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Historic Transportation Resources in Skagway and Dyea

A report prepared for the National Park Service, Klondike Gold Rush National Historical Park

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Introduction

The purpose of this study is to summarize the current state of knowledge about historic transportation resources in Skagway and Dyea, Alaska, for the staff of the Klondike Gold Rush National Historical Park. This report is the result of a five-day visit I made to Skagway and Dyea in July of 2004, subsequent follow-up work done in the library of the University of Washington (Pacific Northwest Collection), and a review of texts and photographs obtained during my brief visit to Skagway. The budget for this study covered 2 weeks of time for the Principal Investigator, in addition to one trip to Skagway. However, the subject matter in the project's scoping documents is quite diverse, ranging from historical questions to questions about the contemporary visitor experience. Given that the Park clearly has a wide range of questions about transportation, this report is perhaps most useful in its identification of resources and issues for further, more detailed investigations. I believe this is the first effort to answer these transportation-related questions, and as such I expect that it may do more to multiply the number of questions than to answer them. There is clearly a rich transportation history to interpret at the Klondike Gold Rush National Historical Park.

One of the most interesting things I learned in preparing this report is that there is no single written source that considers the role of transportation in the region's history. Time restrictions limited my document review to secondary sources where summaries of accounts from the primary literature were already available. There are many basic questions in the scope for this study that, as it turned out, cannot be answered using the secondary literature, but which could be answered by some primary research. Mr. Karl Gurcke provided a review of the first draft of this report, in which he identified a large number of additional references that he was familiar with and that would be relevant to future studies of transportation history in southeast Alaska. I have included these references in notes, since they were not part of the material I reviewed myself but clearly

would be essential to others as they follow up on questions related to transportation history.[1] Much work remains to be done to document this complex area of study.

The first section of this report provides a limited description of the historic transportation systems of Skagway and Dyea using information available from secondary sources, including archaeological reports, books, and articles, as well as two interviews with Karl Gurcke, who serves as Cultural Research Specialist at the Klondike Gold Rush National Historical Park. It also includes photographs from the NPS photo archives that are relevant to the subject of historic transportation resources.

Section two describes the current visitor experience in Skagway and, to a lesser extent, in Dyea. I reviewed the design context and logistics of the visitor experience with special attention to the relationship between the current experience and extant historic transportation resources. Finally, section three presents a review of signage in Skagway and Dyea. Here I focused on the setting, scale, content, and usefulness of existing signage to visitors. I also discuss the opportunities that exist to interpret the historic transportation systems and resources using signage.

Section I. Historic Transportation Systems: Narrative Summary

Data Collection, Review and Analysis

Methods: This section of my report is based on three interviews with Karl Gurcke, NPS, and my own review of the secondary literature related to transportation in Skagway and Dyea. [2]

Pre-Gold Rush

This is a very broad topic that requires extensive review of the literature to receive adequate treatment, since it is related to historical events in many nations on at least two continents. My comments here are intended only as a starting point for researchers who are not familiar with the history of exploration in the Alaska region.

Early white exploration appears to have occurred primarily as it was necessary to various political or military strategies, or for economic exploration purposes related to trade and natural resources. At least one author hypothesizes that the first European visit to Alaska was made much earlier in 1597 by Sir Francis Drake (see note 2; Bawlf, 2003). In a much more well-documented example, Russian boats sailed around the islands of the Bering Strait since at least the middle of the 1600's, and recorded formal sightings of Alaska in 1732 and 1741.[3] Competition existed between Russian, American, and British Canadian mapping and resource/exploration expeditions. Spain and France also pursued interests of their own in the region. Conflicts were recorded between Native traders and coastal Native peoples over access to and control of food and lumber resources.[4]

These early white explorers used a combination of various types and sizes of sailing ships and smaller boats propelled by human muscle power, such as row boats, canoes, kayaks, umiaks, etc.. In terms of creating local transportation resources, a number of large sailing ships were built by the Russians at Sitka in what is now southeast Alaska during the era of the Russian American Trading Company. This Company was chartered by Czar Paul I in 1799, and under the leadership of Aleksandr Baranov (1800-1818), a permanent settlement was created at Sitka based largely on a thriving fur trade. Ships were also manufactured at Fort Ross in California, near the present-day city of San Francisco. Fort Ross was the southernmost outpost of the Company. The Russian America Company went into decline in the 1840's as profits from the fur trade apparently began to decline, and control of the Company was taken over by the Czarist government. It was officially dissolved in 1867 when Alaska was sold to the United States, but by that time a number of trade routes had been established by Russian ships that traveled up and down the Inside Passage. The Inside Passage was a popular route because it was sheltered from storms originating in the Gulf of Alaska.

The United States purchased Alaska from Russia in 1867, followed by an increase in the number of settlers who arrived in the region looking for gold and other minerals. An initial effort was made to establish a municipal government at Sitka, but this effort was abandoned by 1873. The US Army left the territory as well in 1877. In 1879, Native people threatened to attack Sitka and a British war ship was called on for defense. Despite this conflict, ship-based trade in salmon, lumber, gold, and mining equipment continued up and down the Inside Passage during the latter half of the 19th century. It is not clear that these trips routinely generated profits, however, as suggested by the common practice of adding tourist passengers to the commercial payload of the boats. Shipping companies sought "excursionists" as paying customers that would fill up the ships' berths and help make the trading trips profitable.[5]

This steady trickle was enlarged by the actions of promoters who had experienced the trip and were particularly affected by what they saw. A Presbyterian minister named Sheldon Jackson visited Alaska via just such a voyage on Inside Passage in 1877. He later wrote that he was shocked by the way Native people were treated by whites, and that he greatly admired the landscape. Jackson spent the rest of his life promoting Alaska in Washington, DC and elsewhere, and continuing to travel extensively throughout Alaska. Jackson's efforts contributed to raising people's awareness of the situation of Alaska's Native people, and of its tourist trade, by repeatedly "celebrating the glory of a Panhandle cruise."[6] Another influential promoter of Alaska, John Muir, first visited in 1879. His subsequent articles brought the idea of an Inside Passage vacation to a wide audience. In 1883, the first steamer brought tourists farther north to Glacier Bay, establishing a new destination for the tourist trade and proving that an ocean-going ship could successfully navigate among the ice floes that calved from the glaciers.[7]

This tourist trade has changed and evolved since its origins, but throughout the last hundred years it retained some common characteristics. The high season was May through September and the trip would begin at an American port, usually San Francisco, Seattle, Portland, Tacoma, or Port Townsend. Boats frequently stopped at Nanaimo and

Victoria. The trip would turn southward again after stopping at Juneau and/or Douglas, and return to San Francisco within thirty days of its departure. During the years when alcohol was prohibited in Alaska, crewmembers often smuggled liquor to make extra money.[8] Crewmembers still occasionally try to smuggle drugs into Alaska.[9]

The Pacific Coast Steamship Company[10] began to provide ticketing for their Alaskan tours through the transcontinental railroad companies in the 1880's, providing a very easy way for tourists to extend their trip to Yellowstone with a trip to Alaska. The steamer trips avoided the discomfort of the open ocean, and allowed travelers to see the Alaskan coast from comfortable reclining chairs. In 1887 the cost was $98 round trip from Seattle, with sleeping accommodations and meals included.[11] In 1884, there were 1650 sightseers; two years later, the summer season hosted 2753 tourists, and in the summer of 1890, 5,007 people visited the Inside Passage.[12]

The increase in visitors may have had an effect on the types of goods available for purchase on those trips, at the same time they generated a demand for crafts and artifacts that were considered of high quality. Comments by tourists record the decline in quality of the examples of native arts and crafts that were sold to the tourists between 1890 and 1912.[13] Artifact hunters sometimes swarmed Indian villages, and in one recorded case in 1899, a tourist party from Seattle stole a carved totem pole from a Native village as a souvenir.[14]

Early Travel from Tidewater to Interior

Chilkoot and other Native groups traveled mostly on foot and in muscle-powered small watercraft. The Tlingits traveled extensively by canoe throughout Southeast Alaska. The Chilkat and Chilkoot Tlingits of the upper Lynn Canal had access to the interior via several trails to the interior. Eulachon oil was transported inland to the Nahane tribe from the marine environment by the Chilkoot tribe~~s~~ who controlled the Chilkoot Pass, where access was probably managed at the level of clans rather than tribes. The inland tribes exchanged furs for fish oils and other marine goods. Men, women, and children all traveled this route, which whites later referred to as the "grease trail."[15] By 1887, the superintendent of a salmon cannery on the nearby coast said it was common for Chilkoot packers to carry 100 pounds of goods over that Pass, and that one had carried more than 200 pounds over that trail.[16]

In the 19th century, trade contact was established between the Hudson's Bay Company and the Chilkoot tribes, who sold furs to the Canadian traders at tidewater camps.[17] According to one author, the first white person to cross the Chilkoot Pass was probably George Holt, a miner who crossed the Pass in 1874 or 1875 and later said he found gold, but brought none out.[18]

Foot traffic increased soon after, however. In 1879, three miners tried to cross the Pass but were turned back by Chilkoot Natives. In 1880, a group of 19 American prospectors appealed to the US military authorities at Sitka, where Commander Beardslee of the USS

Jamestown was located. The Commander agreed to help and sent a well-armed steam launch, complete with a Gatling gun, to negotiate with the Chilkoots. The natives agreed to allow the miners to pass, and even agreed to pack for them. The entire group returned in November without finding gold.[19] In 1882, after gold strikes in Juneau and on the Big Salmon River, prospectors returned to Chilkoot Pass. According to Satterfield, "there is evidence that more than 1000 used Chilkoot Pass before the Great Stampede."[20]

In 1881, Brigadier General Nelson Miles (Commander of the Department of Columbia at Vancouver barracks in Washington Territory) requested money to explore Alaska. He was turned down but went on an expedition of his own, and upon returning commissioned a clandestine group that was given a broad mission to obtain information about Indian defenses and means of communication, to map the terrain, and to find areas with good grazing grasses. Lt. Frederick Schwatka led the expedition, which departed from Portland in May of 1883 on a fleet collier.[21]

Schwatka's description of crossing the Chilkoot Pass is one of the first written accounts of that journey.[22] His party included Chilkat packers, who were paid between $9 and $12 per 100 pounds of gear carried, with no discount for volume. When the Schwatka party first arrived at the mouth of the Taiya River in present-day Dyea, they encountered a Chilkat camp about a mile in from the tidewater. They arrived on shore with their goods by lighter, which carried them from the Northwest Trading Company's launch.

Schwatka noted that canoes and wagons could be used for the first 7-8 miles of the Taiya River, but that at that point, a series of cascades prevented further travel by canoe. Large and abundant boulders prevented the wagons from going further up the trail. When the river had to be forded, Schwatka's party rode across on the backs of the Chilkat packers. They made it over the Pass uneventfully, and descended to Lakes Lindeman and Bennet from there.

Between Schwatka's arrival in 1883 and the next exploratory expedition by the Canadians in 1887, the Healy and Wilson Trading Post was established in Dyea. William Ogilvie headed the Canadian expedition over the Pass to the Yukon, bringing 120 Chilkat packers with him who were paid at the rate of $10/pound. Ogilvie measured the height of the Pass for the first time, and used Peterborough canoes to carry the party's gear from Lake Lindeman to Lake Bennett.[23]

Ogilvie met Captain William Moore before heading into the interior, and decided to support Moore in trying to find a second pass that he had heard of from others. Ogilvie dropped Moore off at the mouth of the Skagway River, and together with his companion, a Tagish man named Skookum Jim, they successfully reached Lake Lindeman to meet Ogilvie. This second pass was named "White Pass" by Ogilvie in honor of his superior officer, Sir Thomas White, the Canadian Minister of the Interior.

Moore became convinced that the White Pass route was valuable because a railroad could potentially be built on it. The White Pass is approximately 500 feet lower than the Chilkoot Pass, with a relatively gradual ascent. These characteristics made it possible to

construct a railroad, which was appealing because of the increased speed and loads that could be carried on a train, in spite of the fact that the intended railroad route was 7-8 miles longer than the Chilkoot Pass route. Moore continued down the Yukon River with Ogilvie until he ran into his son, Ben Moore, who was paddling up the Yukon. The two separated from Ogilvie and then went back up the river and over the Chilkoot to Dyea. They left the area together, and returned by traveling from Juneau to the mouth of the Skagway River by canoe. Moore staked a homestead claim at the mouth of the Skagway River. Moore felt that a new gold rush was coming, and wanted to found a town that would benefit from it. He and his son soon began building a dock out into deep water in anticipation of the boat traffic Moore felt was sure to come with the next big gold rush.[24]

In 1886, the first coarse gold was discovered on Fortymile River in the Yukon. A trading post manager in the interior, Arthur Harper, realized that they would need more supplies as people heard about the strike, but his buyer had already left for San Francisco. He hired Tom Williams and a young Indian boy named Bob to cross the Chilkoot Pass in the winter and get word out to his company that they needed extra supplies. Williams and the boy didn't have enough food, ate all four of their sled dogs to stay alive, and were trapped by a storm on the Pass. They barely escaped with frostbite on their hands and feet, and Williams died shortly after reaching Sheep Camp on the south side of the Pass According to some authors, the Indian boy communicated the news that they had been trying to tell about a gold strike, and used either coals or beans to show the size of the nuggets that had been found. This news increased the foot traffic of prospectors passing through Dyea and along the Chilkoot the following spring and summer.[25]

In 1896, George Carmack, Skookum Jim, and Dawson Charlie[26] found what has been called one of the richest gold strikes in the history of North America on Rabbit Creek, a tributary of the Klondike River. Miners with gold in tow reached San Francisco on July 14, 1897, and Seattle on July 17, 1897, and a new period began for Skagway and Dyea.

Gold Rush

Several routes were used to get to the gold fields of the Yukon, but the two that were relevant to the history of Skagway and Dyea both involved travel up the Lynn Canal from San Francisco, Seattle, or Portland. There was also an all-water route, sometimes referred to as the "Rich Man's Route," which involved taking a steamer across the Gulf of Alaska to St. Michael and then up the Yukon River by riverboat to Dawson. There were also several all-land routes, some of which existed in name only and most of which were virtually impassable.[27] In comparison, the Lynn Canal routes offered a way to the Yukon that was almost all water—except for the 33 miles of the Chilkoot Trail (from Dyea to Lake Bennett) and the 45 miles of the White Pass Trail, from Skagway to Bennett. The relatively short distance of land travel in the overall route made these Lynn Canal routes the most appealing to prospectors who could not afford the all-water route.

The Chilkoot Pass route was accessible from a Chilkoot tidewater campsite that the Native people and subsequent arrivals called Dyea. By the time of the gold rush, Dyea

was a small village with an official US post office. The name "Dyea" has been translated by some authors to mean "to pack" or "to load"[28] in the Chilkoot language.[29] Not everyone on their way to the gold fields was dropped off in Dyea, however, because some ship captains hesitated to use its more treacherous bay. Apparently the tidal bores made it difficult to get close to shore where the Taiya River meets the Lynn Canal. Some of these ships would dock in Skagway and leave it to the passengers to make their way to Dyea by smaller boats.[30]

Two freight-hauling systems were installed at The Scales, and three tramlines were proposed. There were three aerial tramways under construction during the gold rush and all three were operating by the end of the rush. The first was the little Dyea-Klondike Transportation Company aerial tram that started at the Scales and went to just north of the Summit. It was run by electricity supplied by a generating plant at Canyon City. It was operating by March 14, 1898. The second was the Alaska Railroad Transportation Company that had a gasoline engine for motive power and started midway down Long Hill (south of the Scales). It also ran to a point just north of the Summit and opened for business sometime after mid-April 1898. The last tramway to get started and longest was the Chilkoot Railroad and Transport Company aerial tramway that had two steam powered lines, one that ran from Canyon City to Sheep Camp and the other that ran from Sheep Camp to Stone Crib, just north of the Summit. This line had a mechanism that allowed freight to automatically switch to the second line at the Sheep Camp powerhouse. It appears it was up and running by late May 1898. There was also a surface tram that ran from the Scales to the Summit. Apparently at first it ran on horsepower, later gasoline power and possibly steam power. One version of it was operating as early as 1894 although most of the business occurred during the winter of 1897-1898.[31]

In Dyea itself, an interesting and rather elaborate system of private operators of steamers, lighters, docks, warehouses, and a small railroad operated to move goods inland. Travel was also supported by private "restaurants" and bunkhouses all along the trail, from the first beach to the Klondike. Much of this is described in a 1986 study by Norris and Taylor.[32]

White Pass:

The best single source on the history of transportation through the White Pass seems to be a 1987 book by Roy Minter, "The White Pass: Gateway to the Klondike." Although it is focused on the railroad era, it also contains much useful information about the early exploration of the White Pass route and the transportation technologies that preceded the railroad. The information in this section comes from that book, unless otherwise noted.[33]

The first information about the White Pass was provided to white explorers by a native man named Skookum Jim, who told Billie Moore that he had actually crossed it himself. Moore passed the information on to his father, Captain William Moore, who had originally urged him to go to the Klondike to participate in the search for a major gold source and explore the country. Skookum Jim told Billie Moore that there was a longer

route to the Yukon headwaters by way of the Skagway River, but that the pass along that route was not as high as the Chilkoot Pass. He refused to say more, because of the reported threat of retribution by the Chilkoots towards anyone who revealed the existence of this lower pass.[34]

Captain Moore arrived at Haines Mission in 1887 with a party of surveyors lead by William Ogilvie, who had been sent by the Canadian government to establish the location of the national border between Canada and the United States. It took them 11 days to travel by steamer (the Ancon, a sidewheel steamer operated by the Pacific Steamship Company) from Victoria BC to the head of the Lynn Canal. Once there (at the present location of the town of Haines), the party brought their goods ashore and loaded them onto two small boats, which were towed the 20 miles to Dyea. Once at Dyea, they met Capt. John Healey and his business partner, Edgar Wilson, who operated a small trading post there. The population of Dyea consisted at that time of Wilson, Healey, a third partner named George Dickson, and 138 Native people. [35]

Ogilvie had heard of the second, lower pass while taking on supplies in Juneau on the way north, but no one had been able to provide definite evidence that it existed, and some denied that it did. The traders at Dyea confirmed that they had heard of the second pass, but would say nothing more, recommending instead that Ogilvie should speak to a former US Navy cook who had been living in the area, George Carmack, and Carmack's borthers in law, Skookum Jim and Dawson Charlie. Apparently, both Moore and Ogilvie spoke with Skookum Jim in Dyea, and he agreed to help Moore make the trip across the pass as long as the journey was kept secret from the Chilkoots.[36]

Moore and Skookum Jim traveled to the mouth of the Skagway River by canoe, and hauled their boat high into the lower reach of the river before leaving it behind to avoid the 25-foot tidal change in that bay. Moore later wrote that the landscape where they landed was covered with a heavy growth of spruce, hemlock, cottonwood, pine, and birch. There was evidence of Indian fish camps and traps they had set for bear and foxes, but no evidence of long-term occupation of the site. As they climbed along the riverside, Moore made notes of where a wagon road could be constructed, and kept basic surveying notes such as compass bearings and distance estimates. On the third day of the climb, they crossed over the pass. In seven more days they walked the remaining twenty miles to Lindeman Lake, where they rejoined the Ogilvie party that had traveled by the Chilkoot Pass.[37]

Moore reported to Ogilvie that a wagon road was possible through the new Pass, but was completely absorbed by the idea of eventually building a railway through it. Ogilvie named the new route "White Pass" after his superior, Thomas White, the Canadian Minister of the Interior who had originally authorized the survey trip. Moore was anxious to return to Skagway and explore the land there as the potential site for a new town. He was convinced that the deeper-water bay there would make an ideal port for bringing miners in, and gold out. Shortly Moore and Ogilvie met up with one of Moore's sons, Bernard, who was headed out of the Yukon. Moore left Ogilvie's party to travel back towards Skagway and stake a land claim there that would include shoreline frontage for a

wharf. They were unable to find a watercourse back to White Pass, and eventually stored their boat and walked back through the familiar Chilkoot Pass, arriving back in Dyea in early September of 1887. [38]

Moore and his son traveled from Dyea back to Juneau by canoe, making the 95-mile journey in 18 hours and 45 minutes. They loaded up with supplies there, and paddled back to Skagway to make camp on October 29, 1887. The Moores made camp about a quarter of a mile up the Skagway River at the base of a bluff. Moore wrote at the time that he expected first a pack trail to be formed through the White Pass, then a wagon road, and finally a railroad.[39]

Between the end of October and the end of November in 1887, Capt. Moore and his son Bernard took soundings of Skagway Bay and decided to build their wharf on the east side, along the bluffs. They began building cribs to support the wharf with timbers, which they would subsequently fill with rocks. They also laid the foundation for their cabin during these weeks. When they realized they would need a pile driver to complete the wharf, they decided to return to Victoria for the winter and come back to Skagway the following year. For the next eight years, they worked to support themselves at various jobs and tried to promote the idea of using the White Pass to reach the Yukon, seeking private investors or government support.[40]

Capt. Moore eventually found a potential connection to funding when he met Ernest Billinghurst, a civil engineer associated with a law firm in Victoria, BC, which had been hired to help a private group of British investors locate opportunities for new business in British Columbia. Moore gave Billinghurst five reasons why building a pack trail and eventually a road and or railroad through the White Pass was a good investment, which were that (1) it was the most practical route for construction of a pack trail to the head of navigable interior waters to the Yukon, allowing it to connect with steamboats once it reached Lake Bennet; (2) it was an all-land route with no need for canoes; (3) it was the shortest route, at about forty miles, for a pack trail, given that the Chilkoot was too steep for mules or horses; (4) it could be used for a longer period of the year than any other route, since its pass was relatively low and the upper Yukon River waters were free of ice for six months each year; and (5) it began with a deep, ice-free harbor that would allow ocean-going ships to dock right at the start of the trail during any season of the year.[41]
At the time Moore made this argument, there were two main trading companies that supplied the miners in the Yukon, and both companies were American. These were the Alaska Commercial Company and the North American Transportation and Trading Company, owned by Capt. Healy of Dyea. Both companies brought supplies up the Yukon River via steamboat from St. Michael, Alaska, during the three months each year when the river was not frozen. Moore argued that this was an inadequate trade route, because the river didn't become ice-free until June, and goods had to be shipped from San Francisco or Seattle in the previous year – meaning the goods spent 10 months in transit, probably in a warehouse in St. Michael, or longer if the steamboats became stuck in the ice late in the trading season.[42] Most importantly, Moore emphasized to Billinghurst that these trade routes were currently dominated by American companies, and the White Pass offered an opportunity for British companies to gain an advantage.

Moore and Billinghurst met in late 1895 or in the first weeks of 1896, and in January of 1896, Billinghurst made a report to Charles Wilkinson who had arrived in Victoria from London as the agent of the British Columbia Development Association, Limited (also referred to as the Syndicate). Wilkinson was intrigued, and eventually asked to meet with Capt. Moore to hear his ideas firsthand. Moore's personality and knowledge of the transportation issues in the region persuaded Wilkinson to invest a modest sum in the White Pass scheme, but requiring Moore to transfer a substantial interest in his 160 acres of Skagway land to the Syndicate in return. Wilkinson is said to have worried that the two major issues were whether there would be a large gold strike in the Yukon that necessitated better transportation of goods, and whether the US-Canadian boundary disputes would be resolved such that Moore would retain the American title to his land in Skagway, and British companies would be able to operate in the Yukon under their own government's authority.[43]

After reviewing the increasing mining activity in the Yukon, and discovering that another company (the Canadian Pacific Navigation Company) was also considering building a railroad through the White Pass, Wilkinson wrote to the Syndicate in April of 1896 to recommend investing in a White Pass railroad project. In order to protect the Syndicate's interests from changes in the US-Canadian boundary and establish their claim to the route, Wilkinson decided to incorporate three new private companies – an American company authorized in Washington DC to operate a railroad from Skagway to the Canadian border (the Pacific and Arctic Railway and Navigation Company), another authorized in Victoria to operate a railroad in British Columbia, and a third authorized by the Canadian federal government to operate a railroad from the border of BC across Canadian territory in the Yukon. [44]

There is an interesting account of the role that national politics played in the Canadian government's decision to allow the incorporation of the Syndicate's Canadian railroad company, and also a suggestion of the way that custom tariffs influenced the competition among cities for Yukon trade, in Minter (1987).[45] One of the points this author makes is that American customs officials were established in both Dyea and Skagway by the summer of 1897, but Canadian customs had not yet been established. This seems to have reduced the competitiveness of west coast Canadian cities in their efforts to attract the business of miners on their way in and out of the Yukon, since it meant additional charges would be placed on goods bought in Canada that were not placed on goods bought in the US.

By June of 1897, Moore and some pre-Gold Rush miners had already established a very basic trail through the White Pass. By July of that year, when the first gold from a large strike reached Seattle, the Syndicate in London had not yet been able to persuade the notoriously conservative private financiers of London that a railroad from Skagway to the Klondike would be profitable.[46] Charles Wilkinson picked up the newspapers with the gold rush headlines in Ottawa and brought them with him to London via New York in August of 1897, hoping to finally persuade the financiers that the time for the railroad had come.

In the meantime, the first boat of stampeders arrived in Skagway in late July of 1897. Over the next few weeks, Moore's land was completely overrun with people and tents. A muddy trail led in the direction of the White Pass, which was called "Broadway." Minter paraphrases the journalist Tappan Adney when he describes the scene as one of chaos and mud:

> "In a matter of days, Skagway had become a hodge podge of tents. Piles of tarpaulin-covered freight sprawled across its muddy beach. As each ship dropped anchor, passengers were dropped into rough barges and towed ashore. Horses and mules were shoved off the ships into the bay. Most of them were rounded up as they emerged from the sea, but others, terrified by the noise and activity, stumbled through the jumble of tents and freight creating havoc wherever they galloped. The shouts of cursing men echoed and re-echoed across the valley, and ships' whistles, braying mules, and barking dogs added to the din. There was no system, no shipping official to oversee the delivery of goods to their rightful owners, just barge after barge of equipment flung ashore to be picked over and manhandled by a mob of would-be miners…"[47]

Broadway itself was the scene of an endless parade of wagons, horses, dogs, men, and a few women, both day and night, who were making their way up ~~to~~ the White ~~p~~Pass ~~t~~Trail. The trail itself was so bad that people had already returned to Skagway by then in discouragement, having lost their horses over a cliff or to broken legs on the extremely muddy trail. As Adney wrote at the time, "A steamer arrives and empties several hundred people and tons of goods into the trail. And the trail absorbs them as a sponge drinks up the water." By the fall, many miners were saying that the White Pass ~~t~~Trail was too difficult, and a general consensus was forming that the Chilkoot offered a better journey. Others hoped that the White Pass would improve once the Skagway River froze over.

In the early summer of 1897, the Syndicate had sent a man named John Escolme from Ottawa to oversee the development of Moore's wharf and the townsite, and Escolme arrived in late June of 1897 – just before the rush. Once the thousands of men began to land on the beach, Escolme faced an impossible task. With no government, police, or other authorities to turn to, it was not possible to protect the Syndicate's 75% interest in Moore's 160 acres. Bernard Moore, Capt. Moore's son, was able to stake out a couple of tracts of land around their cabin and the Moores' sawmill. But that was the extent of what was saved from spontaneous claims and the early organizational efforts of a "citizens' committee" that took over the platting of the town. By July of 1897, Escolme had spent $10,000 to improve the original White Pass trail that Moore and subsequent packers had established.

During the fall of 1897, Skagway and Dyea became the focus of a worldwide free-enterprise transportation industry, as people planned "solutions" to the transportation bottleneck at firms and government agencies in London, Ottawa, Washington DC, Seattle, and Victoria. By January of 1898, the *Toronto Mail and Empire* reported that 28 applications had been made to the Canadian government for authority to construct a

wagon road or railroad to the Yukon, starting from cities like Edmonton or Wrangell, in addition to the charters that had been granted to the London Syndicate.[48] Some of these proposed railroads through the Chilkoot Pass, others through the White Pass. The Canadian government received many more applications for railroad charters because it offered first land grants and then direct financial assistance to railroad companies to build their new lines, while the American government had ceased making large land grants by the mid-1890's.[49]

The Canadian Minister of the Interior (Sifton) made a trip to Skagway and Dyea in October of 1898, trying to resolve the transportation crisis now perceived by the Canadian government. He concluded that an all-Canadian railroad route up the Stikine River valley to Teslin Lake was the best option to support, for the sake of Canadian economic interests.

Acklen, of Nashville Tennessee, had surveyed the White Pass for a wagon road in the summer of 1897. He persuaded George Brackett to become the vice president and manager of his new road venture, even though Brackett had first been convinced that the Chilkoot Pass offered the best option for a wagon road. Apparently, Acklen and Brackett had made two business deals (the first to enter into joint surveys of the two passes, and the second to build the White Pass wagon road) while on the steamer trip up or down the Lynn Canal to Juneau. This trip offered enough time to incubate quite a number of business partnerships.

Skagway business owners at the time were not at all in agreement that a wagon road was a good thing for their interests. Some felt that the large number of people who were delayed in Skagway by conditions on the trail were spending more money because of the delays. Others looked at the future and worried that if Skagway waited to build its wagon road, Dyea would succeed in building its aerial tramways and surpass Skagway as the route to the gold fields.[50]

Brackett arrived in Skagway to begin construction of the road on November 6, 1897, and within two weeks had 75 men working on the project. Finances were problematic, however, since the local promoters of the road never provided as much cash as they had originally promised. Brackett himself went unpaid, and even paid a couple of the highest-salaried employees out of his own pocket. Acklen continued to have trouble finding financing back on the East Coast. He encouraged Brackett to build the bridges for the road with an eventual railroad in mind, as a way to guarantee the future success of their investment. But Acklen never succeeded in raising funds, and was removed from his role in the company by its shareholders later that fall. Brackett became the head of the company, and funded the project by his own moneys. By December, he had built 8 miles of wagon road, although he still did not have a franchise for the right of way or the authority to charge tolls. Brackett eventually succeeded in raising modest amounts of cash from the head of the Great Northern and Canadian Pacific railway companies, his former employers from his days as a supply contractor. By January of 1898, he had made substantial progress reaching the summit, and had even talked the Skagway citizen's council into granting him a railroad right of way along Runnalls Street.[51]

Through February, the press of incoming miners increased. In one three-day period, steamers unloaded 2500 people at Skagway and Dyea. In March, Brackett tried to impose a charge of $40 per ton of freight on the packing companies that were using his new wagon road to the summit. By this time, all but four miles were open to wagons. Between White Pass City and the Pass, packers had to break down the wagons into 100-pound packs and tie them onto the pack animals to get through a narrow stretch that still did not allow wagons to pass. At one point, the packers avoided Brackett's toll gates and toll collectors by hauling their loads up the frozen Skagway River near the gates. When the packers found out that Brackett had no government authority to charge his toll, they rebelled completely, tearing down the gates and physically attacking the toll collectors and guards. Brackett countered by obtaining the support of the US Army unit that was stationed near Skagway, and re-established his toll gate at a narrow point in the valley where he could build a fence from one side to the other to prevent packers from going around the gate. He succeeded in collecting tolls at this point.[52] By April, the road would gross between $1200 and $2000 per day at a rate of 1 and ½ cents per pound of freight.[53]

Of the 3800 pack animals (mules and horses) that were taken north in 1897, only thirty survived to the following year. The trail was strewn with the bodies of animals.[54]

In February of 1898, Charles Wilkinson and the Syndicate realized that they had to act quickly to demonstrate their commitment to a railroad through the White Pass, after the Canadian government announced its support for an all-Canadian route along the Stikine River valley.

Meanwhile, the wharves at Skagway were suffering their own growing pains. In March, the stevedores who worked unloading freight demanded an increase in their rate of pay to 75 cents an hour, saying that the cost ~~if~~ of living in Skagway required more pay. The ship captains hired local Indians instead at a lower rate, and the US Marshal had to break up the resulting street fighting between the stevedores and the Indians, who were outnumbered four to one.[55] By April, there were three operating wharves – Moore's Wharf and two other private efforts – and a fourth was under construction but already receiving freight.

Sir Thomas Tancred (British engineer working for Close Brothers, who were poised to take control of the Syndicate's original options to develop the White Pass railroad) arrives in Skagway on April 10, 1898, with Hawkins and Hislop. The Skagway and Lake Bennett Tramway Company had been granted a right of way at the foot of the eastern bluffs by Skagway's citizen council. Tancred began negotiations with the company, which was having financial difficulties proceeding with its horse-drawn tramway.

Between April 10 and April 22, the three men met Michael Heney, a railroad construction expert who came to Skagway to do his own reconnaissance of a potential route, with no financial backing of his own. They were impressed with Heney's knowledge of construction and of the route itself, and decide to offer him the role of lead construction manager. The four men (Tancred, Hawkins, Hislop, and Heney) went back to Seattle and

reported to Close Brothers & Company that the project was ready to move ahead.[56] They developed financial estimates for how a railroad could be competitive with the costs charged by packers, based on the results of a business survey done that year in Skagway.[57] In May of 1898, when Congress authorized the extension of American land law (thus clearing up a lot of the doubt about whether land titles could be filed and legally held in Alaska), Close Brothers authorized the beginning of work on the railroad.

The new White Pass Railroad Company, backed by Close Brothers, wanted to use the right of way along Skagway's east bluff. But while the tramway company was willing to sell it, the squatters who occupied it were not willing to move. So the WP Railroad's new Superintendent asked the Skagway citizens' council to allow the use of a temporary right of way along Broadway. While most residents supported this idea, the businesses along Broadway rejected it as bad for their interests, saying it would keep shoppers away if the street was filled with loud, smoking trains. Throughout the first two weeks of June 1898, the council considered both sides. They finally determined on the evening of June 14 that they would grant temporary use of Broadway, and make it official that following morning at a council meeting. The railroad company officials were so fed up with their decision-making delays by that time that the superintendent gave the order that evening to begin work on Broadway. Skagway residents woke to find 200 men tearing up Broadway in the morning, even before the council could meet to give its final approval.[58] The goal was to have the railroad running to Lake Bennett by September of 1898.

The construction of the railroad changed Skagway's harbor. A temporary rail line was laid down on the beach to move equipment, including the railroad engines. Barges were brought right up onto the edge of the beach by a steam-powered harbor tugboat, and wagons were backed into the water to load up directly from those barges.

Brackett eventually sold his wagon road to the White Pass & Yukon Route Railroad Company in November of 1898.[59]

Due to labor shortages, a strike, weather conditions, and the additional time it took to clear large amounts of blasted rock, the White Pass and Yukon Route Railroad was actually completed to Lake Bennett on July 6, 1899.[60]

Post Gold Rush

The Waterfront

From the late 19th century to well after World War I, steamships were the most common ocean-going vessels. These were gradually replaced by diesel engines, which had been invented in the late 19th century but not popularized for ships until after their use for submarines in WWI. The harbors in Skagway and Dyea would also have had small rowboats, sail boats, barges, tugboats, and lighters, which were shallow-draft boats or

barges used to move freight around a harbor or in harbors where wharves are inadequate or not available.[61]

World War II also brought changes to Skagway's waterfront and the rest of Alaska:

"It was also at war's end that both the military-built wartime Alaska Highway and the new Haines Cutoff were opened to travel. Military-built airstrips across the territory began to see increased air traffic. A wartime population boom continued its growth with the new Alcan Highway accessibility. But down in roadless Southeastern Alaska, steamships were losing business. The once dependable passenger and freight lines were suffering from all the overland and air competition. By 1952, Alaska Steamship Co., the last American passenger service through Alaska, dropped its passenger schedules. In 1954 the last Alaska Steam freighter waved good-bye to Southeastern." [62]

In 1959, Alaska gained Statehood. One of the major implications of this governance change for the future of transportation was that it allowed the new State to float bonds to fund public projects, such as the Alaska Marine Highway System, which began providing ferry service in the inside Passage in January of 1963.[63]

The Railroad

During the gold rush, the White Pass and Yukon Railroad built tracks up Broadway and along the east bluff. For some reason these tracks never connected, so trains would have to back down Broadway to load up at the Depot or back down the east bluff tracks to pick up freight and passengers at Moore's Wharf. The line along the east bluff ran (and still continues to run) to the railroad shops and beyond. For a part of that run, Pullen Creek runs on the west side of the tracks. During World War II, the tracks down Broadway were pulled up. When the railroad built the new depot in the late 1960s, they ran a sideline to their new building, although this line may have gone in earlier. At the same time they filled in much of the harbor and ran tracks to the ore terminal and later the Broadway Dock.[64]

The railroad was operated (leased) by the US Military during World War II to bring supplies north where new Alaska Highway (or "Alcan" Highway [Alaska-Canada Highway]) construction was being done to increase the mobility of US troops in case of an attack on Alaska's Pacific shore. The presence of the US Army increased Skagway's population by a lower estimate of 3,000 and an upper estimate of 5,000 people during this War, although exact numbers are not available in the secondary literature.

The Railroad was transformed into a system for heavy-duty ore trains in the post-WWII era, when it adopted diesel-electric locomotives in 1954 (replacing its original steam engines). This business eventually transformed the wharves, as the space between them was filled to allow a rail line to be extended across the waterfront to a new dock, the Ore Dock. This separated the ore business from the railroad's passenger dock at Moore's Wharf, and allowed storage of containers at the waterfront as well.[65]

According to Company literature, the White Pass and Yukon Route Railroad Company was one of the first to pioneer the use of containers to connect land-based resources (in the form of raw materials or manufactured goods) carried by train and later trucks to an ocean-based transportation system.

The common practice before containerization was that ships had to be loaded by hand at one port and then unloaded by hand at the destination port. This was quite time consuming and expensive and freight could be easily stolen. When ships arrived in Skagway, the cargo had to be unloaded by hand, and then some of it had to be loaded into the railroad box cars, also by hand. At Whitehorse, the boxcars were unloaded by hand and the freight put on trucks, also by hand. Somebody got the bright idea that it would save a lot of time and trouble and expense if the goods for a specific customer in Whitehorse could be loaded into a container in Vancouver just once and then the container could be locked and then shipped north. The container could be loaded into the ship by machine at Vancouver, unloaded at Skagway and placed on flat cars on the train, all by machine, and then transported to Whitehorse, where the containers were then placed on trucks by machine for eventual transport to the customer. The story goes that WP&YR was the first to pioneer the use of containers and it would be nice to track that history down. When they developed the ore haul, they did something similar. The ore was loaded into large containers at the Cyrus Anvil mine in the Yukon. The filled containers were then put on trucks. The trucks hauled the ore to Whitehorse where the containers were then transferred to specially outfitted flat cars. From there, they traveled via train to Skagway where they were dumped in the ore warehouse. Front-end loaders in the warehouse then scooped up the ore and dumped it on a conveyor belt, which dumped into the waiting ships.[66]

As the price of ore declined and the Cyrus-Anvil mine closed in the Yukon, the White Pass and Yukon Route Railroad shut down its operations in 1982.[67] In 1988, the railroad re-opened its trains for tourism and carried 37,000 passengers in that first year. In 2004, the company said it carried over 400,000 tourists in the high season of May-September. There is an interesting interweaving here of historical patterns in the passenger and freight trades. The Railroad always has carried both, but in different proportions in different eras. It would be useful to obtain statistics on this pattern from primary sources, in order to document the proportions of each over time.

Roads

The Alaska Highway was built in 1942, but was not connected to Skagway until the Klondike Highway was built from Skagway to Carcross, connecting the Alaska highway with the State Ferry System. The Klondike Highway had been discussed even as the White Pass and Yukon Route Railroad was being completed, but since the railroad was carrying freight efficiently, it was a low priority. Complaints that the railroad was charging unfair prices lead to increasing calls for a roadway, which was opposed by the White Pass and Yukon Route Railroad Company. According to one author,

> "Throughout 1913, newspaper articles publicized the efforts of both the Yukon and Alaska governments to get the road pushed through, culminating in late August with headlines in Dawson that the "**Auto Road From Skagway to Dawson May Be Opened Soon**". The optimism was, however, not justified by the facts; despite initial indications that British Columbia, whose participation was crucial, would construct the necessary 35 miles of road through their jurisdiction, they never approved funding, and the project died.
>
> Although more surveying was done in 1920, and it was announced that the road would be completed in 1921, the highway project wasn't revived in any serious way until 1961. That year, a crew of Skagway volunteers, and then the State of Alaska, began work on the toughest part of the road, blasting through the solid granite of the Coastal Mountains. But, except for a rough road which was built in 1966 for the re-opening of the Venus Mine, nothing happened on the Canadian side until 1974. From then on, progress was erratic to say the least, due to constant funding problems, several legal challenges by the WP&YR, a fight with the Carcross Indian Band in 1977 and 1978 over crossing their land, and of course engineering difficulties…
>
> …on May 23, 1981, a handful of politicians attended a ceremony at the foot of the hill in Skagway (at a spot called Liars' Camp!) to formally dedicate the highway.
>
> The completion of Klondike Highway resulted in vastly more efficient travel, both for private and commercial vehicles. As feared, though, the White Pass & Yukon suffered greatly, as no railroad can compete with trucks on short hauls. A year after the highway dedication, rail operations ceased."[68]

Much additional information on the Klondike Highway, otherwise known as the Skagway-Carcross Road, and the Dyea Road can be found in Norris (1996).[69]

Air travel

Air service was first provided by the White Pass and Yukon Route Railroad, then diversified with the arrival of other service providers. There is, however, no information on this service or the development of the Skagway airport in the secondary literature.

There appears to have been at least three "airfields" in Skagway. (1) The first plane to touch down in Skagway was a Curtis Jenny bi-wing plane piloted by C. O. Prest. He landed on a makeshift airfield on the beach beside Sylvester's Wharf at 3:25 pm on July 6, 1922. Apparently Skagway had been informed of his coming as the beach had been cleared of sticks and stones and lined with white flags. This "airfield" was 50 feet wide and several hundred feet in length but Prest only needed 120 feet to land. The flight from Juneau was an hour and 20 minutes. The pilot stayed the night and took off for Whitehorse the next morning, destination Siberia.[70] There may be additional articles on

this flight in later issues of the *Daily Alaskan* paper, or additional information on air travel, but unfortunately this paper ceased publication in 1924. Newspapers after this date are sporadic.[71]

The Klondike Gold Rush National Historical Park (KLGO) has several photographs of the plane landing and landed. The Park also has a set of three aerial photos taken on 22 June 1929 that show the probable location of this field, although by that time it appears to have been totally abandoned. (2) The second airfield was actually built in 1930 and was located between Main and Alaska and between 13th to 23rd Avenues. Photographs recently discovered in the Alaska State Library show this airfield under construction in 1930. The Park has purchased copies of these photos for its collection. The White Pass & Yukon Railroad may have built this airfield for their new airline – the White Pass Air Service (1931-1941). The Park also has a brief interview with William T. Farwell (conducted in 1997) that has some information on the White Pass Air Service from the perspective of an employee of the airline who sold flight-seeing tickets to the tourists during the summer. He was employed by the air service during the entire 10 years it was in operation. The Park also has a 1934 aerial photo that shows the airfield, such as it was. There is also that 1944 Army map of Skagway mentioned earlier that shows the entire airfield in great detail including the hangers at the north end. The Skagway Museum has some photos of the White Pass Air Service planes and other memorabilia. The Park also has a few overview photographs of the field taken during early World War II (probably spring of 1942) when the field was covered in tents for a time. Photographs seem to indicate that the field was not paved. We also have some aerial photos of Skagway from 1948 showing the airfield. (3) The present airfield west of Alaska Street was constructed in 1949-1950. At first it was a dirt field but was later paved, probably in the 1980s. In 1999-2000 it was remodeled and a taxi way installed.[72]

Section II. Specific questions noted in scope document

Owners/operators (who were they? State, City, Private Operators, etc.)

As the narrative above indicates, transportation resources in Skagway and Dyea were first provided and controlled by Native people. In 1880, the US government allowed a military party from Sitka to negotiate free access through the Chilkoot Pass for miners, thus ending the period of exclusive Native control. This military support was the only substantial government aid to transportation until World War II, with the exception of charters granted to the wagon road, railroad and tramway companies, but these charters did not come with public funding.

Skagway's first airfield was built by the WP&YR Railroad Company in 1930. The US government leased and operated the WP&YR Railroad during World War II for both civilian and military purposes, and then returned it to its private owner/operators. It's not clear whether the US Army also operated the airfield during that period. Large boats that served Skagway and, earlier, Dyea had all been privately operated until the State-funded Alaska Marine Ferry Service began in the early 1960's, supported by financial options

that were available only once statehood had been granted. It does not appear that the City of Skagway has ever operated transportation services. The City of Skagway did pay for its roads to be paved in the mid- to late-1980's, however.

The city's roads were mostly gravel as of 1984, with the exception of State Street. City crews maintained the streets – graded them during the summer and plowed them during the winter, again with the exception of State Street. The Park has lots of photographs of the street system during the gold rush and a few photos after the gold rush. State Street was first paved in 1964 since it is the State Highway. Because it is a State road, the paving was probably paid for by the state. Even today this Highway is maintained by the state. Main Street was paved in 1983. Broadway, below 10th Avenue, was paved in June of 1984, with a special, relatively rough-textured asphalt called porous friction coat in order to be compatible with the historic district. Spring Street was part of the same Broadway paving project. In 1986, Alaska Street south of 10th Avenue was paved. In 1995, Broadway between 10th and 15th Avenues was paved. Alaska Street north of 10th Avenue was probably also paved at that time. The avenues were typically paved when the main streets in their areas were paved. Alleyways are still unpaved except for the alleyway that goes by the Post Office between Broadway and State.[73]

Intermodal Analysis (What were the connections/linkages/relationships between modes)

In the pre-Gold Rush period, both sailing ships and steamships used barges or lighters to transfer passengers and/or freight from ship to shore. Moore's wharf had been started but was not completed in Skagway. Canoes were used quite a bit by individuals and small parties traveling along the coast, even to travel from Skagway and Dyea as far as Juneau.

During the Gold Rush, wharves were constructed in both towns – a short one and a long one [The Dyea-Klondike Transportation Company Wharf and the Long Wharf] in Dyea, and four in Skagway. Tugboats, lighters, barges, rowboats, and small sailing boats were used during this period to connect ocean-going vessels with the shore. During the Gold Rush, horses and mules and probably most other animals such as dogs, cows, pigs, etc. were typically forced to swim from the larger boats to shore.

The first railroad connection was established on the beach in Skagway as a temporary system for unloading materials and rolling stock for the railroad as it was under construction. A horse-drawn tramway was constructed in Dyea during the same period to bring freight to the aerial tramways along the Chilkoot Trail and one surface tramway built at The Scales, but there is no evidence that this horse-drawn tramway ever actually operated.[74]

Warehouses became an essential part of the staging process, as goods were brought there and then sorted by their owners, and sometimes stored while transportation options were explored. Dyea had the first warehouse, originally associated with Healy and Wilson's trading post. This function was originally carried out on beaches, where goods were simply covered by a tarp, but this was an unsatisfactory arrangement as the beaches filled

with stockpiles of goods and bad weather set in. Horses, mules, and dogs also needed to be kept in stalls or pens until their owners were ready to depart. It is not clear whether this occurred in the warehouses.

Moore's wharf was the primary wharf that connected the railroad to ships until the construction of a dedicated ore dock by WP&YR Railroad in the 1960's. Also in the 1960's, a dock was constructed by the State as it began to operate the Alaska Marine Highway ferry system.[75] Moore's wharf continues to serve as WP&YR Railroad's primary intermodal connection between cruise ships and railroad tours, although at peak times the cruise ships use the other docks as well (including the ore dock). Cars and trucks were originally freighted out of Skagway by train to the Yukon until the completion of the Klondike Highway in 1978.

Connections between Skagway and Dyea were historically made by private boats. Many Gold Rush-era arrivals had to make this trip, since it was common for ocean-going ships to drop off passengers in Skagway even if they had bought tickets for Dyea. It was also common for passengers to arrive during this period uncertain whether they would use the Chilkoot or White Pass routes to the Yukon.

A telephone line was built between Dyea and Skagway in 1897. Like the line running up the Chilkoot Trail, wooden dowels were attached to trees, glass insulators were mounted on the dowels, and wire strung from glass insulator to glass insulator. This line probably operated up to 1900 or thereabouts. Harriet Pullen either repaired this line or built a completely new one to connect her dairy farm in Dyea with her hotel in Skagway. For both lines to have been built and maintained there must have been some sort of rough trail connecting the two communities but it probably didn't see much traffic other than the telephone lineman.[76]

A graded dirt road was built between Skagway and Dyea between 1940 and 1948. Apparently a hiking trail was constructed between the two communities in the early 1930s.[77] Today, a private van service provides travelers with rides to Dyea upon request ("Dyea Dave"). Bicycles and rental cars are also available at present to tourists and others as a means of travel between Skagway and Dyea. Van service is available to hikers on package tours, and various motorized and bicycle tours also make the trip from Skagway to Dyea and back.

Origin/Destination Analysis (comprehensive timeframe: pre-gold rush, gold rush, post gold rush to 2000)

Interestingly, there is no evidence in the literature that anyone has used primary data to determine whether more people crossed via the White Pass or the Chilkoot Pass. This seems like a relatively important piece of historical information that should be obtained by or for the Park.[78]

User Analysis (Who were they? What factors impacted which mode they used? Break out by mode type, level of use/ridership, i.e. service, commercial, residential, tourist, etc.)

This question would require additional primary research that would go beyond the scope of this study, since it has not been addressed systematically in the existing literature. There are plenty of anecdotal examples, but no overviews have been established that are based on data.

Level of Service by mode (What was the volume by mode type?)

These two questions would also require additional primary research to obtain an estimate.

Transportation Infrastructure (What physical features were in place/built to assist the transit systems? Docks, bridges, lighting, signage, etc.; identify for all modes)

I was unable to locate any secondary sources that address these questions. However, Karl Gurcke pointed out that newspapers would probably be an excellent source of information about the implementation of, and changes in, these physical features.

In Dyea, there were two newspapers – the Dyea Trail and the Dyea Press. Unfortunately neither lasted more than a year. In Skagway there were several newspapers including The Daily Alaskan, which ran from 1898 to 1924. After that there has been a scattering of newspapers up until the current Skagway News, a bi monthly.[79]

For some of the Skagway and Dyea newspapers, Park staff has developed a partial index of stories run in the papers. Unfortunately the index is not complete nor has it been proofed. Below is a list of newspaper articles in the categories for which information was requested in the scope for this study:

Bridges:

Daily Alaskan, 5/18/1900, 2/2: CARIBOU BRIDGE.
Daily Alaskan, 7/17/1900, 1/3: RR STARTS WORK ON CANTILEVER BRIDGE.
Daily Alaskan, 8/11/1900, 1/5: CANTILEVER BRIDGE.
Daily Alaskan, 9/27/1900, 4/5: CANTILEVER BRIDGE TRESTLE ERECTED.
Daily Alaskan, 12/20/1900, 1/6: CANTILEVER BRIDGE DONE.
Daily Alaskan: 8/13/1901, 4/1: RR REPLACING WOOD BRIDGES WITH STEEL.
Daily Alaskan, 4/3/1903, 4/3: RR BUILDING STAL BRIDGES.
Daily Alaskan, 4/30/1903, 1/4: CITY PROPOSES BUILDING BRIDGE AT 22ND STREET.

Daily Alaskan, 5/2/1903, 1/4: CITY TO TAKE OVER AND REPAIR 16TH STREET BRIDGE.
Daily Alaskan, 5/23/1903, 2/2: WP NEW BRIDGES.
Daily Alaskan, 8/25/1903, 1/1: 16TH STREET BRIDGE REPAIRED.
Daily Alaskan, 9/16/1903, 2/3: RR REPAIRS - 2 STEEL BRIDGES.
Skagway Cheechako, 3/13/1937, 1/2: WILL ELIMINATE TWO RR BRIDGES ACROSS SKAGWAY RIVER.

Docks:

Daily Alaskan, 8/21/1900, 1/5: CHILKOOT RR BUYS OLD CHILKOOT DOCK (LONG WHARF).
Daily Alaskan, 4/16/1901 3/1: FIGHT ON DOCK BETWEEN HOTEL RUNNERS.
Daily Alaskan, 6/18/1901 4/3: IMPROVING MOORE'S WHARF - DOCK OFFICE MOVED.
Skagway Cheechako, 5/1/1937, 2/1" '98 BAY VIEW HOTEL IS ON DOCK.

Moore's Wharf:

Skagway News, 11/18/1898, 3/3: CAPT. MOORE'S IMPROVED WHARF.
Skagway News, 2/03/1899, 5/1: RAILROAD GRADE TO MOORE'S WHARF TO BE COMPLETED SATURDAY.
Daily Alaskan, 9/09/1899, 1/4: AL-KI [STEAMER] CRASHES PART OF MOORE WHARF.
Daily Alaskan, 12/30/1899, 1/7: RATE WAR AT SKAGWAY WHARVES: MOORE WHARF.
Daily Alaskan, 1/12/1900, 1/5: NEW WORK AT MOORE'S WHARF; 50-100 NEW PILINGS.
Daily Alaskan, 2/27/1900, 3/1: MOORE WHARF BUSY; 4 STEAMERS ARRIVE.
Daily Alaskan, 3/01/1900, 4/4: RAILROAD BUILDING 300' OF NEW TRACK ON MOORE'S WHARF.
Daily Alaskan, 3/06/1900, 4/4: MOORE WHARF WORK - NEW PILES.
Daily Alaskan, 3/11/1900, 1/7: CAPT. MOORE SELLS HIS 22 1/2% INTEREST IN THE WHARF
Daily Alaskan, 4/14/1900, 3/1: WOOD ON MOORE'S WHARF WAREHOUSE.
Daily Alaskan, 4/26/1900, 4/6: E. J. LIDDICOAT, ARCHITECT FOR MOORE WHARF.
Daily Alaskan, 4/29/1900, 1/7: MOORE'S WHARF WAREHOUSE ROOF CRUSHED BY FALLING ROCKS.
Daily Alaskan, 5/12/1900, 4/1: STOCKYARDS AT MOORE WHARF.
Daily Alaskan, 5/24/1900, 4/4: LONGSHOREMAN'S STRIKE AT MOORE'S WHARF.
Daily Alaskan, 5/31/1900, 4/3: MOORE WHARF GROWS.
Daily Alaskan, 6/22/1900, 1/7: MOORE WHARF PEOPLE OPPOSED TO INCORPORATION OF CITY.
Daily Alaskan, 6/26/1900, 1/6: GATE PUT UP ON MOORE WHARF TO RESTRICT TRAFFIC.

Daily Alaskan, 7/10/1900, 4/3: MOORE WHARF PUTS UP FENCE AND GATE AT ENTRANCE.
Daily Alaskan, 11/1/1900, 4/4: WHALE SEEN FROM WHARF.
Daily Alaskan, 1/09/1901, 1/5: PROPOSED SKAGWAY STREET CAR LINE; MOORE'S WHARF.
Daily Alaskan, 3/08/1901, 2/2: FIRE IN WP&YR OFFICE ON WHARF; PIPE AND ROOF DAMAGE.
Daily Alaskan, 4/20/1901, 4/5: NEW 150' X 50' WAREHOUSE ON MOORE WHARF.
Daily Alaskan, 6/18/1901, 4/3: IMPROVING MOORE'S WHARF - DOCK OFFICE MOVED.
Daily Alaskan, 7/20/1901, 1/7: WP & YR RR COMPLETE COLD STORAGE PLANT AT MOORE'S WHARF.
Daily Alaskan, 9/05/1901, 1/3: NEW WAREHOUSE AND STOCKPEN AT MOORE WHARF.
Daily Alaskan, 3/25/1902, 1/6: PACIFIC COAST CO AND MOORE'S WHARF CO AGREE.
Daily Alaskan, 3/28/1902, 1/6: P. C. CO. OUT OF WHARFING BUSINESS AT SKAGWAY.
Daily Alaskan, 4/05/1902, 4/4: EAGLE SHOT ABOVE MOORE'S WHARF TO GRACE WHARF.
Daily Alaskan, 4/12/1902, 1/3: RR AND WHARF COMPANIES BUILDING NEW JOINT OFFICE.
Daily Alaskan, 5/01/1902, 3/1: NEW OFFICE AT MOORE'S WHARF, 50' X 50'.
Daily Alaskan, 6/14/1902, 1/5: RR CO BUILDING NEW WAREHOUSE AT MOORE WHARF.
Daily Alaskan, 12/06/1902,4/3: FLOATING WHARF ATTACHED TO MOORE'S WHARF.
Daily Alaskan, 1/28/1903, 3/3: LUMBER FROM MOORE'S WHARF; PILES COMING.
Daily Alaskan, 4/15/1903, 2/2: WP RR MOVES FREIGHT DEPOT FROM DEPOT TO WHARF.
Daily Alaskan, 6/03/1903, 1/7: MOORE WHARF CROWDED WITH GOODS FOR INTERIOR.
Daily Alaskan, 8/06/1903, 3/2: MOORE'S WHARF TO BE LIGHTED BY ELECTRICITY.
Daily Alaskan, 9/01/1903, 1/4: MOORE'S WHARF LIT BY ELECTRICITY.
Daily Alaskan, 11/01/1903, 2/3: RR FREGHT OFFICE MOVED FROM MOORE WHARF TO BRODWAY.
Daily Alaskan, 11/04/1903, ?/?: MOORE WHARF MAKES LARGEST SINGLE TAX PAYMENT.
Daily Alaskan, 12/05/1903, 1/3: MOORE WHARF CO. DUMPED SO-CALLED TUNGSTEN ORE.
Daily Alaskan, 12/00/1903(?), 1/2: THREE WHALES SPOUTING AT WHARF.

Wharfs (General):

Dyea Trail, 1/19/1898, 1/3: DYEA WHARF.
Dyea Trail, 1/19/1898, 2/3: DYEA-KLONDIKE TRANS CO WAGON ROAD FROM OUTER WHARF.
Dyea Trail, 2/11/1898, 1/1: DYEA WHARF FINISHED.
Daily Alaskan, 2/24/1900,1/6: BUNCO SHARPS AT SEATTLE WHARF.
*Daily Alaskan, 9/6/1900,*4/7: FIRE DESTROYS PART OF DYEA WHARF.
*Daily Alaskan, 9/25/1900,*4/4: SYLVESTER WHARF HAS EAST PILES FALL AND SLUMP.
Daily Alaskan, 3/28/1901, 4/7: SYLVESTER & GRAVES TO REDUCE WHARFAGE CHARGES.
Daily Alaskan, 1/9/1904, 3/1: WP RR WHARF AT CARIBOU FINISHED.
Daily Alaskan, 2/28/1904, 4/4: PACIFIC CO. REPAIRING WHARF.

Trails:

Morning Alaskan, 2/1/1898, 1/1: WHITE PASS TRAIL.
Dyea Trail, 4/9/1898, 1/: CHILKOOT TRAIL DESCRIPTION - DYEA TO LINDEMAN.
Dyea Press, 5/14/1898, 4/1: LETTER ON CHILKOOT TRAIL.
Dyea Press, 11/18/1898, 1/1: SKAGWAY HAS NO TRAIL.
Skagway News, 11/25/1898, 3/4: WHITE PASS CITY, TRAIL.
Skagway News, 11/25/1898, 3/4: NORMAN SMITH TO OPEN NEW TRAIL FROM SUMMIT CITY.
Skagway News, 1/13/1899, 5/3: PACKERS CUTTING HORSE TRAIL ALONG RIVER.
Skagway News, 1/13/1899, 5/5: RR CLEARING ATLIN TRAIL.
Skagway News, 2/3/1899, 1/6: COLONEL SISSON OF WOODLAND HOTEL, SHEEP CAMP (ON CHILKOOT TRAIL).
Daily Alaskan, 5/9/1899, 4/1: ATLIN TRAIL.
Daily Alaskan, 1/31/1900, 1/5: DYEANS REPAIRING TRAIL. RAILROAD TAKING DOWN TRAM.
Daily Alaskan, 3/6/1900, 4/2: ALL OF TRAM ON CHILKOOT TRAIL TORN DOWN.
Daily Alaskan, 4/24/1900, 4/4: MR. & MRS. C. T. SISSON CLOSE SHEEP CAMP HOTEL (CHILKOOT TRAIL - ECONOMIC DOWNTURN).
Daily Alaskan, 7/31/1901, 4/7: CHILKOOT TRAIL - FINNEGAN'S POINT FIRE.
Daily Alaskan, 1/17/1903, 1/5: FAN TAIL TRAIL IN GOOD CONDITION TO ENGINEER MINE.
Daily Alaskan, 1/28/1903, 4/1: TRAIL TO EAGLE OPEN.
Daily Alaskan, 3/7/1903, 1/6: FANTAIL TRAIL TO ATLIN – CONDITIONS.
Daily Alaskan, 3/18/1903, 1/3: ATLIN INDIANS CROSS TRAILS, ONE THROUGH MT. DRAW.
Daily Alaskan, 3/28/1903, 3/3: HARDSHIPS OF VALDEZ TRAIL TO TANANA.
Daily Alaskan, 10/13/1903, 1/6: FANTAIL TRAIL PUT IN CONDITION.
Daily Alaskan, 10/20/1903, 1/1: FANTAIL TRAIL READY.
Daily Alaskan, 11/7/1903, 1/6: FANTAIL TRAIL TO TEEPEE ROADHOUSE OK.

Daily Alaskan, 12/10/1903, 1/6: WHITEHORSE PEOPLE BUILDING TRAIL TO MINES.
Daily Alaskan, 1/5/1904, 3/1: BULLION CREEK TRAIL NEAR COMPLETE.
Daily Alaskan, 2/13/1904, 3/4: TWO OLD HOUSES UP ON BULLION CREEK TRAIL.

Roads:

Dyea Trail, 1/19/1898, 2/3: DYEA-KLONDIKE TRANSPORTATION COMPANY WAGON ROAD FROM OUTER WHARF.
Skagway News, 6/17/1898, 1/7: BRACKETT IN TROUBLE OVER ROAD - IN RECEIVERSHIP.
Skagway News, 11/25/1898, 1/8: BRACKETT AND WAGON ROAD.
Skagway News, 2/3/1899, 5/1: BRACKETT WAGON ROAD CASE, TOO COMMON A NEWS ITEM.
Daily Alaskan, 7/8/1902, 3/1: ROAD TO CONNECT EAGLE AND CHICKEN
Daily Alaskan, 1/13/1903, 1/6: J. J. HEALY ASSURES CONSTRUCTION OF VALDEZ ROAD.
Daily Alaskan, 10/14/1903, 1/2: JOY & YOUND TO BUILD ROAD TO BEN HUR MINE.
Daily Alaskan, 12/11/1903, 1/5: WINTER ROAD UNDER CONSTRUCTION FROM DAWSON TO EAGLE.
Daily Alaskan, 12/17/1903, 2/2: SKAGWAY TO HELP BUILD ROAD TO ALSEK.
Daily Alaskan, 12/19/1903, 1/4: LIST OF CONTRIBUTORS TO ALSEK ROAD FUND.
Daily Alaskan, 10/24/1906, 2/2: CONRAD-CARCROSS ROAD.
Daily Alaskan, 5/14/1908, 1/3: LOCAL AGITATION FOR GOOD ROADS - WANT ONE TO DYEA.
Daily Alaskan, 5/22/1908, 1/5: GOOD WAGON ROAD UNDER CONSTRUCTION.
Daily Alaskan, 9/2/1908, 1/3: ROAD FROM HAINES TO PORCUPINE AND RAINY HOLLOW.
Daily Alaskan, 10/3/1908, 1/3: ROAD TO DENVER GLACIER - COMMITTEE APPOINTED-KIRMSE.

Stage Lines:

Skagway News, 3/17/1899, 3/3: STAGE TO ATLIN.
Daily Alaskan, 11/2/1902, 4/1: FIRST STAGE OF SEASON ON WP & YR LEAVES FOR DAWSON.
Daily Alaskan, 1/10/1903, 1/3: WHITEHORSE-DAWSON STAGE, 5 DAYS AND 4 HOURS.
Daily Alaskan, 1/18/1903, 3/1: THREE DAYS AND 20 HOURS STAGE TRIP - DAWSON TO WHITEHORSE.
Daily Alaskan, 3/3/1903, 1/3: STAGE LINE - CARCROSS TO ATLIN.
Daily Alaskan, 12/3/1903, 1/6: WP & YR RR BUYS W. C. ROBERTSON STAGE LINE FROM WHITEHORSE.

Warehouses:

Daily Alaskan, 5/30/1899, 4/2: PETERSON & CO. LARGE NEW WAREHOUSE ON 6TH
Daily Alaskan, 4/14/1900, 3/1: WOOD ON MOORE'S WHARF WAREHOUSE
Daily Alaskan, 4/29/1900, 1/7: MOORE'S WHARF WAREHOUSE ROOF CRUSHED BY FALLING ROCKS.
Daily Alaskan, 5/17/1900, 2/2: FRYE-BRUHN MEAT WAREHOUSE, WEST END OF 5TH, REMODEL.
Daily Alaskan, 9/5/1900, 4/4: CARROLL & CO TO OCCUPY 5 WAREHOUSES - 2 STORES.
Daily Alaskan, 3/5/1901, 4/2: BISHOPRICK & SHOEMAKER 60 X 125 WAREHOUSE.
Daily Alaskan, 4/6/1901, 1/4: ROSS-HIGGINS CO. BUILDING NEW WAREHOUSE AT 4TH & MAIN
Daily Alaskan, 4/20/1901, 4/5: NEW 150' X 50' WAREHOUSE ON MOORE WHARF
Daily Alaskan, 4/25/1901, 4/5: ROSS HIGGINS WAREHOUSE NEAR COMPETITION
Daily Alaskan, 9/5/1901, 1/3: NEW WAREHOUSE AND STOCKPEN AT MOORE WHARF
Daily Alaskan, 9/12/1901, 4/3: BUILDING BOOM - MONOGRAM SALOON WAREHOUSE, 4TH & STATE.
Daily Alaskan, 6/14/1902, 1/5: RR CO BUILDING NEW WAREHOUSE AT MOORE WHARF
Daily Alaskan, 11/9/1902, 3/1: FRYE-BRUHN CO. TO MOVE ITS WAREHOUSE.
Daily Alaskan, 8/4/1903, 1/6: ADV: GRIMM ASKS FOR BIDS TO BUILD ICE HOUSE
Daily Alaskan, 9/19/1903, 4/2: KALEM MOVING WAREHOUSE.
Daily Alaskan, 9/27/1903, 3/2: MONOGRAM LIQUOR OWNERS TO BUILD ICE HOUSE AT STATE NEAR FOURTH AVENUE.
Daily Alaskan, 10/16/1903, 1/6: KALEM'S WAREHOUSE MOVED DOWN 2ND AVENUE

Electric Power References:

Skagway News, 12/9/1898, 3/2: SKAGWAY HAS ELECTRIC LIGHTS, WATER WORKS.
Skagway News, 1/13/1899, 5/4: MEETING TO PETITION FOR LOWER ELECTRICAL RATES.
Daily Alaskan, 1/16/1899, 1/6: WANT CHEAPER LIGHTS; COMMISSION FORMED.
Daily Alaskan, 6/7/1900, 1/7: APPROPRIATION FOR LIGHTHOUSE.
Daily Alaskan, 10/3/1900, 4/4: MR. & MRS. EASTMAN, MGR. SKAGWAY LIGHT & WATER CO.
Daily Alaskan, 1/8/1901, 1/7: ELECTRIC LIGHT PLANT AT RR SHOPS.
Daily Alaskan, 7/10/1901, 1/7: ELECTRIC LIGHT CO BUILDING NEW PLANT.

Daily Alaskan, 8/25/1901, 1/4: LIGHT AND WATER SYSTEM CONSOLIDATED.
Daily Alaskan, 10/18/1901, 3/4: FOUNDATION OF NW LIGHT & POWER CO BUILDING BEING BUILT.
Daily Alaskan, 2/1/1902, 4/4: NEW ELECTRIC LIGHT PLANT OPERATIONS.
Daily Alaskan, 4/27/1902, 1/6: PROF. C. H. PASSELS WILL PLAY HIS ELECTRIC OPERA MACHINE.
Daily Alaskan, 6/1/1902, 2/1: NW LIGHT & POWER CO. TO CONNECT EAST 5TH AVE.
Daily Alaskan, 9/17/1902, 3/1: NEW ELECTRIC LIGHT PLANT RUNS BY WATER.
Daily Alaskan, 10/5/1902, 1/6: CITY ALLOCATES $300 FOR STREET LIGHTING.
Daily Alaskan, 10/7/1902, 4/1: CITY COUNCIL DECIDES TO LIGHT CITY STREETS.
Daily Alaskan, 10/12/1902, 3/1: 20 LIGHT 32 CANDLE POWER LIGHTS TO BE UP.
Daily Alaskan, 1/22/1903, 4/3: ATLIN-PINE CREEK POWER CO.
Daily Alaskan, 2/21/1903, 1/6: LIGHTHOUSE ON INSIDE PASSAGE.
Daily Alaskan, 4/1/1903, 3/3: SKAGWAY LIGHT & WATER CO. REPORTED BANKRUPT.
Daily Alaskan, 5/1/1903, 3/1: POWER COMPANY HAS NEW MANAGEMENT.
Daily Alaskan, 5/8/1903, 4/1: ATLIN TO GET ELECTRIC LIGHTS; BUY SKAGWAY'S OLD PLANT.
Daily Alaskan, 6/8/1903, 3/2: MOORE'S WHARF TO BE LIGHTED BY ELECTRICITY.
Daily Alaskan, 8/19/1903, 3/1: ATLIN'S ELECTRIC DREDGE.
Daily Alaskan, 8/25/1903, 1/1: NW LIGHT & POWER CO TO RAISE RATES.
Daily Alaskan, 9/1/1903, 1/4: MOORE'S WHARF LIT BY ELECTRICITY.
Daily Alaskan, 9/3/1903, 1/4: SEATTLE SALOON REOPENS - ELECTRIC SIGN OVER THE DOOR.
Daily Alaskan, 9/4/1903, 1/3: H. D. KIRMSE'S NEW ELECTRIC SIGN HUNG OUT ON BROADWAY.
Daily Alaskan, 9/22/1903, 1/4: POWER COMPANY RAISES RATES 25%.
Daily Alaskan, 10/13/1903, 3/2: ELECTRIC SIGN ON PACK TRAIN, 6TH & BROADWAY.
Daily Alaskan, 12/8/1903, 1/5: SKAGWAY'S LOOSE OBSERVANCE OF ELECTRIC CODES.
Daily Alaskan, 6/2/1907, 1/2: EXTRA EDITION RE. PURCHASE OF NORTHWEST LIGHT & POWER.
Daily Alaskan, 4/3/1908, 1/1: CITIZENS BUY NW LIGHT & POWER CO. FOR $15,000.
Daily Alaskan, 4/18/1908, 1/1: MORE ON POWER PLANT PURCHASE.
Daily Alaskan, 4/21/1908, 1/1: LOCALS FORM HOME POWER CO AND OFFER IT TO CITY.
Daily Alaskan, 4/24/1908, 1/1: MORE ON POWER COMPANY SALE.
Daily Alaskan, 4/28/1908, 1/1: COUNCIL VOTES TO BUY THE POWER PLANT.
Daily Alaskan, 4/29/1908, 3/8: MASCOT SALOON - ELECTRIC PIANO WITH 100 NEW ROLLS.
Daily Alaskan, 6/27/1908, 1/5: HOME POWER COMPANY'S NEW DAM.

Daily Alaskan, 8/3/1908, 1/3: G. H. STURGILL SUES HOME POWER CO. FOR APPROPRIATING WATER.
Daily Alaskan, 8/22/1908, 1/1: HOME POWER CO. PUTTING IN STREET LAMPS IN SKAGWAY.
Daily Alaskan, 9/1/1908, 1/5: HOME POWER CO. DITCH FROM LOWER LAKE TO RESERVOIR.
Daily Alaskan, 9/12/1908, 4/3: KIRMSE HAS PUT INCANDESCENT LIGHTS AROUND THE BUILDING.
Daily Alaskan, 9/5/1909, 3/2: ADV. FOR PULLEN HOUSE ELECTRIC LIGHTS, HOT & COLD WATER.

Signs:

Skagway News, 6/17/1898, 3/6: BATTLESHIP IOWA ON SIGN OF WHITE NAVY SALOON.
Daily Alaskan, 8/8/1901, 1/4: TOWN NOTES - PETERSON & CO NEW SIGN.
Daily Alaskan, 10/1/1901, 4/3: GEORGE RAPUZZI PUTS UP NEW SIGN
Daily Alaskan, 11/13/1901, 1/5: JEWELER KIRMSE PUTS NEW SIGN UP, ILLUMINATED BY ELECTRICTY.
Daily Alaskan, 9/3/1903, 1/4: SEATTLE SALOON REOPENS - ELECTRIC SIGN OVER THE DOOR.
Daily Alaskan, 9/4/1903, 1/3: H.D. KIRMSE'S NEW ELECTRIC SIGN HUNG OUT ON BROADWAY.
Daily Alaskan, 10/13/1903, 3/2: ELECTRIC SIGN ON PACK TRAIN, 6TH & BROADWAY
Daily Alaskan, 5/3/1907, 1/4: KERN PUTTING NEW SIGNS ON MT DEWEY, INCLUDING SWASTAKA.

Historic Transportation Plans

These are described in the narrative in Section I.

ENDNOTES

[1] See for example,
Newell, Gordon (editor), *The H. W. McCurdy Marine History of the Pacific Northwest. An Illustrated review of the growth and development of the maritime industry from 1895...to the present time, with sketches and portraits of a number of well know marine men.* Seattle, WA: The Superior Publishing Company, 1966.
Newell, Gordon (editor), *The H. W. McCurdy Marine History of the Pacific Northwest 1966 to 1976.* Seattle, WA: The Superior Publishing Company, 1977.
Wright, E. W. (editor), Lewis & Dryden's Marine History of the Pacific Northwest. 1961 reprint. New York, NY: Antiquarian Press, Ltd., 1895.

[2] Karl Gurcke suggested the following additional resources, which were not part of my review:
Walter R. Borneman, *Alaska: Saga of a Bold Land.* HarperCollins Publishers Inc. New York, 2003.
Samuel Bawlf, T*he Secret Voyage of Sir Francis Drake 1577-1580.* Douglas & McIntyre, Vancouver, 2003.

[3] Fisher, R., **Bering's Voyages: Whither and Why**. University of Washington, Seattle, 1977.

[4] Dilliplane, T., "Shipbuilding in Russian America: A sampling of the literature," pp. 5-28 in **Transportation in Alaska's Past**, Alaska Historical Society, Alaska Department of Natural resources, State Division of Parks Office of History and Archeology, Pub. No. 30, 1982.

[5] Hinckley, T., "The Inside Passage: A popular gilded-age tour," *Pacific Northwest Quarterly*, April, 1965.
[6] Ibid, p. 68.

[7] Ibid. See also Mathilda Barnes Lukens, *The Inland Passage: A journal of a trip to Alaska*, n.p. 1889, and Lt. Frederick Schwatka, **Wonderland: Or, Alaska and the Inland Passage**, St. Paul, 1886.

[8] Ibid.

[9] Karl Gurcke, note on draft of this report, December 2004.

[10] Competition for this tourist trade emerged in 1884, when the Oregon Railway and Navigation Company introduced a new sidewheeler steamship to the Inside Passage. They were unable to show a profit, however, and the Pacific Steamship Company took the boat over in 1887. Hinckley, T., "The Inside Passage: A popular gilded-age tour," *Pacific Northwest Quarterly*, April, 1965, p.70.

[11] Ibid.

[12] Ibid, p. 71.

[13] Ibid, p. 71.

[14] Ibid. See also Edward L. Keithahn, **Monuments in Cedar**, Seattle, 1963. Karl Gurcke suggests these additional resources on the tourist trade:
Goetzmann, William H. and Kay Sloan, *Looking Far North: The Harriman Expedition to Alaska, 1899.* New York, NY: Viking, 1982.
Norris, Frank, Gawking at the Midnight Sun: The Tourist in Early Alaska. Alaska Historical Commission, Anchorage, 1985.
Norris, Frank, Showing Off Alaska: The Northern Tourist Trade, 1878-1941. *Alaska History* 2(2): 1-15, 1987.

[15] Karl Gurcke noted in comments on the earlier draft of this document that there were several trails used for the transport of eulachon oil, more than one of which was referred to as the "grease trail."

[16] Satterfield, A., *Chilkoot Pass: The most famous trail in the north,* Alaska Northwest Publishing Company, Anchorage, AK, 1973; Greer, Sheila C., *Skookum Stories on the Chilkoot / Dyea Trail.* Carcross, YT: Carcross-Tagish First Nation, 1995.

[17] Satterfield, A., *Chilkoot Pass: The most famous trail in the north,* Alaska Northwest Publishing Company, Anchorage, AK, 1973

[18] Ibid.; Karl Gurcke adds the following helpful note regarding the first non-Native person to cross the Chilkoot Pass:
Several authors make this claim, including Berton (1985:6), Greer (1995:45), Wright (1976: 133-134). The dates authors give for when Holt traversed the Chilkoot vary – anywhere between 1874-1878. Wright (1976:133) notes that Holt may have gone over the White Pass although the Chilkoot is more likely. Wright (1976:134) also notes a possible earlier traverse in 1864 or 1865 but discounts it. Wright (1976:134) cites Dawson 1898 as the source of the Holt story. Berton (1985:8) claims that Holt brought back two small nuggets of gold. The park's new Ethnographic Overview and Assessment quotes Dawson on this (Thornton 2004:119).

Berton, Pierre, *Klondike: The Last Great Gold Rush 1896-1899*. Revised Edition. Toronto, OT: McClelland and Stewart Limited, 1985.
Dawson, George M., *Report on an Exploration in the Yukon District, N. W. T. and Adjacent Northern Portion of British Columbia, 1887*. Reissued in 1898 with "Extracts Relating to the Yukon District, N. W. T.… 1887-88." Ottawa: The Queen's Printer, 1898.
Wright, Allen A., Prelude to Bonanza: The discovery and exploration of the Yukon. Sidney, BC: Gray's Publishing Ltd., 1976.

[19] Satterfield, A., *Chilkoot Pass: The most famous trail in the north,* Alaska Northwest Publishing Company, Anchorage, AK, 1973, p.6. Karl Gurcke notes that this is an incomplete version of the story, and that Thornton (2004:119-121) provides a better understanding of the complexity of this incident.

[20] Ibid.; according to Gurcke, Spude (1980) indicates that in 1887, approximately 500 prospectors were crossing the Chilkoot and in 1895, over 1,000 prospectors crossed the Chilkoot. Therefore, the numbers of prospectors who crossed over the Chilkoot prior to the gold rush could be in the thousands. The following references all provide more detail and reliable historical accounts of the development of the Trail:

Spude, Robert L., (compiler), Chilkoot Trail. *Occasional Paper No. 26*. Fairbanks, AK: University of Alaska, Cooperative Park Studies Unit, 1980.

Thornton, Thomas F. with contributions by Deborah McBride, Saurabh Gupta, Carcross-Tagish First Nations, Chilkat Indian Village, Chilkoot Indian Association, and the Skagua Traditional Council, Klondike Gold Rush National Historical Park Ethnographic Overview and Assessment. *Anchorage, AK: National Park Service, 2004.*

Neufeld, David and Frank Norris, *Chilkoot Trail: Heritage Route to the Klondike*. Whitehorse, YT: Lost Moose Publishers, 1996.

[21] Ibid.; Schwatka's account can be read in the original military report (1888) and a popular version (1894):

Schwatka, Lt. Frederick, A Military Reconnaissance in Alaska. Senate Document 1023. Washington, DC: Government Printing Office, 1888.

_____. *A Summer in Alaska*. St. Louis, MO: J.W. Henry, 1894.

_____. *A Summer in Alaska in the 1880s.* 1988 Reprint. Secaucus, NJ: Castle Books, 1894.

[22] Karl Gurcke notes that the first written account was provided in 1882 by Arthur Krause.

Krause, Aurel, *The Tlingit Indians, Results of a Trip to the Northwest Coast of America and the Bering Straits*. Translated by Erna Gunther. Seattle, WA: University of Washington Press, 1956.
Krause, Aurel, *Journey to the Tlingits by Aurel and Arthur Krause, 1881/82*. Translated by Margot Krause McCaffrey. Haines, AK: Haines Centennial Commission(?), 1981.

[23] Ibid.

[24] Ibid.; Moore's story is recounted in the following references:
Andrews, Clarence L., *Biographical Sketch of Captain William Moore, Parts I and II*. Washington Historical Quarterly, Vol. 21, pp. 195-203, 271-279, 1930.

Andrews, Clarence L., Biographical Sketch of Captain William Moore, Parts III and IV. *Washington Historical Quarterly*, Vol. 22, pp. 33-41, 99-111, 1931.

Hacking, Norman, *Captain William Moore. B. C.'s Amazing Frontiersman*. Surrey BC: Heritage House Publishing Company Ltd., 1993.

Moore, J. Bernard, *Skagway in Days Primeval*. New York, NY: Vantage Press, 1968.

Moore J. Bernard, *Skagway in Days Primeval. The Writings of J. Bernard Moore 1886-1904*. Cover Art by Peter J. Lucchetti. Revised Edition. Skagway, AK: Lynn Canal Publishing, 1997.

[25] According to Gurcke, Berton (1985:15) suggests that Williams lived for two days after reaching Healy & Wilson's trading post in Dyea but that the Indian did communicate the news by throwing beans on a table and said: "Gold; All Same Like This".

[26] For more information about Dawson Charlie and the misnomer "Tagish Charley," which appears in some accounts, see Cruikshank, Julie with Angela Sidney, Kitty Smith and Annie Ned, *Life Lived Like a Story. Life stories of Three Yukon Elders*. Vancouver, BC: University of British Columbia Press, 1990.

[27] Karl Gurcke adds the following note: [There was] "…the "All-Canadian" route, beginning in Edmonton, Alberta. It was advertised as a wagon road over the prairie. It was, instead, 1,500 miles of unimproved wilderness, and very few stampeders succeeded in reaching the gold fields via this route. The other Canadian land route was known as the Ashcroft Trail, beginning in Ashcroft, British Columbia, and it traversed the Canadian Rockies at elevations that were almost always covered by snow – another basically impossible route although a number of stampeders tried it. Then there was the "All American" route from Valdez, which was advertised as the shortest way to the Klondike, but it was a lie from start to finish, since the gold fields were in Canada, and the route led directly over miles and miles of uncharted glaciers. There was also the Dalton Trail (or Chilkat Trail) out of Haines and the Stikine Trail out of Wrangell."

[28] The Tlingit name for the Chilkoot Pass is "A Shakî" which means "Over It" (Greer 1995:9) or "A Shakée" "On Top of It" (Thornton 2004:20). The Tagish name for the pass is "Kwatese", or "Over the Mountain" (Greer 1995:7).
Greer, Sheila C. *Skookum Stories on the Chilkoot / Dyea Trail*. Carcross, YT: Carcross-Tagish First Nation, 1995.
Thornton, Thomas F. with contributions by Deborah McBride, Saurabh Gupta, Carcross-Tagish First Nations, Chilkat Indian Village, Chilkoot Indian Association, and the Skagua Traditional Council, Klondike Gold Rush National Historical Park Ethnographic Overview and Assessment. Anchorage, AK: National Park Service, 2004.

[29] Minter, R., The White Pass: Gateway to the Klondike, University of Alaska Press, Fairbanks, 1987, p. 21

[30] Karl Gurcke offered the following helpful explanatory note on an earlier draft of this report:
"The problem wasn't so much that the Dyea harbor was treacherous or the tidal bores, instead it was simply a very shallow harbor. Ships offloading at Dyea had to anchor about 2 miles offshore and lighter their passengers and cargo ashore, a very time consuming task that was heavily depended on the tides. The lighters got inshore as far as they could, waited for the tide to drop, when it did and the lighters were on the mud, they could offload but they had to be completely offloaded before the tide came back in. Skagway had a deepwater harbor with a very short shallow beach, which allowed for the rapid construction of four wharfs. Because they could offload directly on the wharfs and didn't have to deal with the lighters and the tides after the wharfs were constructed, the ship captains could return to Seattle much more quickly and pick up another load of passengers and freight. This allowed them to make more money faster. The good businessmen of Dyea realized their predicament and started construction of two wharfs – the Dyea-Klondike Company wharf and the Long or Kenney Wharf. The Kenney Wharf was eventually two miles long. Unfortunately by the time the Long Wharf was operational, the rush was passed its peak and Dyea was rapidly declining."

[31] This information was provided by Karl Gurcke. Additional information on the tramlines can be found in: Norris, Frank B. and Carol Taylor, Historic Structures and Sites: Dyea and the Chilkoot Trail. Anchorage, AK: National Park Service. (Draft) 1986.

[32] Ibid.

[33] Karl Gurcke suggests the following reports, in addition to Minter:

Bearss, Edwin C., *Proposed Klondike Gold Rush National Historical Park Historic Resource Study*. Washington, D. C.: National Park Service, 1970.
Johnson, Julie, *A Wild Discouraging Mess: The History of the White Pass Unit of the Klondike Gold Rush National Historical Park.* Anchorage, AK: National Park Service, 2003.

[34] Minter, R., The White Pass: Gateway to the Klondike, University of Alaska Press, Fairbanks, 1987, p. 21.

[35] Ibid p. 23

[36] Ibid p. 24.

[37] Ibid p. 26.

[38] Ibid, p. 29-30.

[39] Ibid p. 31.

[40] Ibid p. 32-33.

[41] Ibid p. 38.

[42] Ibid p. 36.

[43] Ibid p. 43-44.

[44] Ibid p. 50.

[45] Ibid., p. 60-67.

[46] Ibid, p. 68.

[47] Ibid, p. 72-73.

[48] Ibid. p. 95

[49] Ibid, p. 98

[50] Ibid p. 102

[51] Ibid p. 120.

[52] Ibid p. 122.

[53] Ibid p. 156

[54] Ibid p. 139.

[55] Ibid p. 134.

[56] Ibid p. 164

[57] Ibid p. 167.

[58] Ibid, p. 187-188. Karl Gurcke added the following note on an earlier draft of this report:

"The tracks along the east bluff were put in during the gold rush. They had to because they ran to Moore's Wharf. The tracks along Broadway were also put in during the rush but were probably removed in 1943 or 1944. A map dated 20 June 1944 shows tracks on Broadway north of 10th Avenue but not south."

Army Service Forces, Water Distribution System, Skagway, Alaska, 20 June 1944 (Blueprint). Skagway, AK: Army Service Forces, Northwest Command Headquarters, Port of Debarkation, 1944.

[59] Ibid p. 252.

[60] Ibid p. 310.

[61] Due to the absence of secondary research on the subject of the wharves, this is a very abbreviated and completely inadequate description of a critical and very interesting part of the area's transportation history. Fortunately, there are primary resources available for future studies. Karl Gurcke added the following note to an earlier draft of this report:

"Note that there is a series of photographs that show the progression of the Skagway harbor from wilderness to the four wharfs and then to their decay down to one. In other words, the harbor area was well photographed during the gold rush and post gold rush period. We also have numerous photos of ships in the Skagway and Dyea harbors and they include all the type of ships you mention from canoes on up except submarines. During the gold rush there were also a number of sailing ships in addition to the steamers. There were also several shipwrecks in the Skagway harbor and we have photos of those wrecks."

[62] Allen, J., "Alaska's Deepwater Highway," Sitnews, Ketchikan, Alaska; May 2004; online at http://www.sitnews.us/JuneAllen/AMHS/052804_ak_marine_hwy.html.

[63] Ibid.

[64] This paragraph was provided by Karl Gurcke.

[65] Karl Gurcke added the following note to an earlier draft of this report:
"Hauling minerals out of the Yukon and northern British Columbia has always been part of the traffic on the WP&YR railroad. The railroad started replacing its steam locomotives not because it was transforming itself into a heavy-duty ore haul, rather it was because it couldn't get any more steam locomotives. All their steam locomotives were worn out after WWII and they bought several new steam locomotives in 1947. They tried to buy more in 1954 but Baldwin, the manufacture had closed down the line and the minimum order to reopen it again was 12 so WP&YR went diesel-electric because they only needed 4 locomotives. The Ore Dock and warehouse was built, the waterfront filled in, the entire railroad line upgraded, and larger locomotives were added to the fleet during the late 1960s when White Pass won the contract to haul the ore from the newly opened Cyrus Anvil mine in the Yukon. The construction of the ore dock did allow for the separation of the ore business from the passenger business but the shipping containers always came through Skagway via the Moore Wharf."

[66] This paragraph was provided by Karl Gurcke.

[67] Karl Gurcke added the following note on an earlier draft of this report:
"The company bid on the ore haul contract when Cyrus-Anvil mine reopened but lost out because the Klondike Highway was opened by that time and it was cheaper to ship via the road since the Yukon and Alaska would keep the road open during the winter. The railroad had to include the cost of keeping its track open during the winter and that probably was critical. The ore haul continued a few years and then shut down again. A few years later it opened up briefly but shut down again. I guess the price of lead and zinc on the world market was such that it wasn't economically feasible. "

[68] Lundberg, M., "Building the Skagway to Dawson Road," in ExploreNorth, online at http://www.explorenorth.com/library/yafeatures/bl-skagwayroad.htm. Link active in November 2004.
[69] Norris, Frank B., Legacy of the Gold Rush: An Administrative History of Klondike Gold Rush National Historical Park. Anchorage, AK: National Park Service, 1996.
[70] Information from the *Daily Alaskan*, 6 July 1922, page 1, column 1 and 2.

[71] This paragraph was provided by Karl Gurcke.

[72] This paragraph was provided by Karl Gurcke.

[73] This paragraph was provided by Karl Gurcke.

[74] This note was provided by Karl Gurcke on an earlier draft of this report:
"Two of the aerial tramway companies had "railroad" in their company names but it was only the Chilkoot Railroad & Transport Company that actually started construction of a horse tramline. We have several photos of the wooden tracks running up Broadway in Dyea but unfortunately it never seemed to have gone beyond the military reservation in Dyea and as a result never seemed to have operated. In other words, we have no photographs of an operating line – horses pulling cars. The White Pass & Yukon Route Railroad bought out The Skagway and Lake Bennett Tramway Company in Skagway. I don't believe this tramway ever actually operated either but they did construct several miles of line. The only horse drawn tramway that I know of that actually operated was the McCauley tramway operating around the Whitehorse Rapids. This was a surface tramway or railroad that used peeled logs end to end as rails. It was bought out by White Pass and closed after the railroad reached Whitehorse."

[75] Note added by Karl Gurcke:
"All the gold rush era wharfs with the exception of the Moore Wharf, had disappeared by the 1960s. In fact they appear to be mostly gone by the 1930s and 1940s. Not sure if they were deliberately torn down or allowed to fall down or a combination of both. Generally it looks like the approach to these wharfs were removed first so kids couldn't play on them and then the rest of the wharf was allowed to fall apart. This is just speculation based on photographs."

[76] This paragraph was added by Karl Gurcke.
[77] Frank Norris (1996:35-38) has a good history of the construction of the Dyea Road from 1940-1948. Norris, Frank B., Legacy of the Gold Rush: An Administrative History of Klondike Gold Rush National Historical Park. Anchorage, AK: National Park Service, 1996.

[78] This note was added by Karl Gurcke on an earlier draft of this report:
"The North West Mounted Police records would be the place to start. The Mounties occupied both passes beginning in February 1898. After that, they kept track of people coming over each passes. Before that, the stampeders had to stop at the Mountie post at Tagish (and several other places along the Yukon) and everybody had to check in, pay their custom dues if they hadn't already paid them. Apparently everyone had to check in after wards as well – the Mounties were just being sure everybody made it safely to Dawson. There was also a Mounty presence at Lake Bennett and all the boats had to be numbered and they kept recoreds of the occupaints. The numbers I have heard are Dyea – a highly transient population of 5 – 8,000 at its peak in April 1898. Skagway – a highly transient population of 10,000 at its peak in March 1898. At least 22,000 stampeders made it over the pass from February 1898 to. And 7,124 boats set sail from Bennett during May- June 1898. Lindeman had a population of 10,000 while Bennett had a population of 20,000 and Dawson peak population of around 30,000.

I estimated that around 30,000 actually made it over the pass and into Canada from the fall of 1897 to the spring of 1898. Perhaps another 10,000 successfully climbed over White Pass, however, far more stampeders turned back before they ever reached the passes. Some died of the cold, illness, or accident along the way. Others were killed in some dispute or committed suicide. Soapy's gang robbed many through gambling, cons, and violence and these turned back because they no longer had the financial resources to carry them through and turned back because they saw what they were up against and gave up in despair. Others started up businesses in the towns and along the trail, and decided to remain for a while mining the passing crowd. "

[79] See Nicolson and Slemmons (1998) for a list of all the known Alaskan papers.

Nicolson, Mary C. and Mary Anne Slemmons (Compilers), *Alaska Newspapers on Microfilm, 1866-1998.* Fairbanks, AK: University of Alaska, Fairbanks and Juneau, AK: Alaska State Library, 1998.

Section 2. Extant Historic Resources/Historic Transportation Resources

NPS Historic Resources (Skagway/Dyea; Period of Significance 1898-1920[1])

Part A. Skagway waterfront – wharves, beaches, and creek

The railroad in Skagway is the most visible historic transportation mode at the waterfront. Although the terminal building has moved off of Broadway to its current location, the tracks appear to be in one of the two original locations that date back to the Gold Rush era. The first set of tracks was laid along Broadway itself, after a protracted public debate between the city council members and Broadway business owners. The tracks along the eastern bluff that extend down to the waterfront and parallel Second Ave. were not built until after 1898 (date not certain).[2] Originally, there was also a set of tracks along the beach for moving railroad construction equipment as it was unloaded from the docks. The exact location of these temporary tracks is not clear, but it seems likely that the original beachfront was just at or south of Second Ave. in an area that has since been filled. The railroad spur that extends to Moore's Wharf (the Railroad Dock) along the cliffs at the eastern side of the harbor also dates back to the Gold Rush era.[3]

Figure 2-1. Railroad tracks at south end of Skagway, and the original depot building. Tracks originally extended along Broadway to the north, and later used the bluff right-of-way to the east of town (Railroad track history is presented in Minter, 1987; photo date, July 2004. All photos are by the author.).

[1]This period of significance was specified in the scope for this study that was provided by Park staff, and referred to in the contract documents as the "Transportation Analysis Project Outline."
[2] It's interesting to note that the March 1898 land survey of Skagway by Reid and Thibaudeau shows the railroad route along the eastern bluffs, instead of along Broadway. This conflicts with historical accounts.
[3] Minter, R., The White Pass: Gateway to the Klondike, University of Alaska Press, Fairbanks, 1987.

Figure 2-2. (Left) Passengers boarding White Pass and Yukon Railroad train, and (right) tracks heading towards eastern bluff, and breaking off in the direction of the Ore Dock (July 2004).

Figure 2-3. (Left) White Pass and Yukon Railroad steam engine locomotive, and (right) diesel locomotive (July 2004).

In addition, the bridges that cross the Skagway River were originally built by both a Tramway Company (later bought out by the railroad company) and by the White Pass and Yukon Route Railroad Company. I was unable to determine whether the existing bridges still contain elements that were part of those original structures, due to the short time for my field visit. It might be necessary to consult an engineer to determine the answer, if it is not obvious that these are completely new structures.

The harbor itself and its wharves have been altered significantly since the Gold Rush era. The railroad company, the State, and probably also the City have filled large parts of the harbor to create areas for handling freight, to enhance roadway access to the ferry dock, and to protect the small boat harbor from wave action. Pipe culverts and steep-sided channels allow Pullen Creek to continue to flow through this filled land, and still provide a route for salmon to leave and return to the creek. There are also a few places where the original beach elevation appears to be visible, including the northern edge of the small boat harbor, a sliver of land north of the center cruise ship dock, and at the mouth of the Skagway River on the western side of the harbor. I estimated that these elevations may approximate the original beach locations at low tide (not at their high tide levels) by examining the shape of the shoreline and its position relative to nearby roadways on historical maps from the gold rush era, but this is an inexact method and I am not confident of that conclusion.

It would be difficult to overstate the significance of the waterfront in understanding the transportation systems used during the Gold Rush. Everyone who came and left Skagway en route to or from urban centers like Seattle in the south came by boat, as did the supplies that helped the town grow and the gold that motivated so many people to come. Skagway's harbor and long docks into deep water were its most significant competitive advantage over Dyea before the White Pass Railroad opened. Businesses like Harriet Pullen's pie shop began on the beach, countless horses swam ashore there from boats, lighters and barges and the very earliest entrepreneurial construction methods in Skagway (Capt. Moore's Wharf) are still visible in the crib walls of the small boat harbor. Although these are not the original crib walls of Moore's Wharf, they are significant as a reminder of the kind of construction that was used in the original Wharf. Today's wharves are more likely to be lined with large-rock rip rap, concealing the wooden pilings below. This part of the visual experience of Skagway does not seem to be under any protection, and does not seem to be included in any interpretation program. It isn't an extant resource from the Gold Rush, but it does help people understand a construction method that was in use locally during the time of significance.

Figure 2-4. Crib wall at Railroad Dock. This crib wall, although it is not itself historic, shows the historical method that was used to construct this wharf out into the harbor, and is an example of a construction method that is similar to the method used to build the original Moore's Wharf before and during the Gold Rush era, as described by Captain Moore. Seen from Small Boat Harbor (July 2004).

Figure 2-5. Crib wall remnant visible on west side of Small Boat Harbor, partially obscured by rip rap (loose rock fill) (July 2004).

Figure 2-6. Old pilings discarded on the beach. West side of the Small Boat Harbor. It is not clear in which era these pilings were built, but they represent, in general, the methods of wharf construction that date back to Skagway's early years (July 2004).

Figure 2-7. Beached barge on the north side of the Small Boat Harbor, Skagway. This beach could be at the same approximate elevation as the Gold-Rush era beach elevation at low tide. The barge is important for its association with the lighters and barges of the era of historical significance (although the barge itself is not historic) (July 2004).

Similarly, Pullen Creek itself played a role in helping Capt. Moore establish his homestead, which he originally gained access to by bringing a canoe up the Creek. Since subsequent traffic circulation development occurred based on the pattern of a grid that started with the line of Second Ave. along the harbor front, the early significance of the Creek as a transportation element has been obscured. The Creek is invisible to most visitors unless they use the small fishing pond near the RV Park or enter the City from the Railroad Dock (Moore's Wharf), which requires them to cross a culverted portion of the Creek. The fishing pond is adjacent to a small fish weir that appears to have been put in place to facilitate capture and study of the returning salmon. Some signage offering interpretation of salmon life cycles exists near the weir and the fish pond, but at the weir the signage has collapsed, and the purpose of the fish traps is no longer intelligible to visitors. On the central dock, a split rail fence with plantings has been placed to allow people to look down at a small section of the creek, but this vegetation is growing tall enough to block the view. No signage suggests the presence of a creek or offers interpretation.

Figure 2-8. Enclosure surrounding exposed portion of Pullen Creek on central dock. Plantings both inside and outside the split-rail fence obscure the view, and there is no path or sign that brings visitors to look over the fence.

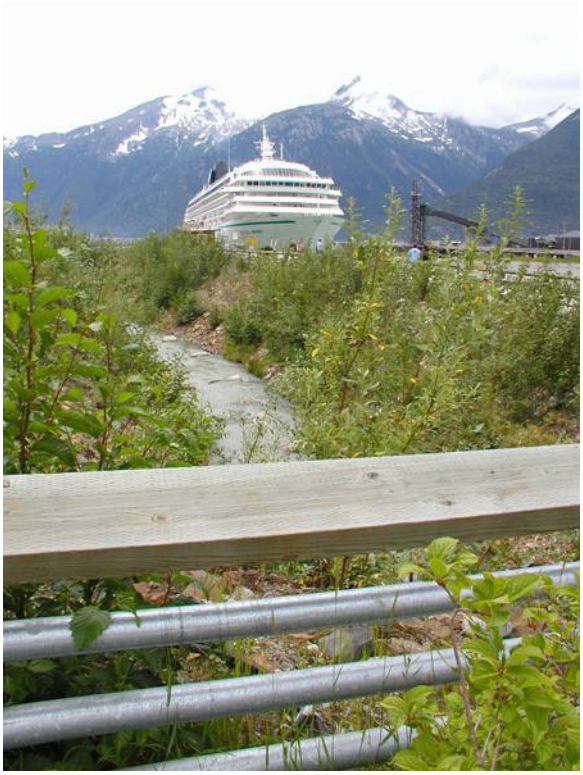


Figure 2-9. View of Pullen Creek inside the fenced enclosure on the cruise ship dock (July 2004).

Figure 2-10. Mouth of Pullen Creek, emerging from culvert in lower left of photo, at cruise ship dock (July 2004).

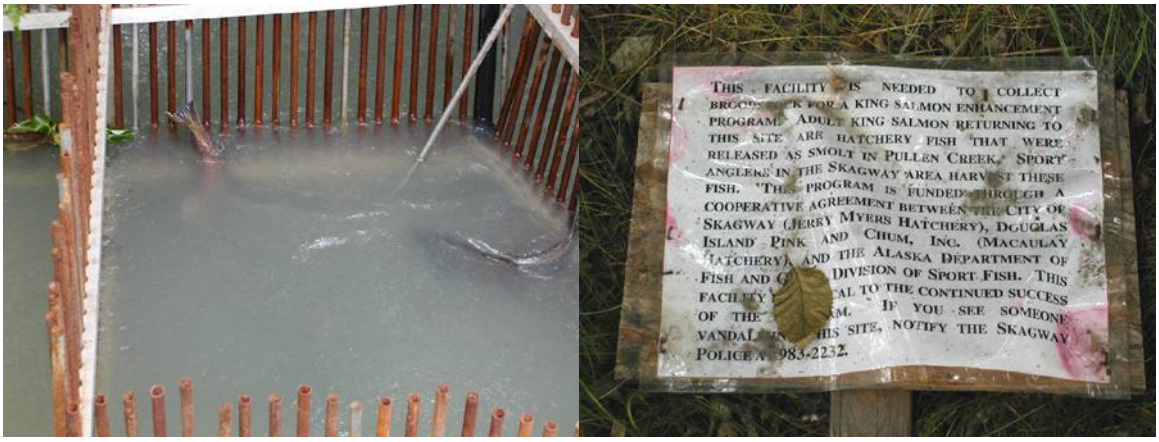


Figure 2-11. (Left) Fish trap with salmon along Pullen Creek, and (right) collapsed interpretive sign near the fish trap.

Figure 2-12. (Left) Fish pond along Pullen Creek, and (right) Creek emerging from culvert under road to Railroad Dock into pond.

The mouth of the Skagway River is quite visible if visitors walk towards the far western side of the harbor, and can be crossed using a footbridge that takes visitors to a trail along the far side of a rocky coastline. This area is not interpreted, either in terms of its environmental or historical

significance, even though it allows prominent views of the glacier to the south of Skagway and the main waterway (the top of the Lynn Canal) that allowed boats to bring people to and from Dyea.

Figure 2-13. Mouth of Skagway River, looking southwest.

Figure 2-14. Pedestrian bridge over mouth of Skagway River, looking northwest from harbor (July 2004).

Part B. Dyea townsite, waterfront, beaches, and river

Very few human-built elements of the Gold-Rush era transportation infrastructure remain in Dyea. The only elements that are still there, as far as I could tell, are (1) the old pilings of the main dock, and (2) the stumps of dead street trees from along a central street in town.

Figure 2-15. Remnant pilings from the long dock, Dyea (July 2004).

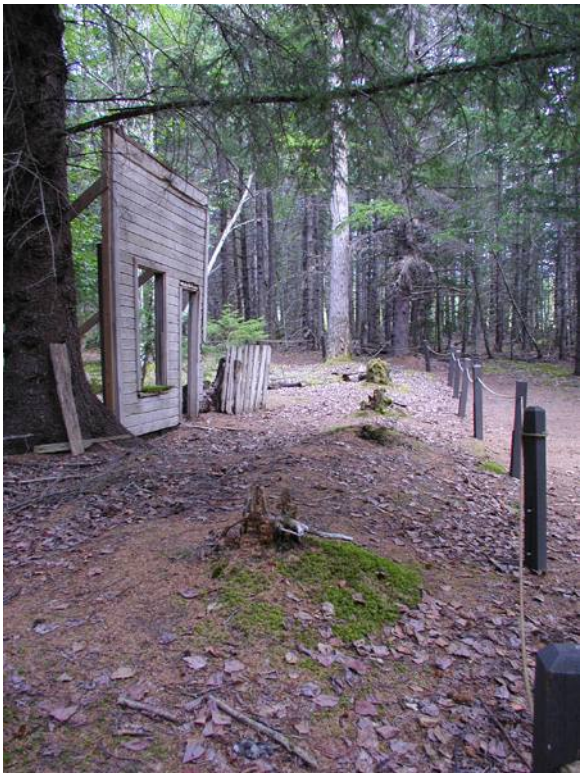


Figure 2-16. Stumps of Gold-Rush era street trees, Dyea townsite.

The natural elements of the Gold Rush era transportation system are, however, quite evident and intact at the Dyea townsite. The mud and sand flats of the beaches and tidal marshes are all visible, since there has been limited filling (if any) in subsequent decades. The Taiya River has probably moved some of the sediment in its delta over time, but this change does not significantly alter the conditions present. These conditions (extreme tides, strong river currents, and a long distance between the shoreline and deep water) are important to understanding the challenges that confronted people who arrived in Dyea by ship during the Gold Rush era. Dyea's shoreline offers an experience that also helps visitors understand some of the physical and biological conditions that existed in Skagway as well, before the Skagway harbor was extensively filled for cargo staging during the second half of the 20th century.

To a large degree, the contrast between the shorelines of Dyea and Skagway offer a kind of "before and after" comparison that allows visitors to imagine the experience of the Gold Rush, and also understand the ways that an increase in ore exports and tourism have altered the shoreline of Skagway – partly as a result of its deeper harbor. Dyea teaches the lesson that the shallower harbor led to a limited life for the town during a water-dependent transportation period.

Figure 2-17. Former Dyea Harbor at Taiya Inlet, looking south. Mouth of Taiya River on left of photo (July 2004).

Figure 2-18. Creek headed south across meadows to join Taiya River, Dyea (July 2004).

Historic signage and small-scale features

I was not able to find any extant signage from the Gold Rush era related to transportation. The painted signs on the cliffs above the Railroad Dock, however, are an interesting reminder of the evolution of Skagway's relationship to the cruise ship industry, and to passenger boats more generally. Since they date back to the 1920's, these hand-painted signs provide a connection to different eras in the tourism industry.

Typology/Function Analysis
(for each mode are there any extant historic transportation resources that are currently being used as a part of the transit infrastructure?)

I addressed this question for Skagway only, since there do not appear to be any extant historic transportation structures still in use in Dyea.

Railroad:

The Gold Rush era tracks are still in use that extend along the bluffs on the east side of Skagway and out to the Railroad Dock. The maintenance yards in the north end of Skagway are also still in use by WPYR, I believe. There is also the question of whether there are original components in the existing bridges over the Skagway River. If so, then those would also qualify as "extant and in use".

Docks:

The current structure of the Railroad Dock seems to have subsumed the historic wharf structure (Moore's Wharf) built by Capt. Moore and his son and extended by the WPYR Railroad, either by replacing it entirely or by burying it beneath its current structure.

Figure 2-19. Survey of Skagway, dated January 10, 1898 (KLGO National Park Archives).

The State Ferry Dock may also subsume an original wharf structure, the Juneau Wharf (famous as the site of the confrontation between local citizens and Jeff Smith).

The other two original docks have been removed. The Alaska Southern Dock was removed and replaced with the Small Boat Harbor, and the Seattle-Skaguay Wharf on the far western side of the harbor appears to have been removed to construct the Ore Dock.

Steam ships:
None of these are still in use by anyone, as far as I could tell. But it's interesting to note that the engine of a steam ship apparently was used as a stove in the main gathering room of the Golden North Hotel, from the time it was constructed until the 1920's.[4]

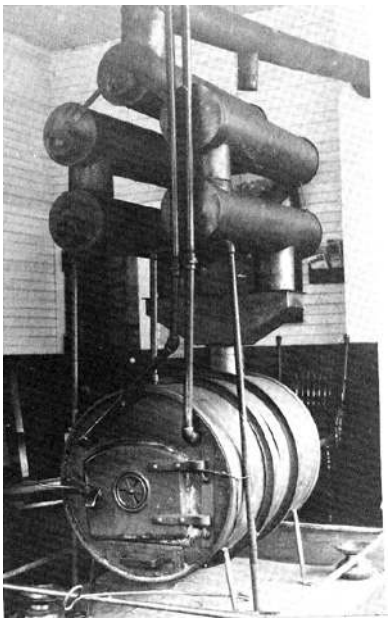


Figure 2-20. This hotel stove was actually part of a steamship engine. The stoves of these ships were designed to burn 4-foot long pieces of cordwood.

Beaches:
There do not appear to be any beaches that are still used regularly for pulling up small boats or unloading freight. The beach at the north side of the Small Boat Harbor is still used for the storage of a large barge, however. I estimated that this is the approximate level of the beach at low tide during the Gold Rush era.

Creek and River:
The creek (formerly Mill Creek, now Pullen Creek) and Skagway River are no longer used by canoes or other boats.

Streets:
Most of Skagway's street pattern is the same as it was during the Gold Rush era. The wooden sidewalks are not extant but rather have been reconstructed to represent the sidewalks of that era.

Trails:
The entrance to the historic White Pass Trail is no longer marked or visible, and is not currently used as part of Skagway's circulation pattern.

[4] Clifford, H., The Skagway Story, Alaska Northwest Books, 1975; p. 77.

(Are there any historic transit resources that are being preserved and/or interpreted but not used functionally?)

Dyea:
I believe that NPS guides currently offer information about the wharf pilings in Dyea, and also about the street pattern of the townsite, possibly including the street trees visible in Figure 2-16 of this report.

Skagway:
The only example I am aware of in Skagway is the dogsled that functions as part of a display in the main Visitor Center building.

A. Current Visitor Experience of Transportation *(historic and current) Relationship/Relevance to historic transportation system/extant historic resources interpretation*
(Note: My notes in this section are based on my field observations while in Skagway and Dyea, and did not rely on literature sources.)

Part A. Skagway

The mode of arrival for visitors to Skagway probably exerts a big influence on their experience of transportation. A person who arrives by car from Carcross, for example, may see more of Skagway proper (and perhaps Dyea) but never venture out to the docks. Similarly, someone who brings a car on the ferry might not spend much time at the waterfront once they arrive. On the other hand, visitors who arrive by boat (ferry or cruise ship) or small plane might be more inclined to try the various modes of transportation that are available in the town, and to walk or bike on trails or roads that take them to the waterfront.

A wide range of different transportation services is offered by various companies in Skagway. Private operators who contract with the City of Skagway provide a shuttle bus (City Transit), and other private companies provide a van ride to Dyea (various tour companies and "Dyea Dave"). Still more private operators offer train rides, pedicabs, horse and buggy rides, Skagway Street Car rides, Greyhound bus service, helicopter tours, car rentals, motorcycle rentals, and bicycle rentals. Free parking is available on the street for visitors who come by car or motorcycle, although in some particularly busy locations parking is time-limited. Most of Skagway's visitors currently arrive by cruise ships moored at the Railroad Dock, the Broadway Dock, or the Ore Dock. From there they walk, ride a tour van, hire a pedicab, or take a City Transit shuttle to reach the Broadway shopping district and other destinations. As they walk or ride towards town, visitors see a panorama that reveals the town as a cluster of colored buildings with mountains on both sides.

Figure 2-21. Panorama of view towards Skagway from Broadway Dock for arriving cruise ship passengers (July 2004). Note cargo containers visible on the left (west) side, the booth for tour operators in the center, and the fenced area marking an exposed portion of Pullen Creek just to the right of the tour booths.

Figure 2-22. Panorama taken from closer to the start of town at Second Ave. (July 2004). Pullen Creek is obscured by trees and shrubs on the right (east) side of the view. This is the point at which the rooftops of Skagway become readable as distinct shapes.

The experience of the visitor as he or she walks from the docks to town is of a utilitarian, industrial landscape in the foreground, with the attraction of what appears to be a colorful town in the middle ground. The mountains in the background may seem forbidding to some, perhaps depending on the weather, but they are certainly also dramatic and beautiful. Once they reach Centennial Park and cross the railroad tracks, they are likely to experience their first feeling of arrival in Skagway.

What is interesting about this from a historical point of view is that the waterfront itself, both the docks and the filled landscape that separates them from the town at Second Ave., has become rather nondescript. It is difficult to see it at first as anything but a series of mostly empty parking lots surrounded by chain link fences, a few windswept trees with unintelligible markers, and a series of industrial-looking railroad spurs. In the Gold Rush era, the waterfront was a place of enormous activity. Visitors could see an interesting variety of freight being unloaded, could watch the change in water levels as tides made beaches appear and disappear, and were likely to be far more aware of the marine environment that was clearly visible below and around the piers of the free-standing docks. The sheer length of the docks must have been impressive, and the means of construction were obvious in their wooden surfaces, crib walls and pilings.

The landscape of the waterfront, in terms of plantings, currently reads as an industrial, utilitarian landscape that has been largely abandoned. There is no overall pattern to the few plantings of individual trees, and those trees that currently exist seem small and insignificant, overwhelmed by the weather and the sheer size of the space created by the valley around the harbor. The same can be said of the small flower plantings. The effect is oddly Victorian, in the sense that the park and garden style of that era focused on individual plants as specimens and used a clustering of flowering plants to create beds as a kind of visual highlight. But unlike other garden cities that have used a Victorian planting style (such as Victoria, BC), Skagway's efforts seem isolated and uncoordinated. The overall visual influence of the industrial parking lots and container storage yards is much stronger, leaving these plantings to seem a little random and forlorn.

The historical development of the WP&YR container freight system is not legible to the visitor either, even though the train spurs and containers are in plain sight. No interpretation occurs that would allow people to appreciate the significance of Skagway as one of the first places where this system, now a global standard, was introduced.

Signage is an important part of any circulation or transportation system, since it directly influences the movements of visitors. If a visitor approaches Skagway from one of the cruise ship docks, he or she is most likely to first see the signs of tour companies on prominent display. If visitors approach from the State ferry dock, they see State DOT signs first. For visitors from the Ore Dock and Broadway Dock, the next signage they see is the DOT signage near Centennial

Park, and immediately after, the "Snow Fleet" display by the WP&Y Railroad. There are a number of small commemorative signs at the Centennial Park, all fairly subtle and unlikely to be seen as visitors first walk into town. If visitors approach from the Railroad Dock, they pass a number of small businesses on their walk to town (restaurant, bike rental, etc.), and then see WP&YR signage.

From any of the docks, visitors pass by the blank white backs of cruise ship signs that guide passengers back to their ships when they leave Skagway. From the ferry dock, the Ore Dock, and the Broadway Dock, visitors pass the backs of two signs in Centennial Park. One identifies the name of the park, and the other, a "welcome" sign, shows a map of Skagway. It would probably be helpful for these two signs (but especially the street map of Skagway) to be turned in the direction of arriving visitors, rather than turned to face the town; or that they be designed to be read from both sides.

Once in town, most of the information people can readily take advantage of about transportation choices comes either from the NPS rangers in the ground floor of the visitor center, from (volunteer?) staff representing the local Visitor's Bureau at the AB Hall, or from WP&YR staff and information displays at the train station. There is also quite a bit of direct contact with transportation providers, and people seem to learn about the pedicabs and horse-drawn buggy options by speaking directly to the operators of those modes. While there are a number of transportation ads in the local free "newspaper" (the Skagway Alaskan), and a wide variety of fliers circulating, these seem to be used less often as a source of information. This may be because most visitors on the cruise ships only stay for one day, and don't spend much time reading advertising literature. They seem to learn more by speaking with people and from what they see as they begin to walk around. It's likely that most tourist visitors from the cruise ships consider making a train ride part of their Skagway tour, and that those who decide to visit the train depot learn about other tour options while there, such as the Skagway Street Car. Those who decide to stay in town for the day and don't visit the train depot are more likely to walk and shop along Broadway, encountering the City Transit system and other town-based options by seeing people waiting at the stops along the sidewalk, or by being told about it at a visitor center.

Figure 2-23. View from cruise ship berth at Railroad Docks. Note Skagway Street Car on left, unloading passengers, and boat "graffiti" painted on the cliffs to the right (July 2004).

Figure 2-24. Guards at entrance to cruise ship berth on Railroad Dock.
Non-passengers are stopped at this gate when cruise ships are using the Dock (July 2004).

Part B. Current Visitor Experience at Dyea

In one way at least, the contemporary experience of traveling to Dyea is similar to the experience of visitors during the Gold Rush era: if you're traveling by boat, you're dropped off in Skagway and you've got to find a way to Dyea on your own. Most visitors probably hear about Dyea because they're interested in hiking the Chilkoot Trail. This is a very different type of visitor from the cruise ship tourists who are in town for only one day, and these visitors are probably going to get their information from either the National Park Service or a tour company. If they speak with a tour company, they're most likely to be brought to Dyea by a van owned by that company. If they learn about the Chilkoot Trail via the National Park Service, they seem to hear primarily about the van service provided by "Dyea Dave," since this van service offers a kind of independent shuttle service in addition to tours of Dyea. A few visitors who rent cars or bikes also travel to Dyea to camp or tour the town site, but this appeared to be a relatively small number of people. Similarly, people who visit Skagway by car or RV (arriving via the highway or via ferry) and plan to stay a few days seem to find their way to Dyea, even if they are not planning to hike the Chilkoot Trail.

Day trips are available to Dyea for rafting on a section of the Taiya River, as well as for tours of the town site and Slide Cemetery. I observed people traveling to Dyea by van for the town site and river rafting tours, by Jeep, by personal car or rental car, and by bicycle. Once there, they toured the cemetery and town site itself by bicycle, on foot, and on horseback. Other than rafting, there do not seem to be any boat tours of Dyea or the Taiya River Inlet (i.e., the old Dyea harbor).

The town site and the Slide Cemetery are accessible by gravel roads, which are surrounded by a rather dense forest. Once visitors arrive at the town site, they glimpse the meadows along the Taiya River and the edge of the Inlet. The gravel roads lead to a parking lot at the town site, from which several dirt paths head into what's left of Dyea and out to the beaches along the bay. Without a tour guide or map, the paths seem confusing and maze-like. There are very few interpretive signs. People who explore paths farther towards the bay can discover the old wharf pilings, while visitors who stick to the town site find a place where an historic building façade has been re-erected next to the stumps of old street trees, and the ruins of the old warehouse building. Trees have overgrown most of the old town site, so there is no sense of the former street pattern or the relationship that existed between the town and the wharf, the town and the river, or the town and the Chilkoot Trail.

The views south towards the Lynn Canal and north towards the Chilkoot Pass are quite stunning, especially from just south of the Dyea town site area. These views of the natural environment are

probably the dominant visual experience for visitors to Dyea, which now seems less like a historic town site and more like a nature preserve.

Partly due to the absence of built structures, there are abundant opportunities in Dyea to introduce visitors to the experience of people who arrived during the early Gold Rush era and just before the start of that period. As I noted above while describing extant historic transportation structures, Dyea provides an opportunity to imagine bringing canoes and lighters onto the beach, or up the river from deeper water. It also offers views from the "water side" of what a pre-Gold Rush shoreline could have looked like as one arrived by boat, even though the amount and type of vegetation may differ significantly from what existed before 1898. This is probably the richest opportunity in Dyea to interpret the historic transportation experience, simply by bringing people ashore from the water instead of just arriving from the Skagway-Dyea Road (which was constructed between 1940 - 1948).

How are visitors moved through site? Are there any limits/controls on how and when visitors move through a site (size of building, vehicle size, interpretive tour size, etc?)

(Note: I have discussed the circulation issues above, but will address the question of limits to group size briefly here.)

Part A. Skagway (limits/controls on visitor movement)

Most visitor facilities, such as the WP&YR depot and the City and NPS Visitor Centers, seem to have organized their hours of operation to accommodate the "rush" of visitors from the cruise ships, who typically come in to town between 9 and 11 am, and depart between 5 and 8 pm. In addition, most visitors from the cruise ships seem to be first-time visitors. This leads to rather confused and congested movement patterns around the intersection of Second Ave. and Broadway. Clusters of visitors often form on the sidewalks in this area, as family groups and groups of friends try to plan and coordinate activities. Pedestrians seem the most unaware of vehicles at this intersection as well, and the tendency of pedestrians to walk out into the street without looking for cars seems to frustrate other visitors and residents who are driving cars. In this sense, the use of relatively narrow sidewalks as group "meeting sites" seems to represent a limit on the flow of both pedestrians and cars. Along other parts of Broadway in particular, clusters of people waiting for City Transit buses often block movement along the sidewalk, forcing other pedestrians to walk in the street.

Otherwise, the primary limits on pedestrian movement seem to be generated by the schedules of railroad trips, buses, and ferries, as people tend to cluster in groups and wait for their rides on these transportation modes. I was not aware of any situations where building size limited the use of a facility by visitors, since people seem to adjust to crowding by avoiding facilities that look full. During my July weekday field visit, I did notice lines forming at the small NPS building that sells Trail Passes, however, and at the ice cream shop on Broadway, where people seemed willing to tolerate long waiting times. It's possible that the number of seats on vans used by NPS and tour companies may limit the number of visitors who can travel to particular places at particular times, since vans are the most common mode of group travel outside of the City Transit shuttle service.

Part B. Dyea (limits/controls on visitor movement)

There are very few public visitor facilities at the Dyea town site. The main limits on circulation seem to be the quality of the roads (the narrow and muddy condition of the many dirt roads may typically prevent or discourage use by car). The limits on group size seem driven by the size of tour groups. I am not certain whether the permits tour operators receive from the Park stipulate that they may bring only a limited number of people, or whether the group size limits are set by the relationship between visitor demand and the van (or Jeep) fleet size for each company.

At the Dyea campground, the number of tent or RV sites certainly acts as a limit on the number of overnight visitors who use this facility. For other overnight visitors, there are several lodges in Dyea that cater to Chilkoot Trail hikers as well as other visitors. Some of these appear to operate their own van shuttles to Skagway, and rent bicycles to guests who want to explore the Dyea town site.

Overall, the most significant limit on travel to Dyea may be the amount of time a visitor has to spend in the Skagway/Dyea area. Since most visitors are in Skagway only for the day, due to the cruise ship sailing schedule, Dyea may seem relatively inaccessible. For the much smaller number of adventure travel visitors, however, who include rafting, horseback riding, bicycling and hiking among their activities, the Dyea area seems to be a primary destination. Likewise, visitors whose interest is primarily historical probably see the Dyea town site as an important part of their visit. It's interesting to note that there seems to be very little, if any, use of the Dyea area for eco-tourism, in spite of its undeveloped shoreline, meadows and tide flats. It would probably offer an excellent location to interpret the relationships that developed between early human residents, explorers, and Argonauts and the natural processes that affected their ability to build shelters, eat, engage in trade, and get around.

B. Signage Review *(NPS, State, City, Cruise Ships, Private Operators, etc.)*

I have already described signage as part of the current visitor experience above, but offer a few additional notes here, along with a set of images that describe current signage.

The most visible signs typically belong to tour companies and cruise ship companies. These are physically the largest signs, with the most frequent use of highly visible black-on-white or red-on-white lettering. Most of these seem to be made of painted plywood materials.

There are also a number of metal signs placed along roadways that use standard DOT colors to indicate public recreational resources (white-on-brown), private tourism businesses (white-on-blue), and distances to nearby cities (white-on-green).

Several signs related to the Gold Rush Centennial seem to be out of date, since they either announce the 1997-98 centennial event or invite visitors to "return" for it.

A wide variety of different sign styles seem to be used by local authorities or groups to mark historical people/events/locations, while greater homogeneity exists in the NPS signage that refers in style and materials to historical sign types. Figures 28-31, 33, 38, and 40-42 reflect the wide variety of sign style used by local groups.

I mentioned in my earlier description of the current visitor experience that one of the most important signage issues is that several signs that would be useful in visitor orientation face the

town instead of the docks. Figures 28 and 29 identify those signs. Also, the "Welcome to Skagway" sign is currently located behind chain link fencing, which to reinforces the industrial aesthetic of the waterfront and is not particularly welcoming (see Figure 35).

Figure 2-25.

Figure 2-26.

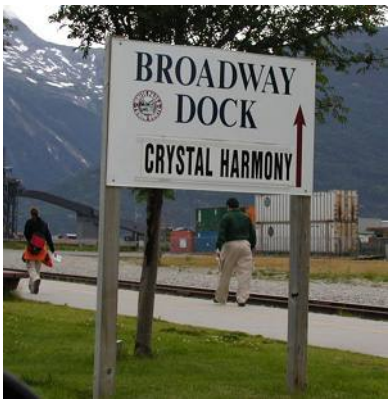


Figure 2-27.


Figure 2-28.

Figure 2-29.

Figure 2-30.

Figure 2-31.

Figure 2-32.

Figure 2-33.

Figure 2-34.

Figure 2-35.

Figure 2-36.

Figure 2-37.

Figure 2-38.

Figure 2-39.

Figure 2-40.

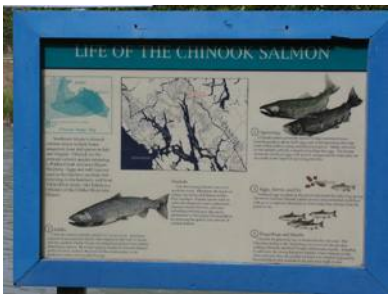


Figure 2-41.


Figure 2-42.


Figure 2-43.


Figure 2-44.

Figure 2-45.

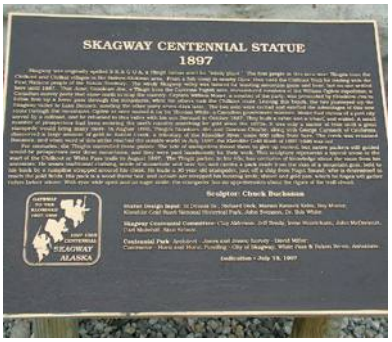


Figure 2-46.

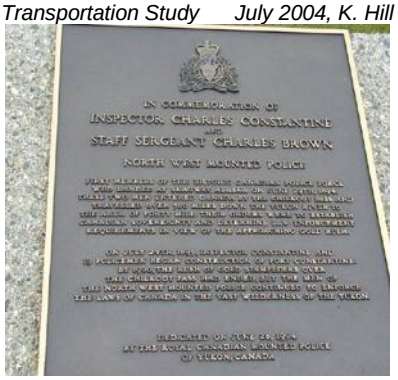


Figure 2-47.

Figure 2-48.

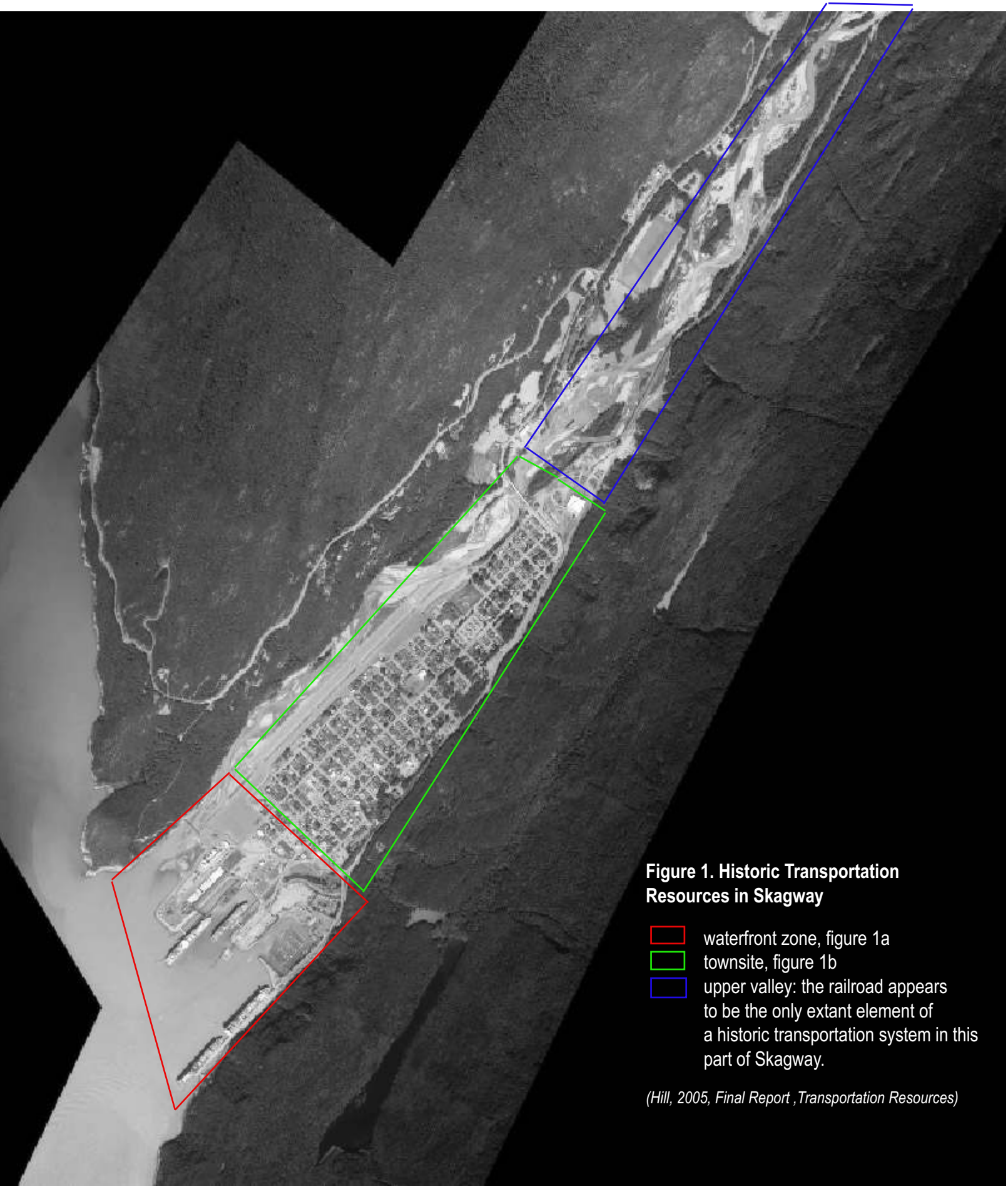


Figure 1. Historic Transportation Resources in Skagway

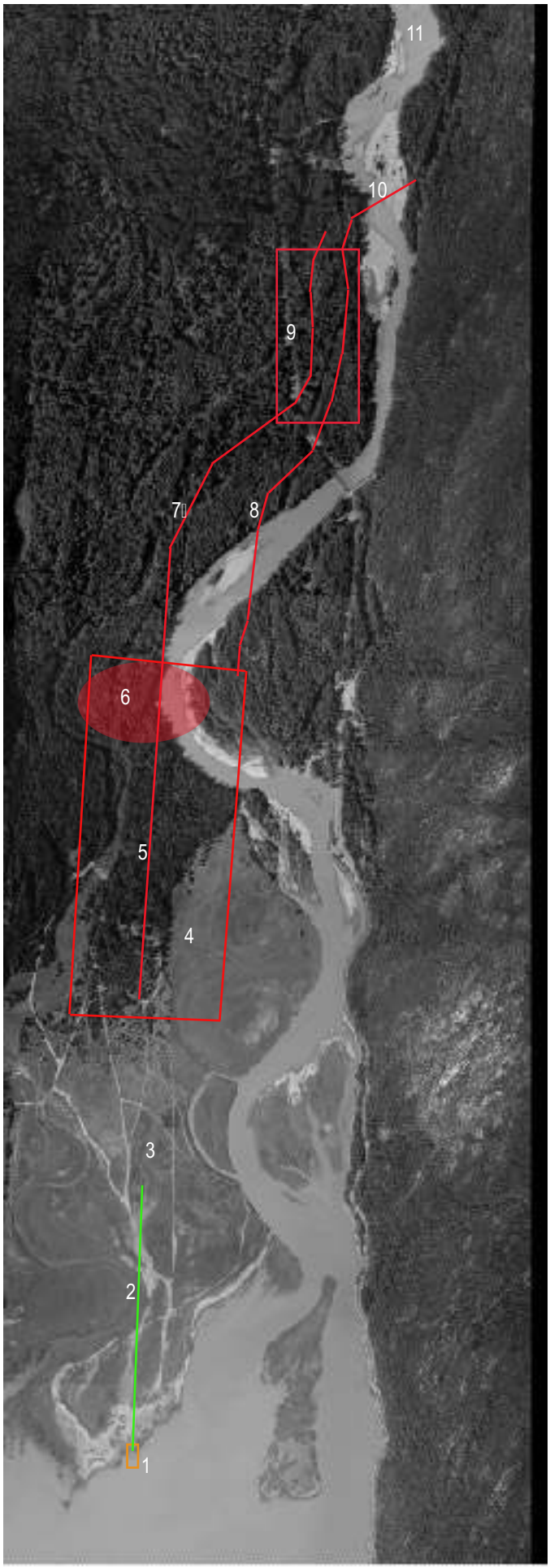
waterfront zone, figure 1a
townsite, figure 1b
upper valley: the railroad appears to be the only extant element of a historic transportation system in this part of Skagway.

(Hill, 2005, Final Report ,Transportation Resources)

Figure 1a. Skagway Waterfront, Historic Transportation Resources

Very little of the historic waterfront exists today. The active beach at the mouth of the Skagway River (1) has changed in shape due to natural movement as well as hardening of the river's edge, but is still approximately in its original location. The beach exposed by low tide in the Small Boat Harbor (2) may also be a remnant of Skagway's historic tidal flats, although filling has occurred to the north and northeast of this small beach. Pullen (or Mill) Creek (3) was part of the early transportation system, and although some of its channel has been altered it is still visible and in its approximate historic location. The original wharf at Skagway, begun as a crib wall filled with rocks by Captain Moore and his son Bernard, was located on the southeastern side of the harbor (4) and may still exist -- athough if it does it was incorporated into and would lie below the surface of the contemporary wharf. Constructions documents might be useful in determining whether this original structure remains part of the contemporary wharf. The railroad line along the east bluffs and Moore's Wharf (5) is also in its original location, dating back to the Gold Rush period. The street pattern of Skagway is, for the most part, what it was during the Gold Rush era as well, but many of the street names have been changed from the original survey document of 1898. It is not clear whether the streets were ever officially named according to the survey. Streets that appear on this photo below 2nd and east of Spring did not exist during the Gold Rush era.

Figure 1b. Skagway Townsite Historic Transportation Resources.
In a sketch dated September 1897, C.B. Talbot identified a grid of streets in Skagway with two trails: one a wagon road that was shown along the west edge of town, crossing the Skagway River at a bridge about 1.5 - 2 miles upriver, and the other a foot or horseback trail that appears to extend up the middle of town, probably on Broadway, to a crossing of the river about 5 miles from the waterfront. There are no traces of these trails other than existing roads, however. The location of the railroad roundhouse (1) seems to be on the same parcel as the historic roundhouse was, although this one is a replacement structure. Pullen Creek (2) was an early navigation route, and the Moore Homestead (3) was located near it as a result, on an orientation different from the eventual street grid which emphasized its relationship to the creek rather than the wharves.



Historic Transportation Resources in Dyea

The active meander patterns of the Dyea and Taiya Rivers, along with the action of tides on the sand flats, have removed many historic traces of roads, bridges, pilings, piers and wharves. A more detailed field mapping process using survey instruments would be useful in identifying any remnants of those structures that may remain.

In my brief field inspection, the only extant resources I was able to identify in Dyea were:

a) wood stubs that appear to be the piers of the old DKT or Long Wharf;
b) other blunted wooden stubs that may have been part of an effort to link the town to the Long Wharf, which ended in a ramp short of the edge of town;
c) the mounds left by decomposing street tree roots in front of the "false front" architectural remnant on display in Dyea. These may not be historic, and may instead be the result of a replanting effort; that was not clear without dating the tree stumps or a more detailed search of local records.

I have indicated on this map the approximate locations of important transportation elements in Dyea. More exact locations could be established with a survey that is geo-referenced to the same coordinate system as the most recent orthophoto, which serves as the base for this image.

1 **extant** stubs of historic wooden pilings, Long Wharf;
2 approx. location / direction of Long Wharf;
3 **extant** historic wooden piling stubs, unsurveyed;
4 Dyea townsite;
5 former Broadway (main street for transport);
6 site of former military reservation;
7 extension of Broadway to North Dyea;
8 Trail Road to Kinney Bridge / Chilkoot Trail;
9 North Dyea
10 Kinney Bridge
11 Taiya River

All locations are approximate. The purpose of this diagram is to show the system of connections that moved people and goods up the valley from boats in the harbor.

(Hill, 2005, Final Report ,Transportation Resources)

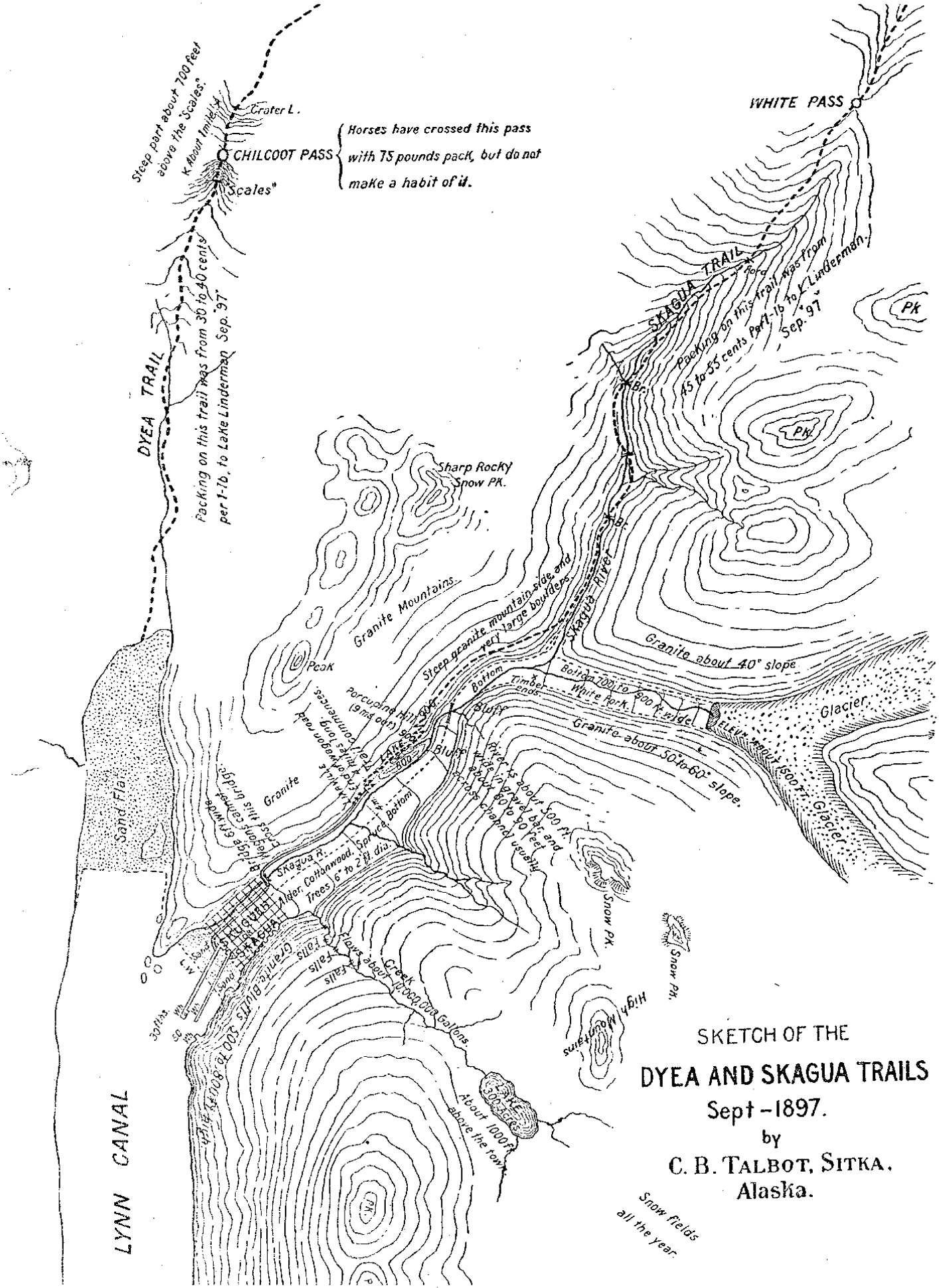


Figure 3. From R. Spude, (compiler), Chilkoot Trail. Occasional Paper No. 26. Fairbanks, AK: University of Alaska, Cooperative Park Studies Unit, 1980, p. 20.

Figure 4. This photo, from R. Spude, **Chilkoot Trail** (1980), is labeled "Spring 1898" and shows the DKT toll bridge crossing the Dyea Creek (West Creek) just south of the townsite (the view is towards the northeast). The text indicates that there was a rocky point on which goods were sometimes landed when the tideflats were too wet or too difficult to beach a lighter on. I did not find any sign of this structure and the road that might have led to it on other maps. It would be interesting to see if any part of this structure remains.