The F.E. Company Industrial Site:

Historic Resources and Preservation Potential

by

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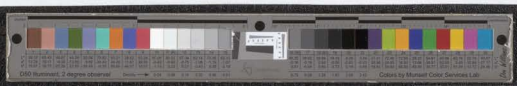
I: FAIRBANKS AND THE F.E.

Figure 1. F.E. Dredge 10 at Ester, 1979. Photo Mark Simpson

I-A: HISTORICAL BACKGROUND

Fairbanks began as a supply center for the mining boom following the discovery of gold in the surrounding hills in 1902. Accessible to sternwheelers bringing goods from the outside world, Fairbanks was a terminus (as was nearby Chena) for the narrow gauge Tanana Valley Railroad and the roads which led to the gold fields. The town's rapid and slipshod development was typical of many other gold rush boom towns throughout the American and Canadian West.

Like most of these gold rushes, the one in Fairbanks was short-lived. Within a decade the richest and most accessible deposits had been worked, and the pick and shovel mining methods were no longer profitable. Many of the original cabins and other buildings were abandoned by their occupants. The 1920 census showed the town's population had fallen by two thirds since 1910, to 1,155. That even this many remained was at least partly due to its adoption as the seat of the district federal court. The 1920 population of the judicial district (an area almost as large as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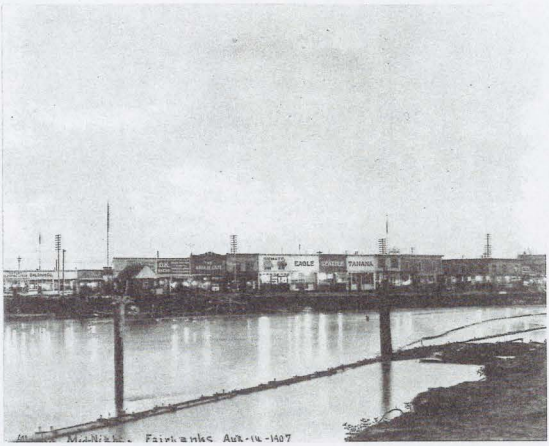

Figure 2. Fairbanks waterfront, 1907. Photo UAF Archives, Archie Lewis Collection.

Texas) was 10,513, down from 16,711 in 1910.[1]

In the decade following 1915, however, three developments began which ensured that Fairbanks would not become another Alaskan ghost town like Brooks or Ophir, Iditarod or Shusana. The first was the founding of the University of Alaska (then called the Alaska Agricultural College and School of Mines) on a bluff outside town. Chartered in 1917, it opened its doors in 1922. The second was the federal government's construction of the Alaska Railroad between Fairbanks and ice free ports on the Gulf of Alaska, completed in 1923. The third was the revival of the gold mining industry by the Fairbanks Exploration (F.E.) Company.

F.E. was a subsidiary of the United States Smelting, Refining and Mining Company (USSR&M) of Boston. In 1925 it began construction of "80 miles of water system; one and a quarter miles of which (were) tunnel, seven miles of which (were) siphons of 48 and 52 inches in diameter with heads up to 505 feet;..a 5,000-kilowatt power plant;..six or seven dredges and..shops and camps to maintain

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[1] Figures from Rollins, p.1920-3.


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the dredges and house the crews".[2] Later additional facilities were built. The company operated in Interior Alaska until the 1960s, by which time they had produced 125 million dollars of gold, mostly at 35 dollars an ounce (worth well over a billion dollars at today's prices).[3]

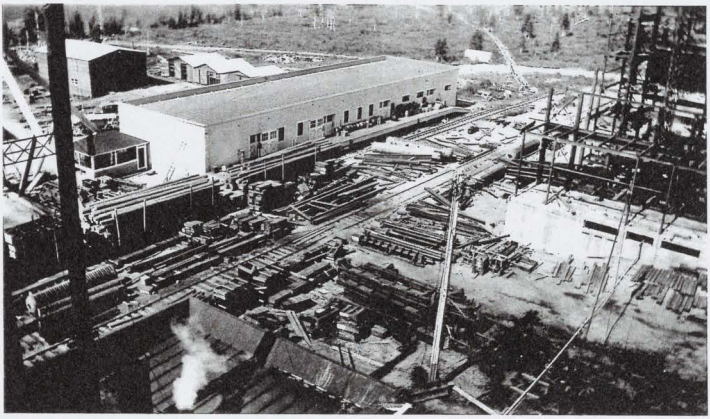

Figure 3. Warehouse 1 (left) and power plant (under construction), c. 1927. Photo UAF Archives, Patt Peterson Collection.

F.E.'s impact on Fairbanks and the region can hardly be overestimated, and can be likened to the Prudhoe Bay oil boom a half century later. Both relied on a major modern transportation system built hundreds of miles into the Alaskan wilderness and both developed a mineral extraction industry on a scale unprecedented in the region. Both required the provision of everything needed to feed and house large numbers of workers in an extreme environment where there were few other facilities. Both revived a moribund economy and spurred population growth, not just in Fairbanks but in all of the Interior and indeed all of Alaska.

F.E.'s operations dominated the economy of much of Interior Alaska

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[2] Fairbanks Daily News-Miner, Dec. 24, 1925, quoted in Boswell, p.3.

[3] Boswell, p. 15.


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until the Second World War. In 1928, three years after they began construction, the F.E. had 1,372 employees - more than the entire population of Fairbanks in the 1920 census. In 1940, Fairbanks' city population was 3,455 and that of the entire district was 5,692; F.E. had 1,183 employees and a payroll just under two million dollars. The population of the Judicial District at the time was 16,094.[4]

Gold mining was shut down during World War II as a nonessential industry. The war brought a greatly increased military presence to Fairbanks which has continued to the present. The development of the oil industry is a more recent factor in Fairbanks' economy, as is increased tourism. Fairbanks also remains a center of regional transportation and government.

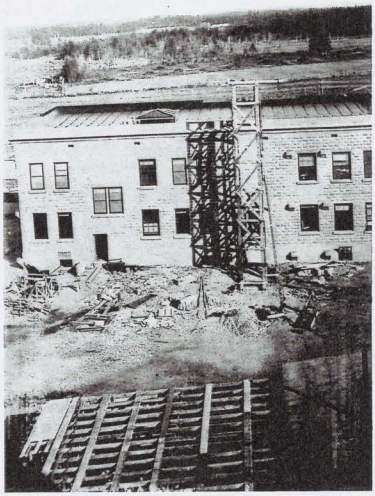

Figure 4. F.E. Office Building, c. 1927. Photo UAF Archives, Patt Peterson Collection.

Although mining was resumed after the war, F.E. was never again as dominant in the regional economy. Nonetheless, the Fairbanks district (primarily the F.E.) accounted for more than half the gold production in Alaska between 1950 and 1965.[5] As the F.E. shut their dredges down in the early 1960s their need for water and electricity disappeared. Much of their rural electric transmission and distribution systems were taken over by the Golden Valley

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[4] Figures from Boswell, p. ix. and Rollins, p. 1940-4 and 1940-6.

[5] Koschmann & Bergendahl, p. 9.


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Electric Association (an REA Cooperative formed in 1946), which bought F.E.'s power plant in 1953.[6] The main canal system (the "Davidson Ditch") was used to supply water for a hydroelectric plant instead of mining (and was later abandoned).

The F.E. maintained some of the dredges and their headquarters facilities in Fairbanks for many years in anticipation of a renewal of operations. In 1975 the F.E. was combined with the USSR&M's other Alaskan subsidiary, based in Nome, and was renamed the Alaska Gold Company. Alaska Gold resumed dredging at Nome in the 1970s; another company dredge (at Hogatza, 250 miles WNW of Fairbanks) is now operated under lease. The company is not presently mining in the Fairbanks district, although some of its property is being mined under lease to others.

I-B: A BRIEF DESCRIPTION OF THE F.E.'S OPERATIONS

The Fairbanks Exploration Company recovered placer gold (gold mixed in alluvial gravels, as opposed to lode gold found in quartz veins in hard rock). The company's huge open pit operations were mostly on old mineral claims bought from earlier miners. Most of the gold was buried beneath permanently frozen silt, peat, and ice called "muck". An extensive drilling and sampling program was used to estimate the amount of gold and its depth below ground.

The muck - as much as 120 feet of it - was stripped (thawed and washed into the rivers) using "hydraulic giants".[7] These large nozzles were at the end of extensive water diversion systems comprised of canals, pipelines, pumps, dams, bridges, and tunnels. The major system, the "Davidson Ditch", was over 90 miles long.

Upper levels of "barren" gravel (containing little or no gold) were then thawed and removed. The gravel was thawed with cold water pumped through pipes driven into the ground; the barren gravel was removed with drag lines, conveyor belts, and other equipment.

Only then could the dredges - floating steel-hulled barges carrying huge gravel processing facilities - begin to work. The F.E. operated as many as eight dredges simultaneously. They were "designed by company engineers, fabricated by a ship-building concern of San Francisco, and erected in the field by the company."[8]

Gravel was sorted by size on the dredges by washing it through

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[6] Boswell. p. 10.

[7] Gardner and Johnson, p. 54.

[8] Gardner and Johnson, p. 55.


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trommels. The finer material was then washed through the dredges' sluices. Gravel entered the dredge via a chain of buckets mounted on a boom on the front (the "ladder"), and exited via a conveyor belt mounted on the back (the "stacker").

The dredges floated in ponds, whose level was controlled by either adding water (supplied by the canal and pipeline systems) or pumping it out, as needed. The dredges could move up and down a stream valley, along with their ponds, by digging gravel in front and placing it behind. The F.E.'s dredges were similar to those used elsewhere except that both the ladder and the stacker were heated to allow operation in temperatures well below freezing.

Mercury placed in the riffles of the sluices formed an amalgam with the gold. Every fortnight - after a dredge might have proceessed over 100,000 cubic yards of gravel - the riffles were cleaned out. A few hundred pounds of amalgam and black sand containing unamalgamated gold were recovered and taken to the company's Townsite.

There the amalgam was heated to vaporize the mercury, which was then condensed and recovered for reuse. With the addition of chemicals and further heating, the molten mixture separated into floating slag, which was poured off, and gold, which was cast into bars. The gold was shipped to the U.S. Mint (the federal government was, at the time, the only legal buyer of gold).

Almost all of the F.E.'s major equipment was powered with electricity generated at the Townsite using coal brought 100 miles from Healy on the Alaska Railroad. The electricity was distributed over a wide area over company transmission lines.

The F.E. built a number of camps in the Fairbanks mining district to house and feed the hundreds of men who built, maintained, and operated the water, electrical, stripping and dredging systems. Over the years, some of the company's bunkhouses, mess halls, and other buildings were moved as needs warranted.

The F.E.'s headquarters was at their "Townsite" on the outskirts of Fairbanks. Power generation and refining took place there, as mentioned above. Heavy machine fabrication and maintenance was also done at the Townsite, as was timber sawing and millwork. Everything from dredge parts to fresh fruit were stocked in warehouses there. The company was administered from the office building at the Townsite (as was the parent company's Nome subsidiary), and many of the company's managers and their families were housed there.

I-C: REGIONAL AND NATIONAL PERSPECTIVE OF HISTORIC RESOURCES

Mining and prospecting was tremendously important to frontier


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development in the vast American and Canadian West. Mining development showed broad similarities throughout the region. Francaviglia summarizes the two general categories - perhaps stereotypes - of this development: "the early years of a typical mining district find a flourishing of individual mines, each of which may be under separate ownership. As time progresses, however, the mines become consolidated, being purchased by large mining interests...The larger corporations adopt sophisticated technologies".[9] This is precisely what occurred in Fairbanks, where the F.E. Company followed the original gold rush miners.

The Fairbanks district gold rush, although late (1902), was typical of Western boom town development. Growth was rapid and unplanned; construction was often shoddy and almost entirely of local logs or lumber. False fronts, applied wooden quoins and the like were sometimes used in commercial structures to suggest more substantial and permanent architecture (for example the sheet metal facade of Fairbanks' 1906 Masonic Temple). Like many boom towns, the isolated community built a local railway serving the mining district (the Tanana Valley Railroad, begun in 1905).

Figure 5. Early Fairbanks residence. Photo UAF Archives, Albert Johnson Collection.

Also typical of boom towns was the high density of development,

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[9] Francaviglia, p. 115.


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ironic in the vast unsettled region. Crowded conditions may have lent a reassuring feel of urban life and civilization to frontier residents, but left their towns vulnerable to disastrous fires such as the one Fairbanks suffered in 1906.

Such communities have become the stuff of romantic legend. The camps of California's "forty-niners" are archetypical, but a similar pattern was found throughout the West at places like Comstock, Nevada (1859); Cariboo, British Columbia (1860); Homestake, South Dakota (1876); Cripple Creek, Colorado (1890); and the Klondike in Yukon Territory (1896). There were many gold rush communities in Alaska, of which the largest were Fairbanks, Juneau, and Nome. Dawson City, across the border in the Yukon Territory, was considerably larger.

Most of the evidence of the gold rush era in Fairbanks is gone. Many of the buildings that remain have been moved to Alaskaland, an historical park west of downtown. Perhaps the most significant remnant of the era is the crooked street patterns in Fairbanks' older neighborhoods, which continue to exasperate city planners. Numerous ruins of the era - mine shafts, cabins, mills, railroad grades, etc. - remain in the district surrounding Fairbanks.

These remnants are significant to local history and deserve preservation. But there are numerous places throughout the West which are today better examples of gold rush development. Some are ghost towns like Bodie, whose stabilized ruins are now a California State Park. At the other extreme are fancifully restored tourist traps like Columbia, California. In the North, Skagway (Alaska) retains a large fraction of its original fabric and atmosphere, and substantial preservation work has been done by the National Park Service. Probably no western gold rush town compares to the Yukon's Dawson City in either size or historic significance. The Canadian Parks Service is active in stabilizing and restoring buildings there.

Larger scale, corporate-controlled mining was very different from pioneer mining developments. The new type of mining began to predominate in the West around the turn of the century with the advent of large earthmoving equipment.[10] It is characterized, as with the F.E. at Fairbanks, by big surface and open pit mines, with highly capitalized company control, higher technology, and larger scale. The industrial financiers from back East were not always welcomed, in Alaska or elsewhere. The Alaska Syndicate - a consortium of the Guggenheims, J.P. Morgan & Co. and others - "became the burning issue in Alaska and was catapulted into national politics; Gifford Pinchot and R.A. Ballinger were the chief antagonists, and this was a major issue on which Theodore

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[10] Francaviglia, p. 21.


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Roosevelt split with President William Howard Taft."[11]

Improved transportation (especially long haul railroads) was also important to the new mining, enabling profitable extraction of lower value minerals such as coal (as at Roslyn, Washington), copper (as at Butte, Montana and Bisbee, Arizona), and lead. Lumber, too, began to be cut on a large corporate scale.

Often lower value minerals had not been worked before, so there was little or no preexisting infrastructure. It is in such places one finds archetypical "company towns", where a company might build and own housing, stores, utility systems, the fire department, even the schools and churches. Comfort and aesthetics typically played a small role in the design of such towns except for the company's offices, store, and management housing. Occasionally "model" towns were built, the most famous of which is Tyrone, New Mexico, with its improved worker housing, Mediterranean style buildings, and landscaped central plaza. Designed by New York architect Bertram Goodhue, it was in the way of later strip mining and was demolished.[12]

The most classic company town built in Alaska was Kennicott, begun in 1905. In addition to the town, a 196 mile railroad was built to connect the copper deposits to the port of Cordova. Life in Kennicott and the associated town of McCarthy came to an abrupt end in 1938 when the mines and the railroad were closed.[13] The ruins of Kennicott are now within the Wrangell-Saint Elias National Park; a few people still inhabit the area.

Construction of an entire town was not needed where previous development had occurred, as was usually the case where gold and silver were involved. Allen's study The Company Town in the American West (which does not include Alaska) catalogs 191 company towns, of which only two were connected with gold mining. Gold dredging specifically was done at only one: Hammonton, California, established in 1905 and "completely abandoned for many years."[14]

Hammonton was named for W.P. Hammon, who had started California's first floating gold dredge in 1889 with his partner Thomas Couch. Dredges had first been used in New Zealand around 1882; the first

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[11] Harris, p. 48.

[12] Francaviglia, p. 118.

[13] Lowe, unnumbered pages.

[14] Allen, p. 151. Hammonton's owner, W.P. Hammon, was one of the first to try gold dredging in Alaska. His dredges at Nome and his undeveloped interests in the Fairbanks district were bought by the USSR&M beginning in 1923 (Boswell, p. vii).

in the U.S. was at Bannack, Montana in 1887.[15] Use of dredges peaked in the U.S. in 1912, when 124 were in operation. Of these, 65 were in California and 38 in Alaska.[16]

California dominated placer gold production in the United States prior to 1900.[17] Between 1901 and 1917 Alaska mined more placer than California but then entered a sharp decline. Alaska's production rebounded in the late 1920s with the construction of larger and more sophisticated dredges. By 1932 Alaskan dredges recovered more gold than those of California, which had led the use of the technology since 1898 but where dredges were declining in number.[18] The F.E. Company was the largest of the Alaskan dredging operations (the second largest was that of the USSR&M's other Alaskan subsidiary, the Hammon Consolidated Gold Fields in the Nome district).

Fairbanks was never a true "company town" by Allen's criteria, since a local government, stores, a fire department, and other institutions remained independent of the company. The same is true of Nome and Dawson City, other principal dredging locations in the North. Nonetheless, the F.E. "virtually constructed a new town along Illinois Street north of Fairbanks"[19] for their headquarters, with office and industrial buildings, residences, and utility systems. The company also built camps in the surrounding district with shops, worker housing, and mess halls to support their dredges and the canal and pipeline systems.

Similar developments occurred elsewhere, and in some places much has been preserved. Historic tourism is now central to life in Bisbee, Arizona, where retired miners give tours of the Copper Queen Mine. In the 1970s the Phelps-Dodge Company built a golf course and other facilities in the dying company town of Ajo, Arizona, successfully converting it into a retirement community. Butte, Montana is developing a major preservation effort, as are other towns.[20]

In the North, the Bear Creek Historic Site outside of Dawson City

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[15] Young, p. 132.

[16] Gardner & Johnson, p. 8.

[17] Placer gold is that found in alluvial deposits, as opposed to lode gold found in veins of hard rock.

[18] Gardner & Johnson, pp 6-10.

[19] Cole, p. 12,

[20] Bob Spude provided these and other examples of historic resources related to Western mining.


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is preserved by the Canadian Parks Service. Like the F.E. Townsite in Fairbanks, Bear Creek was the headquarters for gold dredging operations, and was comparable in size and in the number and types of buildings. Unlike the F.E.'s Townsite, it was not built from a single plan during a discrete period, but rather developed from 1905 through the 1950s under several owners. Also unlike the F.E. Townsite, it was built outside of town and was not as well preserved, having been abandoned for a number of years before becoming part of the Klondike National Historic Sites. The Canadian Parks Service is working to stabilize the buildings at Bear Creek, and a visitor facility is open in the former General Manager's residence. A collection of about 250,000 artifacts is housed in several of the site's warehouses.[21]

Also in the North are Kennicott's copper mining operations, already mentioned, and the remains of the gold mining industry of Juneau. Kennicott's ruins have been partially stabilized by the National Park Service, and although rather remote are open to the public. Juneau's historic mining resources are primarily those of the Treadwell and AJ Mines. As part of the current efforts to reopen the AJ mine, a six million dollar visitor facility has been proposed, which would include exhibits, a theater, archives for AJ and Treadwell records, hiking trails, and underground tours.[22] The Kennicott, AJ and Treadwell mines were all underground lode mines, whose shafts and mills were quite different from placer dredging operations like the F.E.'s.

The historic record left by the F.E. is substantial and significant in comparison to those of any mining district in the West. A large fraction of the F.E.'s facilities still exist - dredges and their ponds, pipelines and canals, bunkhouses and mess halls, warehouses and shops. They are an important record of early twentieth century industrial technology and its substantial effect on the development of the American and Canadian West, and the finest such record for gold dredging in particular.

The F.E. Townsite in Fairbanks, although neither a "pure" company town nor a large one (the F.E.'s dredges and buildings were mostly in the outlying camps) is significant both for its good state of preservation and the absence of buildings from other periods. From Illinois Street one can simultaneously experience the broad range of company town planning, encompassing industrial, commercial, residential, and landscape design.

Of all the F.E.'s facilities the Illinois Street Townsite merits the greatest preservation efforts today for several reasons. Foremost among these reasons is that they are unique, whereas for

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[21] Michael Gates, personal communication.

[22] David Stone, personal communication.

much of the historic fabric - dredges, mess halls, bunkhouses, canals, tailings piles - there are multiple examples in the Fairbanks area. Moreover, many of the other important F.E. sites have already been restored as historic tourism facilities, and their future seems relatively secure (Dredge 8, the Chena Pump House, and the camps at Ester and Chatanika). Further, the Illinois Street complex is located near downtown Fairbanks, an ideal location for a central focus for the historic tourism industry of the area. Finally, because of this central location, it is most threatened by new development.


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II: F.E. TOWNSITE: CURRENT STATUS

The F.E. Townsite was until recently remarkably well preserved given its central location in modern Fairbanks. Much of this is because it had become an almost forgotten part of town. The F.E. (now Alaska Gold Company) quit mining and mothballed most of the industrial buildings in the early 1960s. Traffic going north from Fairbanks was diverted from Illinois Street several blocks east many years before that.

Illinois Street remains a small arterial road. The trees, shrubs, and lawns planted along the residential east side of the Townsite are mostly those planted over fifty years ago. It retains a somewhat rural atmosphere although the area is now surrounded by urban development.

Figure 6. Illinois Street looking south towards downtown. The F.E. Office Building is on the right; F.E. Residences 7-10 are in the trees in the left center. July 1993 photo by the author.

The Alaska Department of Transportation and Public Facilities plans to widen Illinois Street. In the Townsite, additional land would be taken from the east side of the street (presumably because

residentially zoned land is cheaper than industrial). Trees, shrubs, and fences would be removed, and the road would be pushed close against the F.E. houses. Both the expansion of the road and the loss of landscaping would radically alter the Townsite in the road corridor, from which it is most often viewed by the public. Other planned highway construction might create a road running parallel to Illinois Street behind the Office Building to provide new access to Golden Valley Electric Association's headquarters.

In August, 1992, GVEA entered into an agreement to buy the land at the Industrial Complex from the Alaska Gold Company, along with the office and retort buildings. The warehouses and shops west of the railroad tracks (on "Tract M" - see Figure 12), along with their contents, were purchased during the summer of 1992 by John Reeves. GVEA's purchase agreement is contingent on cleanup of some contaminated soils and removal of the structures bought by Mr. Reeves. GVEA also recently bought much of the neighboring Zehnder homestead which F.E. used to own.

The Alaska Gold Company will be left with less than two acres of the Townsite on the east side of Illinois Street, containing four middle management residences and their garage and greenhouses (which may also be sold soon). The company moved out of their offices in Warehouse 1 during the last months of 1992. They took much of the company records, all of their drawing files, some furniture, and other items with them to rented offices in Fairbanks.

GVEA has stated that they will probably use the newly purchased land for storage, but have no immediate plans for new buildings or the old office building. It appears they would like to keep the office building and are willing to cooperate with others to preserve some parts of the site. They have been adamant, however, that they intend to clear most of Tract M, although to what purpose has not been clarified.

When Mr. Reeves' bought the buildings he planned to move them and their contents to the F.E. Gold Dredge No. 8 National Historic District, about 10 miles north of Fairbanks in Fox, Alaska. Mr. Reeves owns the district, which contains some F.E. camp buildings as well as the dredge. In summer it caters to tourists with a restaurant, tours of the dredge, and other activities.

In April 1993 both Mr. Reeves and GVEA said they were negotiating an arrangement to leave at least some of the F.E. buildings on Tract M. At their annual meeting on April 6, GVEA announced they had also spoken with the Pioneers of Alaska, the Departments of Environmental Conservation and Transportation, the Alaska Railroad, and Alaska Gold Company regarding the fate of the historic buildings. Notable by its absence at GVEA's meeting was any mention of the State Historic Preservation Office (in the Department of Natural Resources), architectural or industrial


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historians, or preservation experts.

Negotiations, whatever they may be, have been kept quiet, perhaps partly because of the publicity and controversy which accompanied the sale of the property. The basic concept is said to entail Mr. Reeves buying a southerly piece of Tract M and leasing adjoining land from the Alaska Railroad (which F.E. previously leased also). The shop building - already partially on the leased land - would remain in place, while two other buildings would be moved south of it onto the leased land. The moved buildings would be Warehouse 2 ans parts of Warehouse 1, although the central part of the latter (containing the offices and walk-in vault) would be destroyed. Mr. Reeves plans to give tours of whatever buildings remain, and GVEA's land is to be cleared. It isn't clear that any present discussions are about the fate of the office buildings.

As of late April, 1993, Mr. Reeves had removed much of the equipment in the complex (including the gold retort), burnt Warehouse 4, and removed or demolished Warehouse 9 (both minor structures). A storage shed (structure "T" in Figure 12) had been torn apart for scrap lumber. Steel racks ("W" and "Y" in Figure 12) were gone, and Warehouse 3 was being disassembled and moved to a local ski resort. The derrick winch house had been destroyed.

The derrick itself was later moved to the Dredge 8 District in Fox, as was Warehouse 12 and another building ("b", "M", and "V" in Figure 12). As of early August, 1993, nearly all of the smaller structures in the complex had been removed or demolished.

Buildings which remained in early August included the Office Building, Garage, and Machine Shop ("A", "N" and "C" in Figure 12), which were apparently to remain intact at least temporarily. The other surviving buildings were the Retort Building and Warehouses 1 and 2 ("B", "E" and "F" in Figure 12). The Retort Building's freight doors and parts of the adjoining walls had been demolished, reportedly to facilitate removing equipment inside the building. The rest of the building was apparently to be demolished as well, as discussed in Section IV-D of this report. Warehouse 2's loading docks had been destroyed and Warehouse 1 was being cut in pieces, apparently in preparation for moving the buildings as described above.

There may have been substantial funds available for preservation efforts at the Industrial Complex. It was eligible for 20% rehabilitation investment tax credits. Further, the DOT&PF had stated that it was an appropriate site for "ISTEA enhancement funds", a possible source of greater federal funding. ISTEA - the Intermodal Surface Transportation Efficiency Act - provides substantial money for environmental improvements, beautification, and historic preservation of areas affected by federally funded road construction. It seems unlikely, however, that what little remains of the site will be eligible for such funding.


D50 Illuminant, 2 degree observer
Colors by Munsell Color Services Lab

III: FEATURES AND SIGNIFICANCE

The F.E.'s Industrial Complex was only part of their Townsite development, and can only be understood in that context. A discussion of the Townsite in general follows; the Industrial Complex then examined in more detail, followed by discussions of the Office and other buildings.

III-A: THE F.E. TOWNSITE

The F.E. bought the Trading Site of the Tanana Mill Company just north of Fairbanks for their headquarters; Figure 7 shows the vicinity. From this "Townsite" they built and ran as many as eight dredge operations simultaneously, and it was here the gold was refined. It was an ideal site for the company, straddling the highway to the gold fields and connected by a rail spur to the Alaska and Tanana Valley Railroads (and thus to ice free ports, coal supplies, and many of the gold fields).

The 1918 plat (Figure 8) shows the site shortly before the F.E. bought it. The 37 acre site contained the house of Fred Noyes (the Mill Company's majority stockholder) as well the mill buildings.[23] Noyes' house was one of the town's finest residences and the mill was the largest lumber company in the district.[24] The greenhouses and slaughterhouse in Figure 8 were not owned by Noyes[25] and they do not appear on a 1924 map of the site.[26]

F.E. had purchased the land by this time.[27] Noyes' house and mill were immediately fixed up, the former for staff (and USSR&M brass visiting from Boston), the latter to produce "everything they need(ed) from 2x4s to window sashes" using imported douglas fir.[28] Later residents of Noyes' house included diphtheria serum hero

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[23] Field notes to U.S. Survey 806, 1911.

[24] Cole, 1989, p.10.

[25] Field notes of U.S. Survey 806, 1911.

[26] F.E. Drawing #7471.

[27] Ibid/

[28] Fairbanks Daily News-Miner, July 25, 1925, quoted in Cole, 1989, p. 13-14.


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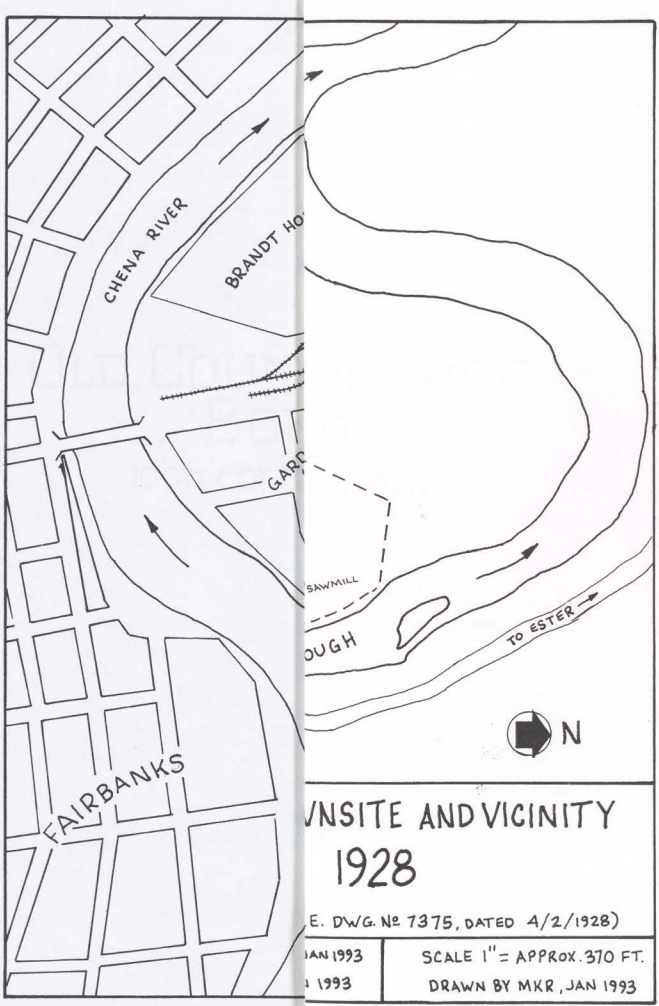
Colors by Munsell Color Services Lab



VNSITE AND VICINITY

1928

E. DWG. Nº 7375, DATED 4/2/1928)

AN 1993

1993

SCALE 1" = APPROX. 370 FT.

DRAWN BY MKR, JAN 1993

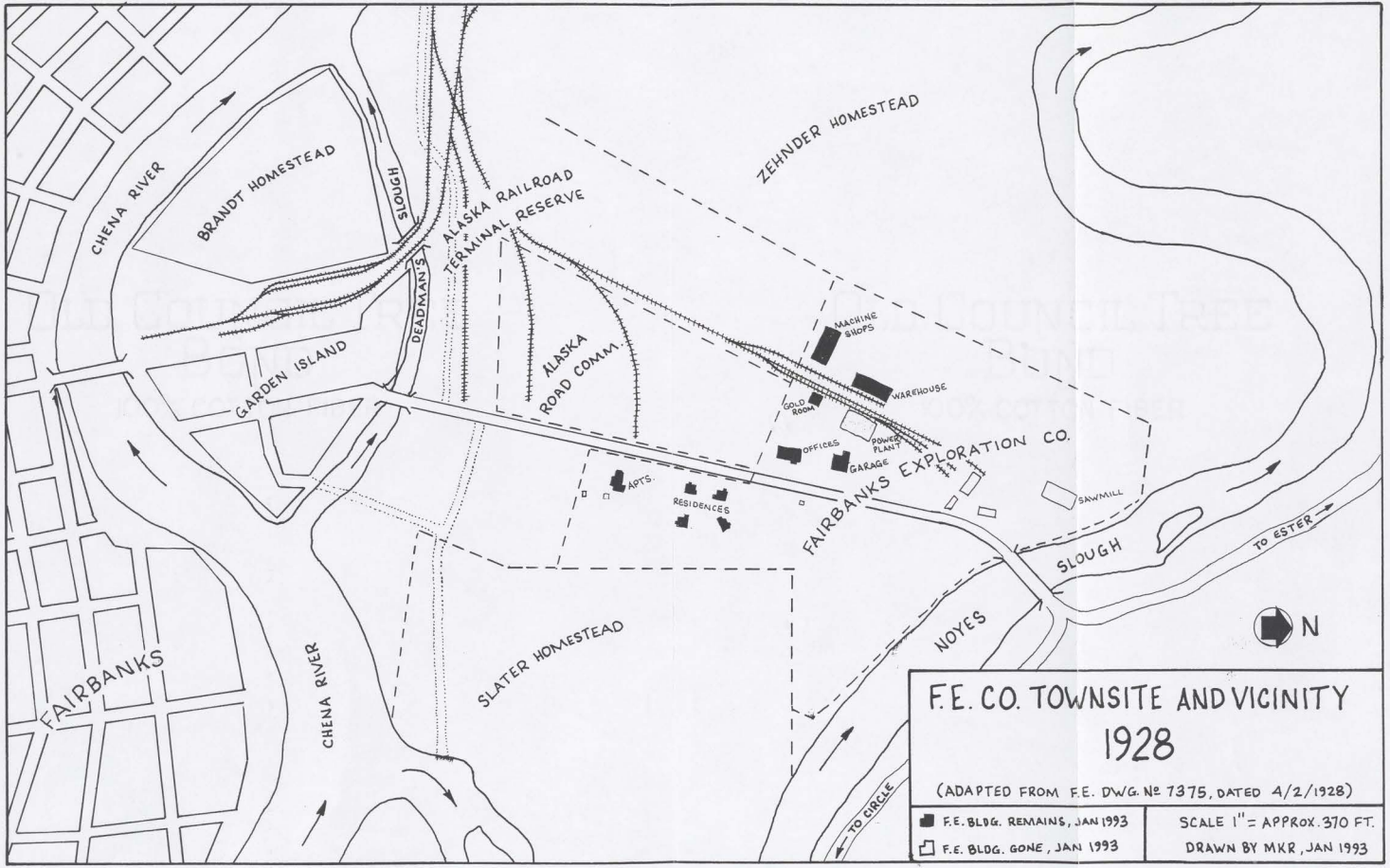

CHENA RIVER
BRANDT HOMESTEAD
SLOUGH
DEADMANS
ALASKA RAILROAD
TERMINAL RESERVE
ZEHNDER HOMESTEAD
GARDEN ISLAND
ALASKA ROAD COMM.
MACHINE SHOPS
WAREHOUSE
GOLD ROOM
POWER PLANT
OFFICES
GARAGE
APTS.
RESIDENCES
FAIRBANKS EXPLORATION CO.
SAWMILL
SLOUGH
TO ESTER
N
FAIRBANKS
CHENA RIVER
SLATER HOMESTEAD
NOYES
TO CIRCLE
F.E. CO. TOWNSITE AND VICINITY
1928
(ADAPTED FROM F.E. DWG. Nº 7375, DATED 4/2/1928)
F.E. BLDG. REMAINS, JAN 1993
F.E. BLDG. GONE, JAN 1993
SCALE 1" = APPROX. 370 FT.
DRAWN BY MKR, JAN 1993

Figure 7.


D50 Illuminant, 2 degree observer
Colors by Munsell Color Services Lab

Accepted C. L. O.

of

AMENDED U.S. SURVEY NO. 806

of the

TRADING SITE

of

TANANA MILL COMPANY

Situate

In Section 3, T.1 S., R.1 W., F.M.

TERRITORY OF ALASKA

Area: 36.74 Acres.

Latitude 64°51'N., Longitude 147°40'W.

Scale 4 chains = 1 inch.

Variation 30°35'E.

Surveyed under Instructions

dated June 27, 1918.

by

WOODBURY ABBEY

U. S. Cadastral Engineer,

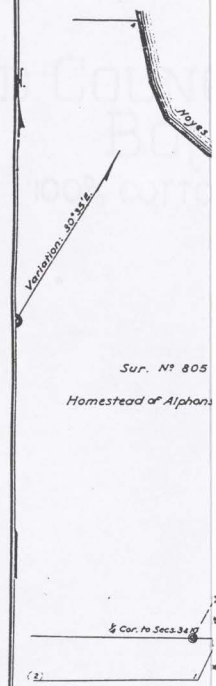
August 14 - 18, 1918.

U. S. Surveyor General's Office,

Juneau, Alaska, April 16, 1920.

The map hereon delineated of Amended U. S.
y No. 806, situate in Sec. 3, T.1 S., R.1 W., F.M.,
tory of Alaska, is strictly conformable to the
notes of the survey thereof on file in this
e, which have been examined and approved.

U. S. Surveyor General.



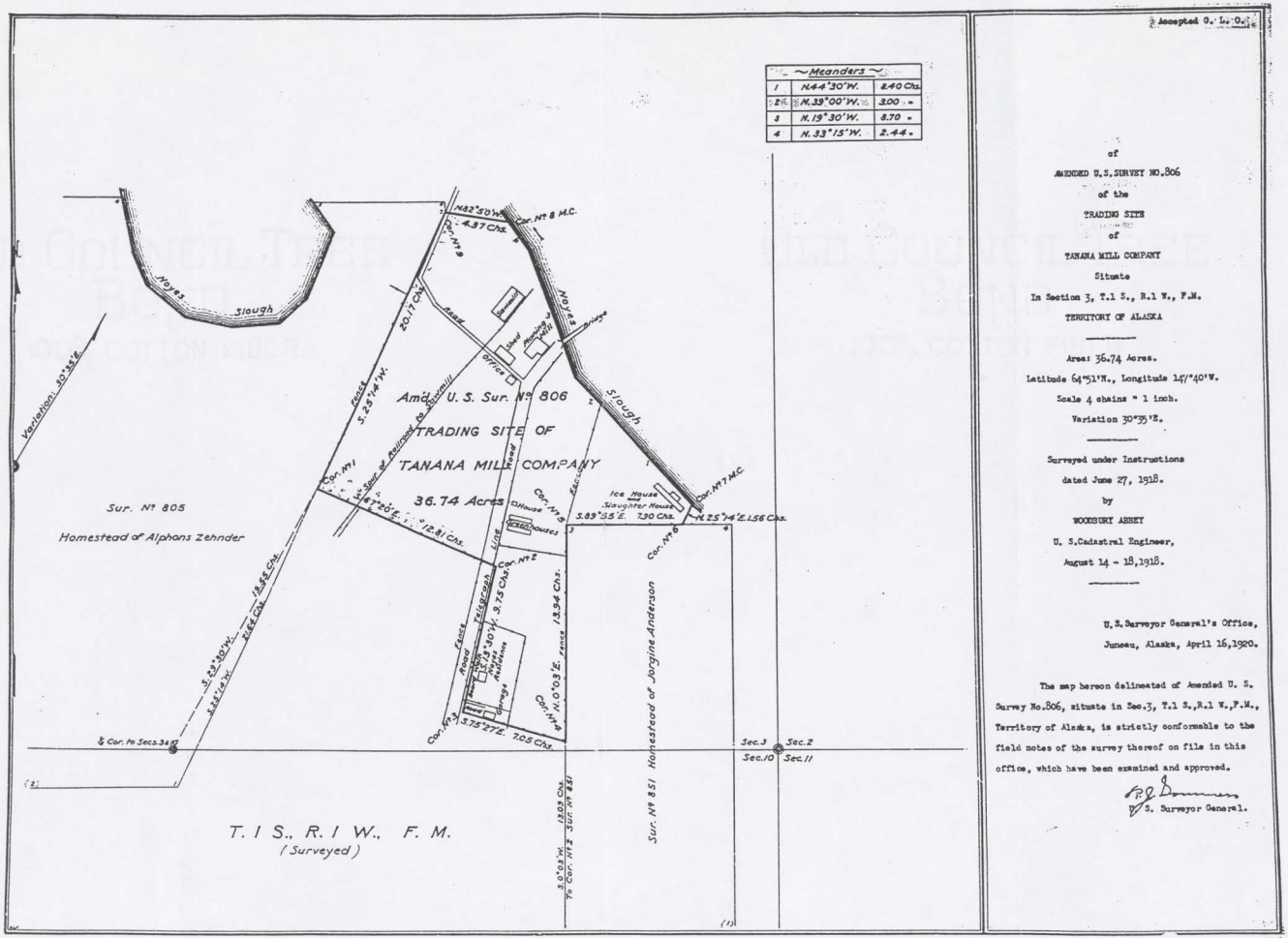
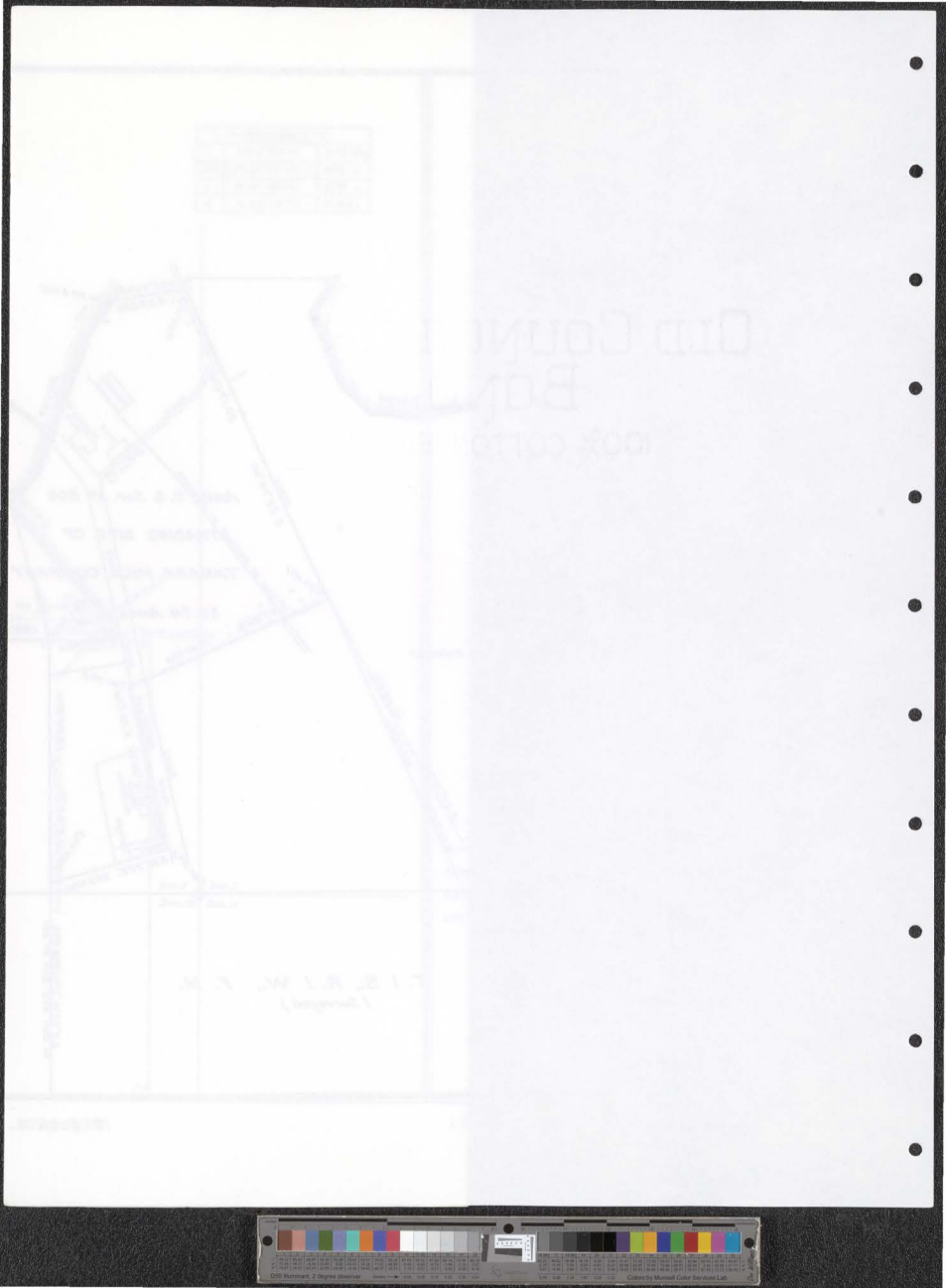


Figure 8. USS 806A



Leonard Seppala (during the 1930s)[29] and Soviet pilots (during World War II).[30]

Construction of new buildings began in 1925. Following Noyes' lead, industrial and office buildings were sited west of the road, with residential development east of it. Buildings substantially completed by 1928 appear in Figure 7. The new structures included the company's office building and garage fronting the west side of the road. Behind them were the retort building or "gold room" (where refining was done), Warehouse 1, shops, and a power plant, grouped along the rail spur. Four residences for middle management were built on the smaller portion of the tract lying east of the road, and lawns, trees, and shrubs planted around them. The entire development was carefully planned and the structures were all well built. The houses, along with the rest of the townsite, were provided with electricity, water, sewers, and steam heat, all of which were virtually unknown in Alaskan residences of the day. They even had heated greenhouses and a heated garage. The company also purchased at least two of the best houses in Fairbanks (for their general manager and their attorney), including the Register-listed Mary Lee Davis House.[31]

No evidence was found of any working class housing owned by the company in Fairbanks this early (although there was plenty in the camps out of town). The company may have deemed it unnecessary since there were many vacant cabins in town at the time.[32] Such housing was originally envisioned along the east side of Illinois Street, where a row of 15 small identical houses spaced about 50 feet apart is shown on the company's preliminary townsite plan.[33]

Later, the company built bunkhouses for single workers and a mess hall west of the Tanana Mill site (on the Zehnder homestead), two more houses east of Illinois Street, a storage garage across the road, and more warehouses around the shops and Warehouse No. 1.

Most of the buildings built by the F.E. on the site (or moved to

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[29] The dog sled relay of serum saved Nome from an epidemic and is commemorated by the modern Iditarod Race. Seppala was an F.E. employee for years (see Boswell). A statue of Seppala's wheel dog Balto is in New York's Central Park.

[30] See Boswell, p. 58. Many aircraft were shuttled to the Soviet Union through Alaska as part of the Lend-Lease program. Soviet pilots took over from American ones in Fairbanks.

[31] Helen Atkinson, personal communication.

[32] As shown on F.E. Drawing #7375, a 1928 map of Fairbanks.

[33] F.E. Drawing #505.


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Colors by Munsell Color Services Lab

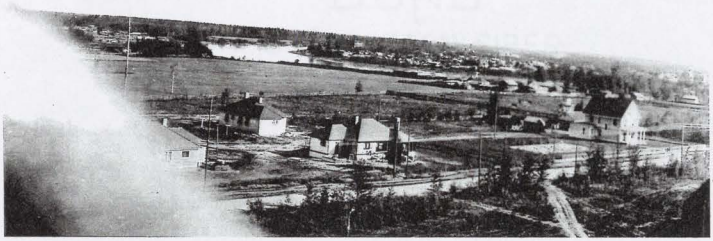

Figure 9. Residences 7 - 10, c. 1927. These were apparently the first residences built by the F.E.; numbering was applied at a later date. Photo UAF Archives, Patt Peterson Collection.

it) remain there. Two districts and one separate building at the Townsite, plus an F.E. employee's nearby home on Illinois Street, have been found eligible for the National Register of Historic Places, as follows:

TABLE 1: Properties Determined Eligible For The National Register of Historic Places

Resource	Location
F.E. Co. Industrial Complex (c. 30 bldgs.)	S portion of Townsite W of Illinois Street
F.E. Co. Housing (Residences Nos. 7-10)	505, 507, 521, 523 Illinois St. (E. side just S. of Industrial Complex)
White House (Residence No. 12/ Manager's Hse/Sisters' Convent)	NE corner of Townsite
Sexton House	315 Illinois, just S. of Townsite proper

Coleen Lazenby's recent evaluation indicates eligibility for an additional three residences and a new, larger district, as follows:

TABLE 2:
Properties Evaluated As Eligible For NRHP By Lazenby (1990)

Resource	Location
Residence No. 11	709 Illinois St., E of Industrial Complex
Noyes House	E. Side Illinois St. at S end of Townsite (also evaluated as eligible by Cole, 1989).
Johnson/Hayr House	303 Illinois, S neighbor to Sexton House
F.E. Company District	All the above listed properties plus Illinois St. - see Figure 9

A map of the proposed F.E. Company District is shown as Figure 10. It contains most of the Townsite, plus homes built by Company middle managers just south of the Townsite along Illinois Street.

The proposed district is a coherent landscape true to the 1925-1933 period. Little of what the F.E. and its employees built, moved and remodeled here during the period is missing, and there are almost no structures from before or after this time. Landscaping along Illinois Street has matured. The buildings include exceptional examples of period residences, offices, and industrial buildings. The F.E.'s facilities were easily the most modern and extensive built in Interior Alaska up to that time, and included the region's first buildings framed in steel and concrete.[34] What might have been seen as modern but unremarkable in some parts of the country was truly extraordinary for its location at the time. There is little question that it is the most important historic site in Fairbanks.

The housing built by the F.E. reflects social and economic class distinctions, characteristic of company town developments. The attractive and comfortable middle management housing along Illinois street projected a progressive public image complementing the office building across the street. In contrast, neither the superintendent's (Fairbanks Manager's) residence nor worker

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[34] Neither the author nor Russ Sackett of the Alaska SHPO knows of earlier examples of either type of construction. The F.E.'s Office Building predates both the Princess Theater (built in 1927) and the old Federal Building (early 1930's), both of which have been claimed as the earliest reinforced concrete buildings.


DSG Illuminant_C Degree observer
Colors by Munsell Color Services Lab

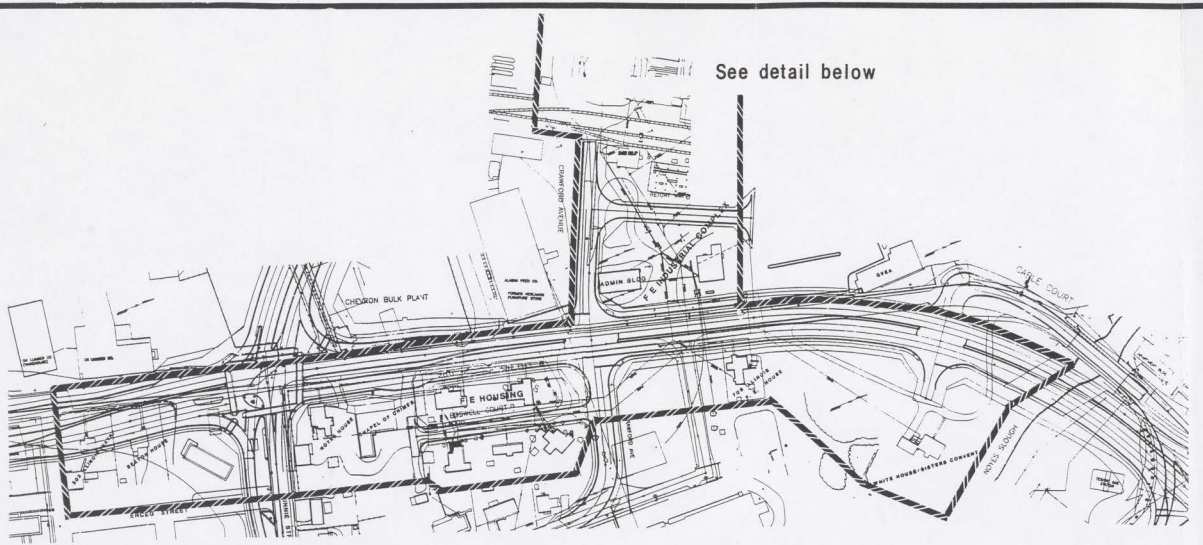
HISTORICAL RESOURCES ALONG ILLINOIS STREET

SEPTEMBER 1990

PROPOSED BOUNDARIES:
FAIRBANKS EXPLORATION
COMPANY HISTORIC DISTRICT

AK DOTPF Project #63102
FHWA Project #FM 0663(4)
UAF Dept. Anthro. Project #90-05

Plate: 23



Outlines of the proposed district

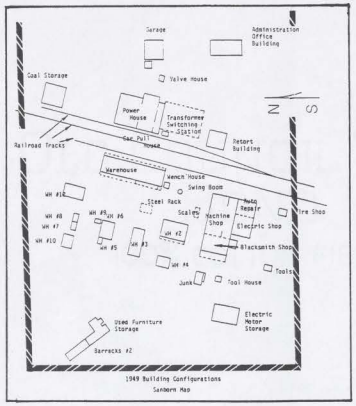


Figure 10. Proposed F.E. Historical District

HISTORICAL RESOURCES ALONG ILLINOIS STREET

SEPTEMBER 1990

AK DOTPF Project #63102
FHWA Project #FM 0663(4)
UAF Dept. Anthro. Project #90-05

PROPOSED BOUNDARIES:
FAIRBANKS EXPLORATION
COMPANY HISTORIC DISTRICT

Plate: 23


D50 Illuminant, 2 Degree observer
Colors by Munsell Color Services Lab

barracks were in public view at the company's headquarters, for different reasons. The "White House" (which replaced the General Manager's house in town in 1940[35]) was placed well back from the road, and a birch grove planted around it. This left it invisible from the road and aloof from both the company's operations and the other residences, a figurative "mansion on the hill". Worker barracks were located in back of the industrial buildings, a part of the gritty operations themselves.

The early houses built east of Illinois Street (residences 7 - 10) are ample in size, with sturdy and contemporary Craftsman/Bungalow styling. Their landscaping - an informal siting arrangement on two "park-like" acres (reminiscent of American auto courts of the same era) - is unique in Fairbanks and significant anywhere. Trees and shrubs screen the residences from the road and the industrial side of townsite without entirely separating them from it. The company's paternalistic relations with the tenants are illustrated by their list of rules reproduced as Figure 11.

III-B: THE F.E. COMPANY INDUSTRIAL COMPLEX (Tract M/Lot 1/Lot 2)

This complex has been determined an eligible district for the National Register of Historic Places, and may qualify as a National Landmark, according to staff of the Alaska SHPO.[36] The complex was crucial to the history of Fairbanks and Interior Alaska. It is a significant physical record of mining industry and technology which helped shape the development of Western North America in the early twentieth century.

The thirty or so buildings and structures in the complex (shown in Figure 12) were almost entirely built between 1925 and 1933. The complex was until recently remarkably intact considering its central location in Fairbanks; there had been few alterations. The complex, moreover, retained a tremendous assortment of historic contents, including metal working machinery (lathes, presses, etc.), refrigeration equipment, vehicles, safes, office and bunkhouse furniture, radios, electrical and mechanical equipment, and company records.

Until 1992 the only major structure which had been lost was the 9.5

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[35] Matheson, 1985 gives 1928-29 as construction dates for this house, but the commentary to the Earling Collection indicates a 1940 date. Helen Atkinson confirmed that the house was built after O.J. Egleston's tenure as General Manager ended in 1934.

[36] Russ Sackett, personal communication.


ISO Illuminant_C Degree observer
Colors by Munsell Color Services Lab

INFORMATION FOR TENANTS OF COMPANY HOUSES

SCREENS AND STORM WINDOWS are put on and removed by Company. Washing of windows and storm windows must be done by tenant.

FUEL FOR FIREPLACES AND KITCHEN RANGES furnished by tenant. The same applies to salt for water softeners.

ELECTRIC RANGES AND ELECTRIC REFRIGERATORS are not furnished, but when tenants buy their own the Company furnishes Electricity for them without charge.

GARBAGE AND ASH DISPOSAL furnished by the Company

GREENHOUSES: Heat and water will be turned on and off by the Power Plant Superintendent on request. You are requested not to use them before March 20th or after October 20th.

LAWNS AND GARDENS: Tenants are expected to keep lawns cut and trimmed. Hose and sprinklers are furnished by the Company, lawn mowers and garden tools by tenant. The Company shop is not allowed to sharpen privately owned lawn mowers.

SNOW SHOVELING must be done by tenant.

TELEPHONES are furnished by the Company only when house is occupied by an employee whose duties require it.

RADIO POLES AND ANTENNA are provided and maintained by the Company, but wiring must be done by tenant.

ELECTRICAL REPAIR WORK: Company electricians will connect up and repair electric ranges and refrigerators without any labor charge, but will bill tenant for new burners and repair parts used. They are not allowed to do repair work on other electrical utensils or appliances, such as vacuum cleaners, washing machines, mangles, electric irons and percolators. Such work must be done by the electric shops in town.

STEAM RADIATOR TRAPS: If radiators become noisy notify power plant superintendent.

FIRE EXTINGUISHERS are inspected at intervals by a Company representative. Please familiarize yourself with their location.

IN CASE OF FIRE: Houses in town; call City Fire Department.
Houses on F.E. townsite; call City Fire Department and Company power plant.

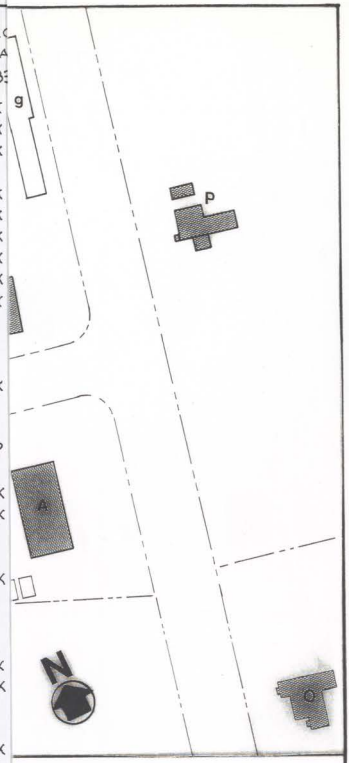
*4744

Figure 11. Tenant Rules (F.E. Drawing #4744, undated).


D50 Illuminant, 2 Degree observer
Colors by Munsell Color Services Ltd.

KEY TO BUILDINGS

		BUILDING ON MAP 1928	1933
A	OFFICE BUILDING	X	X
B	RETORT BLDG. (GOLD ROOM)	X	X
C	MACHINE SHOP	X	X
D	MACHINE SHOP ADDITION		
E	WAREHOUSE Nº 1	X	X
F	WAREHOUSE Nº 2		X
G	WAREHOUSE Nº 3		X
H	WAREHOUSE Nº 4		X
I	WAREHOUSES Nº 5 & 6		X
J	WAREHOUSES Nº 7 & 8		X
K	WAREHOUSE Nº 9		
L	WAREHOUSE Nº 10		
M	WAREHOUSE Nº 12		
N	GARAGE	X	X
O	RESIDENCE Nº 7	X	
P	RESIDENCE Nº 11 & GARAGE		
Q	TIRE SHOP		?
R	EQUIPMENT/TOOLS		
S	TOOLS		X
T	STORAGE SHED		X
U	STORAGE SHED		
V	SHORT TERM LODGING		
W	STEEL RACK		X
X	STEEL RACK		
Y	STEEL RACK		
Z	LOADING DOCK/STEEL RACK		
a	TRUCK SCALES		X
b	STIFF LEG DERRICK		X
d	OIL & GAS DRUM STORAGE		
e	DRUM STORAGE (PREVIOUS LOC)		
f	POWER PLANT	X	X
g	STORAGE GARAGE		
h	VALVE HOUSE		X
i	ELECTRIC MOTOR STORAGE		
j	LIVING QUARTERS (BUNKHOUSE)		
k	QUONSET HUTS (STORAGE)	X	



ORTION OF
TOWNSITE
LSITE/U.S. SURVEY 806)
LOCATED IN
BANKS, ALASKA

TER F.E. DWG Nº 733), JANUARY 1993

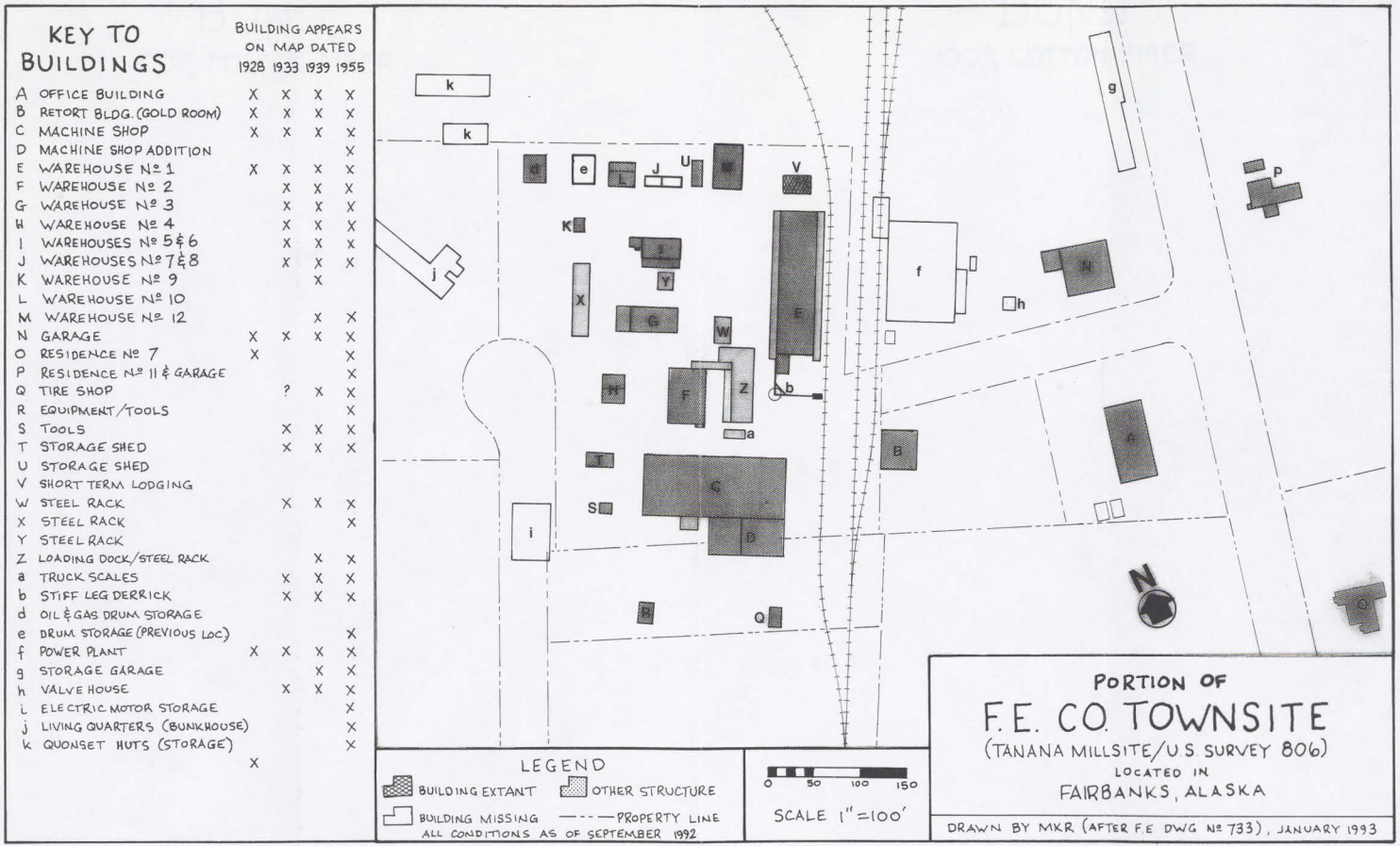


Figure 12. Industrial complex site map

MW coal-fired power plant which was removed in 1974.[37] This was easily the tallest building in the complex and, if the adjoining switchyard is included, was also the largest in plan. It is reported that the power plant equipment was sold an may still be in operation in Oregon.

Other missing early features include a well house, a valve house and the water tower. The latter appears on maps of 1927 and 1939[38] but not on one of 1949.[39] A storage garage north of the (still extant) garage is also gone. Several smaller buildings appear on some maps but not others, and it is difficult to tell if they have been moved, destroyed, or merely omitted from some maps. Warehouse 9, for example, is shown in at least three locations, none of them where the small building stood last summer, while the author has not found a Warehouse 11 on any. Additional research might clarify locations and uses of some of these minor structures.

The complex is a vitally important part of the larger F.E. Townsite as well as a cohesive unit in itself. Similarly, a subgroup of structures within the industrial complex forms a cohesive and historically significant unit. These are the buildings and structures which surround the central yard west of the railroad tracks. This yard is a very significant landscape feature, the only outdoor space in the complex in which one is entirely surrounded by the historic fabric. It conveys a powerful aesthetic which is not matched elsewhere.

Nearly all the structures in the complex can be divided into three groups: those in the initial development completed by 1928 (see Figure 7), three warehouses added by 1933, and a jumble of small frame structures, most probably moved to the site (also by 1933).

The first group includes the machine shop, Warehouse 1, the office building, the garage, and the original power plant (later used as the retort building or "gold room"). These are the buildings with the greatest individual significance. All five buildings are flat-roofed with a decorative cornice treatment, lending them some visual unity. All were built as part of the company's initial construction before any of their dredges were in operation.

The second group (Warehouses 2, 3, and 12) are gable-roofed frame buildings of similar appearance. They were built by 1933, eight years after the first buildings were started. They are illustrative of the expansion and adaptation of the company's facilities which occurred once their dredges began operation.

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[37] Matheson, 1985, p. 39, Boswell p. 10.

[38] Sanborn Fire Insurance map, 1927; F.E. Dwg. # 1031, 1939.

[39] Sanborn Fire Insurance Co. Map of 1949.

Individually they have less historical importance than the first group, but they are essential features in defining the central warehouse yard which is of primary significance.

The third group includes small ancillary frame buildings of unknown origin. While they contribute to the district as a whole, they are of lesser significance. Warehouse 5/6 (two attached structures) is exceptional among these since it faces and helps define the central yard.

Buildings in the first group are individually, if briefly, described below. This is followed by discussions of the other groups of buildings and additional structures in the complex.

III-C: THE F.E. OFFICE BUILDING

Figure 13. Office Building, 1992. Brackets on the north facade, on the right, were to support beams for an addition. Photo by the author.

The office building was the F.E. Company's most public architectural statement. The designer of the building was not determined. It is a two story block 39 by 83 feet in plan facing Illinois Street and containing about 7,000 square feet gross floor area, including a partial basement for utilities. Central corridors run the length of each floor, with rooms on each side and larger spaces at the ends of the building. A stairwell is on the

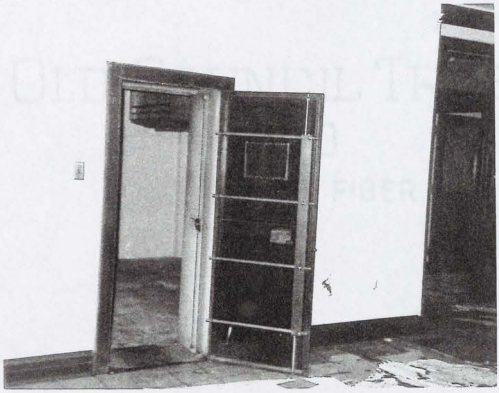

Figure 14. Office Building, 1992. Door to second floor vault. Photo by the author.

west side of the building opposite the front entrance.

There are more than 60 plan and construction drawings of the building in the company's files. These show that the first story was built in 1925 with a temporary wooden cornice and roof. The second story, with its concrete parapet and cornice, was added the following year.[40]

The building has a reinforced concrete frame with concrete block infill on the exterior walls. Concrete columns have individual spread footings; floors are one-way concrete slabs. There is a concrete vault about 15 feet square on each floor; other interior partitions are wood frame. Behind a parapet a nearly flat metal roof is supported by wood pony walls resting on the concrete second floor ceiling. Roof drains carry water through the building interior. The numerous large six-over-one double-hung windows have wooden frames.

The building's Renaissance Revival style projects dignity and solidity; it might be a school or a police station. The facades are of "rock-faced" concrete block on a smooth concrete foundation,

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[40] F.E. Drawings #7037, #7039, and #7047 are especially clear on these dates.

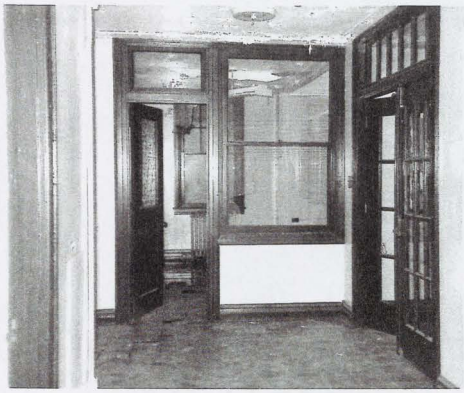

Figure 15. Office Building, 1992. First floor corridor, with doors to the front vestibule on the right. Photo by the author.

topped by a prominent concrete cornice. The block was produced locally by Adolph Wehner.[41] The building's front is asymmetrical: a narrow pavilion projects from the building mass on the left and a wider one, containing the front entrance, projects from the right. The left hand pavilion also projects from the building's south facade around the corner. The north and west sides of the building have no such projecting elements.

Planned additions would have created a U-shaped building with bilateral symmetry on all facades, more typical of a building of this style. The Illinois Street facade would have been a tripartite composition with a central entrance. Both north and south facades would have had matching corner pavilions flanking a recessed central section.[42] The additions would have more than doubled the size of the Office Building to just over 14,000 square feet. Support brackets for the additions' beams were cast into the

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[41] Matheson, 1985, p. 39.

[42] The full U-shaped building appears on F.E. Dwg. #505, the preliminary townsite plan. The construction floor plans and elevations (Dwgs. 7029-7031, reproduced as Figs. 28-30) show the planned additions.


D50 Illuminant, 2 degree observer
Colors by Munsell Color Services Lab

building's columns, and are visible on the building's north and west walls (see Figure 13).

The interior of the building is somewhat "institutional" and austere. Composition tiles cover the floor, the walls are painted drywall, and the building has (non-historic) suspended ceilings. Corridor doors have glazed transoms; those at the ends of the corridors also have sidelights and other glazing. Baseboards, stair railings, and door and window trim are bold and simple, and are very similar to that in the Craftsman/Bungalow houses the company built across the street at about the same time. As previously mentioned, the building's woodwork was apparently milled at the site.

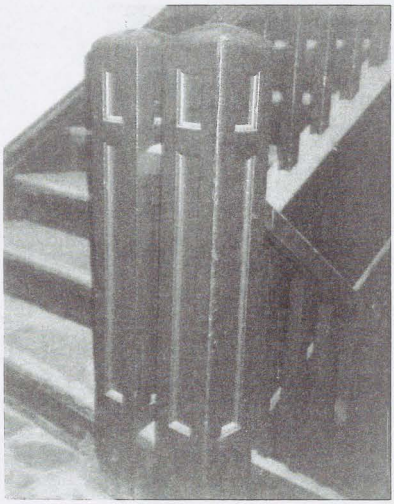

Figure 16 Office Building, 1992. Stairwell newels. Photo by the author.

Notable interior features include the vaults on each floor. The first floor vault is partitioned in two, each half with its own heavy steel door. The front entrance and stairwell are notable for their woodwork and glazed doors, partitions, and transoms. Small bathrooms on each floor, with their period fixtures, lend historic character of the building.

There are minor differences between the existing building and the as-built plans dated November 1927.[43] The most significant is that the north end of the building is divided into two spaces on each floor (the 1927 plans show three on the first and one on the second floor). A partition wall between front offices on the first floor

[43] F.E. Drawings #7029, 7039, and 7081.


D50 Illuminant, 2 degree observer
Colors by Munsell Color Services Lab

has been moved, slightly changing dimensions of the offices. There are also a few connecting doors between offices not shown on the early plans.

A drawing dated January 1932 shows some of these alterations.[44] It does not show the present configuration of the glazed partition near the front entrance, (see Figure 15) indicating this probably dates from sometime later. Also not shown is the glazed partition and door separating the stairs from the second floor corridor (apparently added to isolate the stairwell for fire safety reasons).

The Office Building would be eligible for the National Register of Historic Places for several reasons. It was the flagship building for the most important economic force in the Interior for many years. It is the most imposing and substantial commercial building of its time and the best example of its style in Fairbanks. Furthermore, it is the earliest known example of reinforced concrete building construction in Interior Alaska. This has not been noted in previous literature, perhaps because its construction date had not been established or because it was mistaken for a block masonry structure.

[44] F.E. Drawing #6239.

Figure 17. Warehouse 1, looking across the warehouse yard from the north. 1992 photo by the author.

Plans indicate that Warehouse No. 1 was probably begun in 1925 and completed the following year. It appears complete (on the exterior) in Peterson Collection photos from 1927 or '28 and is shown on the Sanborn map of 1927. It is a one story building 40 by 155 feet in plan. Freight docks, parts of them covered, run the length of the building on both sides. The docks front the railroad tracks on one side and the warehouse yard on the other.

The warehouse is of timber construction with wood frame partition walls. Steel beams support the tongue and groove hardwood floor, which is covered with linoleum in office areas. The roof is nearly flat behind short parapets. Cornices are framed in wood and covered with sheet metal, as are the exterior walls. The roof is supported by 13 timber trusses with paired steel rods for lower chords. It is very sturdily built; the floors were designed for a very heavy live load of 400 psf.[45]

Built into the southern end of the building are three refrigerators about 18 feet deep. The largest, about 18 feet wide, was for meat storage; the others were for fruits and vegetables and for butter

[45] F.E. Drawing #7073.


D50 Illuminant, 2 degree observer
Colors by Munsell Color Services Lab

Figure 18. Warehouse 1 roof truss. Part of the vault is visible in the background. 1992 photo by the author.

and eggs.[46] The meat locker appears to be entirely intact, while the vegetable cooler is now used as the furnace room with a (non-historic) sheetrock finish. The meat locker door - five feet wide and nearly a foot thick - and its hardware are a notable feature.

The refrigerators open onto one of the four squarish spaces into which the building is partitioned. Most of the rest of this southernmost space is occupied by ranks of shelves and bins reaching to the ten foot board ceiling. The adjoining space is mostly divided into offices, drafting and file storage areas. Some of the partitioning is original (including a walk-in concrete vault), some is more recent (probably 1960s). Both of these southern major spaces have historically been heated.

The two northern spaces were for unheated storage, the inside of their walls left unfinished or covered with shiplap. The southern of the two is largely open with shelves along the walls; the northernmost is mostly filled with ranks of shelves and bins.

The building features eight foot wide sliding exterior doors in pairs - one on the inside of the wall, one outside. Each of the

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[46] See F.E. Drawing #7164.


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Figure 19. Warehouse 1 interior. Shelves on the left are typical of many in the F.E. warehouses. The door on the right leads to the meat locker. 1992 photo by the author.

four major spaces had two such pairs, one leading to the railroad tracks, one to the yard. In the space devoted to offices these doors have been replaced with conventional doors; the others remain.

The vault, about eight by ten feet in plan, is built of rock-face concrete blocks like those used on the office building (although the vault blocks are probably solid).

At the south end of the warehouse is a winch house and, beyond it, a 20 ton, 60 foot radius stiff-leg derrick. This is original to the warehouse, and was used to transfer heavy freight arriving on the railroad. It may have been the first structure built at the complex, as it would have facilitated construction of the rest. The strategically placed derrick could reach freight on trolleys (with tracks leading to the machine shop, Warehouse 3, and elsewhere),[47] a loading and storage dock connected to Warehouse 2,

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[47] See F.E. Drawing #190, date Dec. 1927. Some of these tracks remain in the machine shop and from there outside to within reach of the derrick. It is not known if any remain elsewhere; some of the tracks shown in the drawing may never have been built.

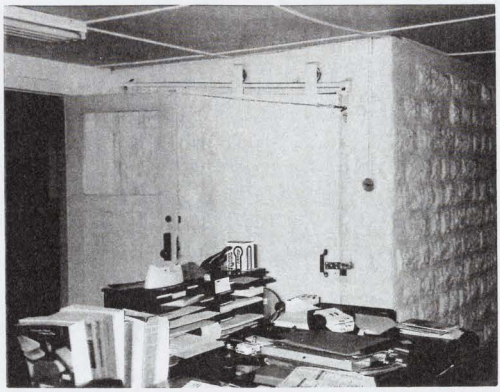

Figure 20. Warehouse 1 interior. Vault, as seen from the building's original office. 1992 photo by the author.

as well as trucks and railroad cars.

III-E: MACHINE SHOP

The machine shop consist of an original building 64 feet by 136 feet with two additions. The original building appears on the Sanborn map of 1927 and seems to have been completed in that year.[48] The larger addition, on the south side of the shops, is about 40 by 80 feet and was built in 1941.[49] The other addition, of undetermined age, is an open storage shed 16 feet wide attached to the western end of the original building.

The original part of the shop is the oldest known steel framed building in Interior Alaska. The shop has numerous multipane wood sash windows and is sheathed with shiplap and corrugated metal. It has a flat roof with simple wooden cornices and floors of end grain wooden blocks. The building is one story, although in parts of the building this story is over 20' to the bottom of the trusses.

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[48] See F.E. Dwgs. #7310B and 5623.

[49] See. F.E. Drawings # 2067, 2068, and 2069.


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Colors by Munsell Color Services Lab

Figure 21. Machine shop from the east. Most of the taller section on the left is a 1941 addition. The derrick's lower pulley block can be seen to the right. 1992 photo by the author.

A company drawing[50] shows the floor plan of the building and the arrangement of machine tools, cranes, a forge, and other equipment as of January 1928. Many of these tools remain, but the author was unable to gain recent access to the building to compare current and 1928 arrangements. The drawing also shows 36" gage tracks running through the building along both its axes, presumably for trolleys carrying heavy loads. Another drawing[51], dated December 1927, shows these as part of a system of tracks extending to within reach of the derrick, to Warehouse 3, and to a "dump". Nothing remains of this trolley system except some tracks in the machine shop itself.

The 1941 addition housed a garage and electrical shop, both much larger than those in the original building which they replaced. There have been some alterations to the original building (e.g. replacing the original garage doors with a wall). Most or all of this was probably also done in 1941.

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[50] F.E. Drawing No. 5623.

[51] F.E. Drawing No. 190.


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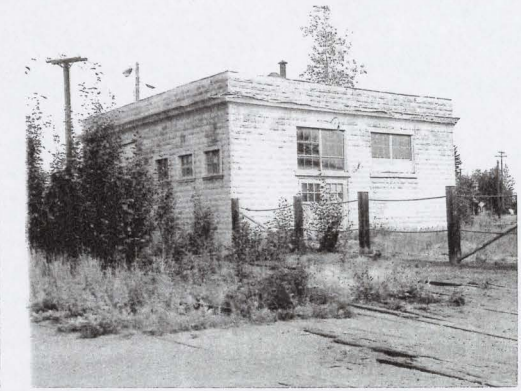

Figure 22. The Retort Building or "Gold Room" from the southwest. 1992 photo by the author.

The Retort Building (also known historically as the "Gold Room") is a one story structure 38 by 50 feet in plan. It was built in 1925 as a light and heating plant to serve the Townsite during its construction.[52] Once the main power plant was completed in 1928 part of the Retort Building was used as the master mechanic's offices and the rest for refining gold and casting ingots.

The structure is built of concrete blocks which match those used in the Office Building, as does the cornice. It has a poured concrete floor and foundation and wood frame partition walls. While stylistically similar to the Office Building, function clearly dominates aesthetics in the Retort Building.

The building's connection to the regional economy is historically significant: it was in this modest building that the subject of all the company's efforts - $125 million in gold ingots - were refined and cast. It is apparently the oldest concrete block building in

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[52] See F.E. Drawing #7048.


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Fairbanks.[53]

III-G: WAREHOUSES 2, 3, AND 12

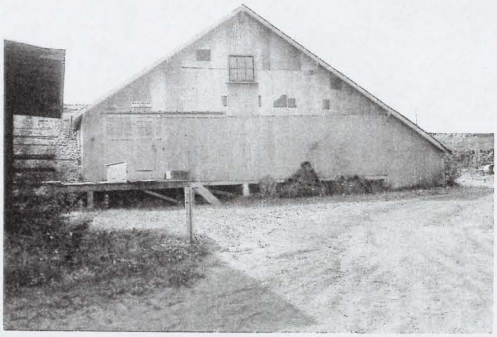

Figure 23. Warehouse 2 from the yard. The loading dock extended to the left within reach of the derrick. 1992 photo by the author.

Plans for these buildings were not located in company files (although with further research they might be). They do not appear on the Sanborn map of 1927. Warehouse 3, at least, presumably predates 1930 since a plan of the addition built onto it is dated July 1930.[54] Given the buildings' similarities, they may all have been built at about the same time. In any case, all three appear on a map of August 1933.[55]

The buildings are rectangular light frame structures arranged on three sides of the central warehouse yard. Simple wooden eave support brackets appear identical on all three, and all have gable roofs covered with corrugated metal. A gabled end with large freight doors faces the yard in all three.

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[53] Neither the author nor Russ Sackett of the Alaska SHPO know of earlier examples of this construction.

[54] F.E. Drawing #2127.

[55] F.E. Drawing #8072.


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Colors by Munsell Color Services Lab

Figure 24. Warehouse 3 from the south. The rack to the right of the doors stored fire hose. 1992 photo by the author.

Warehouses 2 and 12 are both elevated on timber posts and equipped with freight docks and sliding doors; both are clad in corrugated metal. Warehouse 3, in contrast, has horizontal wood siding and double hinged doors, and its floor is at grade. Windows in warehouses 2 and 3 are both fixed panes with six 12" by 18" lights; a close examination might prove them identical. Warehouse 12 has six over six double hung windows.

The eave on Warehouse 2's west side is extended to cover a shed running the length of the building; there are no doors between this shed and the main warehouse. Warehouse 3 was extended in the back with the addition mentioned above; the addition's gabled end is closed only by wire screening. Again, there is no door connecting this addition with the main warehouse. Warehouse 3 features a four ton travelling crane supported on a timber framework, probably installed in 1936.[56]

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[56] F.E. Drawing #6415, which shows the framework, is dated that year.

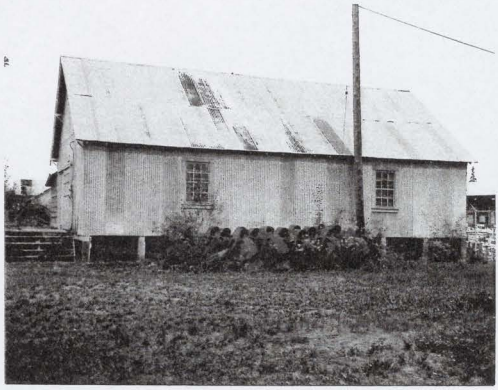

Figure 25. Warehouse 12 from the southeast. Stored dredge buckets are visible next to the building. 1992 photo by the author.

III-H: OTHER BUILDINGS AT THE INDUSTRIAL COMPLEX

The complex contained about a dozen other warehouses and storage buildings. All were small frame buildings; most seem to have been in their current location by 1933, judging from a company map.[57] It appears most were moved to the site (perhaps from claims the company bought and intended to strip mine).

No plans for these buildings were located among company drawings. At least one ("Q" in Figure 12) appears to have originally been a small frame residence. Its large front window with diamond shaped transom lights is far too ornamental for a tire shop, for which it was used at the complex. Additional research might reveal more about their origins.

These buildings mostly sit on wood sills (perhaps the skids they arrived on), now rotten. Above ground, their condition varies; several badly need roof repairs. The roof of the open-fronted shed

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[57] F.E. Drawing # 8072.

Figure 26. Warehouse 6 from the east, with Warehouse 5 attached at the extreme right. Part of one of the steel racks is visible to the left; the warehouse yard is in the foreground. 1992 photo by the author.

west of the machine shop appeared near collapse last summer. It has since been demolished, along with some others.

A small building north of Warehouse 1 ("V" in Figure 12), at one corner of the central yard, appears in relatively good condition from the outside. Apparently a small house originally, it has been used in recent years occasionally as temporary accommodations for company visitors or staff.[58] This building and Warehouse 5/6 help define the central warehouse yard, and thus have added significance.

Warehouse 6 is about 40 feet long and 22 feet wide with a 10 foot wide addition running the length of the building. The wall between the original building and the addition retains six exterior windows, but there are no connecting doors between the two parts. A 6' by 10' room is partitioned off in one corner of the original building; otherwise both parts have open interiors filled with benches, shelves, and bins. Warehouse 5 is attached to the west side of Warehouse 6, with a separate entrance and without a

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[58] Pete Eagan, personal communication.

connecting door. It is a single room about 10' by 14', with storage bins along each wall.

III-I: OTHER STRUCTURES AT THE INDUSTRIAL COMPLEX

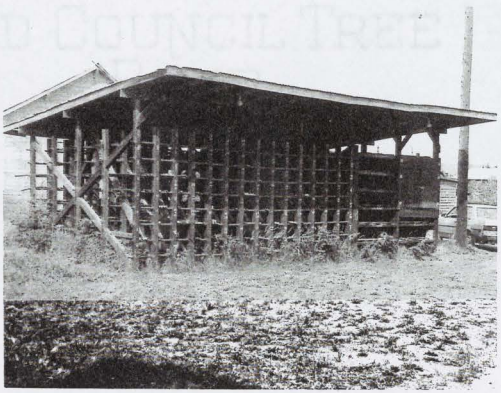

Figure 27. One of the steel racks ("W" in Figure 12) from the south. 1992 photo by the author.

Structures other than buildings on the site include steel storage racks, fire hydrant boxes, railroad tracks, loading docks, and the stiff-leg derrick. The latter two have been mentioned above in connection with the buildings to which they are attached. All appear to have been in place by 1933. They reflect the deliberate and comprehensive early planning of the industrial complex and illustrate much about the operation of the site.

Two similar steel storage racks are located in the warehouse yard ("W" and "Y" in Figure 12). The open-sided structures have shed roofs covered with corrugated metal and arrays of rollers to hold lighter metal bar and round stock, some of which remained in place until recently. Different types of steel were identified by color coding; a sign with the key to the code is mounted on Warehouse 6 next to one of the racks.

The other two racks ("X" and "Z" in Figure 12) are low, heavy timber platforms. One is to the east of Warehouse 2. It is within reach of the derrick, so heavy stock could be easily transferred

from the railroad. Some of this stock also remained until recently, when the storage dock and rack were demolished. The other steel rack is at the back (western side) of the complex, behind the warehouses.

A wooden fire hydrant box, largely below grade, is located at the edge of the yard just north of Warehouse 3. The box was provided with steam heat to keep it thawed.[59] Other hydrants were located west of the machine shop, between the office building and power plant, at the north end of the storage garage, and at three locations east of Illinois Street. No attempt was made to locate these other hydrants.

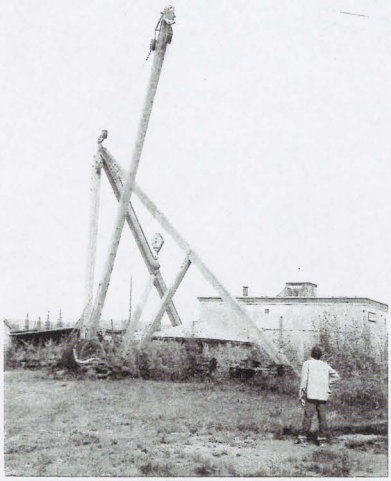

Figure 28 Stiff-leg derrick, from the south, with Warehouse 1 beyond it. The hipped roof under the derrick is the winch house. 1992 Photo by the author.

[59] See F.E. Drawing #733.


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Colors by Munsell Color Services Lab

IV: PRESENT CONDITION OF BUILDINGS

The author's access to the buildings at the Industrial Complex was limited (very much so since the property sales last August), and only a preliminary condition survey was possible. The greatest attention was given to the Office Building. A summary of the building inspections is given below.

IV-A: OFFICE BUILDING

Foundation: The building is supported by concrete columns with individual spread footings. These appear to be in very good condition and no substantial repairs are anticipated.

Building Structure: The building has a reinforced concrete column and beam frame with one way concrete floor/ceiling slabs. A limited analysis indicates the floor slabs were designed for about a 200 psf live load (extremely high for an office building). If this is typical, the structure is more than adequately strong to support virtually any conceivable use. Concrete structural elements appear in very good condition and little work is anticipated.

Exterior Walls: Smooth faced concrete walls skirt the foundation; above this level exterior walls are of rock-faced concrete block. They appear in very good condition; minimal repairs and repainting are needed. The only insulation, however, is a two inch air space between the block and the interior sheet rock finish.

Cornice: The concrete cornice has spalled in limited areas, mostly on the building's south and west sides. This is probably a result of weathering (freeze-thaw cycling) due to a lack of air entrainment in the original material.

Roof and drainage: The metal standing seam roofing is supported by wood frame construction resting on the second floor ceiling slab. It appears to be in fair condition. Roof drains are internal to the building. Since the building has been unheated, freezing water has broken many of the pipes, with the result that water now drains through the building's interior spaces.

Windows: Much of the window glass has been broken by vandals, and they are now covered with plywood on the exterior. Except for broken lites the windows appear in reasonably good condition. They would be serviceable with minor repairs, refinishing, and weather stripping. Most or all storm windows remain.

Interior partition walls: These are of wood frame construction covered with drywall. Water leakage and vandals have damaged much of the drywall beyond repair. The water has not damaged the wood

framing that was visible, but some replacement might be needed.

Interior Vaults: The concrete vaults on both floors are in good condition.

Ceilings and flooring: The (non-historic) suspended ceilings have suffered water damage and would need replacement. Composition floor tiles have also been water-damaged, and many are loose, brittle and crumbling. Enough could be salvaged and relaid to cover selected rooms with historic material, if desired. There is a good chance, however, that the tiles contain asbestos.

Interior doors and trim: Doors and their frames, baseboards, transoms, etc. appear in generally good condition. A few doors are missing and glass in some transoms has been broken.

Plumbing: Fixtures in the two bathrooms appear serviceable, but water and sewer piping could not be inspected in any detail. Bursting of frozen pipes may have caused some damage but could probably be readily repaired. Renewed use of the building, however, would require additional and wheelchair accessible facilities.

Wiring and lighting fixtures: The original wiring has been replaced at some time; much of it is in conduit or in metal chases external to walls. Lighting is mostly non-historic suspended fluorescent fixtures; many of these have been removed and are stored in the building. The number of outlets is limited. While some wiring and fixtures may be serviceable, preliminary plans for reuse of the buildings should assume that all needs to be replaced.

Heating system: Radiators are generally intact and there is an oil-fired boiler in the basement. The boiler, a later addition, may be serviceable. Ventilation requirements, however, may make installation of a forced-air heating system more practical than renovation of the steam heating system.

IV-B: WAREHOUSE 1

The building offices were occupied until last winter. The building is drab in appearance: exterior loading docks are weathered, paint is generally in fair to poor condition, and interior surfaces in storage areas are mostly unfinished. It appears, however, to be level, square, and in good structural condition. The plans show a substantial foundation, but neither this not the roof were inspected. The floor, supported by steel beams, was designed for 400 psf live load.[60]

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[60] As indicated on F.E. Drawing #7073 and checked by the author.

An oil fired boiler, not original, provides heat for the southern half of the building. Plans indicate walls here are insulated with about 4" of planer shavings, the roof "insulation" is merely two air spaces and the floor is uninsulated.[61] These conditions were not confirmed. The remainder of the building is uninsulated.

Rehabilitation for the historical use would likely entail the following major items: Roof and loading dock repair, rewiring, insulation, refinishing and weatherstripping of windows and doors, smoke detectors and fire alarms, and general maintenance (painting etc.).

Above grade portions of the derrick and winch house appeared in fair to good condition until their recent disassembly/demolition. The demolition revealed that the derrick's grade beams had substantial rot (and that their ends were supported on poured concrete footings in excellent condition extending at least eight feet below grade). It can be assumed that all other wooden building materials in contact with the earth at the Industrial Complex are also rotten.

IV-C: MACHINE SHOP

The author obtained only very brief access to the shop building. There is a large "boil" in the wooden block floor, probably caused by frost heave of underlying soils. Wooden door sills, in contact with the ground, are damaged and rotten. Mr. Reeves reports that the roof leaks.

IV-D: RETORT BUILDING

The author obtain only very brief access to the retort building. The building had been nearly gutted, with almost all machinery and furnishings removed. All of the walls appeared in good condition, which implies good foundation performance. There is substantial spalling of the concrete cornices, mostly on the south and west walls.

Recent tests revealed mercury contamination within the retort building, especially in a sump in the floor. In response, the Alaksa Gold Company, with the support of the Department of Environmental Conservation and GVEA, has proposed to demolish the building and bury it in a landfill along with contaminated soils from outside the building.[62] Apparently no alternatives to demolition have been considered. Section VIII of this report

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[61] F.E. Drawing #4152.

[62] Dan Basketfield, personal communication, July 1993.

contains additional discussion of mercury contamination in site soils.

IV-E: WAREHOUSE 2

The building appears in good structural condition with the exception of timber foundation pads on the ground surface, which have suffered varying degrees of rot and need replacement. The floor appears to be designed for a live load of about 60 psf. Corrugated metal roofing and siding shows rust and age, but should be serviceable for storage building use for a number of years. The loading dock, exposed to the weather, needs substantial repair. Doors, windows, eave brackets and rafter ends need paint and minor repairs. Wiring needs replacement. Smoke detectors and alarms are absent. The building has apparently never been heated; there is no insulation or interior finish on the walls or ceiling.

IV-F: WAREHOUSE 3

Above grade the building is in similar condition to Warehouse 2, i.e. in fair to good condition but in need of paint and general maintenance. Wiring has been disconnected and would need replacement. Timber grade beams supporting the western addition need replacement. Support beneath the at-grade floor planks of the main section is timber grade beams. All wooden elements in contact with earth, including bottom exterior courses of shiplap siding, are rotten and in need of replacement.

IV-G: WAREHOUSE 4

The building was in generally poor condition last summer. It is now gone; Mr. Reeves reports that he burned it.

IV-H: WAREHOUSES 5/6

The buildings' foundations and roofs are in poor condition; walls and windows are in weathered but fair condition. Stabilization of the buildings for preservation purposes (largely roof and foundation repairs) could probably be done for a reasonable cost. Restoration for active use is possible but would probably exceed the cost of a comparable new building.

IV-I: WAREHOUSE 9

This very small structure, which remained last summer, is now gone. Its fate and condition are unknown.


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Colors by Munsell Color Services Lab

IV-J: WAREHOUSE 10

The condition appeared generally similar to that of Warehouse 5/6.

IV-K: WAREHOUSE 12

The exterior and foundation of Warehouse 12 are similar in construction and condition to that of Warehouse 2. Access to the interior of the building was not obtained.


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Colors by Munsell Color Services Lab

V: GENERAL PRESERVATION RECOMMENDATIONS

The significant historical resources of the F.E. Industrial Complex merit considerable preservation efforts. Such preservation is not merely (or even necessarily) a matter of expense, but also of good design and creative use of existing resources.

The use of the site and its buildings is important as well as whether they remain in their original location. There is no single ideal use for historic buildings. Continuation of historical use means wear, replacements, and sometimes alterations; yet making a museum artifact out of a building removes it from its historic context and alters our perception of them. Insensitive adaptation of buildings for new uses can destroy historic values even if the structure remains physically.

Losses can be minimized and unavoidable ones mitigated. This requires an understanding of the resources, knowledge of preservation techniques and standards, and good planning and design. Decisions regarding the F.E. Industrial Complex should be made with the assistance of architectural and industrial historians and preservation professionals.

The major buildings at the F.E. Industrial Complex are functional structures in good enough condition that rehabilitation and continued use is economically practical. Historic use is ideal, but adaptation for compatible new uses should be encouraged if it will keep buildings "alive". Some specific guidelines for such adaptation are given in this report; the Secretary of the Interior's Standards for Rehabilitation provide excellent and concise general guidelines. Restoration, alteration, or enlargement of buildings and structures at the Industrial Complex should conform to the Secretary's standards, whether investment tax credits are sought or not.

The shop and retort buildings are exceptions because of their unique and well preserved collection of vintage machinery. The value of this collection is enhanced by its original setting, and these contents should be left in place if possible.

Some of the small warehouses at the complex are badly deteriorated, and their rehabilitation is probably impractical. Halting further deterioration of these buildings through stabilization (principally roof and foundation work) should be considered. Stabilization of at least example structures, along with their original contents, would be especially valuable if other buildings are adapted for continued use. Warehouse 5/6 is a particularly good candidate for


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Colors by Munsell Color Services Lab

such stabilization. Its shelves, bins, and contents are characteristic of the warehouses in general, and its siting helps define an important landscape resource, the warehouse yard.

It is strongly advised that work on the historic buildings at the complex be performed by those with restoration experience. Clear work specifications are important to any contract, but cannot be exhaustive in their delineation of proper methods and techniques. Work on existing buildings, moreover, inevitably involves unexpected circumstances and conditions. It thus depends at least partly on the judgement of those involved, however carefully the contract they are working under was drawn up.

RETAINING BUILDINGS IN PLACE

Preservation of the historical record requires that at least the major buildings at the Industrial Complex be left in place. Substantial tax credit and grant opportunities for investments in the buildings, moreover, would almost certainly be lost should they be moved. Using the complex for either historic tourism or GVEA operations while leaving the historic resources largely intact seems possible.

Given the present owners of the resources - one interested in tourism and the other in industrial operations - a combination of the two may be more practical. Such a combination has advantages for preservation purposes. A tourism facility might be tempted to fill the warehouses with gift shops and yogurt stands. Exclusive use for GVEA operations, while a more appropriate use of the complex, could deny public access to one of Alaska's most important historical sites. Arrangements which would leave the most significant buildings in place while meeting the needs of both present owners seem possible and should have been explored by the owners.

A conceptual plan is presented below; a number of variations on it are possible. It hinges on cooperative, simultaneous use of Tract M (the land west of the railroad tracks) for historic tourism and active warehousing and storage. Throughout the following discussion, it is assumed that original conditions would be recorded and contents inventoried before alterations are made, and that original materials will be left in place rather than removed where practical (abandoned electric wiring, for example). Given the current destruction at the site, of course, the following is daily becoming more hypothetical.

1) Rehabilitate the Office Building, with one or more additions housing the new facilities required to meet code, as described elsewhere in this report. GVEA might lease the building for use as a museum or offices, or might occupy the building themselves.


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Colors by Munsell Color Services Lab

2) Rehabilitate Warehouse 1 for use as storage, offices, and/or shops by either GVEA, Mr. Reeves, or a museum tenant. The original office, the vault, and the refrigerators should be preserved and restored. The division of the warehouse into four major spaces is its fundamental interior design element, and if possible these partition walls should also be retained (they could be resurfaced if desired). Beyond these significant features the interior should be restored and altered as necessary. The original loading docks outside should be restored without alterations. Roofed areas and enclosures added to the docks over the years may be either restored or - if there is a good reason to - altered or removed. If the building is used as part of a museum facility, one or more of the refrigerators might be restored to active use as part of a snack bar or restaurant facility.

3) Rehabilitate Warehouses 2, 3, and 12 for cold storage, their historic use to which they are well suited. GVEA's use of these buildings and most of Tract M for storage and warehousing is historically quite appropriate. Active use of Warehouse 3's overhead crane should be encouraged. Compatible new facilities should be allowed. If Warehouse 5/6 or other yard buildings are moved or destroyed, such compatible facilities should be encouraged to fill in the perimeter of the warehouse yard.

4) The machine shop and retort building and (especially) their contents are unique and valuable; the buildings should be stabilized and the machinery left in place. The steel storage racks in the warehouse yard are also of interest and - if not rehabilitated for current operations - should be stabilized with their contents. At least one of the two should remain in its present location; the other might be relocated on the complex site if there is a good reason to move it.

5) If necessary for storage operations, other storage buildings could be moved or demolished (with the exception of Warehouses 5/6, this seems to have been the historical practice with these ancillary buildings). The interiors of the warehouses, with their densely organized ranks of shelves, bins, and benches, are of historical interest. At least one should be stabilized and retained with its contents, if necessary by relocating the warehouse on the complex site. Warehouse 5/6 is representative and would be a good choice, especially if it can be left in place fronting the yard.

6) Not only the machine shop and other stabilized structures, but the entire area should be used for historic tourism. Tours of actively used areas would have to be guided and perhaps restricted in hours of operation. Tours of active industrial facilities, however, have been shown practical in facilities from steel mills to breweries.

This conceptual plan is intended to allow both historic tourism and

active storage, the needs of Mr. Reeves and GVEA, respectively, while preserving the site's most historic features. The amount of emphasis given to tourism versus GVEA operations - which depends partly on the use made of the office building - could be decided between the owners, and could even change over time.

The needed rehabilitation of the office building could be a cost effective investment for GVEA, whether for their own use or that of a lessee. Rehabilitation of warehouses 1, 2, and 12 (and perhaps Warehouse 3) would be much cheaper than building comparable new facilities. Furthermore, the costs would qualify for a 20% investment tax credits if (1) the site were listed on the National Register (it has already been determined eligible) and (2) work conforms with federal standards for rehabilitation. GVEA, although a non profit, could still benefit since the credits can be sold.

More substantial ISTEA enhancement funding might be available for this plan; the Alaska DOT&PF has indicated that preservation of the F.E. site is a suitable project.[63] ISTEA funds, however, would probably be available (1) only to a public or quasipublic institution, (2) only if at least limited public use of the site was allowed, and (3) only if the work met the federal standards for rehabilitation.

It would be advantageous to explore whether ISTEA funds would be available to a suitable third party with a long term lease on facilities rather than ownership. If so, the third party might obtain the funds and perform the rehabilitation, then either operate the facilities themselves or arrange for others to do so - Mr. Reeves and GVEA being obvious candidates. The Fairbanks Historic Preservation Foundation was established for just this type of activity with support from the Fairbanks North Star Borough. Because of past differences between the foundation and Mr. Reeves, however, cooperation may be difficult and another third party might be required.

GVEA, by forgoing the use of some space on Tract M, would gain the use of renovated warehouse facilities on the remainder. Their Office Building would be rehabilitated, perhaps largely with ISTEA funds that would otherwise be unavailable to them. Their civic concern could be demonstrated by their actions and their role in the history of Fairbanks and the F.E. could be displayed as part of the tourism facility.

Mr. Reeves would benefit by getting an improved and potentially more profitable historic tourism facility. He would save the

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[63] Letter dated August 13,1992 from John Martin, DOT&PF Northern Region Chief of Planning and Administration, to Jack Williams, Executive Director of the Fairbanks Historic Preservation Foundation.

expense of moving the buildings and retain the opportunity for investment tax credits. Stabilization and rehabilitation of his buildings, too, might qualify for ISTEA funding.

Preservation objectives would also be largely met by such an arrangement. The principal buildings would be rehabilitated in their original location. The most historic outdoor landscape - the yard encircled by warehouses - would be preserved and actively used for its historic purpose.

Some historic material would be moved or lost, including several smaller warehouses of lesser historic value. Warehouse contents would also be removed or lost. To mitigate these losses, the buildings and their contents should be well documented before they are moved or destroyed. Representative samples of warehouse contents should be catalogued and retained, which would be especially valuable should a local history or mining museum be established on the site or elsewhere.

RELOCATING BUILDINGS ON THE SITE

Relocating buildings on the complex site is preferable to losing them, but historic context and material (especially landscape features such as the warehouse yard) will inevitably be lost. Eligibility for the National Register of Historic Places (and tax credits and grants) would almost certainly also be lost if major buildings are moved, since "structures that have been moved from their original locations...shall not be considered eligible for the National Register."[64] An exception might be made if few and minor buildings were moved, their new siting carefully chosen, and a convincing argument made that they are "integral parts of districts that (otherwise) meet the criteria."[65]

If buildings must be moved they should be placed in a context similar to the original. Yard buildings, for example, should be placed in a new yard setting rather than alone or in a row. Attention should also be paid to the functional relationships between buildings and structures. The relationship of Warehouse 1 and the stiff-leg derrick to the railroad tracks is crucial to their purpose and history. Interpretive measures such as explanatory signs and placement of a section of track on the appropriate side of the warehouse would help mitigate the loss.

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[64] National Register Bulletin No. 16, p. 37.

[65] Ibid.


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MOVING BUILDINGS TO ANOTHER SITE

Moving the buildings away from the Townsite is a bad choice. The F.E.'s operations were central to Fairbanks physically, economically, and socially. Moving their buildings to an out-of-town location would deny this and make the F.E.'s impact appear tangential, thus distorting the historical record. This would reduce the apparent significance not only of the Townsite buildings but of all the F.E.'s facilities - including those already developed as historical tourism sites.

Indeed, the National Register District designation of the Dredge 8 property at Fox would be jeopardized if Townsite buildings are moved there. "Changes that create a false sense of historic development" are explicitly prohibited by the Secretary of the Interior's Standards for Rehabilitation. Rehabilitation tax credits Mr. Reeves may already have received might have to be repaid (probably the amount received on the undepreciated fraction of the investment plus interest).

F.E. MANAGEMENT HOUSING

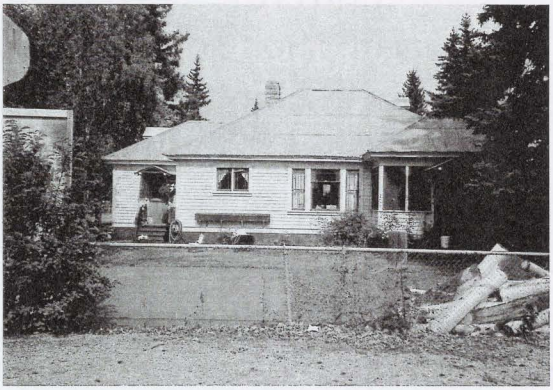

Figure 29. F.E. Residence 10. July 1993 photo by the author.

The residences along the east side of Illinois Street, while not


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the principal subject of this report, are an important part of the F.E. Townsite as a whole and are rightfully included in Lazenby's proposed historic district. Their preservation should be encouraged.

The two northernmost residences are owned by the Catholic Church, which has an interest in avoiding intensive new development in the area as it adjoins their school facilities (part of the Townsite, indeed, is now used as playing fields for Monroe High School). The church should be encouraged to continue residential use of the historic buildings. The southern of the two houses (historically "Residence 11") is in need of substantial maintenance.

A continuation of the present use of the Noyes House (and the Sexton and Johnson/Hayr houses south of the Townsite proper) would also be appropriate. Restoration of the Noyes House to its historic appearance (i.e. that prior to the fire in the 1960's) would be beneficial.

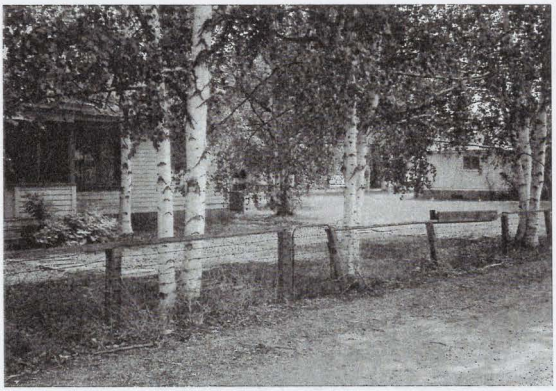

Figure 30. F.E. housing and grounds from Illinois Street. July 1993 photo by the author.

The group of four early bungalows remaining in Alaska Gold Company ownership (historically Residences 7 - 10) are presently the most threatened, as the company reportedly would like to sell them. The houses are in need of substantial maintainance, but appear to be structurally sound. Ideally they, along with their greenhouses, garage and grounds, would be restored and operated in conjunction


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with the F.E. facilities across the street. One suggestion has been to use them as bed-and-breakfast facilities, with at least one included in tours of the F.E. Townsite as a whole.


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VI: OFFICE BUILDING REHABILITATION RECOMMENDATIONS

The following recommendations are applicable to any rehabilitation and reuse plan for the office building. More detailed recommendations for use specifically as a museum are given in the following section. Much of that discussion, however, (e.g. regarding provision of new facilities) is also cogent to any reuse plan and thus adds to material given here. As-built plans of November 1927, reproduced on the following pages, are accurate except for minor alterations (discussed in Section IV-D).

It should be noted that museum use is not the historic one and is likely to require more alterations to the building than reuse as private offices. Museum galleries are an "assembly" use; as a museum the design occupancy of the building would be roughly five times as great than it would be for private offices. This affects code requirements concerning fire safety, numbers of toilets, and other issues. Note, however, that public offices - say for GVEA member services - would need lobbies and other spaces which would also increase design occupancy.

VI-A: NEEDED REPAIRS AND ALTERATIONS

The Office Building will need certain repairs to correct damage and alterations to meet code requirements for almost any future use. These include the following:

- Most interior surfacing (floor tiles, drywall and ceilings) would have to be replaced. There has been extensive damage from vandalism and water.
- Insulation needs to be added to the building. Walls have a 2" air space or less for "insulation" between the exterior block and the drywall; the roof has a small uninsulated attic which also acts as an air space.
- Additional stairs are needed for fire safety. Additional stairs would also greatly improve circulation for some public uses (e.g. a museum).
- A sprinkler system may be needed. Without one other fire safety measures will be needed, which are likely to include new doors and walls in corridors and stairwell enclosures.
- For most likely occupancies, additional toilet facilities are needed; wheelchair accessible toilets are also needed. An exception to code requirements might be made because of the


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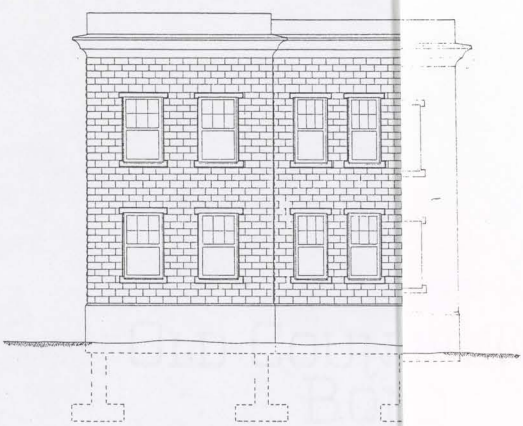
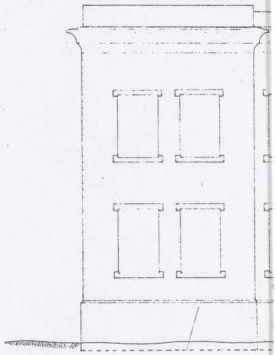
REFERENCES

SHEET NO.	DESCRIPTION





levations (1927)

REVISIONS

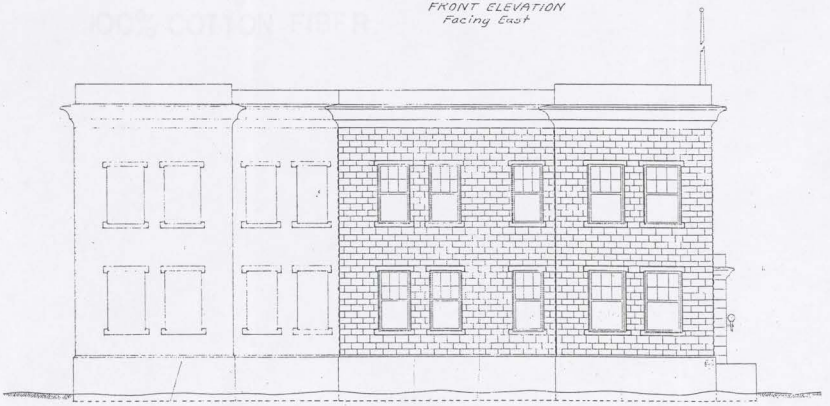
LETTER	DATE	REMARKS
	1/23/27	Redrawn & Revised to

FAIRBANKS EXPLORATION C
ENGINEERING DEPARTMENT
FAIRBANKS, ALASKA
ELEVATIONS
OF
OFFICE BUILDING

REFERENCES

SHEET NO.	DESCRIPTION

FRONT ELEVATION
Facing East



SIDE ELEVATION
Facing South

REVISIONS

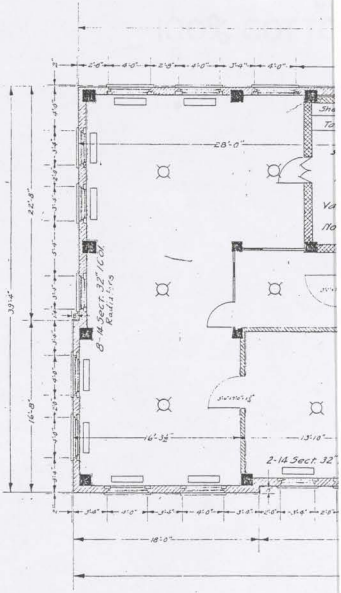
LETTER	DATE	REMARKS
	11/23/27	Redrawn & Revised to

Figure 31. Office bldg. elevations (1927)

FAIRBANKS EXPLORATION C
ENGINEERING DEPARTMENT
FAIRBANKS, ALASKA
ELEVATIONS
OF
OFFICE BUILDING

REFERENCES

SHEET NO.	DESCRIPTION



Note:
1- Mogul Socket Brascolite unless otherwise specified.
2- Vault Walls - Reinforced concrete.
3- Studded Partition with #26 Ga. Galv. sheet metal lining.

REVISIONS

LETTER	DATE	REMARKS
7039	11-13-23	Revision of Dwg. 7039.
	11-23-27	Revised to Date.

loor plans (1927)

FAIRBANKS EXPLORATION CO.
ENGINEERING DEPARTMENT
FAIRBANKS, ALASKA
FIRST FLOOR PLAN
OF
OFFICE BUILDING

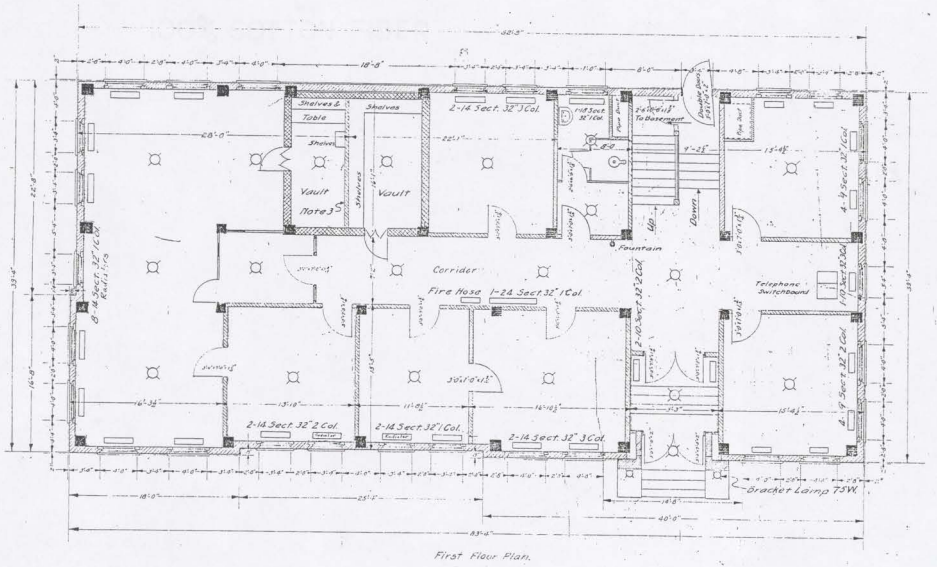


Figure 32. Office bldg. 1st floor plans (1927)

REFERENCES

SHEET NO.	DESCRIPTION

Note:
1- ○ Mogul Socket Brascolite unless otherwise specified.
2- Vault Walls - Reinforced concrete.
3- Studded Partition with #26 Ga. Galv. sheet metal lining.

REVISIONS

LETTER	DATE	REMARKS
7039	10-19-25	Revision of Dwg. 7039.
—	11-21-27	Revised to Date.

FAIRBANKS EXPLORATION CO.
ENGINEERING DEPARTMENT
FAIRBANKS, ALASKA
FIRST FLOOR PLAN
OF
OFFICE BUILDING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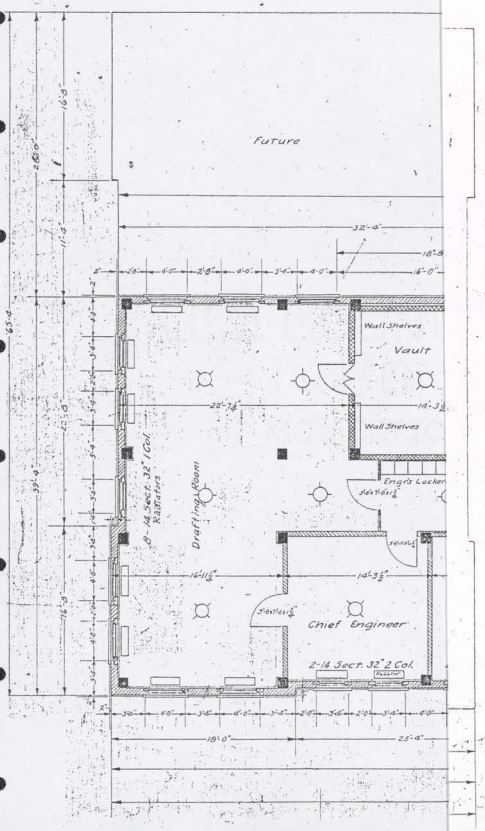
floor plans (1927)

REFERENCES

SHEET NO.	DESCRIPTION
7808	Proposed Plan Office Bldg



Note:
1- Mogul Socket Brascolite unless other-wise specified.
2- Vault Walls-Reinforced concrete

REVISIONS

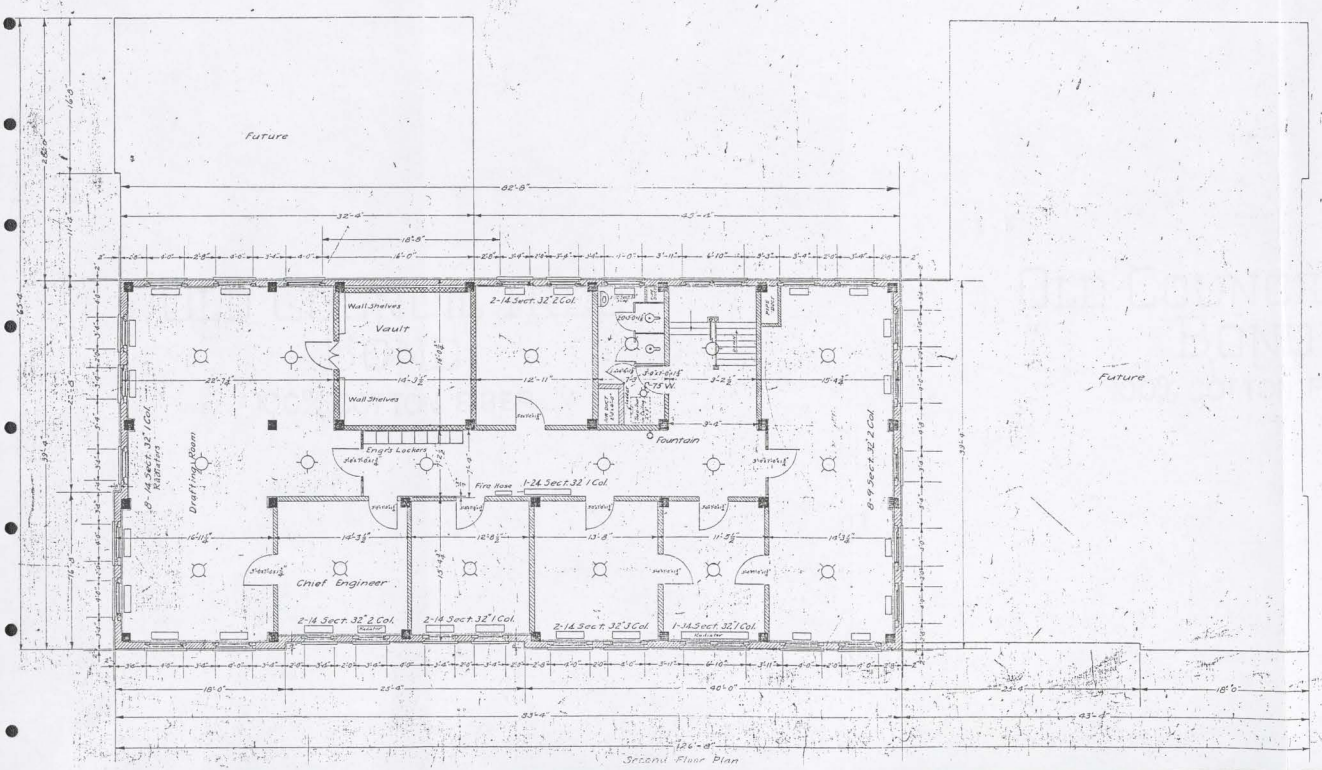
LETTER	DATE	REMARKS
	3/22/28	Changes in Plan
	11-22-27	Revised to date

FAIRBANKS EXPLORATION CO.
ENGINEERING DEPARTMENT
FAIRBANKS, ALASKA
SECOND FLOOR PLAN
OF
OFFICE BUILDING

REFERENCES

SHEET No.	DESCRIPTION
7208	Proposed Plan Office Bldg

Figure 33. Office bldg. 2nd floor plans (1927)



Note:
1- ○ Mogul Socket Brascolite unless otherwise specified.
2- Vault Walls-Reinforced concrete

REVISIONS

LETTER	DATE	REMARKS
	3/22/26	Changes in Plan
	11-12-27	Revised to date

FAIRBANKS EXPLORATION CO.
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FAIRBANKS, ALASKA
SECOND FLOOR PLAN
OF
OFFICE BUILDING


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building's historic status if such facilities were provided in a nearby satellite building.
- A substantial amount of electrical rewiring, if not total replacement, will be needed.
- Accessible entrances. The first story of the building is about four feet above grade. Both existing entrances lead to interior corridors via a half flight of stairs.
- A lobby would be needed for public uses such as a museum.

New facilities listed above might be either fit within the existing building or included in an addition (or additions). Toilets and lobby facilities might also be housed in a detached "satellite" building. Each of these choices has drawbacks.

Adding facilities within the existing structure means destroying original ones. If this is done, the new facilities should avoid the most important historic features, including the most public spaces (corridors and stairwell) and the vaults. The least damage would be done if new facilities were located in the squarish offices along the sides of the corridors, leaving one or more examples of these similar spaces.

Housing new facilities in one or more additions avoids destroying original interior features and extends the limited existing space. Additions, however, would alter the building's exterior appearance, with consequences and considerations which are discussed in a separate section below.

A satellite building might house a lobby, new toilets, and other facilities, minimizing alterations to the existing building. Circulation would be impaired, however; for winter operation an enclosed passage between buildings would be essential. Facility staffing requirements might be increased for public uses (e.g. a museum). A satellite would not solve the accessibility and fire safety problems of the existing building and would reduce available area for parking.

FIRE EXIT AND STAIRS: The existing stairs are near the north end of the building. An alternate egress route is needed near its south end for fire safety. In the past, windows apparently served as alternate egress from the first floor and a rope ladder from the second. It is unlikely this would be allowed today even for lower occupancy use (e.g. solely as offices), despite the historic status of the building, which allows greater discretion to fire officials.

To minimize the visual impact on the building, it is recommended that new exit(s) be located on the south end of the west (rear) facade, where it would not be visible from Illinois Street.

New stairs probably need not be in an enclosed shaft as they would

serve only one adjacent floor.[66] External stairs (e.g. a fire escape) would require a roof to ensure they were not blocked by snow. Code provisions require the new stairs only for emergency purposes, but circulation patterns for a museum (and some other new uses) would be improved if the stairs were available for regular use by occupants.

Codes allow no intervening rooms between fire escape corridors and building exits. The large rooms on the south end of the building, however, lie between the existing corridors and the suggested new exits. New partitions could be built to extend the corridors to the new exits, but would reduce the size of the two largest existing spaces in the building and alter the historic floor plan. An alternative is installation of a zoned fire alarm system with automatically operated fire-rated doors between the corridor and the south room on each floor. This is a less intrusive solution and is recommended.

SPRINKLER SYSTEM: The preceding is but one fire safety problem with the existing corridors and stairwell. None of the corridor doors or transoms have fire ratings; the stairwell is not enclosed at the first floor level and the second floor enclosure is not rated. Many or all of these existing conditions would probably be acceptable if the building were fitted with sprinklers, but not otherwise.[67]

ACCESSIBLE ENTRANCE: Provision of ramps, lifts, or other means to make the existing front entrance accessible would significantly alter the historic appearance of the building's most public facade and interior spaces and is not advised. A chair lift up the short flight of stairs between the rear door and the corridor is feasible and would cause less harm to existing features. But if a new fire exit is to be built in any case, it is recommended that it be designed for disabled access and the existing entrances left intact.

The existing main entrance might still be used as such. Multiple entrances, however, would cause admissions and security problems, especially for public use (e.g. a museum). Moreover, most people are likely to approach the building from a parking area in the rear, and would use a rear entrance if it were available. This suggests that the new entrance is likely to be the principal entrance and should designed as such.

LOBBY: A lobby for 50 people would need to be at least 350 square

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[66] See UBC Section 3309(a)

[67] George Riley, personal communication. Fire officials have considerable discretion in these matters, and the author does not pretend to speak for them here.


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feet in floor area.[68] A lobby added outside the existing front door (i.e. in an addition) would radically alter the building's most public facade. One on the back would be less intrusive but would force all traffic through the stairwell to reach even the first floor of the building. Neither is acceptable.

A lobby might be provided inside the existing entrance by moving the vestibule doors outward (to where they are shown on the original plans) and removing the partition between the corridor and the northeast office, combining the two spaces. This too is clearly undesirable for preservation reasons, since it would greatly alter the building's most public interior spaces and remove some interior details.

Less damage to the historic features of the building would result if the new fire exit were designed as the main entrance, with the lobby either just inside it (in the large south room of the first floor), in an addition on the west (rear) facade, or in a separate building.

TOILETS: For assembly (e.g. museum) occupancy, a new structure the size of the Office Building would probably need a men's and a women's room on each floor, with at least two toilets in the women's rooms and one toilet and two urinals in the men's. At least one toilet in each would have to be wheelchair accessible. The minimum size for such bathrooms would be about 200 square feet.

Variances in code and ADA requirements may be allowed in some circumstances for historic buildings. A single (accessible) bathroom on each floor might be allowed, for example, if the existing bathrooms were rehabilitated too. If all bathrooms must be housed in the existing structure, such a variance should be sought. A variance might also allow fewer facilities if others were available in a satellite building. New bathrooms would not be needed in the existing building if they were provided in an addition.

The existing bathrooms/janitor's closets should be rehabilitated (unless the space is to be used for an elevator - see the discussion below). The old fixtures appear serviceable and should be retained if possible as they lend historic character to the building. The present facilities, moreover, are useful and reduce the needs for new ones.

ELEVATOR: Location of an elevator near the new stairs is preferred (if these stairs are not merely a fire escape). This would place it near the new accessible entrance, convenient for both disabled passengers and for freight movements.

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[68] UBC 1988 limits occupancy of lobbies to one person per 7 square feet.


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If new stairs are only for emergency the best location for an elevator (and the required small lobbies for it) might be where the bathrooms/janitors' closets are now. These spaces are about the size needed and are next to the existing stairs. The old toilet facilities would have to be replaced elsewhere, and roof drains (now ducted through the bathrooms) would probably have to be relocated. Retrofitting elevators into existing buildings, aside from whatever damage may be done to historic fabric, is more difficult than new construction. In this case it would probably add at least $5,000 to its (already high) cost.[69]

VI-B: EXTERIOR

The office buildings is where the F.E. Company most deliberately showed itself to the public, both physically and figuratively. The front (Illinois Street) facade is the most public, and thus the one where preservation of historic appearance is most important.

The front entrance to the building is an important design element. The original globe lighting fixtures which were on each side of the entrance are missing and should be replaced. Photographs are available of them. The building is not now wheelchair accessible, but ramps or other means to provide access would radically alter the historic appearance of the front doors. Such access should be provided elsewhere.

Original landscaping in front of the building included two walkways from the front entrance; one straight out to Illinois Street, another north to the driveway leading to the Industrial Complex. These landscape elements should be retained. Vehicle parking areas should be located away from the public facade of the building.

Windows are critical architectural elements in defining both the interior and exterior character of the building. The original windows should be retained; they could be made reasonably energy efficient by renewing and/or retrofitting weatherstripping. Existing storm windows can be made double-glazed with a layer of plastic added to the inside, leaving their appearance intact. If windows must be replaced, new custom windows matching the originals should be used.

The concrete cornice of the building has spalled in limited areas. The cornice should be repaired after careful inspection for additional weakened or damaged material.

Exterior walls are in good condition and require only cleaning and repainting.

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[69] Means Repair and Remodeling Cost Data pp. 16 & 320.

Preservation is most important in the building's public areas - the corridors and the stairwell. Such preservation will probably require provision of a sprinkler system for the building. Sprinklers might in any case be cheaper than the alterations which would otherwise be needed, and would increase safety.

The building's vaults and their doors are unique and give clear evidence of the building's (and F.E.'s) history; these also should be preserved. The multiple squarish offices are of less historical importance and alterations or new facilities would be less damaging here. Preservation of at least one example of the historic offices is recommended, however (especially if the building is to be used as a museum). The drafting room at the south end of the second floor and the adjoining chief engineer's office are suggested for this because of the historic activity associated with them.

Removal of original surface materials will greatly simplify rewiring and insulating the building. Expensive efforts to retain and repair damaged sheetrock, floor tiles, and suspended ceiling are not warranted (the latter does not appear original in any case). Notwithstanding this, unnecessary removals should be discouraged. Rewiring may be done from one side of interior walls; undamaged or easily repaired sheetrock on the second side should be retained. It may also be practical to salvage enough material to retile floors in the "historic" rooms suggested above.

Interior woodwork - stairs and banisters, baseboards, and trim on doors, windows, and transoms - define the character of the interior spaces and were apparently milled at the site, as discussed elsewhere. The woodwork is generally in very good condition and material of this quality would be difficult and expensive to obtain today. Preservation of this woodwork is important. Temporary removal for building renovations should be done with care, and woodwork replaced in its original location. Woodwork not removed should be protected from damage during construction (e.g. stairs).

The bathrooms/janitor's closets should be restored and additional toilet facilities located elsewhere unless there is a compelling reason for altering them. This is partly a preservation issue: the original fixtures add historic character to the building and appear serviceable. It is also a design issue: the existing spaces are useful and efforts to make these spaces larger and/or wheelchair accessible are unlikely to be satisfactory.

Windows are crucial architectural elements and should be retained. If fewer windows are desired (as for museum gallery space) insulated and removable plugs might be designed to cover them.

Wall insulation is needed: plans indicate nothing but a 2" air space between exterior block and interior drywall. A brief

inspection indicated that even the air space may be lacking in some areas. Heat lost through these walls (not counting windows) would cost about $4,000 per year at today's prices. Filling existing air spaces with rigid foam insulation would reduce this to about $1,600. Enlarging the space to 3 1/2" (the depth of a 2x4) and insulating it with foam would reduce this to about $1,000.

The first step would add less than $10,000 to rehab costs and is certainly warranted. Thickening the walls, however, would change room dimensions slightly and require extending window jambs, shortening baseboards, and moving radiators. Both appearances and costs would be affected, and the step may not be worth it.

To some extent this depends on whether radiators are to be put back in use. Additional inspection and testing are needed before this decision can be made. They contribute to the historic character of the building but not so much as to justify exorbitant costs.

Roof and foundation insulation are presently lacking but there is ample room for both in the attic and crawl space. The amount and type should be dictated by performance and cost considerations.

VI-D: STRUCTURE AND MECHANICAL SYSTEMS

Installing new stairwells and/or elevator shafts in the building would require cutting holes in the building's floor slabs. In addition to being costly, this would destroy some of the oldest known reinforced concrete building structure in Interior Alaska. An exception may therefore be warranted to the general rule that additions to historic buildings should be avoided if needed new facilities can be accommodated by altering secondary interior spaces.

The interior roof drains have frozen and burst because the building has been left unheated. Repairs should be straightforward and they should work well, as in the past, if the building is heated.

The roof itself appears in fair condition and should be repaired rather than replaced if possible. If replacement is unavoidable, it should be done in kind, i.e. using a standing seam metal roof.

The boiler isn't original and no special effort should be made to retain it. It may well be serviceable, however. If the building is insulated, the boiler should be adequately sized to heat both it and an addition.

Seismic considerations are of concern since Fairbanks is in a seismically active area. The Office Building has favorable characteristics in this respect, although a thorough analysis was not performed for this report. It is not an unreinforced masonry structure as has been assumed by some. It is low rise, of regular


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and compact shape, and has no "soft" stories, all of which are favorable. It seems generally overbuilt by modern standards. Furthermore, masonry infill concrete structures like the office building have performed well in recent earthquakes and there is some thought that conventional seismic analysis techniques for such structures may be overly conservative.[70]

VI-E: ADDITIONS

Additions, if any, should be designed to minimize the destruction of original walls. The existing corbelled concrete brackets, designed to support floor beams in additions, may be used for this purpose or not. They should be left in place whether or not they are used for support since they are part of the structure and demonstrate the intent of the original builders.

Additions would alter the building's exterior appearance. If built, they should avoid the building's more public and elaborate facades (the front on Illinois Street and, to a lesser extent, the south side). Their design should also be compatible with the original.[71] Additions which match the footprint of the originally intended additions could meet these criteria but are not mandatory.

Additions, while compatible with the historic structure, should be distinguishable from it. One often-used means is a glazed vertical strip at the junction between old and new, creating a visual separation of the two. The separation need not be made this obvious, however. The joint between the old masonry and the addition, if not deliberately obscured, will clearly identify the addition as such to a knowledgeable observer.

Compatibility with the original construction is of less concern on the interior, since the old and new are not experienced simultaneously as they are on the exterior. While interior design responsive to the old construction is desirable, no special efforts need be made to make the new interior match the old stylistically. Deliberate copying of original detailing should be avoided, and is explicitly barred by the Secretary of the Interior's Standards for Rehabilitation.

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[70] See, for example, the article by Langenbach.

[71] The Secretary of the Interior's Standards for Rehabilitation defines compatible design as "massing, size, scale, and architectural features to protect the historic integrity of the property and its environment."


D50 Illuminant 2° degree observer
Colors by Munsell Color Services Lab

VII: OFFICE BUILDING ADAPTIVE REUSE AS A MUSEUM

When this study was proposed, efforts were being made to purchase the Industrial Complex (and Residences 7 through 10 across Illinois Street) for preservation and historic tourism. The concept's keystone was to have been the establishment of a gold mining and local history museum in the Office Building. It was felt this study would be relevant and useful if it addressed this idea.

The museum concept has merit even under the present ownership, and a discussion of it is given here. Much of the following would also be applicable to other reuse concepts, including the most obvious (as offices). Frequent comparisons are made below with the University of Alaska's Geist Museum because it is familiar to most residents of the Fairbanks Area.[72]

Resources for collections and displays appear to be available from local residents and mining interests currently operating in the district, apart from the abundant resources of the complex itself. Geist Museum staff have expressed an interest in providing technical assistance.[73] Items from their collections might be loaned to a suitable facility.

Tourism is a large and growing industry in Fairbanks and the potential visitor market seems substantial. Geist Museum visitor attendance was over 140,000 in 1992, up by 50% in three years. Gift shop sales exceeded admissions fees;[74] gross visitor receipts were near $1 million. The Geist Museum focuses on ethnology and natural history and has neither the space nor the interest to cover

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[72] The 37,000 square foot Geist Museum was built in 1979-1980? on the University's West Ridge for about $6 million. As a university facility and an official archaeological repository, it devotes a high fraction of its space to education and collections (compared to displays). It is both a technical and popular success. Humidifying the building, however, has caused continuing and expensive condensation problems in Fairbanks' extreme climate. It is named for Professor Otto Geist, who obtained many paleontological remains (e.g. mastodons) from the F.E.'s "hydraulicking" operations for the University and the American Museum of Natural History. Boswell describes the F.E.'s participation in the effort.

[73] Paul Reichardt, personal communication

[74] Hazel Daro, personal communication.


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local history and mining. While F.E. facilities now used for tourism - Chatanika Gold Camp, Cripple Creek Resort, Dredge 8, and Chena Pump House - display much of the old equipment, all are in outlying areas and none have the facilities to care for fragile artifacts or the security to display gold or other valuable items.

VII-A: ADVANTAGES AND DISADVANTAGES

The F.E. Office Building would be suitable for such a museum in many respects. The historical connection between the building and mining history, of course, could not be stronger. Physically the building also has several good points:

- It has a very good location. The site is within walking distance along a main street from downtown Fairbanks.
- There is adequate room on the site for parking behind the office building.
- The building is in good structural condition.
- The structure was designed for heavy floor loads. A gold and mining museum may have very heavy display items, such as safes and dredge buckets.
- It is of relatively fireproof construction. In museums, special concern for the safety of building contents is added to the normal concern for occupants.
- Circulation patterns would be reasonably good without extensive remodeling if new stairs (required in any case for fire safety reasons) are added.
- Gold vaults on both floors could provide security for gold and other valuable display material.

The building is not without drawbacks for use as a museum, however, including:

- The building is small for the purpose. Floor space, not counting corridors and bathrooms, is about 4,600 square feet. The Geist Museum has about 7,500 square feet in exhibit space alone.
- Too many windows, which reduce security, allow excessive light which can damage sensitive materials, and create condensation problems if the building is humidified. Most modern galleries are maintained at about 50% relative humidity and are designed without windows.
- There is no adequate lobby. Existing doors lead directly into corridors. A museum should have sufficient lobby space to accommodate at least one full bus of tourists at a time (i.e. 40 to 50 visitors).
- An elevator for moving fragile and/or heavy museum display items is desirable if not indispensable. An elevator is probably needed anyway, for this or any public use, to provide second floor access to the disabled.
- There is no loading dock or other good freight access to the


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building. The proposed museum would probably include large and heavy items in its displays.

The building also requires the repairs and alterations discussed in the previous section of this report.

VII-B: SPACE REQUIREMENTS

Without a specific program, space requirements can only be discussed generally, and will be treated briefly here.[75] The general program is for a museum concentrating on displays and interpretive material about local history, gold mining, and the F.E. in particular. The museum would not have the major responsibilities as a repository and educational facility like UAF's Geist Museum, where displays occupy only about 20% of total museum space.

Basic needs for a museum, whatever the specific program, would include the following:
- Display areas
- Circulation space (lobbies, corridors, stairs, elevators)
- Administrative office
- Curatorial space (cataloguing, workshops, shipping/receiving)
- Collections storage
- Bathrooms, janitors' closets, mechanical rooms

Also desirable, if not indispensable, are spaces for the following:
- Gift shop (and stock room)
- Educational/meeting space (classrooms, auditorium)
- Library and archival study space

Display areas will probably occupy less than half the total interior space (presumably there could also be displays of large machinery and equipment outdoors). Harrison (p. 6) suggests that galleries comprise 30% to 40% of gross area in a small museum. Lord and Lord (p. 105) report that galleries occupy an average of 38% of total space in the U.S. museums and 48% in the U.K.

At least some display area is probably wanted for temporary (changing) displays. This makes flexible facilities desirable - such as large spaces with movable partitions, adjustable lighting and numerous electrical outlets.[76] Existing connecting doors between offices would allow some flexibility in grouping spaces

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[75] The books by Harrison and Lord & Lord have additional general planning information.

[76] This describes the Geist Museum, which has but two (partitioned) large spaces for displays on either side of a corridor which is also used as a gallery.


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without altering the existing plan of the Office Building.

Auditorium or classroom space may be useful not only for lectures but for staff meetings, video screening, and the like.[77] Gift shops are large sources of revenue; a larger space is now devoted to them at the Geist Museum than was included in the original design.

The F.E. Office Building is too small to house all activities for anything but a very small museum. Consideration should be given to devoting it to museum public spaces, and providing for curatorial, administrative, and storage spaces elsewhere (other buildings or additions). The additional spaces would need to be approximately the same size as the Office Building itself. The combined facilities would be about one third the size of the Geist Museum, with display areas about 60% as large.

VII-C: ENVIRONMENTAL CONTROLS

Museums often house valuable and fragile items, and more elaborate environmental control is needed than for most buildings. This can be difficult to achieve in older buildings. Organic materials (fabric, wood, paper, etc.) are particularly sensitive to humidity levels and light (especially ultraviolet light). For such material low lighting and stable, moderate humidity are usually recommended. Much of a mining museum's collections might be relatively durable (e.g. machinery) but there will be other items (e.g. original maps and drawings) of a more delicate nature.

Insulating the office building and reducing air leakage (with weatherstripping etc.) should allow maintenance of adequately even temperatures within the building. Damaging atmospheric pollutants are not serious in Fairbanks compared to most urban locations, but the building should be equipped with a good air filtration system to remove dust.

Removing or damaging original windows for light control is not advised, since they are essential historical architectural elements. Reduced light levels could be achieved with shades or insulated, removable plugs for the windows. Particularly sensitive material might be displayed in the (windowless) vaults.

Elevated indoor humidity during Fairbanks' extreme winters causes severe condensation problems even in building designed for it (e.g. the Geist Museum, which has continuing problems). Humidification of the Office Building would result in maintenance problems,

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[77] It is hard to imagine a mining museum in Fairbanks which did not show "Alaska Gold", filmed by the F.E. Company with a modern soundtrack by the local PBS affiliate, KUAC TV.


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rotting of windows and frames, and other damage. Building-wide humidity control is therefore not recommended for the Office Building.

A single vapor-barriered storage room might be humidified, however, especially if windows removed elsewhere to create fire exits were saved as spares. Humidity-controlled cases could be used to display sensitive items. Both display and storage for sensitive materials might also be provided in a humidified addition or satellite building.

VII-D: CONCEPTUAL PLANS

The plans shown on the following pages are intended to provide reasonable facilities for a museum while preserving the historic resources and character of the Office Building to the extent possible. They are of necessity conceptual in nature, since no detailed museum program has been developed.

One plan would house the entire museum within the existing building, except for an added accessible entrance and fire stairs. The other includes an addition housing new facilities and assumes non-public museum requirements would largely be housed in another building. Clearly there are other combinations of spaces which might also serve a museum operation.

The future addition of a north wing to the building is a conceptual possibility for both plans. Such a wing might serve needs as identified through museum operations, including such things as humidified display areas, workshops, and/or storage spaces, a freight elevator, an auditorium, larger lobby or store areas, or offices. Detailed consideration of what such facilities might be or whether they might be better housed in a separate building is, at present, premature.

The first plan is sketched in Figure 31. The arrangement of the ramp access and fire stairs is by no means the only one possible, but illustrates the general size of the needed facilities. The plan shows them built against the windowless wall outside the vaults both for preservation reasons (original windows remain visible and operable) and fire code reasons (fire escapes cannot pass in front of windows). Freight loading might be done from the other side of the new door.

The building interior is left largely intact in the plan. The principal alterations (aside from the new exits) are the removal of the original bathrooms and closets for an elevator and elevator lobbies, and the conversion of an office on each floor to a bathroom. The new bathroom facilities would be barely adequate, at best, for the numbers of people a good museum facility could expect to attract.


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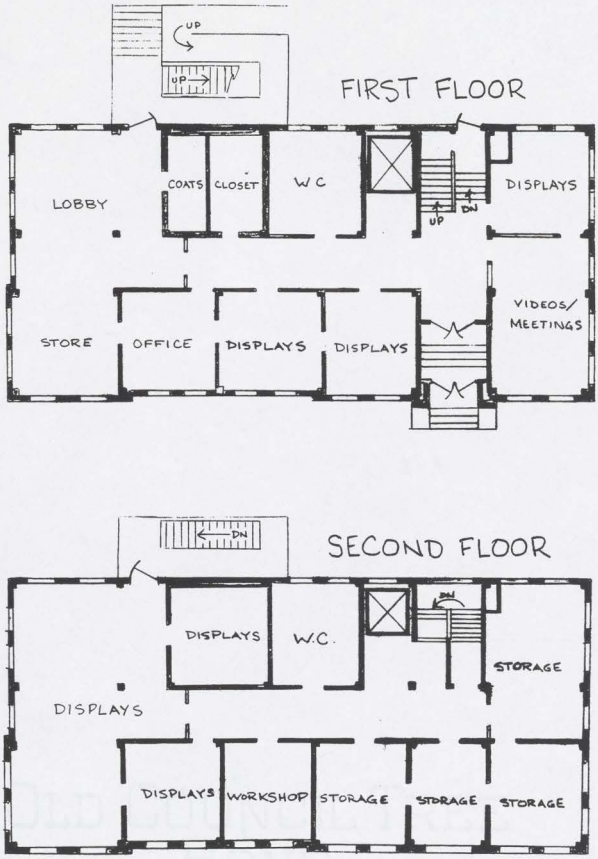

Figure 34. Museum conceptual plan 1 (minimal addition).


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Figure 35. Museum conceptual plan 2 (addition housing all new facilities).


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Preservation standards generally allow new uses for historic spaces if alterations are reversible, i.e. the original fabric is not destroyed. The use of the first floor vaults, shown here as coat and janitors' closets, illustrates such a reuse (but is by no means the only one possible for these spaces).

The design occupancy for the facility as shown would be about 250 (80 of them on the second floor). The lobby and store, as shown, would have an occupancy just over 80, i.e. two bus loads of tourists might barely be accommodated simultaneously. Exhibit space would be about 31% of the total; other public rooms (lobby, store, and meeting/video room) would comprise another 19%. The division of storage and display spaces shown, however, is somewhat arbitrary. If storage facilities were available elsewhere, more of the building might be used for displays. If not, more might be needed for storage.

The second plan, sketched in Figure 32 would rehabilitate the Office Building with no major alterations to the existing structure, which would be devoted almost entirely to display space.

New public facilities would be housed principally in an addition on south end of the rear facade, which would occupy the footprint of one of two additions originally planned for the building. This would include a lobby/admissions area with an accessible entrance; toilets, public telephones and fountains; stairs and an elevator, and a store. The arrangement of these is deliberately left vague in the sketches.

Vertical glazed strips in the addition, adjacent to the original building, could visually separate the new structure from the old. They would also accent the vertical circulation spaces inside (stairs and elevator) as sketched. Such architectural treatment is not mandatory, however, as discussed in the previous section of this report.

This plan is based on the premise that non-public needs - administrative offices, curatorial facilities and storage areas - would be housed in Warehouse 1, behind the Office Building. This would require the cooperation of its owner, John Reeves, but neither requires nor excludes Mr. Reeves as the operator of the museum. It is assumed, however, that tours of historic industrial buildings owned by Mr. Reeves, including Warehouse 1, would be operated in conjunction with museum operations.

Design occupancy of the building as shown in the second plan would be about 430 (about 160 on the second floor). Occupancy of the lobby area would be just over 100. Total display areas would be more than twice as large as in the first plan, exceeding 50% of total floor space. Toilet facilities might be larger and more convenient, and a much larger store would be provided.

For both plans it is suggested that the original drafting room and chief engineer's office (at the south end of the second floor) be restored to circa 1930 appearance and used to display historic furnishings and contents (e.g. drawings or facsimiles on drafting tables).[78] For both plans it is assumed that parking facilities and landscaped outdoor exhibit areas would be built in the open area behind the Office Building (exhibits might also be placed in front of the building). Paved areas should include drives from Illinois Street, a passenger loading/unloading area by the new entrance, and handicapped parking spaces. The remainder of the parking areas might be left gravel.

VII-E: COST ESTIMATES

Costs were estimated for both plans and are summarized in Table 3 on the next page.[79] Costs of the building additions, for which there is only the roughest of plans, are themselves rough approximations. A minimal unheated addition of wood construction was assumed for the first plan. For the second a reinforced concrete structure was assumed, with precast columns and beams. Estimated totals are about $441,000 and $646,000 for the first and second plan respectively. The cost of rehabilitating the original building is considerably smaller in the second plan because fewer alterations are made to it. Furnishings, displays, and office equipment are not included in these figures.

Systematic estimates were not made for rehabilitation of Warehouse 1 or for landscaping/parking; order of magnitude estimates for these are $150,000 and $50,000 respectively. Total museum construction costs for the second plan are thus roughly estimated at $850,000. This figure does not include any amounts for work on other buildings at the complex (such as roof repairs to the machine shop).

The author feels that preservation considerations somewhat favor the second plan. The first plan requires alterations both to the original concrete structure and to the historic appearance of the building's public corridors and stairwell. While the second plan's larger addition is more intrusive on the external appearance of the building, it remains limited to the least public facade. Both plans, however, are vastly preferable to current conditions where water is causing continuing deterioration of the building.

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[78] Similar treatment has been very effective in the "Red Barn", Boeing's original airplane factory building, which is now part of Seattle's Museum of Flight.

[79] Costs were estimated using R.S. Means Co. repair and remodeling data, and were checked in some cases using the National Repair & Remodeling Estimator.


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The second plan seems clearly better for museum operations. It allows more flexibility in designing new facilities, better circulation, and can accommodate more visitors and displays. While the author does not claim to have made a marketing study, it seems likely that the first plan would be inadequate to handle the number of visitors that a high quality museum facility could attract.

TABLE 3
F.E. OFFICE BUILDING REHABILITATION AS MUSEUM
COST ESTIMATE SUMMARY

DESCRIPTION	PLAN 1 COST ($ x 1,000)	PLAN 2 COST ($ x 1,000)
OFFICE BUILDING		
Demolition	$ 27.9	$ 22.7
Insulation	$ 18.0	$ 18.0
Roof Repair	$ 4.7	$ 4.7
Door and Window Repair	$ 23.9	$ 23.9
Interior Surfaces	$ 48.2	$ 47.5
Painting	$ 16.4	$ 16.4
HVAC System	$ 22.2	$ 22.2
Electrical	$ 32.1	$ 32.1
Fire and Security	$ 31.8	$ 31.8
Plumbing	$ 18.0	$ 1.7
Elevator	$ 50.3	$ 0.0
SUBTOTAL, OFFICE BLDG.	$293.5	$221.0
BUILDING ADDITIONS	$ 33.3	$276.1
SUBTOTAL, CONSTRUCTION	$326.8	$497.1
Arch./Engr. Services	$ 49.0	$ 74.6
Construction Mgmt.	$ 16.3	$ 24.9
Contingencies	$ 49.0	$ 49.7
TOTAL	$441.1	$646.3


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VIII: SOIL CONTAMINATION AT THE INDUSTRIAL COMPLEX

Soils near the Retort Building contain substantial amounts of mercury (up to 18,000 ppm) and to a lesser extent arsenic (up to about 600 ppm).[80] The removal of the contaminated soil is reportedly one of two conditions of the sale of the property to GVEA (the other is the removal of all structures except the Office and Retort Buildings).

The source of the contaminants was slag from the refining of gold/mercury amalgam, which was dumped to the south of the building and later spread along the adjacent roadway. The contaminants are highest on the ground surface near the building's south wall, according to soil sampling data in the Alaska Department of Environmental Conservation's (DEC) files. They diminish with distance from the wall and from the ground surface.

The greatest health threat is thought to be the possibility of people inhaling or swallowing mercury- and arsenic-laden dust.[81] A few years ago similar contamination was found at an unpaved playground (Steadman Field) in Nome, the previous site of a similar retort building owned by the F.E.'s parent company. This presented obvious health risks. Due to the similarity of the two sites, the contamination at the FE complex has received a lot of attention.

The problem is not as serious as some fear; the EPA no longer considers it as a potential Superfund site. Tests indicate the contaminants do not readily leach out of the soil; there has been no groundwater contamination and none seems likely.[82]

Recommended solutions include excavation of soils with greater than 10 ppm mercury or 200 ppm arsenic for landfill burial elsewhere. It is estimated that about 200 truckloads of soil would be need to

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[80] "Workplan for Excavation and Disposal of Contaminated Soils - USSR&M Site, Fairbanks, Alaska", America North/EMCON, Table 1.

[81] Memorandum dated 1/29/92 from Dan Basketfield (Alaska Dept. of Environmental Conservation) to John Sandor (Commissioner, ADEC).

[82] Letter dated 6/10/92 from Deborah Flood (EPA Project Officer), to Mary Siroky (Alaska Dept. of Environmental Conservation)


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be excavated at an estimated cost of about $208,000.[83] The Alaska Gold Company intends to follow this plan during the summer of 1993.

Another solution (which was used in Nome) would be to place a "cap" of gravel or other material over the contaminated area to prevent its becoming airborne. While cheaper, this alternative requires assurance that the site will not be disturbed in the future without proper precautions. The DEC has indicated that this solution would be acceptable - with certain institutional safeguards - if the site were to be preserved for historical and museum purposes, but that they would be reluctant to allow it otherwise.[84]

The possibility that other contamination exists in the FE site soils is also of concern. While there seems to have been no leakage from buried gasoline tanks west of Warehouse 1, DEC files show no results of soil sampling for large parts of the site. Areas of particular concern include those around the oil drum storage structure (possible hydrocarbon contamination) and areas around the machine shop and the power plant site (possible contamination by numerous substances, including PCBs). It is possible that soils tests have been made in these areas whose results are not in DEC's files.

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[83] "Workplan for Excavation and Disposal of Contaminated Soils...", op cit.

[84] Letter dated 3/10/92 from W.D. McGee (ADEC Northern Regional Office Manager) to Jack Williams (Director, Fairbanks Historical Preservation Foundation).


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IX: SUMMARY AND CONCLUSIONS

F.E.'S TOWNSITE IS THE MOST IMPORTANT HISTORIC SITE IN FAIRBANKS

Large scale corporate mining operations had a broad impact on the sparsely settled areas of western North America in the early twentieth century. The Fairbanks Exploration Company's gold dredging operations were probably the most remote of these, and their Townsite on Illinois Street is one of the best preserved and most coherent examples of this development, with national historical significance. It has regional importance as the headquarters of the dominant force in the economy of Interior Alaska in the 1920s and 30s. It is significant architecturally, as it contains much of the finest local residential, commercial, and industrial architecture of the period. It contains important examples of period technology and engineering, including a complete collection of machine tools and the region's first concrete and steel framed buildings. There is little doubt that the Townsite is the most important historic site in Fairbanks, perhaps all of Interior Alaska, and the F.E.'s Industrial Complex is its most important part.

HISTORIC RESOURCES AND PRESERVATION OPPORTUNITIES HAVE BEEN LOST

Most of the historic resources of the Townsite, long an almost forgotten part of Fairbanks, will soon be gone. Much of the Industrial Complex in the Townsite's western half is being destroyed as this is being written (a few buildings will probably be relocated to one side of the site). Highway construction threatens the landscape, if not the buildings, of the remainder of the Townsite.

A number of opportunities will be lost along with the Industrial Complex. Of foremost importance to this report are the lost opportunities for historic preservation. Opportunities to promote and develop the historic tourism industry through a centrally located interpretive facility will be much reduced, too. Further, opportunities for cost-effective rehabilitation of some of the warehouse facilities will also be lost. The latter two points are significant not only to the community in general but specifically to the new owners of the complex, one an established tourism entrepreneur (John Reeves), the other an electric company (GVEA) which ostensibly bought the land to store industrial supplies.

MINING MUSEUM CONCEPT HAS MERIT


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The concept of using the Office Building as a gold mining museum has merit, especially if developed in conjunction with the remnants of the Industrial Complex behind it. Alterations needed for the greater occupancy exceed those for some other rehabilitation options, but it could serve as a central facility for education and display of the region's mining heritage and do much to further the preservation of area historic resources in general. Damage to the building's historic features would be minimized if needed new facilities were placed in a rear addition.

A small mining museum might be housed in the Office Building alone, but the historical importance of the topic and the resources available for display could easily justify a larger facility. Rather than further enlarge the Office Building, it is recommended that non-public activities - administration, curatorship, and storage - be housed in a separate building. Warehouse 1, which will probably be relocated to a corner of the Industrial Complex site, might serve this purpose well if suitable arrangements could be made with its owner, Mr. Reeves.

PUBLIC AND UNIQUE FEATURES OF THE OFFICE BUILDING MERIT PRESERVATION

Whatever the future use of the Office Building, preservation efforts should be focussed on the most public and the most unique features of the building. The most public features include the front (Illinois Street) facade and the corridors and stairwell inside. The most unique building features include the concrete structure itself (since it is the earliest example of such construction in the region) and the walk-in vaults. Additional preservation guidelines are provided in the body of this report. Some guidelines are also given for the rest of the complex, but this is made difficult because it is presently unclear what will remain to be preserved.

FEARS OF HISTORIC DESIGNATION CAN THREATEN HISTORIC RESOURCES

Several issues important to historic preservation are illustrated by the Townsite and recent developments to it. One is that designation of a site as "historic" may be more likely to hasten its destruction than to preserve it. Golden Valley Electric Association's purchase of the Industrial Complex was made contingent on the seller's removal of nearly all buildings on the site. It appears that the motive for this was a fear that the "historic" designation would limit their property rights.[85]

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[85] GVEA's claim that the removal of buildings was needed to allow cleanup of contaminated soils is disingenuous, since known contaminants are not located under or around them. They claim to

Ironically, the public outcry for preservation of the site probably contributed to these fears. That such fears were largely ungrounded have been proved by subsequent events - the unobstructed demolition of historic buildings.

ADAPTIVE REUSE POTENTIALS ARE OFTEN OVERLOOKED

It apparently never occurred to GVEA that some of the facilities might be useful to their operations, despite the fact that the F.E. was the region's first rural electrification company. A lack of design imagination, coupled with a cultural tendency to discard and replace rather than repair, may be largely responsible for this. An additional factor may be a misconception, on the parts of some preservation advocates as well as GVEA, that "preservation" is limited to turning a site into a tourist attraction, a museum artifact, or both.

NEGLECT IS AN UNRELIABLE PRESERVATION TOOL

That so much of the F.E. Townsite remained intact until recently is largely due to the site becoming an obscure, almost forgotten part of Fairbanks. Major traffic arteries were rerouted away from the area many years ago; recent development in Fairbanks has been concentrated on the outskirts of town. The F.E. itself discontinued most of their operations but retained ownership (under their new name the Alaska Gold Company). But recent developments show that here, as elsewhere, such neglect of an historic area can be as unreliable as it is effective. Preservation advocates need to recognize such forgotten resources before threats of destruction create acute crises.

CHALLENGES FOR PRESERVATION ADVOCATES

These things elucidate several challenges for preservation advocates. One is to create greater public awareness that historic designation often presents more opportunities than limitations to a private owner. Another is to provide professional advice and assistance in adaptive reuse of historic resources, even (perhaps especially) where owners are unwilling or unable to implement ideal preservation strategies.

Another issue raised by events at the F.E. Industrial complex is that potential combinations of preservation and modern uses - in this case tourism and industry - may be foregone not so much for physical or economic reasons as for institutional ones. GVEA does

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have no plans for the property which would otherwise require removal of the buildings.

not deny the potential for a central historic tourism facility in Fairbanks but "is not in the museum business." Mr. Reeves lacked the resources to purchase the entire site and seems to have neither the money nor the inclination to observe preservation standards if this will not directly benefit his business. Grants for such preservation efforts were apparently available to governmental or non-profit organizations, but discussions focussed on what such organizations might do instead of GVEA or Mr. Reeves, rather than with them. Arrangements for coordinated multiple use of properties may be difficult and complex, but may often be worth the effort to all involved, as it was here.

Such efforts are more likely if preservation interests can meet yet another challenge: to promote an appreciation of history and heritage as a public legacy. Few of us can be "in the museum business", but we can all learn to recognize historic materials as nonrenewable resources. Ownership of historic resources carries moral and civic responsibilities. The Historic Preservation Act and other legislation recognizes this, requiring government agencies to identify and, where reasonable alternatives exist, protect historic resources which may be affected by public spending. But historic preservation does not and should not rely solely on legal or economic restrictions and stimuli.

PRESERVATION AND HISTORIC TOURISM: DIFFERING GOALS AND PRIORITIES

Recent events regarding the F.E. Industrial Complex illustrate yet another point: that the goals and priorities of historic preservation and historic tourism are often not identical. One aspect of this is the selective presentation of history often given by tourism facilities. Mr. Reeves' feels, probably correctly, that few tourists spend much time at a given "attraction", that most are interested in curiosities and pretty things, and that few will know or care if the presentation is historically correct or complete. His development strategy is certainly not unique: after all, it was only after half a century of acclaimed preservation efforts that serious attention was given to slave quarters at Colonial Williamsburg.

Another facet of the different priorities of tourism and historic preservation is that accommodating tourists can result in damage to historic resources. A famous example is at the Lascaux caverns in France, whose paleolithic art is vulnerable to the very breath of those who come to observe it. A more prosaic problem is illustrated at the F.E. Industrial Complex. Making the Office Building into a museum would undoubtedly attract many visitors, but providing for this increased occupancy would itself require alterations to the building.

THE IMPORTANCE OF HISTORIC CONTEXT AND LANDSCAPE ARE OFTEN OVERLOOKED


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A final conclusion from recent developments at the F.E. Townsite is that historic context and landscape are often undervalued even by preservation interests. Of all the discussions of the historic resources of the neighborhood, it is only in the most recent study (Lazenby's) that the importance of Illinois Street itself was considered. Yet the scale of the road and the mature trees, fences, shrubs, and lawns which border it define the historic character of the entire neighborhood. Similarly, plans to move and "save" a few pieces of the Industrial Complex show little appreciation of the importance of the spatial relationship between the buildings and structures. The towering derrick, for example, will lose much of its historic value outside its context in relation to the railroad and trolley tracks, the warehouses and loading docks, and the truck scales.


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Kemp, E.L. and Sande, T.A., eds., 1981. Historic Preservation of Engineering Works, American Society of Civil Engineers, New York. Conference proceedings including both general considerations and case studies.

Kidney, Walter C., 1976. Working Places: The Adaptive Reuse of Industrial Buildings, Ober Park Associates, Pittsburgh. A handbook sponsored by the Society for Industrial Archaeology, contains guidelines and case studies.

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Langenbach, Randolph. "Earthquakes: A New Look at Cracked Masonry" in Civil Engineering V62 N11 (November 1992), American Society of Civil Engineers, New York. Reports smaller than expected damage to masonry-infill concrete structures in the Loma Prieta earthquake and discusses design implications.

Lazenby, Colleen, 1990 Historical Resources Along Illinois Street, University of Alaska, Fairbanks. Written for Alaska DOT&PF to identify buildings eligible for the National Register.

Lord, Gail Dexter and Lord, Barry, eds., 1991 The Manual of Museum Planning, HMSO, London. Comprehensive treatment with much information on existing facilities and their operations.

Lowe, Jet, 1986. Industrial Eye, Preservation Press, Washington, D.C. Selections of Lowe's fabulous photos for the Historic American Engineering Record, with explanatory notes.

Matheson, Janet, 1985 Fairbanks: A City Historic Building Survey 1985, City of Fairbanks, Alaska. The best single source on the subject, with some treatment of districts and landscape features.

Matheson, Janet, 1986. Historic Districts in the City of Fairbanks, City of Fairbanks, Alaska. A good resource in combination with her 1985 book.

Paxton, Albert S., 1993. 1993 National Repair & Remodeling Estimator (16th edition), Craftsman Book Co., Carlsbad, CA.

Construction cost estimating information and program.

Rollins, Alden M., ed., 1978. Census Alaska: Numbers of Inhabitants, 1792-1970, U of AK Anchorage Library, Anchorage.

Salmen, John P.S., 1992. Accommodating All Guests, American Hotel & Motel Association, Washington, D.C. Information on architectural requirements of the Americans with Disabilities Act (ADA).

Sloane, Howard N. and Sloane, Lucille L., 1970. A Pictorial History of American Mining, Crown publishers, Inc., New York. Contains some information on gold dredging activity outside of Alaska by the USSR&M and W.P. Hammon.

Young, Otis E., 1970. Western Mining, U. of Oklahoma Press, Norman, OK. Historical information, including the early development of floating gold dredges.

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_____, 1991. National Register Bulletin 16: Guidelines for Completing National Register of Historic Places Forms, National Park Service, Interagency Resources Div., National Register Branch, Washington, D.C.

_____ The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, National Park Service Preservation Assistance Division, Washington, D.C.

_____, 1991. Uniform Building Code, International Congress of Building Officials

DOCUMENTS

Alaska Department of Environmental Conservation, Northern Region File 102.23.018 and box labeled "Alaska Gold Co. USSR&M Site Fairbanks 400.23.005". These files contain reports and correspondence regarding the soil contamination at the Industrial Complex by DEC and others.

Earling, Roy B. Collection, Accession #91-160, in the Archives, Alaska and Polar Regions Department, University of Alaska Fairbanks. Movies filmed by Earling, F.E. Employee 1925-,


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F.E. Mgr. 1935-38, USSR&M Vice Pres. & Mgr. Alaskan Operations 1938-1951. With commentaries by Earling's daughter.

Fairbanks Exploration Company (now Alaska Gold Company) historic drawings and records, too many to enumerate.

Letter dated August 13 1992 from John Martin (Alaska DOT&PF Northern Region Chief of Planning and Administration) to Jack Williams (Executive Director, Fairbanks Historical Preservation Foundation). The letter states that preservation of the F.E. Townsite would be a suitable project for ISTEA enhancement funding.

National Register Eligibility Evaluation of Fairbanks Exploration Company Housing (507 and 521 Illinois Street), undated (1984?) prepared by Alaska DOT&PF Northern Region Environmental Section, Fairbanks.

National Register Eligibility Evaluation of Fairbanks Exploration Company Industrial Complex (700 Block Illinois Street), undated (1984?), prepared by Alaska DOT&PF Northern Region Environmental Section, Fairbanks.

National Register Eligibility Evaluation of Sexton House (315 Illinois Street), undated (1984?), prepared by Alaska DOT&PF Northern Region Environmental Section, Fairbanks.

National Register Eligibility Evaluation of White House (757 Illinois Street), undated (1984?), prepared by Alaska DOT&PF Northern Region Environmental Section, Fairbanks.

Patt Peterson Photograph Collection, Accession #91-042, in the Archives, Alaska and Polar Regions Department, University of Alaska Fairbanks. Includes photos of Townsite under construction.

U.S. Survey No. 806 of the Trading Site of the Tanana Mill Company (plat and field notes of 1911, certified 1913), U.S. Surveyor General's Office, Juneau Alaska (now on file with Bureau of Land management, Fairbanks)

U.S. Survey No. 806 (Amended) of the Trading Site of the Tanana Mill Company (plat and field notes of 1918, certified 1920), U.S. Surveyor General's Office, Juneau Alaska (now on file with Bureau of Land Management, Fairbanks)

"Workplan for Excavation and Disposal of Contaminated Soils - USSR&M Site, Fairbanks, Alaska", report by America North/EMCON (Anchorage) for Alaska Gold Co. (Nome), July 1992.


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INTERVIEWS

Atkinson, Helen (April 7, 1993). Daughter of an F.E. employee, she moved to Fairbanks in 1928 and lived in the Noyes House for many years.

Basketfield, Dan (30 June 1992). Alaska Department of Environmental Conservation official in charge of soil contamination problems at the Industrial Complex.

Clausen, Ansgar (May 1992 et seq). Retired F.E. employee who began work for the company in 1940.

Daro, Hazel (8 Jan 1993 et seq). Assistant to the Director of UAF's Geist Museum.

Eagan, Dan (August 1992 et seq). Long time employee and retired Fairbanks manager for the Alaska Gold Company.

Eagan, Pete (May 1992 et seq). Current Fairbanks manager for the Alaska Gold Company.

Gannon, Brian (7 July, 1992 et seq). Handles cultural resources issues for the Alaska DOT&PF's Northern Region Environmental Section.

Gates, Michael (23 April, 1993). Curator of Collections at Bear Creek Industrial Complex (Klondike National Historic Sites, Canadian Park Service, Dawson City, Yukon).

Hartnell, Tom (July, 1993). Purchasing agent for Golden Valley Electric Association, in charge of the purchase and development of the F.E. Industrial Complex site.

Lovering, Howard (May 1992 et al). Original executive director of the Museum of Flight in Seattle; he oversaw the design of the adaptive rehab of the "Red Barn" (Boeing's original factory building) into a museum facility.

Reeves, John (August 1992 et seq). Owner of the buildings on "Tract M" at the F.E. Industrial Complex, and of F.E. Dredge 8 National Historic District in Fox.

Reichardt, Paul (25 March 1993). Interim Director of UAF's Geist Museum.

Riley, George (19 April 1993). Safety Coordinator, Risk Management Office, Fairbanks North Star Borough; familiar with fire safety and security issues.

Sackett, Russ (15 May 1992 et seq). Architectural historian with


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the Alaska SHPO in Anchorage.

Spude, Bob (13 Nov 1992). Chief of the Division of National Preservation Programs, National Park Service Rocky Mountain Region, and an authority on historic industrial sites.

Stone, David (18 Nov 1992). Employee of Echo Bay Mines in Juneau, he is helping plan a gold mining museum and visitor facility there in connection with the reopening of the AJ mine.

Williams, John "Jack" (March 1992 et seq). Director of the Fairbanks Historical Preservation Foundation.


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