 1) Preserve the property's historic materials, and 2) Preserve the property's distinguishing visual and physical character. The approach employed by Artifacts Consulting, Inc. in developing this catalog follows guidelines established in the National Park Service Preservation *Brief 17 Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*.

This catalog facilitates quick reference during rehabilitation projects to the original assemblies of the railway's character-defining elements. Elements are listed alphabetically. The data on each element provides information on general description, and small thumbnail images for identification.

The vast collection of character-defining features fall into three main groupings:

- *Those individually attributed to the railway's character,*
- *Those contributing collectively to the railway's character, and*
- *Those constituting important material or technological advances or forming the core structure supporting other elements but not themselves visually measurable.*

Examples of the first category include rails, bed, and switches. Examples of the second category include ties. Examples of the third category include fasteners and clips.

FEATURE	DESCRIPTION	IMAGE(S)
Ballast	Crushed stone. Supports and holds ties in place. Provides drainage and flexes with weight of passing trains. Helps to minimize vegetation growth.	
Baseplate	Steel plate mounted to tie. Used with flanged T rail. Shoulders aid in rail alignment, keeping correct gauge. Increase bearing area. Spikes driven through holes connect to ties. Portion of plate beneath rail tapered to set inward rail cant. Plates generally slightly wider on outer (field) side to avoid cutting into tie over time. Four square holes on either side. Most just have two spikes, on holding rail and another on opposite outer corner.	
Baseplate, Wedge	Used in conjunction with the switch mechanism. Steel plates with a saddle bearing both downward against the top of the rail foot and inward against the web. The base plate portion anchored to the tie featured a raised flange wrapping around a steel wedge. The wedge could be driven in against the angled back of the saddle to adjust pressure on the rail. In conjunction with plates mounted to ties between the rails spreading to the correct gauge. Base plates attached with tie screws. A larger tie screw anchored the saddle part to the tie once positioned with the wedge. Manufacturer lettering: PMCO, 15-11265. Used at switch locations due to resistance capacity of lateral rail movement involved in switching.	
Bolts	Utilized at joints and switch locations. Connecting multiple metal pieces. Tapered, square washers allowed the nuts to stand proud of the joint plates so they could be tightened, while still drawing the plates tight against the rail web. Bolts feature round heads.	
Clips	Steel clips mounted to the ties. These wrapped around the foot of the rail. Their connection reduced vibrations and related noise.	





FEATURE

DESCRIPTION

IMAGE(S)

Electrical Shed

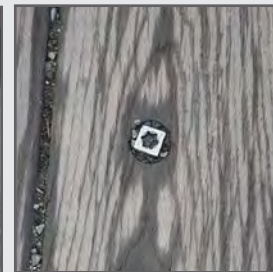
Located adjacent the tracks at the S 19th St crossing. This shed provided battery storage facilities. Electrical current from the batteries powered the switch bucks. The railroad utilized its own power source, particularly at crossings to minimize the risk of outages and accidents.



Fill at Crossings

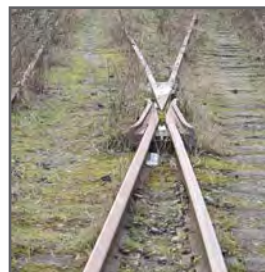
Fill provided an even bearing surface for vehicles crossing the tracks. These helped to reduce impacts to the rails so as not to push them out of gauge. Types employed:

- Long wood ties set parallel to either side of the tracks and anchored with star head screws at the S 21st St crossing, these allowed continue rail operation;
- Asphalt paving added at the Brewery siding following discontinuance of its use and filled in directly abutting the tracks at the S 21st St crossing;
- Pre-cast concrete panels utilized at the Commerce St and S 19th St pedestrian and vehicular crossings, these are designed for ease of pedestrian and vehicular crossing.



Frog

Single unit cast from manganese steel. A self-guarding type used for low-speed operation areas. Raised flanges eliminate need for check rails (short lengths placed opposite the frog to prevent the rail). Raised flanges on the frog make contact with the face of the car wheels as they pass through. Functions as part of a railroad switch ensuring constant support of wheels. Manufacture markings: Vampease Patent No. 3283076; Dracor (?) L4995 115R (?)



Joint

Mechanical link between two rails to maintain continuity of track. Consisting of a metal bar fitting between the head and foot of the rail. Bolted through the web of either rail. Joints on this line use three bolts through either rail. Passing of wheels over joint makes click sounds associated with railroad operation. See also Tie Wires.

Alterations include the use of synthetic pieces between the rail and steel bar, presumably to dampen vibrations and associated noise.



FEATURE

DESCRIPTION

IMAGE(S)

Rails, Siding

Hot rolled steel. These form the main running stock of the main line. Top part bearing against the wheels called the head. Middle vertical part the web. Bottom portion having a flat bottom bearing on the ties called the foot. Manufacturers markings:

- *Lackawanna 9032 4 1912*



Rails, Stock

Hot rolled steel. These form the main running stock of the main line. Top part bearing against the wheels called the head. Middle vertical part the web. Bottom portion having a flat bottom bearing on the ties called the foot. Manufacturers markings:

- *11525 RE CC USS Illinois 1957 IIII*



Rails, Switch

Pair of tapering rails linked via the switch mechanism. Moved laterally between two positions to direct rail traffic between two tracks. Left handed switch, as viewed coming from the narrow end of the tapering rails.



Rock

Sandstone boulder located adjacent the track. Size and mass



Screws

Utilized to attach plates related to the switch mechanism to the ties. Square head with smooth shank bearing against steel plates. Larger versions used locking washers.



Spikes

Steel with an offset head and tapered end. Driven with edge against grain of wood tie to provide increased resistance to loosening. Offset head used to hold foot of rails to base plates and the entire assembly to the tie.



FEATURE

DESCRIPTION

IMAGE(S)

Subgrade

The structural base below the ballast. Providing the overall grade, drainage and structural support for the tracks. It was essential that the subgrade remain uniform and not settle despite water and repeated compression under the heavy loads of fully loaded freight trains and locomotives.



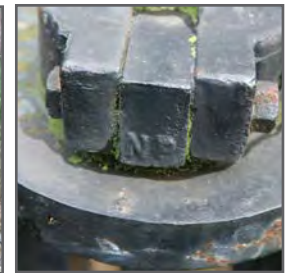
Switch Bucks

Utilized to mark crossings. Placed facing oncoming traffic they employ the standard 'X' symbol for crossing along with flashing lights triggered by a passing train. The existing switch bucks are contemporary; however their placement and operation marks an ongoing historic function essential to a railroad/vehicular crossing in an urban environment.



Switchstand

A steel lever mounted on long ties. Utilized to manually align points of switch rails to direct trains from one track to another. This is a tall switch stand. The markings 'NP' on the front portion.



Tie Wires

Small metal wires utilized at joints to link an electrical circuit. These were a safety measure. In the event the joint separated enough to break the connecting wire the railroad would know the joint was no longer intact.



Ties

Also known as sleepers. Employed beneath the rails to transfer loads from passing trains to the ballast and subgrade and to keep the rails in parallel alignment at the correct gauge. Ties run perpendicular to rails. Wood ties utilized.



FEATURE

DESCRIPTION

IMAGE(S)

Ties, Long

Employed beneath the switch. These provide the same function as ties, as well as providing a solid base upon which to mount the switchstand.



Wye Switch

Employed to allow trains to move between two tracks in low-speed areas having space limitations. Also known as an equilateral switch.



# 2.0 STEWARDSHIP



*Train passing through downtown. Source: Jim Frederickson.*

## STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES:

**Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time. Protection and Stabilization are consolidated under this treatment. Preservation is defined in the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995) as the "act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project."

**Restoration** depicts a property at a particular period of time in its history, while removing evidence of other periods. Restoration is defined by the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995) as the "act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project."

**Rehabilitation** (recommended) acknowledges the need to alter or add to a historic property in order to meet continuing or changing uses while retaining the property's historic character. Rehabilitation is defined by the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995) as the "act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."

**Reconstruction** or Replication re-creates vanished or non-surviving portions of a property for interpretive purposes. Reconstruction is defined by the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995) as the "act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location."



The following chapter provides technical guidance to assist in the ongoing stewardship of the railway between South 17th Street and South 21st Street within the University of Washington Tacoma campus. **Treatment approach** recommended for the property is rehabilitation. This is consistent with the overall standards employed for the district by the Landmarks Preservation Commission during design review. The Landmarks Preservation Commission uses both the Union Station Design Guidelines and the *Secretary of the Interior's Standards for the Rehabilitation of Historic Properties* to evaluate the appropriateness of proposed alterations.

The federal and state agencies as well as the broader historic preservation community in the United States follow guidelines established by the Secretary of the Interior of the National Park Service for working with and planning related to historic properties. These guidelines delineate four different approaches that are generally accepted as standards for treating site's, landscapes, buildings, structures and their spaces, features and vegetation. They are preservation, rehabilitation, restoration, and reconstruction or replication.

Rehabilitation as a treatment approach for the properties is defined by the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995) as the "act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."<sup>1</sup> This approach "acknowledges the need to alter or add to a historic property in order to meet continuing or changing uses while retaining the property's historic character."<sup>2</sup> This recommended approach takes into consideration the historic and architectural significance of the railway, the importance of its impact upon the growth and development of Tacoma, its primary industrial function, the extent of previous alterations to the railway and adjacent buildings and settings. The dual issue of functioning as part of a university campus, pedestrian and bicycle pathway, and conveying for interpretive purposes the importance of the Prairie Line both for the vitality of the site and the City of Tacoma.

The main sections of this chapter layout a framework for navigating immediate and long-term planning, employing as a tool rehabilitation and adaptive aid in preserving the critical function, character-defining aspects of the Prairie Line, Terminal Section.

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<sup>1</sup> Secretary of the Interior's Standards for the Treatment of Historic Properties. (1995).

<sup>2</sup> Secretary of the Interior's Standards for the Treatment of Historic Properties, Rehabilitation Guidelines.





## 2.1 DECISION MAKING MATRIX

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The following decision-making matrix merges the elements of architectural and historical significance and current condition within the over-arching treatment recommendation of rehabilitation along a pathway that results in a recommended approach to the future treatment of the individual features and spaces.

The more significant and intact the space or feature, the more careful attention should be paid to its preservation and enhancement. Conversely, the more a space or feature has been previously altered in a non-compatible manner, thus removing historic materials, the more amenable this feature or space is to compatible new work in order to accommodate an adaptive new use.

### 2.1.1 MATRIX ELEMENTS

This matrix was developed in order to determine the appropriate approach to character-defining features and help match their spaces with compatible future uses. Using the architectural and historic significance, and current condition this matrix shows which approaches are most likely to retain the history and usefulness of a property's spaces and features. This matrix integrates the above listed categories in compliance with the *Secretary of the Interior's Standards for Rehabilitation*.

The matrix is organized in a hierarchical sequence, reading from left to right. It provides a practical approach to navigate the data compiled, mapped in GIS, and included in the catalog. This matrix starts with the public visibility of the feature, followed by the architectural and historical significance the property holds. Then the property's current condition leading to the recommended action. All properties within the corridor fall within the public visibility level. Interiors of elements such as the shed would be private.

**Significance levels** pertain to their classification as primary, secondary, minimal, and none. This pertains to their relative level of significance within the railway corridor.

Primary features should be preserved in their existing locations and conditions or restored over the course of repair and maintenance work to their original appearances in order to retain their value. Secondary, Minimal, and None features with less important architectural features or that are not character-defining would be eligible for rehabilitation in which modifications to the features will have less impact on the historic significance of the property. Rehabilitation of these properties can balance retention and reuse of existing significant features while making the property more functional for its users and sustaining a vital active role within the campus. None or intrusive elements should be removed when no longer needed.

Current condition is determined by the amount of original material left in the feature and the care that has been taken to maintain it. Missing materials may need replacement. Damaged materials may require stabilization and repair. Intact details should be retained. Taking these criteria into consideration leads to suggested appropriate future treatments and guides the formulation and design development for future work.



PUBLIC VISIBILITY	ARCHITECTURAL AND HISTORICAL SIGNIFICANCE	CONDITION OF SPACE/FEATURE	RECOMMENDED APPROACH
PUBLIC	PRIMARY	MISSING DAMAGED INTACT NO WORK	RECONSTRUCT RESTORE/REHABILITATE PRESERVE/PRESERVE
	SECONDARY	MISSING DAMAGED INTACT NO WORK	REHABILITATE PRESERVE/REHABILITATE PRESERVE/REHABILITATE PRESERVE/REHABILITATE
	MINIMAL	MISSING DAMAGED INTACT NO WORK	REHABILITATE/NEW PRESERVE/REHABILITATE/NEW REHABILITATE/NEW NO WORK/NEW
PRIVATE AND SEMI-PUBLIC	PRIMARY	MISSING DAMAGED INTACT NO WORK	REHABILITATE REHABILITATE PRESERVE/REHABILITATE PRESERVE/REHABILITATE
	SECONDARY	MISSING DAMAGED INTACT NO WORK	REHABILITATE/NEW REHABILITATE/NEW REHABILITATE/NEW REHABILITATE/NEW
	MINIMAL	MISSING DAMAGED INTACT NO WORK	NEW/NO WORK REHABILITATE/NEW REHABILITATE/NEW NO WORK/NEW



ARCHITECTURAL AND HISTORICAL SIGNIFICANCE	CONDITION OF SPACE/FEATURE	RECOMMENDED APPROACH
<p><b>PRIMARY</b></p> <ul style="list-style-type: none"> <li>Original to building or site, though possibly with minor changes or historically significant additions designed to fit in to the design or character of the space or setting</li> <li>Finishes and materials of a high quality and well crafted</li> <li>Convey consciousness of setting and preferences during period of construction</li> <li>Removal or extensive alteration would debase architectural and historical significance of building and detract from overall visual and physical unity of site</li> <li>May be noted for historic events or occupants</li> </ul> <p><b>SECONDARY</b></p> <ul style="list-style-type: none"> <li>Original to building or site, though likely to have undergone major changes and/or historically significant additions</li> <li>Retain some historic character and significant elements</li> <li>Exhibit utilitarian, well-crafted but not lavish building materials or architectural features</li> <li>No important history may have been made in the spaces</li> </ul>	<p><b>NO WORK</b></p> <ul style="list-style-type: none"> <li>Material is intact and requires no work</li> </ul> <p><b>INTACT</b></p> <ul style="list-style-type: none"> <li>Material still exists, but may require cleaning/resurfacing</li> </ul> <p><b>DAMAGED</b></p> <ul style="list-style-type: none"> <li>Material is damaged, deteriorated, altered/modified</li> </ul> <p><b>MISSING</b></p> <ul style="list-style-type: none"> <li>Original features/spaces were removed or otherwise no longer exist</li> </ul>	<p><b>NO WORK</b></p> <ul style="list-style-type: none"> <li>No work is required. Repair or modify to meet user needs and maintain functions</li> </ul> <p><b>NEW</b></p> <ul style="list-style-type: none"> <li>Add new material as needed to accomplish task</li> </ul> <p><b>RECONSTRUCT</b></p> <ul style="list-style-type: none"> <li>Replicate the original form, features and details of missing spaces, features and materials with new materials and/or new construction</li> </ul> <p><b>RESTORE</b></p> <ul style="list-style-type: none"> <li>Return the features and spaces to original condition at a particular period of time</li> </ul> <p><b>REHABILITATE</b></p> <ul style="list-style-type: none"> <li>Repair, alter and add materials, features and spaces to make the item useful, while retaining its historic character</li> </ul> <p><b>PRESERVE</b></p> <ul style="list-style-type: none"> <li>Apply measures necessary to sustain existing form, authenticity and extant materials to protect and stabilize the features and spaces</li> </ul>
<p><b>MINIMAL</b></p> <ul style="list-style-type: none"> <li>Originally unused or constructed as service rooms with few distinguishing characteristics, or</li> <li>An extensive, non-compatible contemporary remodel obliterating original spatial configurations and nearly all significant architectural features through introduced contemporary spaces and elements</li> </ul>		
<p><b>NONE</b></p> <ul style="list-style-type: none"> <li>Features and spaces have no remaining configurations dating to either original construction or significant historical modifications</li> <li>Contemporary features and spaces that are not compatible with the original design</li> </ul>		



## 2.2 SIGNIFICANCE ANALYSIS

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Historical and architectural/engineering significance is a primary factor in evaluating a site, landscape, and building's (property) physical features, spaces, and setting in order to determine the level of historic integrity and relative priority of features and spaces. In this instance, the railway and its inclusive components and spaces can be divided into areas of relative character-defining importance. The historic significance of these areas stems from the history of construction, historic uses, and events, and quality and integrity of engineering and architectural details. This analysis takes into consideration the National Register Bulletin *How to Apply the National Register Criteria for Evaluation*.

Historical and architectural/engineering significance are the primary factors in evaluating a railway's physical features, areas, and overall composition. The railway can be divided into areas of relative character-defining importance. The historic significance of these areas stems from the site's history of construction, past events, uses, associated built environment, and circulation networks.

## 2.2.1 SIGNIFICANCE LEVELS

According to the level of contribution each makes to define the property's architectural/engineering character and historical significance, exterior features and spaces are designated as Primary, Secondary, Minimal, or None. The basis for categorization stems from the following: the importance of the feature or space within the railway operation; whether the feature or space is original, or is a historically significant or contemporary addition; the extent of modifications and additions to the feature or space; and, the compatibility of finishes, construction, and materials employed in the historic and contemporary changes to the feature or space. The intent is not to fragment the property into divisible parts that can individually be preserved, modified, or discarded in future planning; rather, it is to view the property as a collective entity of character-defining features and spaces and provide some direction for necessary treatments or alterations. The goal is to steer toward solutions that will permit continued improvements to areas with minimal or no significance, and to prevent eroding or adversely impacting those character-defining features and spaces with primary significance levels. This section is intended for use in conjunction with the Decision-Making Matrix in section 2.1. Significance levels assigned through this analysis are plotted on maps within this section.

**Primary:** Features and spaces original to the railway operation that display a high level of physical integrity, although possibly with minor changes or historically significant alterations designed to fit into the design or character of the original feature or space. At an architectural/engineering significance level, the finishes, design, and materials are of a high quality and assemblies well made. They convey a consciousness of setting, railway operation, and typically exhibit design qualities dating and defining the property's period of use within the railway operation. They reflect prevailing engineering and design practices during the property's period of construction and operation. These elements would contribute to the property's eligibility for listing as a historic contributing property within the National Register of Historic Places district under criteria C (architectural character). At a historical significance level, they may also be noted for important historic events and use patterns that would contribute to the property's eligibility for listing as a contributing property within the National Register of Historic Places district under criteria A (association with historic events). Their removal or extensive alteration would detract from the overall architectural/engineering and historical significance of the property. Primary spaces and features may exhibit either or both architectural/engineering and historical significance associations. An exception to removal would be relocating pieces of primary significance to secure museum or archive storage having public access in order to protect the object from theft and vandalism.

**Secondary:** Features and spaces original to the railway operation, though likely to have undergone major changes and/or historically significant additions. They retain some historic character and significant features. They exhibit utilitarian, well-crafted, materials or architectural/engineering features. At a historical significance level, they often served supporting roles to historic functions in primary spaces. Secondary spaces and features may exhibit either or both architectural/engineering and historical significance associations.

**Minimal:** Features and spaces have few distinguishing architectural characteristics. Alternatively, an extensive, non-compatible contemporary remodel might obliterate nearly all significant architectural features and spatial configurations through introduced contemporary features and spaces.

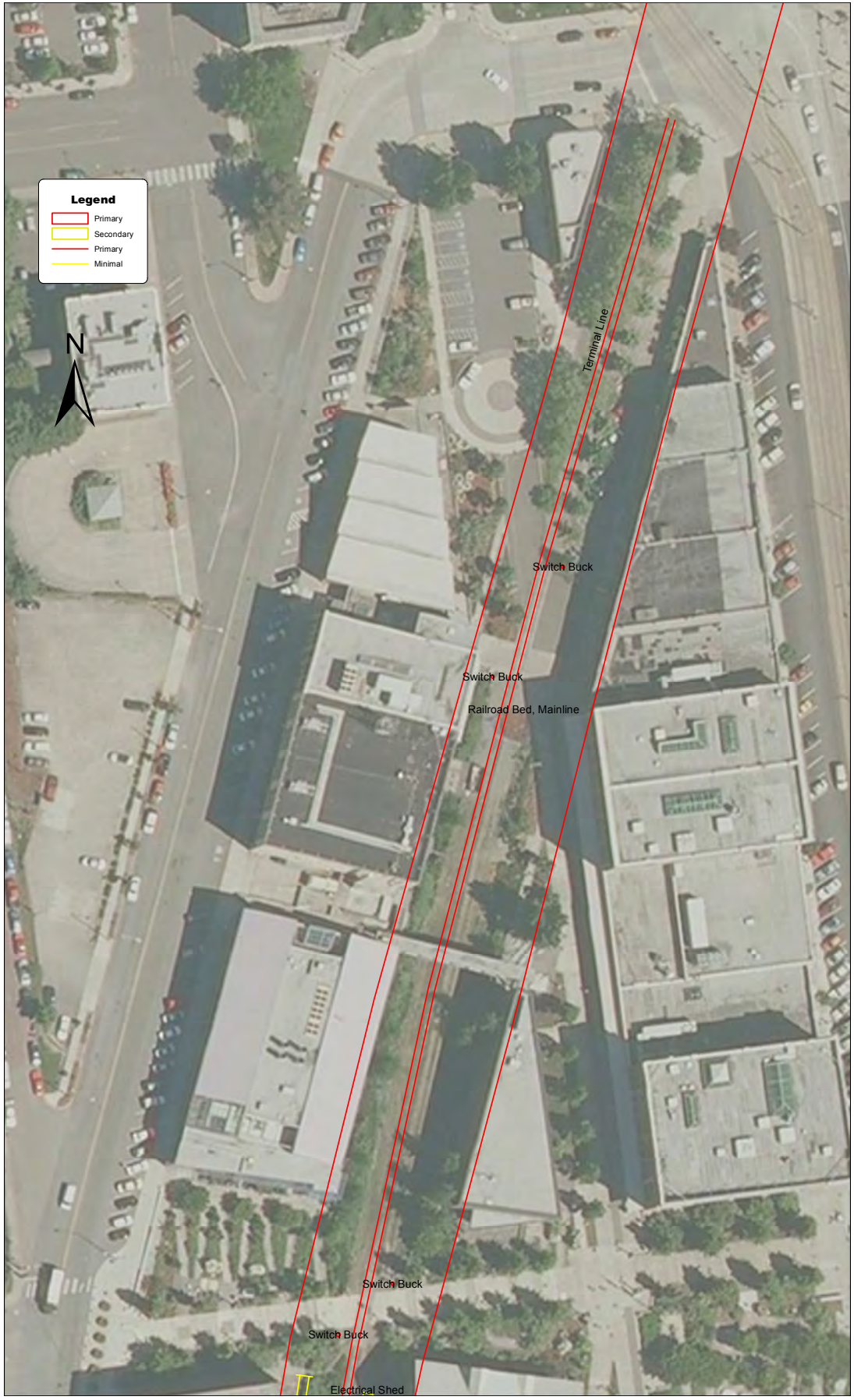


**None:** Features and spaces have no remaining architectural/engineering features or spatial configurations dating to either original construction or significant historical modifications, or are contemporary features and spaces that are not compatible with the original design. Due to the absence of original materials, configurations, or architectural design elements, these spaces do not have historical associations.

The following maps illustrate these levels of significance for the site.











#### SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological properties will be protected and preserved in place. If such properties must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.



## 2.3 TREATMENT RECOMMENDATIONS

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Managing change will be an ongoing stewardship responsibility. Change stems from changing needs, user groups and their functional requirements. These will need to be balanced with retention of character-defining features and the capacity of the rails to tell the story of the Prairie Line. Achieving a balance not only ensures preservation of the character-defining features but also the continuation of their central functional role within the historic district, albeit in different capacities from their original use.

As a contributing resource within the Union Depot-Warehouse Historic District (National Register of Historic Places, 1980, and Tacoma Register, 1983) changes to the railway require design review by the Tacoma Landmarks Preservation Commission. ([http://www.tacomaculture.org/historic/districts\\_udw.asp](http://www.tacomaculture.org/historic/districts_udw.asp)) The Secretary of the Interior's Standards for Rehabilitation should be applied to decision-making when reviewing proposed alterations or new development along the right-of-way. These guidelines are reproduced at left. The following recommendations are intended to provide some additional detail to augment the above cited standards for planning and decision-making.

### Remove to Safe/Secure Location

- *The switch should be relocated to a secure location to prevent both damage during construction and theft. This is a rare example and an important interpretive element. See photo location no. 37.*
- *The metal electrical shed, possibly containing batteries should be opened and inspected to determine if the original batteries are extant. If the original glass batteries remain they should be removed to a secure location and retained for interpretive purposes. The original glass batteries would be a rare and important interpretive element. Depending upon their contents this may entail some remediation work. See photo location no. 64.*

### Protect in Place

- *Character-defining features identified in the preceding table should be protected in place. This may entail temporary protection over rails and ties to protect them. Particular care should be given to switch and moving mechanical elements.*

### Alterations

- *Crossing the tracks with utilities will be an ongoing long-term issue due to the location of campus facilities on both sides of the right-of-way. Developing a strategy from the beginning that minimizes the number of crossings and allows for utilities within those crossings to be upgraded, accessed and replaced over time will be of long-term value. Existing intersection should be the primary locations for utility crossings. They have experienced the greatest degree of previous alterations. They have the best capacity for integrating these changes with the least visual impact to the right-of-way.*
- *Tie replacement should not be an immediate issue. Any construction lifting the existing ties out of their beds should replace the originals back to their locations. If a tie is damaged during construction or deteriorated to the point of needing replacement the replacement should be done in-kind utilizing a wood tie matching the dimensions of the original. This will allow reuse of the original clips. This maintains the historic association of wood and steel on a gravel bed as the defining materials for a railway of this era of construction.*



- *Rails should be preserved in-place and the existing gauge maintained. No coatings or other alterations should be made to the rails or associated clips and assembly parts. If the rails are temporarily removed for any reason they should be reinstalled at their original locations at their original widths.*
- *Fasteners including clips, spikes, screws and all other extant fasteners must be retained and reused whenever alterations are undertaken to the railway. These are an important part of the overall integrity level of the railway.*
- *Vegetation and landscape planning should not diminish the dominance of the view corridor along the right-of-way.*
- *Maintain drainage from the bed. Any alterations occurring to adjacent areas of the right-of-way or the tracks and bed its self must preserve or improve the existing drainage capacity of the bed. Water management will be essential to the long-term conservation of the ties and rails. If, due to poor drainage, these elements are resting in pools of water their deterioration will be accelerated. Railway beds were designed to provide adequate drainage and should not need improvements.*

#### Interpretive Efforts

- *Expand the existing signage program to include the corridor and tie with electronic methods as they are developed for the broader campus. The railway corridor presents an important interpretive component to the overall campus. Enabling users to better understand the historic functions of the industrial buildings and loading docks.*
- *Develop a curation plan to receive objects from the rail corridor, determine their retention value and interpretive importance and subsequent ascension or surplus. Over time small elements such as clips, spikes and other elements will turn up.*



## 2.4 PHOTO LOCATIONS

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The following two maps provide a location key for contemporary photographs taken in 2011 as part of the railway corridor documentation. These photographs are included on an accompanying DVD with thumbnail images on the following pages. All photographs taken by Artifacts Consulting, Inc. Staff utilized a Canon EOS 5D digital camera with a Canon EF 24-70mm f/2.8L USM lens. All images taken in JPEG format. Staff collected GPS points at each photograph location utilizing a Garmin GPSMAP 60Cx. Points were uploaded into ESRI ArcMap and overlaid on a contemporary aerial photograph. GPS point location numeric identifiers assigned to digital image files to provide a site key.







IMAGE  
NO.

IMAGE

IMAGE  
NO.

IMAGE

1



6



2



7



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8



4



9



5



10



IMAGE NO.

IMAGE

IMAGE NO.

IMAGE

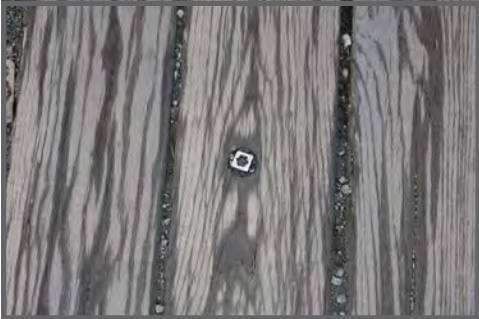
11



16



12



17



13



18



14



19



15



20



OVERVIEW

CATALOG

STEWARDSHIP

SUPPLEMENTAL

IMAGE  
NO.

IMAGE

IMAGE  
NO.

IMAGE

21



26



22



27



23



28



24



29



25



30



IMAGE NO.

IMAGE

IMAGE NO.

IMAGE

31



36



32



37



33



38



34



39



35



40



OVERVIEW

CATALOG

STEWARDSHIP

SUPPLEMENTAL

IMAGE  
NO.

IMAGE

IMAGE  
NO.

IMAGE

41



46



42



47



43



48



44



49



45



50



IMAGE  
NO.

IMAGE

IMAGE  
NO.

IMAGE

51



56



52



57



53



58



54



59



55



60



IMAGE  
NO.

IMAGE

IMAGE  
NO.

IMAGE

61



66



62



67



63



68



64



69



65



70





IMAGE NO.

IMAGE

IMAGE NO.

IMAGE

71



76



72



77



73



78



74



79



75



80



IMAGE NO.

IMAGE

IMAGE NO.

IMAGE

81



86



82



87



83



88



84



89



85



90



IMAGE  
NO.

IMAGE

91



92



93



94

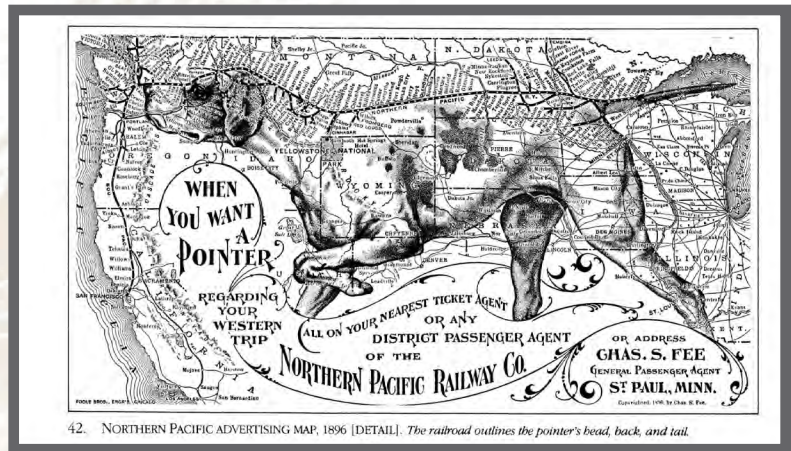


95





## 3.0 SUPPLEMENTAL



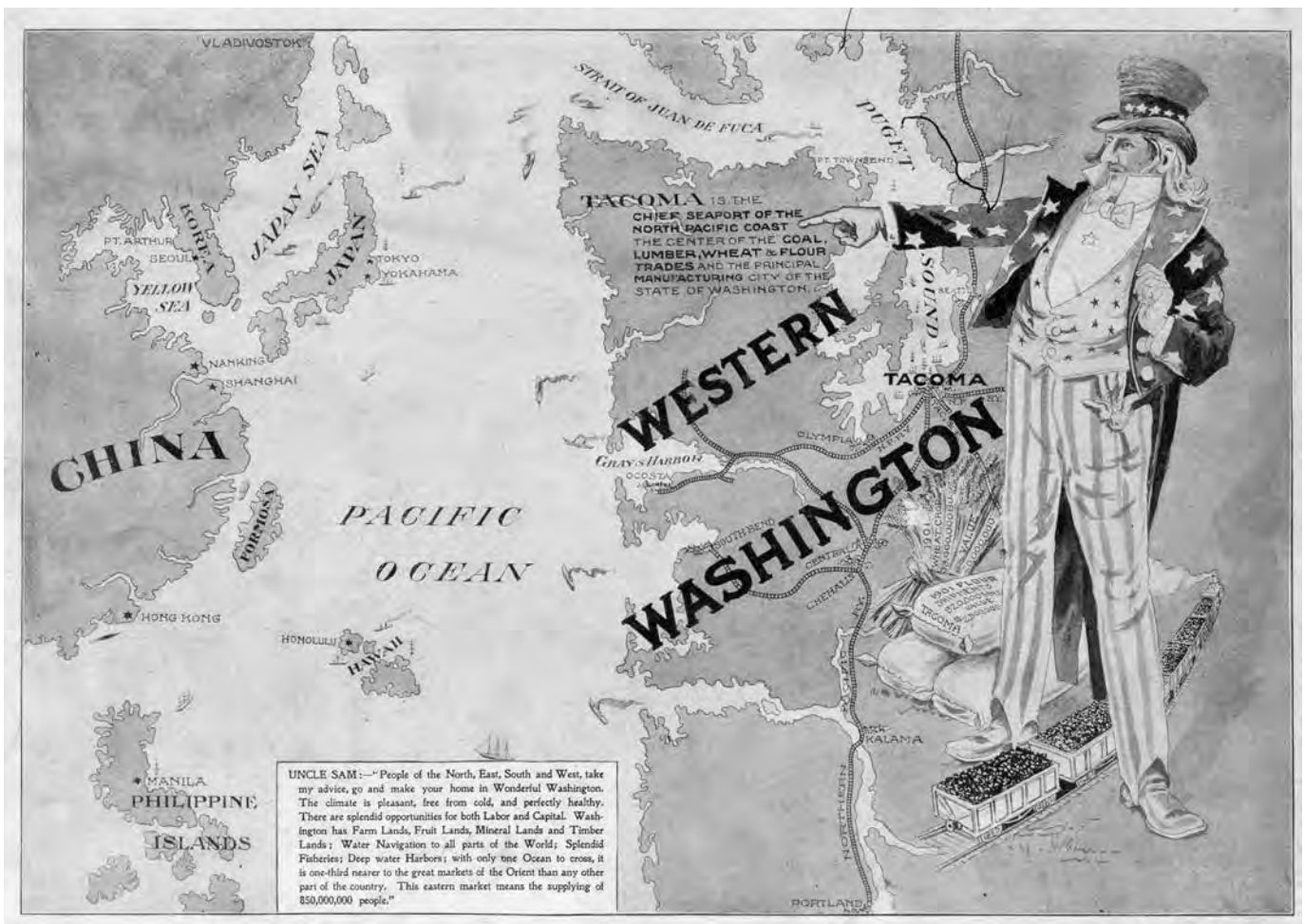
Advertisement for the Northern Pacific Railway Co. Source: Jim Frederickson.

**T**his chapter provides a collection of background material for reference purposes. Sections include Maps, Historic Photographs, and Bibliography.



# 3.1 MAPS

The following maps illustrate background and sections of the Prairie Line.



1901 map showing the Prairie Line. Map courtesy of Chuck Soule from the Jim Bell Collection.



1887 map showing the Prairie Line route in Tacoma. Map courtesy of Brian Ferris.







1960s era railroad map. Map courtesy of Daniel Cozine.



1960s era railroad map. Map courtesy of Daniel Cozine.



## 3.2 HISTORIC PHOTOGRAPHS

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The following historic photographs illustrate various sections along the Prairie Line within or near the project area.

Villard Station, 1883. This photograph shows the former station at its original location along the Terminal Section within the project area. This station was later relocated. Photograph courtesy of Jim Frederickson.



Villard Station in 1892 following its move from the location shown in the 1883 photograph to the one shown in this photograph. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-144 showing a view along the Prairie Line. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-145 showing a view along the Prairie Line. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-134 showing a view along the Prairie Line. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-135 showing a view along the Prairie Line. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-136 showing a view along the Prairie Line looking south along Commerce Street from just south of South 19th Street. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-137 showing a view along the Prairie Line looking north along Commerce Street from just south of South 19th Street. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, showing a view along the Prairie Line looking north towards South 19th Street. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, showing a view along the Prairie Line looking south along Commerce at South 21st Street crossing. Photograph courtesy of Jim Frederickson.



Undated photograph of a train operating along the Prairie Line. Photograph courtesy of Jim Frederickson.



Undated photograph of a train operating along the Prairie Line at the Pacific Avenue crossing. Photograph courtesy of Jim Frederickson.



1928 Rail Book #2, No. 11-142 showing a view along the Prairie Line looking north showing the crossing at South 19th and Commerce streets. Photograph courtesy of Jim Frederickson.



1929 Rail Book #2, No. 11-133 showing a view along the Prairie Line at the Pacific Avenue crossing. Photograph courtesy of Jim Frederickson.

