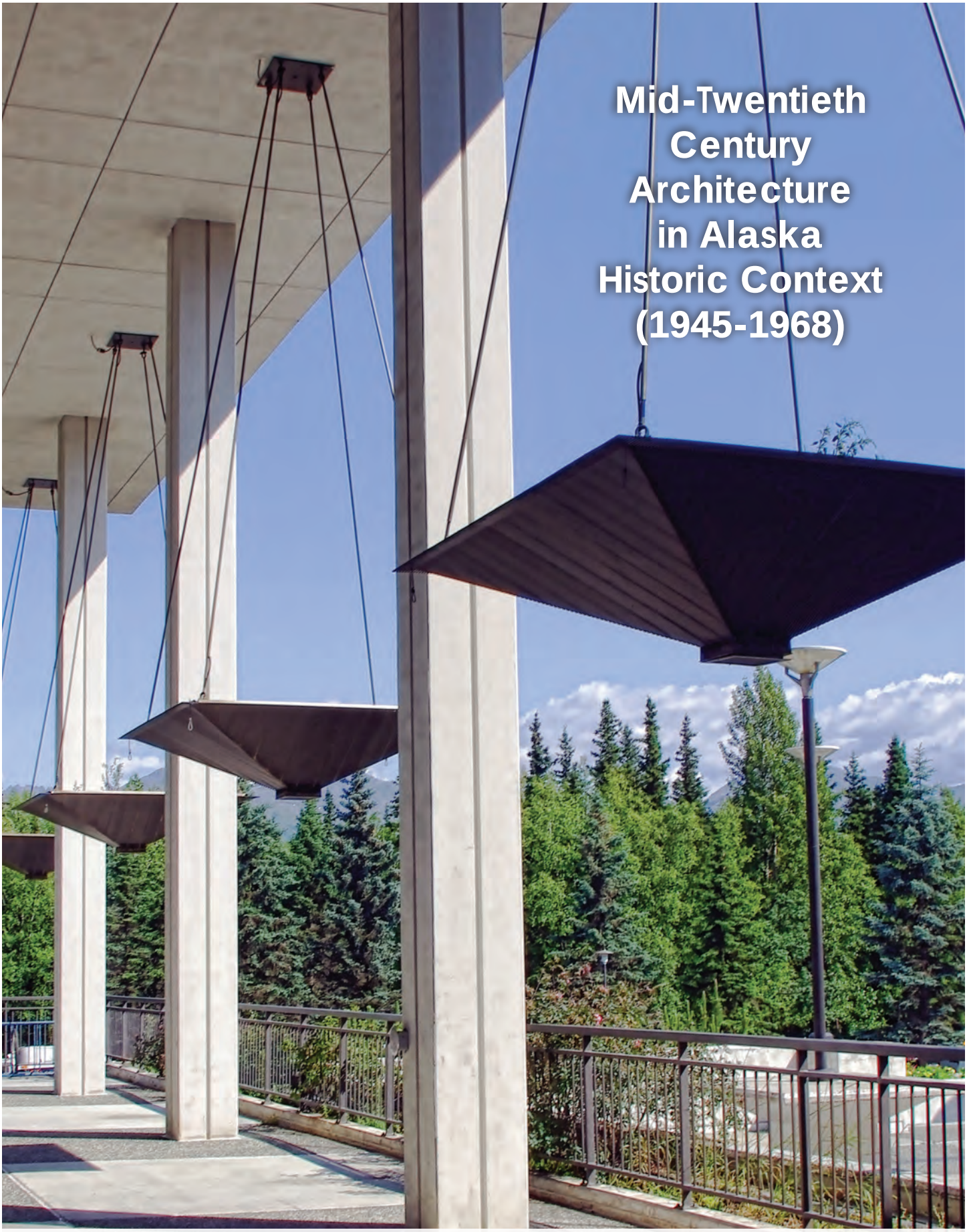

# Mid-Twentieth Century Architecture in Alaska Historic Context (1945-1968)

Prepared by Amy Ramirez · Jeanne Lambin · Robert L. Meinhardt · and Casey Woster 2016

The Cultural Resource Programs of the National Park Service have responsibilities that include stewardship of historic buildings, museum collections, archeological sites, cultural landscapes, oral and written histories, and ethnographic resources.

The material is based upon work assisted by funding from the National Park Service. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the Department of the Interior.

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# MID-TWENTIETH CENTURY ARCHITECTURE IN ALASKA HISTORIC CONTEXT (1945 – 1968)

**Prepared for**

**National Park Service, Alaska Regional Office**

**Prepared by**

**Amy Ramirez, B.A.**

**Jeanne Lambin, M.S.**

**Robert L. Meinhardt, M.A.**

**and**

**Casey Woster, M.A.**

**July 2016**

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## LIST OF ACRONYMS/ABBREVIATIONS

| | |
|---|---|
| AAC | Alaska Air Command |
| AASHTO | American Association of State Highway Transportation Officials |
| ACS | Alaska Communications System |

| | |
|---|---|
| AC&W | Aircraft Control and Warning |
| AEC | Atomic Energy Commission |
| AFB | Air Force Base |
| AFN | Alaska Federation of Natives |
| ALCANGO | Alaskan Canadian Gas Oil |
| ALCOM | Alaska Command |
| ANCSA | Alaska Native Claims Settlement Act |
| ANPP | Army Nuclear Power Program |
| ARC | Alaska Road Commission |
| ARCO | Atlantic Richfield Company |
| ARL | Arctic Research Laboratory |
| ARRC | Alaska Railroad Corporation |
| ASC | Alaska Steamship Company |
| ASLP | Alaska Spruce Log Program |
| BAREX | Point Barrow Resupply Expedition) |
| BMEWS | Ballistic Missile Early Warning System |
| BRC | Board of Road Commissioners |
| CAA | Civil Aeronautics Administration |
| CAB | Civil Aeronautics Board |
| CMUs | Concrete Masonry Units |
| CRTC | Cold Regions Test Center |
| DEW | Distant Early Warning |
| DOD | Department of Defense |
| FAA | Federal Aviation Agency |
| FAAP | Federal Aid to Airports Program |
| FAHA | Federal Aid Highways Act |
| FEPC | Fair Employment Practices Committee |
| FHA | Federal Housing Administration |
| FOBS | Forward Operating Bases |
| GSA | General Services Administration |
| GVEA | Golden Valley Electric Association |
| HABS | Historic American Building Survey |
| ICBM | Intercontinental Ballistic Missile |
| LOP | Line of Position |
| LORAN | Long Range Aid to Navigation |
| MPD | Multiple Property Documentation |
| NAACP | National Association for the Advancement of Colored People |
| NARL | Naval Arctic Research Laboratory |
| NAS | Naval Air Station |
| NHL | National Historic Landmark |
| NHPA | National Historic Preservation Act |
| NOA | Northwest Orient Airlines |

| | |
|---|---|
| NR | National Register of Historic Places |
| NWTC | Northern Warfare Training Center |
| OHA | Office of History and Archaeology |
| ONR | Office of Naval Research |
| OPEC | Oil Petroleum Exporting Countries |
| PGES | Platinum Group Elements |
| PX | Post Exchange |
| ROCC | Regional Operations Control Center |
| ROTC | Reserve Officers' Training Corps |
| SAC | Strategic Air Command |
| SHPO | State Historic Preservation Office |
| SLUP | Special Land Use Permit |
| SM-1 | Stationary Medium |
| TAPS | Trans Alaska Pipeline System |
| TNSDS | True North Sustainable Development Solutions |
| UAA | University of Alaska Anchorage |
| UAF | University of Alaska Fairbanks |
| USACE | US Army Corps of Engineers |
| UCM | Usibelli Coal Mine |
| USARAK | US Army Alaska |
| USARAL | US Army Alaska (1947 – 1974) |
| USCG | US Coast Guard |
| USGS | US Geological Survey |
| VA | Veterans Affairs |
| WACS | White Alice Communications System |

# EXECUTIVE SUMMARY

*Mid-Twentieth Century Architecture in Alaska Historic Context* is a document highlighting historical events and architectural trends that shaped the built environment in Alaska from 1945 to 1968. The architecture that rose from this period is a reflection of technological advances in building science, social changes, and architectural innovation. The period from 1945 to 1968 was characterized by rapid growth, improved infrastructure, and building construction brought on by a post-WWII economic boom and an increasing population.

Nationwide sprawl occurred as highway expansion paved the path for a new way of life outside of the urban city center including newly built residential neighborhoods, commercial malls, churches, schools and medical facilities. Alaska was not immune to this pattern of development, as the territory-turned-state became a strategic stronghold against the USSR throughout the Cold War era, bringing an influx of military personnel, a need for improved infrastructure, and an accommodating housing stock for its booming population. Discovery of large oil fields on the Kenai Peninsula and the North Slope also spurred economic growth and investment from outside interests. The Good Friday Earthquake of 1964 was yet another catalyst of growth in Alaska as innovative design and construction became part of a massive rebuilding effort. The housing crisis after World War II, combined with a subsequent oil boom and a natural catastrophe attracted the interests of architects, builders, and developers from all over the US to help shape Alaska's future.

This historic context for Mid-Twentieth Century Architecture in Alaska was prepared for the National Park Service Alaska Region to serve as a useful tool to help a diverse audience identify and evaluate Alaskan architecture built between 1945 and 1968 for inclusion on the National Register of Historic Places. Due to the recent age of the architecture, for which this context was developed, it is anticipated research and survey of various architects, building types, and architectural styles will be ongoing; therefore, the historic context provided herein will continue to be refined and new statements added at a later date. Recommendations for future research are provided in this document to help advance the ongoing effort to study Alaska's mid-twentieth century architecture so it can be better understood and preserved for future generations.

# 1.0 PROJECT DESCRIPTION

The research and preparation of *Mid-Twentieth Century Architecture in Alaska Historic Context (1945-1968)* was initiated by the National Park Service-Alaska Regional Office (NPS-AKRO) in fall of 2015. The document was completed in spring of 2016 by True North Sustainable Development Solutions, LLC (TNSDS). The purpose of this study is to prepare a preliminary context statement for Alaska's post-World War II architectural history and related historic properties. By providing a framework to better understand Alaska's post-World War II architectural history, this document is intended to serve as a starting point for a broad array of users and to help them better understand historic development patterns that occurred during the period. It is anticipated that this document will help support the identification, evaluation, and management of resources from the period. To aid in those efforts, this report:

- provides an overview of major developments or themes in the history of Alaska in the decades following World War II
- identifies what aspects of environment, history, and culture significantly shaped that development
- describes architectural styles and property types that were associated with those developments
- makes recommendations for future research

This report serves both as a reference and a resource intended to assist the NPS-AKRO and other federal agencies, state agencies, elected and appointed officials, community planners, local historical societies and commissions, community organizations, researchers, consultants, property owners, and other interested parties in making informed decisions about properties from this period.

## 1.1 Historic Context as a Planning & Evaluation Tool

The National Park Service (NPS) defines historic context as "a broad pattern of historical development in a community or its region that may be represented by historic resources." In other words, what is the story, and how does a specific property or properties relate that story? When properties are listed on the National Register of Historic Places (National Register) or proposed for local designation, defining the historic context of a property is a key element of that process. Historic context statements are an essential part of the historic preservation planning process and are critical tools for understanding, identifying, evaluating, and protecting resources which contribute to a community's individual character and sense of place. Context statements assist in understanding the larger significance of a property or properties without necessarily having to do in-depth research on a specific property, event, or period of time.

## 1.2 Objectives and Methodology

This historic context statement represents a statewide study that identifies key historical themes that shaped development throughout the state from 1945-1968; these dates bookended between the close of World War II and the discovery of oil in Prudhoe Bay. The beginning and end dates for the study were selected by the National Park Service.

It is important to note that this study represents neither a comprehensive history of the state nor a comprehensive inventory of historic resources. Rather, this document examines some of the larger themes, events, and trends that shaped the built environment of the state during the period. It is assumed

that this initial study will be augmented by future research. Specific recommendations for future research are included in section 6.0-Recommendations for Future Research.

### 1.2.1 How to Use This Context Statement

A historic context statement provides information about historic properties that share a common time, theme, or place. It is intended to provide an analytical framework for identifying, evaluating, and making planning decisions about resources from the period that contains the following elements:

- The **historic context** outlines the **major themes** identified in this study. This section can help provide a better understanding of broad patterns of history and significant events that occurred during the period.
- A l**ist of materials** details common building materials used during the period.
- A description of common **property types** during the period. This section can help users understand what property types existed during the period, what forces shaped their development, and how to identify those resources.
- An **architectural style guide** details common architectural styles from the period and their defining characteristics is included in Appendix A.
- A **list of architects, architectural firms, and builders** practicing during the period with profiles of selected individuals and firms determined to have made a significant contribution during the period. This section can help provide a better understanding of what firms were practicing during the period, where they were doing work, examples of their work, and their contributions to the field. Additional information is included in Appendix B and Appendix C.
- Recommendations for **future research** are presented. In this section, the gaps in existing research as well as recommendations for future or more in-depth study will be discussed.
- An **annotated bibliography** containing information regarding sources referenced within this document and providing an avenue for readers to begin their own detailed research on specific themes is provided.

Each of these elements can help to identify what resources are likely to be found, why they are important, and assist in their evaluation in the larger historic context.

### 1.2.2 Project Methodology

The first stage of the project involved the review of previous historical surveys, context statements, and other documentation of mid-century properties across the United States (US). These documents included those provided by the NPS-AKRO and those available through the Alaska State Historic Preservation Office (SHPO) online Integrated Business Suite (IBS Portal) and website. Many of them can be accessed at http://dnr.alaska.gov/parks/oha/publications/publications.htm. They include:

**Nationwide Contexts:**

- Historical Residential Suburbs in the United States, 1830-1960 MPD
- Growth Efficiency and Modernism: GSA Buildings of the 1950s 60s and 70s
- Public Housing in the United States, 1933-1949 MPD

- A Model for Identifying and Evaluating the Historic Significance of Post-World War II Housing

**Transportation Contexts:**

- Alaska Roads Historic Overview: Applied Context of Alaska's Roads
- Bridging Alaska: Historic Context for the Inventory of Alaska's Highway Bridges DRAFT

**Mining Contexts:**

- Prospects and Producers: Historic Context for Mining Properties, Chugach and Tongass National Forests, Alaska, 1850s-1950s
- Historic Properties Associated with Mineral Development in Wrangell-St. Elias National Park and Preserve, Alaska, 1898-1942 MPD

**Community Contexts:**

- South Addition Historic Context Statement & Building Survey - Anchorage, Alaska
- Anchorage's Four Original Neighborhoods Interpretive Plan

**Military Contexts:**

- The Architecture of the Department of Defense: A Military Style Guide
- Alaska Federal Scout Readiness Centers (FSRCs), 1959-1974
- Military Development and Infrastructure, Glacier Bay Vicinity: Second World War Facilities in the Glacier Bay Region, 1939-1946 MPD
- LORAN- A Historic Context
- History of the Aircraft Control and Warning Systems in Alaska: Air Defense of Arctic Skies
- The Coldest Front: Cold War Military Properties in Alaska
- Nike Hercules Operations in Alaska: 1959-1979
- Northern Defenders: Cold War Context of Ladd Air Force Base Fairbanks, Alaska 1947-1961
- Cold War Historical Context 1951-1991 Fort Richardson, Alaska
- Defending Attack from the North: Alaska's Forward Operating Bases during the Cold War

**Recreation Development and Management Contexts:**

- Historic Context and Evaluation of Ranger Boats in Alaska Chugach and Tongass National Forests
- Everyone's Cabin in the Woods: Historic Context for Public Recreation Cabins in the Alaska Region (USFS) 1960-1971
- Rediscovery, Scientific Study, and Tourism within Glacier Bay Region MPD
- Tourism and Early Park Development Resources of Katmai National Park and Preserve MPD

**Exploration/Settlement/Homesteading Contexts:**

- Homesteading and Related Settlement, Glacier Bay Region: Homesteads and Homesites at Strawberry Point, Dundas Bay, and Lituya Bay 1914-1964 MPD
- The Settlement and Economic Development of Alaska's Matanuska-Susitna Valley MPD

In addition to the aforementioned studies specific to Alaska history, other context statements, surveys, and studies relevant to the time period, themes, or types of resources were examined including but not limited to:

- Montana Post-World War II Architectural Survey and Inventory Historic Context and Survey Report
- Thematic Survey of Modern Movement, Non-Residential Architecture, 1945-1975, in St. Louis City
- Mid-Century Modern Architecture in Washington State

- The Ranch House in Georgia, Guidelines for Evaluation
- City of Riverside Modernism Context Statement
- Mid 20th Century Architecture in New Hampshire: 1945-1975
- Mid-Century Modernism Historic Context, City of Fresno
- San Diego Modernism Context Statement

Other resources consulted include those available at the SHPO/the Alaska Office of History and Archaeology (OHA), online digital databases, and digital repositories including but not limited to:

- Primary sources including period news articles and government reports
- Secondary sources including websites and journal articles
- On-line and physical repositories including the Alaska Collection at the Z. J. Loussac Public Library, University of Alaska Anchorage Library, Alaska's Digital Archives, the Alaska Humanities Forum, the Pacific Coast Architecture Database, Documentation and Conservation of the Modernist Movement in Western Washington database, and the Society of Architectural Historians digital resources
- Previous studies, surveys, inventories, and contexts

An annotated bibliography, detailing resources consulted in the preparation of this report is included after the final conclusion. A table of architects who practiced in Alaska during the period can be found in Appendix B as well as a table of developers and builders who were also working during the period is in Appendix C. Finally, names of architects who were practicing at the end of the period and beyond have been added to a table in Appendix D that is intended to be used for future research efforts.

### 1.2.3 Limitations and Challenges of Research

While the examination of our more recent heritage has made significant advances in the past decade- dozens of surveys have been completed, websites created, organizations formed, books, journals, and articles written and conferences held - the scale of growth and the scope of change in the decades following World War II means that there is still significant research, identification, and documentation to be done. In Alaska, this is especially true. While mid-twentieth century resources and their historic context are increasingly well studied in the Lower 48, in Alaska the existing body of comparable information is relatively scarce. How popular trends either mimicked or differed from those "outside" is not always readily accessible*;* from understanding how the post-World War II architectural practice in the state evolved or how common mid-century building materials fared in an extreme climate are but two of dozens of examples. The relative remoteness of the state, the size, and its relatively recent development history mean that national trends did not always reach the far north, and those that did were sometimes altered for the unique circumstances of the state. Despite these challenges, this document represents an assemblage of research from a vast array of sources. This information is provided as a framework to help guide future research.

### 1.2.4 Historic Preservation and Preserving the Recent Past in Alaska

In 1966, when the National Historic Preservation Act (the Act) was passed, Alaska had only been a state for seven years. The Act established a federal program for historic preservation and created the National Register of Historic Places (National Register), a federal program listing properties determined to merit

preservation.[1] With the establishment of the National Register, the criteria for what makes a property eligible for listing were formally established and so too was the so-called "fifty year rule." Generally speaking, properties had to be at least fifty years old to be considered for listing on the National Register. However, there was a provision, or what is known as a criteria consideration. *Criteria Consideration G*, for properties younger than fifty years old, held that a property, achieving significance within the past fifty years could be listed if it was of "exceptional importance."[2] When the Act was passed this meant that properties built after 1916 were not yet eligible for listing on the National Register unless they could be considered exceptionally significant. The cut-off date changes with each passing year. Because the fifty-year is a time span rather than a fixed date, the "recent past" is a term generally used to describe historic and architectural resources younger than fifty years old. Also known as "underage resources," these properties are often "modern-looking" in appearance. Many resources that were initially not eligible for the National Register have since come of age and been listed. Thus, the term is also used to describe resources spanning the mid-portion (1920s-1960s) of this century that are now older than fifty years such as Art Deco and Moderne buildings.

When the Act was passed, although Alaska had not yet even been a state for ten years, it did not mean that historic preservation efforts were non-existent prior to statehood and that some of those efforts did not focus on the state's more recent heritage. Historic preservation efforts in the state were somewhat limited, but they were not entirely absent.

In 1952, Arthur A. Woodward completed "A Preliminary Survey of Alaska's Archeology, Ethnology, and History." This survey of historic sites in Alaska was part of a more general, nationwide survey that had been initiated in 1937 as part of the Historic Sites Act of 1935 and represented the NPS's first "broad-based study of Alaska's cultural treasures." Unfortunately, the study "was neither widely distributed nor widely publicized."[3] In 1960, just a year after statehood, upset that Alaska had been overlooked from the NPS's historical theme studies, US Senator and former governor of Alaska Ernest Gruening convinced the agency to focus on the state, and the San Francisco Regional Office hastily compiled a list of Alaska's most significant historic and prehistoric sites. In 1961, a similar study was undertaken of aboriginal sites evaluating fourteen for National Historic Landmark (NHL) eligibility. As a result of these studies, fifteen of these sites were recommended to the Advisory Board of the NPS"[4] and in 1962, they were listed as NHL's. This list included the Fur Seal Rookeries, with a period of significance ranging from 1786-1959, recognizing the site's more recent history. In 1966, the state legislature provided for designation of official historic sites and monuments; in 1967 the first State Historic Preservation Officer (then known as the state liaison officer) was appointed.

As in many states, the interest in tourism shaped historic preservation efforts and historic preservation efforts shaped tourism. More locals became "aware of their history and public and private entities began

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[1] Alaska Office of History and Archaeology, *Saving Our Past: Alaska's Historic Preservation Plan 2011-2017.* Report. (Anchorage, Alaska, 2007).
[2] Patrick W. Andrus, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. (Washington D.C.: National Park Service, 1991).
[3] Frank B. Norris, "Managing Cultural Resources in Alaska's Parklands." *CRM Journal*, no. 2 (2005): 62-72. https://www.nps.gov/history/crmjournal/Summer2005/article2.pdf.
[4] Norris, "Managing Cultural Resources in Alaska's Parklands," 62-72.

to take steps towards their preservation."[5] Alaska '67, the centennial celebration marking the 100-year anniversary of the purchase of Alaska from Russia caused both an upsurge in interest in the state's relatively more recent history and a mini-construction boom of cultural institutions, community centers, and other buildings. The centennial also inspired a flurry of preservation efforts across the state.[6] Regardless of the relative age of the resources, communities throughout the state sought to "spruce up" existing historic resource or, as is the case with parts of Alaskaland, create new ones to remind people of old ones.

While the majority of historic preservation efforts in the state focused on "appropriately" old historic and prehistoric resources, there were some significant examples of more recent heritage being recognized whether architecturally significant, historically significant, or both:

- The Old Federal Building in Anchorage (1934-41) was listed on the National Register in 1978 at the tender age of thirty-seven years.
- Other younger resources were not completely overlooked in survey efforts either including properties from the 1920s, 30s and 40s: *Patterns of the Past: An Inventory of Anchorage's Historic Resources* was completed in 1979 and documented many properties that had just passed or were approaching the fifty-year mark.
- The military history of the state had been relatively well researched and documented, and many sites associated with World War II and the Cold War have been inventoried, evaluated, and in some instances, listed on the National Register or as National Historic Landmarks.
- Some more recent reconstructions would also qualify as the recent past like Saint Michael the Archangel Russian Orthodox Church originally constructed in 1848. This historic church, the first in the territory to be documented using Historic American Buildings Survey (HABS) techniques, was designated a National Historic Landmark in 1962. In 1966, the church burned down in a fire that destroyed most of downtown Sitka. In part guided by the HABS drawings, the church was reconstructed that same year."[7]
- Perhaps the most notable example is the Campus Center, commonly known as the Student Center or Atwood Building of Alaska Pacific University (formerly Alaska Methodist University). Designed by Edward Durrell Stone and constructed in 1966, it was listed on the National Register in 1978. At the time of its listing the building was less than a decade old but because of its association with the Alaska Federation of Natives conference in 1971, it was listed.

Historic preservation of the recent past poses significant challenges. Many argue that preservation of our older heritage is challenging enough and focusing on more recent heritage diverts needed resources, yet that same argument was made by previous generations arguing that more recent heritage was less important. Alaska, like many states in the post-WWII period, experienced significant growth in the decades following World War II. Due to changes in development patterns, economic growth, seismic

[5] Frank Norris. *Legacy of the Gold Rush: An Administrative History of the Klondike Gold Rush National Historical Park.* (Anchorage, Alaska: National Park Service Alaska System Support Office, 1996), 68.
[6] Because of the history and development of the state, it is quite possible that some of those resources were from the recent past, even if their outward appearance reflected more traditional building construction materials and techniques.
[7] Alison K. Hoagland, *Buildings of Alaska.* Society of Architectural Historians, Buildings of the United States. (New York: Oxford University Press, 1993), 185.

activity and other factors, many of those resources have already been lost. Of those that remain, many are now or have the potential to be historic. Identification of these resources and evaluation is important for future generations.

### 1.2.5 Unique Challenges to Preserving the Recent Past

Properties listed on the National Register can be considered significant at the national, state, or local level. Thus, when applying Criteria Consideration G, a property can be a locally significant. For example, the McKinley Tower Apartments in Anchorage listed on the National Register in 2008 is a locally significant example of high-rise residential architecture that reflected federal housing funding and policy under the Federal Housing Administration (FHA).[8] Unfortunately, when applying Criteria Consideration G, some equate exceptional significance with national significance, thus overlooking resources that are exceptionally important at the state or local level. In addition, many local landmark designations programs are modeled after the National Register and impose a fifty-year age limit. Unlike the National Register, many local landmark commissions do not have a provision for exceptional significance. As a result, properties can be eligible for the National Register but not local designation which can often provide more oversight and protection than National Register listing.

To further complicate matters, many of the resources from the post-World War II period, especially those in Alaska, were often made of fragile, short-lived, or experimental materials. If properties are abandoned or underutilized, the harsh climate can make their long-term survival perilous. Even if made of more durable materials, time, climate, and design trends can take their toll. The perceived obsolescence of a resource, a change in use, or ever-changing popular tastes can mean that some sites are irrevocably altered or demolished before they can even be studied or evaluated. Integrity can also be a problem. For example, many "starter" homes were constructed with the notion that owners would add to or improve them over time, thus, altering the appearance of the original design, plan, and layout. Because many of these houses were built as infill development or entire subdivisions, as intended, entire neighborhoods were altered, improved, and added to over time, altering the "historic" appearance and challenging existing notions of integrity. This can be an even greater issue with sites associated with important historic events or social movements. If the resource still remains, its appearance can be greatly altered. For example, many sites associated with the Alaska Native rights movement, such as the Dream Theater in Nome, have already been lost. So, too, have many sites associated with World War II and the Cold War. Although the military history is well documented, factors like access, climate, resources, and changes to the patterns of military presence in the state mean that many have been lost, altered, or threatened.

While some of these threats are not unique to Alaska, the size of the state, the dispersion of resources, and the severe climate create some unique challenges for the survey, documentation, and evaluation of the state's more recent heritage.

Yet, as stated in the state's historic preservation plan, "Most buildings and structures in Alaska today were built within the past fifty years. Many of these buildings are marked by sleek lines, smooth facades, and extensive use of glass that reflect changes in style, design and technology that occurred through the last fifty years. Those of exceptional architectural significance or associated with major events and

[8] William MacRostie, "McKinley Tower Apartments, Anchorage, AK, Historic Preservation Certification Application Part 1," (Anchorage, Alaska: MacRostie Historic Advisors, LLC, 2005), 5.

important individuals need to be recognized. Planning to preserve and protect their important and distinctive characteristics needs to start now."[9] This historic context statement provides an important initial step in that planning process. Survey, documentation, and evaluation of existing resources including integrity are also an important part of the process.

While this report focuses primarily on resources older than fifty years old, the "end date" for the fifty-year span changes with the passage of each year. Some resources might be older than fifty years but have a period of significance that extends beyond 1968 while some resources will be close to the cutoff date and; therefore, younger than fifty years old, a more detailed discussion of Criteria Consideration G is included below.

### 1.2.6 Evaluating Resources from the Recent Past[10]

While most resources from the Cold War era are fifty years old or older, those that reflect the end of the era may be just under the age limit. In addition, if a resource was built before 1968, its period of significance might extend beyond that date. Alternately, if a resource is located within a district it is possible that there are resources within the area that have not yet reached the fifty-year mark; thus, it is important to understand *Criteria Consideration G*.

The bulletin sets out seven guidelines to help evaluate resources:

- historic context
- scholarly evaluation
- fragile or short-lived resources
- time
- comparative evaluation
- associations with living persons
- properties in historic districts
- justification

**Historic Context -** The first step in evaluating underage properties is to establish and describe the historic context of the resource. A historic context describes the larger environment or circumstances in which a property or group of properties evolved and all the historic circumstances, factors, larger trends, or patterns that influenced its development. As stated in the bulletin, "knowledge of historic context permits us to understand the relative importance of the resource in question. Evaluating a property within its historic context ensures accuracy in understanding its role and in making comparisons among similar resources. An understanding of the context of a historic resource is based on knowledge of the time, historical theme, and geographical area with which the property is associated. This involves understanding, among other things, the social, political, economic, artistic, physical, architectural, or moral environment that accounted for the presence of, as well as the original and current nature of, the resource."

**Scholarly Evaluation -** A key element to developing the context and establishing the significance of a building is to determine if the resource has been the subject of some type of scholarly research. This

[9] Alaska OHA, *Saving Our Past.*

[10] Much of this section is excerpted from *Preserving the Recent Past* by Jeanne Lambin, M.S.

research is found in multiple resources including books and journals of architectural history, social history, landscape architecture, landscaping, industrial architecture, and urban development, as well as previous National Register nominations.

Establishing the significance of well-researched and documented resources, such as some of the resources associated with the Cold War, can be comparatively straightforward because of the amount of documentation available. Less straightforward, however, is how to evaluate the context and significance of resources that are not well documented and have not been the subject of scholarly evaluation. This can be especially challenging in Alaska where the study of resources from the mid-century is still evolving.

**Fragile or Short Lived Resources** - Sometimes a resource can be significant because it has survived when others of its kind have not. For example, commercial buildings and chain stores are often continually updated as design prototypes change. Early roadside resources have been lost because new roads have been built and consumer preferences have shifted. Some resources related to the military presence in the state were created to respond to a short-term issue or need, such as housing. Once the need no longer exists or has been met by a more permanent resource, the original structure can face an uncertain future. Resources in Alaska must also survive an extreme climate and seismic activity. Many resources associated with the first wave of post-World War II growth were lost in the 1964 Good Friday Earthquake.

**Time -** The fifty-year period is an arbitrary span of time established to ensure that enough time had passed to be able to evaluate a property in its historic context. Generally, we tend to understand time not one year at a time but in segments or periods. Has sufficient time passed in order to enable evaluation of the period in which the resource is significant? When did the property achieve significance? Architectural significance is usually tied to construction dates but if the resource is historically significant, its date of construction doesn't always correspond neatly with its period of significance. Sometimes the more recently a property has achieved significance, the more challenging it is to demonstrate exceptional importance.

**Comparative Evaluation** - How does a resource compare to other, similar resources of the same style, type, or time period? In understanding comparative evaluation, it is important to remember that for National Register listing, significance can be established at the national, state, or local level. A building may not be considered exceptionally significant at the national level, yet it can be exceptionally significant at the local level. Exceptional significance is defined as the measure of a property's importance within the appropriate historic context. Thus, the level of significance (local, state, national) is directly related to the geographic scale of the property's historic context.

**Association with Living Persons** - Nominating properties associated with a living person is generally discouraged to avoid using the National Register to "endorse the work or reputation" of a living person. In some instances, sufficient scholarship and historic perspective existed to assess the significance of a property.

**Properties in Historic Districts** - Properties younger than 50-years old can be listed in the National Register if they are an integral part of a National Register district. If a property is an integral part of the

district, it does not need to be individually eligible or exceptionally significant to be listed as a contributing resource. For example, if the majority of properties in the district are 50-years old or older, a younger property can be considered an integral part of the district if it falls within the period of significance for the district and is associated with one or more defined areas of significance. If the majority of buildings within the district are younger than 50-years old, exceptional importance must still be demonstrated.

**Justification** - When nominating an underage property to the National Register, a clear, compelling, and documented case for establishing its exceptional importance must be established. The Statement of Significance must contain a straightforward explanation of the property's significance relevant to the specific National Register criteria as well as the justification of the determination that the property is exceptionally significant. Referring to nomination forms for properties that were successfully listed in the National Register can provide examples of how to establish the exceptional significance of a property.

**Pursuing National Register Listing**

Preparing a National Register nomination form can be a time consuming and labor intensive process. Nomination forms can be submitted by anyone. One need not own the building to submit a form, but owners must consent in order for a building to be officially listed in the National Register once it has been determined eligible for listing. Forms are prepared by a variety of people including local preservation organizations, property owners, consultants, local government staff, and SHPO staff. Prior to beginning the National Register nomination process, it is important to contact the local historic preservation commission (if there is one) and the SHPO to discuss the project. Even with the provision for exceptional significance, listing an underage property can be a challenge. As of 2008, of the over 90,000 properties that are listed on the register, only about 2500 were listed under Criteria Consideration G.

## 1.3 Conclusion

Whatever the age of the resource, the preparation of a historic context statement is a key component of an integrated preservation planning process. This document is intended to assist multiple users in the understanding, identification, and evaluation of resources built between the close of World War II and 1968, the beginning of the oil boom following the discovery of oil in Prudhoe Bay.

Alaska experienced a surge of growth in the decades following World War II. The array of resources is as diverse as it is impressive. The subsequent sections of this report will detail some of the key themes that shaped the growth during the period, identify building types, materials and styles, and provide information on architects and builders practicing during the period. While not intended to be a comprehensive history of development in the state during the period, it is intended that this document will contribute to further the study, understanding, documentation, evaluation, and registration of resources in the state.

# 2.0 HISTORIC CONTEXT STATEMENT-OVERVIEW OF THEMES

In the decades following World War II, Alaska, like many states in the Lower 48, experienced significant growth. Many forces shaped the character of that development; those forces have been divided into the following major themes:

- Population
- Military including the Cold War
- 1964 Earthquake
- 1967 Alaska Centennial
- Resource Exploration and Extraction
- Transportation
- Travel and Tourism
- Education

While this list is intended to be comprehensive, it is by no means exhaustive. It is anticipated that it will be augmented by future research and study, specific recommendations for which are included in Section 6.0- Recommendations for Future Research.

## 2.1 Population

Alaska has the longest history of human habitation and settlement of any place in the Americas.[11] The history of the state has been shaped by geography, climate, resource extraction, and military strategy. While the state experienced continual population growth in the decades following World War II, Alaska retained the lowest population density of all the states.

Prior to World War II, the Native and non-Native population were divided almost equally between Alaskan Natives (29,983) and Caucasians (29,295). As a result of the War, thousands of non-Native men and women moved to the sparsely populated territory, and many stayed. In 1940, just over 72,000 people called Alaska home. By 1950, the population nearly doubled to 129,000[12].

The military presence altered the demographics of Alaska in several important ways:[13]

- caused a surge in non-Native population
- altered the settlement patterns of the state resulting in increased urbanization and contributed to the dramatic growth in Anchorage and Fairbanks
- caused non-Native population growth to outpace Native population growth[14]

By 1950, the Alaska Native population had declined to one in four (33,863 of 128,643) and by 1960 Alaskan Natives represented only one-fifth of the total population (43,081 of 226,167). The leading factor

[11] Eric Sandberg, *A History of Alaska Population Settlement*, (Juneau, Alaska: Research and Analysis Section, Alaska Department of Labor and Workforce Development, Division of Administrative Services, 2013), 4, accessed March 02, 2016. http://labor.alaska.gov/research/pop/estimates/pub/pophistory.pdf.
[12] National Park Service, *World War II in Alaska: A Resource Guide for Teachers and Students*, (Anchorage, Alaska: Alaska Support Office, National Historic Landmarks Program, Second Printing with revisions, 2013). Accessed November 24, 2015. http://www.nps.gov/akso/history/PDF/WWII-Resource-Guide.pdf.
[13] Laurel J. Hummel, "The US Military as Geographical Agent: The Case of Cold War Alaska," *Geographical Review* 95, no. 1 (January 2005): 47-72, accessed March 22, 2016, http://www.jstor.org/stable/30034309.
[14] Hummel, "The US Military as Geographical Agent," 53.

driving non-Native population growth from the close of World War II to the 1960s was military construction and operations."[15]

### 2.1.1 Population Growth[16]

| Year | Population Total | Native | White | Other Races | % Military |
|---|---|---|---|---|---|
| 1930 | 59,933 | 29,983 | 29,295 | 655 | 7.7 |
| 1939 | 72,524 | 32,458 | 39,170 | 896 | 22.3 |
| 1950 | 128,643 | 33,863 | 92,808 | 1,972 | 77.4 |
| 1960 | 230,027 | 43,081 | 183,086 | 3,860 | 75.8 |
| 1970 | 307,207 | 51,712 | 250,461 | 5,034 | 32.8 |

Whether drawn by the military, economic opportunities, the allure of the North or other reasons, the new arrivals and existing population faced many challenges from the extreme climate to urban overcrowding. Because of the military presence in Anchorage and Fairbanks, most population growth occurred in those areas. Fueled by the growth of Elmendorf Air Force Base, home of the Alaskan Air Command and the Alaskan (Joint Services) Command, and of Fort Richardson, headquarters of US Army Alaska, between 1950 and 1960 the population of Anchorage grew from 34,662 to 85,767.[17] In Fairbanks (and the North Star Borough), the presence of Ladd Air Field, which later became the Army's Fort Wainwright, and 26 Mile Field, which developed into Eielson Air Force Base[18] meant that the population more than doubled growing from 23,000 to more than 49,000. The military was the largest source of economic investment in the state. Between 1949 and 1953, the federal government spent an average of $250 million per year on defense interests, and in the territory of Alaska the population was increasing at a faster rate than the United States.[19]

The "new" arrivals included Alaska-theater veterans and others seeking to get a "fresh economic start."[20] Unlike their pre-war counterparts, most of the new Alaskans were not seeking the homesteading experience; instead they sought the same amenities and standards of living present in the Lower 48.[21] The reality that greeted them was much different. They faced profound housing shortages, soaring housing costs, competition for skilled jobs, overwhelmed school districts, and a high cost of living. A promotional

[15] Whitehead's 1998 book, Alaska and Hawai'i: The Cold War States. In The Cold War American West, 1945-1989 (cited in Hummel, 2005).
[16] US Bureau of the Census, *1950 United States Census of Population: Alaska General Characteristics*. Report no. P-B51. 51st ed. Vol. 2. Chapter 8. (Washington DC: USGS Printing Office, 1952.), accessed April 15, 2016. http://laborstats.alaska.gov/census/histpdfs/1950char.pdf.
[17] Hummel, "The US Military as Geographical Agent," 53.
[18] Browne 1953; Atwood 1957; ACPC1958; ACOC 1961; Cooley 1954, Rogers and Cooley 1963; US Census Bureau 1995, and Sullivan 1971 and FNSB 2005 (cited in Hummel, 53).
[19] US Bureau of the Census, *US Census of Population: 1960. Vol. I, Characteristics of the Population. Part 3 Alaska*. (Washington DC: USGS Printing Office, 1963).
[20] Hummel, "The US Military as Geographical Agent," 53.
[21] Hilscher and Hilscher 1959; Rogers 1962; Denfeld 2000 (cited in Hummel, 53).

brochure put out by the Anchorage Chamber of Commerce recommended not to relocate to the north without employment secured or at least $500 dollars (not including money for a trip home if things didn't work out).[22] Even better, they suggested to first visit the state before planning relocation. Those that settled in more remote areas often faced a lack of adequate infrastructure, limited resources, and challenging living conditions. The cyclical nature of the military population, the seasonal nature of some work related to the natural resources industry such as increased production of wood pulp products in Southeast Alaska, tourism, and the economic ebb and flow meant that some left when the economic tide that drew them to the state receded while others returned to the state seasonally in search of work creating a large seasonal/transitory population. With an abundance of federal jobs and a booming construction industry to accommodate the infrastructure, housing and services needed to accommodate that growth, Alaska's natural resource based economy, badly damaged during the war, failed to rebound as workers opted instead for federal jobs.[23]

While the influx of residents provided a critical mass and impetus for increased infrastructure, housing and services,[24] it would be some time before those needs could be met. The military fueled population growth which lasted until the 1960s, and [25] was then replaced by the surge in population due to the oil boom in the late 1960s.

In addition to altering the balance between Native and Caucasian populations and intensifying the urbanization of Anchorage, Fairbanks, and other population centers, the economic growth also brought many non-Native and non-white residents to the state. While the influx of population in the decades preceding, during, and following the war was predominately Caucasian (including people from the United Kingdom, Germany, Norway, Sweden, Canada and the USSR),[26] after World War II, other non-white groups, including African-Americans and Asians, relocated to Alaska in search of economic opportunity.

### 2.1.2 Alaska Native Population

More than 560 federally recognized Indian tribes exist in the United States and of those, 226 are located in Alaska.[27] Alaska Natives were the racial majority until 1930 and although Alaska's Native population continued to grow in numbers, the growth rate was far surpassed by that of the non-Native population. The Native population often experienced significant, legal discrimination. However, in the decades following World War II, this pattern of legal discrimination began to change beginning with the passage of the Alaska Civil Rights Act of 1944 followed by the formation of the Alaska Federation of Natives in 1966 and, finally, the Alaska Native Claims Settlement Act (ANCSA) in 1971 with the formation of Native Corporations.

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[22] Julia Gaines Mighty, "Prices Are High, Prejudice Is Low...So Far." *Negro Digest*, (November 1963): 35-44.
[23] William Siedler, *The Coldest Front: Coldwar Military Properties in Alaska Revised and Expanded*, (Anchorage, Alaska: Office of History and Archaeology Alaska Department of Natural Resources, 2012), 8.
[24] Hummel, "The US Military as Geographical Agent," 53.
[25] Daniel Alan Seiver and Susan R. Fison, *Alaskan Population Growth and Movements, 1960-1973*, (Fairbanks, Alaska: Institute of Social, Economic and Government Research, University of Alaska), 1975.
[26] The 1960 Federal Census includes a breakdown of white residents born outside of the state or the US.
[27] John Dossett, "Tribal Self-Government in the United States." *Poverty and Race* 16 (November/December 2008): 8.

Despite being the racial majority up until World War II and moving to urban areas, Alaskan Natives experienced discrimination, segregation, and institutionalized racism. In 1943, a visiting war correspondent noted that the social position of the Native population was equivalent to that of African Americans in Georgia or Mississippi both of which allowed legalized segregation.[28] "It affected all aspects of life including civic institutions, entertainment venues, religious institutions, and educational institutions. These separate spaces included restaurants, theatres, transportation, jobs, neighborhoods, churches, and schools. Churches and schools exhibited a combination of segregation and assimilation policies. Segregation was found in all large cities including Anchorage, Juneau, Fairbanks, Ketchikan, Nome, and Kodiak all of which contained predominantly white populations."[29]

A notable battle in the fight against segregation occurred in 1944, "eleven years before Rosa Parks refused to give up her seat on a bus in Montgomery, Alabama." In Nome, a young woman, Alberta Schenck, was fired from her position at the Dream Theater for expressing her opposition to the theater's Jim Crow policies which prohibited Natives and "half-breeds" from sitting in the whites-only section.


*Figure 1. The Dream Theater on Nome's Front Street back in 1944. The building was severely damaged by a storm in 1946, (source: Carrie McLain Museum, Nome).*

Schenck, whose mother was Inupiat and father white, returned to the theater to see a film. She and her date, a white soldier, sat in the whites-only section. They were told to leave and refused; she was arrested and spent the night in jail. She detailed the incident in a letter to the local paper as well as a letter to Alaska Governor, Ernest Gruening, who had unsuccessfully tried to pass an anti-discrimination bill the previous year. Greuning reintroduced the bill to the Territorial legislature during which her experience was cited on the floor. The Governor vowed that no one would again receive that kind of treatment in

[28] Joseph Driscoll's War Discovers Alaska (1943), cited in Haycox and Mangusso, 1996.
[29] Holly Miowak Stebing. *Rewriting the History of Racial Segregation in Alaska,* Master's thesis, (California: Stanford University, 2009), 20.

Alaska. The re-introduced bill, Alaska's Anti-Discrimination Act passed, both houses of the legislature and was signed into law on February 16, 1945.[30]

Schenck was one of many campaigning for Native rights, and the passage of the Act was the culmination of years of work by activists including Elizabeth and Roy Peratrovich. On the day the bill was being considered, Peratrovich spoke to the members of the territorial senate committee, but the bill had already been brought before the committee and failed to pass. At the meeting, many senators spoke against equal rights and refused to acknowledge that there was a problem calling the bill "unnecessary." Peratrovich spoke as a representative from the Alaska Native Sisterhood. She spoke of the discrimination she had faced and what life was like for her and other Native Alaskans. "At the end of her speech she condemned the men's "superior race" attitude. Her speech was met with thunderous applause. Following much bitter debate, the Senate passed the Alaska Civil Rights Act by a vote of 11 to 5."[31]

While the passage of the Act was a significant milestone, there were still significant battles to be fought. Not only did the Native population face discrimination, they also faced the taking of land without consultation or compensation often on a massive scale. The Native people continued to organize and protest projects like the Rampart Dam Project and Project Chariot. The first Native newspaper, the Tundra Times, was established in 1962 by Howard Rock "to keep Natives informed and connected about common issues." Rock maintained a non-partisan editorial position but endorsed individual candidates based on Native issues. He also wrote about Native culture, and the newspaper carefully followed and reported on ANCSA developments until the final act passed in 1971."[32] The paper played a critical role in reporting news and advocating for Native issues.[33]

In October of 1966, the Alaska Federation of Natives (AFN) was formed. More than 400 Alaskan Natives representing 17 Native organizations gathered for a three-day conference to address Alaskan Native aboriginal land rights. After statehood, the state was poised to select over 100 million acres of land. Because Alaskan Natives had occupied 365 million acres of land for thousands of years, the AFN knew that if they did not organize and strive to retain aboriginal lands, they would be in danger of losing them.[34] From 1996 to 1971, the AFN worked to achieve passage of a "just and fair land settlement." The just and fair settlement was the Alaska Native Claims Settlement Act (ANCSA). Signed into law on December 18, 1971, [35] it established 13 Native regional corporations and 200 Native village corporations throughout the

[30] Summarized from Terrance Cole, *Jim Crow in Alaska: The Passage of the Alaska Equal Rights Act of 1945.*
[31] "Elizabeth Wanamaker Peratrovich (1911-1958)." National Women's History Museum, accessed March 16, 2016. https://www.nwhm.org/education-resources/biography/biographies/elizabeth-wanamaker-peratrovich/.
[32] Elizabeth James. "Howard Rock and the Tundra Times." LitSite Alaska, accessed April 16, 2016, http://www.litsite.org/index.cfm%3Fsection%3DDigital-Archives%26page%3DPeople-of-the-North%26cat%3DNative-Lives-and-Traditions%26viewpost%3D2%26ContentId%3D3102.
[33] Paul Ongtooguk. "Alaska's Cultures Alaska Natives Fight for Civil Rights." Alaska History and Cultural Studies, accessed April 16, 2016, http://www.akhistorycourse.org/articles/article.php?artID=472.
34 "History." Alaska Federation of Natives, 2012, accessed April 16, 2016, http://www.nativefederation.org/about-afn/history/.
35 "History." Alaska Federation of Natives.

state, transferred $962.5 million to these new entities and transferred more than 40 million acres of land, including surface and subsurface rights, to the corporations."[36]

A three-day meeting at the Student Union Building, then Alaska Methodist University, followed the passage of the act. Designed by Edward Durrell Stone, and completed in 1966, the Campus Center was where more than 600 Alaskan Native delegates gathered to discuss the newly passed law and whether to accept the agreement. On December 18, 1971, President Richard M. Nixon was advised that the delegates, by a vote of 511 to 56, had accepted it. The delegates, clustered on the second floor of the Campus Center in the large dining area, heard the President say (by special telephone arrangements) "I want you to be among the first to know that I have just signed the Alaska Native Claims Settlement Act."[37]

Because of the significance of the events that unfolded in the building, the site was listed on the National Register in 1977. As stated in the National Register form, "the Alaska Native Claims Settlement Act of 1971 is without parallel in the history of the United States or the world, either in the record of land distribution or of government-aboriginal relations…the Alaska Native Claims Settlement Act was the largest settlement ever made to quiet aboriginal claims. The approximately one billion dollars and forty million acres conveyed to Alaskan Natives were without equal in records of such settlements, either in the United States or in other countries."[38]

While some continue to debate the merits of this Act, it is widely acknowledged that the Native leadership in negotiating under tough conditions with the federal government was remarkably tenacious and more successful than anyone might have predicted. The transformation of Alaskan Natives from being considered by America as marginalized societies to legally recognized equals occurred because of the sustained effort carried on by many people for over a hundred years. In each generation, Native leaders contributed their talents and were supported by Native people who had a long-term commitment to dismantle a system of inequity that had been set up by others. Several of the regional corporations formed under ANCSA have become so important that they are now major economic engines for the State.

### 2.1.3 Asian Migration

The first Asian immigrants that came to Alaska did so to work in the canning industry in the early 1900s. Salmon fishing and packing were the first industries to use a large number of immigrant workers.[39] The demand for labor often outstripped supply and the belief was that an imported workforce was easier to control because they could not easily leave and return home. In the late nineteenth century, canneries began importing labor from the West Coast of the US, with Chinese workers being the first large

[36] Alaska Forest Association, *Alaska Timber Industry History Southeast Alaska*, Report, (Ketchikan: Alaska Forest Service Association. n.d. 1-9, accessed March 02, 2016, http://www.akforest.org/Alaska Timber Industry History.pdf.
[37] Lydia L. Hays and Michael S. Kennedy, *National Register of Historic Places Inventory - Nomination Form, Campus Center (AHRS Site No. ANC-251) Student Center, AMU,* National Register #79000409, March 21, 1979.
[38] Hays and Kennedy, *Nomination Form, Campus Center,* 1979.
[39] Kathleen R. Arnold, *Contemporary Immigration in America: A State-by-State Encyclopedia*, (Santa Barbara: Greenwood, 2015), 22.

immigrant group to be recruited.[40] With the turn of the twentieth century and changes in immigration law, the Chinese were replaced by Japanese workers. With the forced removal and detention of the Japanese during World War II, Filipinos became the largest group. Following World War II, Filipino's continued to immigrate to Alaska as did South Koreans who came first as war brides in the late 1950s and 1960s and then in the 1970s because of the oil industry.[41]

### 2.1.4 Filipino Migration

After the Chinese and Japanese, Filipinos represent "the most sustained immigrant group in Alaska's history." The first Filipinos arrived in the 1910's to work in the canneries.[42] The seasonal nature of cannery work meant that there was an influx of laborers brought in to assist with the harvest. Unlike some of the other seasonal workers, who would travel back and forth between Seattle and other locations, the Filipinos would often bring their families and establish a permanent presence[43] with communities arising in Ketchikan, Juneau, Anchorage, and the Aleutian Islands.[44] Filipinos also came to the state through military service. The Aleutian Homes neighborhood on Kodiak Island was built for the army base as part of the private, post-quake urban renewal project in 1965. As the fishing industry surpassed the military industry in the community, many Filipinos came to call the island home earning it the moniker, Little Manila.[45] In the larger cities, community organizations like Filipino Community in Juneau (1956) and the Filipino Community of Anchorage (1965) promoted cultural connection, preservation, community outreach, and remain an active presence in the state.

### 2.1.5 African-Americans

It was the defense buildup that brought the first significant numbers of African-Americans to the state during World War II. First, in all-Black units during the World War II construction of the Alaska Highway and then in an increasingly multiracial military force.[46] In 1948, President Harry S. Truman signed an executive order directing that all branches of the armed forces be integrated and, subsequently, many blacks were assigned to military stations in Alaska during the defense buildup of the 1950s.

Many African-Americans stayed on after World War II and during the Cold War buildup deciding that the demand for their labor and skills, "and the comparative relief from racism were reasons enough to stay and build new lives."[47] Most chose to live in the larger, more populous cities. Although the US Civil Rights Act had been passed in 1964, its enforcement was often decidedly lacking and even if legal segregation was no longer allowed, social segregation was. Contemporary news and magazine articles about Alaska from the period note the "relative lack" of discrimination in Alaska. "According to stateside standards, Anchorage is remarkably free from racial discrimination both in the matter of employment and

[40] Arnold, *Contemporary Immigration*, 23.
[41] Hyung-jae Kim, "Korea Times Project, Part 2: Growing Korean American Community in Alaska," The Korea Times, August 11, 2015.
[42] Arnold, *Contemporary Immigration*, 26.
[43] Arnold, *Contemporary Immigration*, 26.
[44] US Bureau of the Census, *US Census of Population: 1960.*
[45] "Post 7 – Culture," Required Blog: Art, Alaska and Flash Fiction for College and Competition, April 15, 2012, accessed April 15, 2016, https://seledoux.wordpress.com/2012/04/15/post-7-culture/.
[46] Hummel, "The US Military as Geographical Agent," 53.
[47] "Alaska: Bonanza for Blacks." *Ebony*, November 1969, Vol. 25, Issue 1, 123-34.

public accommodation…laws governing public accommodation are pretty rigid and, for the most part, strictly enforced."[48]

Despite the comparative lack of discrimination, African-Americans in Alaska still faced discriminatory practices. A branch of the National Association for the Advancement of Colored People (NAACP) was established in Anchorage in 1951. The organization sponsored the FEPC (Fair Employment Practices Committee) bill in 1953 and an anti-discrimination bill in housing in 1961. Both efforts were successful. In 1962, they sponsored their first civil rights demonstration - a successful picketing of Carr's supermarket (the first grocery store in Anchorage at 13th and Gambell) because of discriminatory hiring practices. Those efforts were also successful and, in 1963, Carrs changed their hiring practices.[49] Alaska, once again, was a leader in the civil rights movement. At the national level, the Civil Rights Act of 1964 was passed the following year.

*Figure 2: Carrs Supermarket, Gambell Street, Anchorage, date unknown (source: Carrs/Safeway)*

Because of discriminatory practices, in many places, African-Americans were unable to buy property, a notable exception being the Fairview neighborhood in Anchorage. Initially located outside the city boundary (until 1959) the neighborhood, like many in Anchorage, was developed after World War II. It was initially built in response to military demands, and located adjacent to an airstrip.[50] Despite these challenges, the November 1969 issue of *Ebony* magazine praised the opportunities for African-Americans in Alaska and made note of Fairview as a cultural center.[51] The article, "Alaska: Bonanza for Blacks?" sent a writer and photographer "to survey the scene from Anchorage to the barren wastes of the now famed North Slope tells of the life of black people in an area comprising one seventh of the entire United States."[52] Another article in *Color* Magazine described Anchorage as the "Chicago of the North."[53] In the late 1960s, the city boasted a rich array of black owned businesses, and organizations. There were two African-American newspapers: the Alaska Spotlight (1956-68) and the Midnight Sun Reporter. Another

[48] *Ebony*, 123-34.
[49] George Harper, "Black History in Alaska," Black History in Alaska, accessed June 10, 2016, http://ftpcontent.worldnow.com/ktuu/black_history/BlackHistory.html.
[50] David Reamer and Clare Dennenberg, *An Oral & Written History of Fairview: Past, Present, and Future*, Report, (Anchorage: UAA Center for Community Engagement and Learning, 2014).
[51] *Ebony*, 123-34.
[52] *Ebony*, 123-34. The article establishes the African-American population as 12,000 people but the 1960 census, lists 2,178 African-American residents.
[53] George C. Anderson, "Alaska Frontier Attracts Negro Pioneers: Alaska Is My Home," *Color*, (April 1953), 23-29.

article lists four nightclubs, three real estate dealers, three barber shops, one tailor, one hotel (the Polar Hotel), and two churches: the Greater Friendship Baptist Church and the Shiloh Baptist Church, which at the time the article was written, was perhaps the "oldest" black church in Alaska.[54] Established in 1951 by 32 members, the Greater Friendship Baptist Church was the first African American congregation to be accepted into the Southern Baptist Convention since perhaps the 1860s. Greater Friendship Baptist Church was founded in 1951, thus becoming the first Black church in the state of Alaska. In addition, Greater Friendship Baptist Church was the first Black church in America to affiliate with the Southern Baptist Convention. The existing building at 903 East 13th Avenue, Anchorage was constructed in 1955.[55]

*Figure 3: Greater Friendship Baptist Church, Anchorage (source: Baptist Press)*

Although many of the organizations like the NAACP, churches, and other groups remain, but with a decrease in legal and selective segregation, changes in the economy, and the ever-present challenges of running a small business had caused many of these establishments to perish.

### 2.1.6 Conclusion

World War II and the decades following brought dramatic changes to the population of the state. Growth of the non-Native population continued to outpace the growth of the Native population. While settlement was dispersed throughout the state, Anchorage and Fairbanks remained the population centers of the state and those that relocated there often found challenging situations, a shortage of jobs, housing, and other expected urban amenities.

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[54] The articles in *Colors*, *Ebony*, and *Negro Digest* list many of the business and provide profiles of some of the owners.

[55] "Greater Friendship Baptist Church," Greater Friendship Baptist Church, accessed June 8, 2016, http://www.greaterfriendshipbaptist.org/index.php?option=com_content.

While the majority of the new comers were Caucasians from the Lower 48, Canada, the United Kingdom, Europe, or Russia, African Americans and Asians also came to Alaska in search of jobs and, in some instances, a relative relief from the discrimination they faced in other places.

While the information about demographic changes to the state is relatively accessible, information about settlement patterns is less so, for example, news articles from the period cite the abundance of black owned businesses and predominantly African-American residential districts, but little documentation of which of those resources remain is yet to be discovered. The Filipino migration, like the African American migration, led to a significant population segment in the state, but more research needs to be done to identify associated cultural resources. Similarly, while the history of the Native Rights movement is fairly well documented, identification of sites associated with that history and which of those sites remain in existence is in need of further study and documentation.

## 2.2 Military

The military buildup in Alaska after 1946 was the largest economic activity in the territory until the oil boom of the late 1960s.[56] In the early 1950s, the federal government spent an average of $350 million per year on defense interests across the globe. This had an enormous impact on a national, state, and local scale. Alaska's importance to the US defense network since World War II has earned the title of "Guardian of the North," "Gibraltar of the North," "Top Cover for America," "Keystone of the North," and "Northern Defender." The military invested in installations, operational readiness, nuclear testing, and applied research in innovative technology in Alaska.[57] The high profile and long-term presence of the US military had such a dramatic effect on the course of Alaska that the result was tantamount to a "militarized landscape."[58]

Military defense was not only a driving force behind a growing population and a thriving economy, but it also played an important role in improving Alaska's infrastructure during the post-WWII era – that is, until focus shifted to oil development in the late 1960s. Transportation routes and highways across much of Alaska are reminiscent of a military buildup during WWII and the post-war era. Radar and navigation aids greatly improved the infrastructure for civilian air transportation.[59] Housing shortages on and off post became a priority as well with over $27 million of military funding spent on various types of living quarters and residential housing between 1949 and 1959.[60]

### 2.2.1 Cold War

Alaska served as America's Cold War sentinel and important air defense shield against the threat of Soviet attack over the North Pole from the late 1940s through 1989. "A threat of global proportion, the Cold War consumed $12 trillion from the US Treasury and spanned nearly the lifetime of a generation of Americans. In the course of the Cold War, America amassed a vast standing army, a global intelligence

[56] Siedler, *The Coldest Front,* 8.
[57] Siedler, *The Coldest Front,* 6.
[58] Hummel, "The US Military as Geographical Agent," 47-72.
[59] Siedler, *The Coldest Front*, 7.
[60] Waddell, *Cold War Historical Context 1951-1991 Fort Richardson, Alaska United States Army Alaska*, Accessed, November 26, 2015, http://dnr.alaska.gov/parks/oha/publications/ftrichcoldwar.pdf, 24.

network, and a military-industrial economic complex."[61] The Truman Doctrine for containment created a national defense system including Alaska, "the Guardian of the North." The latter part of the 1950s witnessed the first successful Soviet testing of a Submarine Launched Ballistic Missile (SLBM) and the launch of the Sputnik satellite as the world faced the threat of nuclear weapons.[62] In response to this perceived vulnerability and as part of a theme of expanding national air defense, five radar systems were constructed in Alaska during the Cold War: the Aircraft Control and Warning System (AC&W; 1951-1968), the Distant Early Warning (DEW) Line (1953–1969), the Ballistic Missile Early Warning System (BMEWS; 1961-present), the Cobra Dane Radar Facility (1978-present), and the Relocatable Over the Horizon Radar System (1987–1993). The Cold War defense and research systems ensured four decades of prosperity for Alaska. Alaska's permanent radar network cost hundreds of millions of dollars to build, operate, and supply.[63]

### 2.2.2 Detect and Monitor

Numerous structures were built during the Cold War for the purpose of detecting attack and monitoring communications. As technology rapidly advanced, the systems were phased out and replaced. Few are still in use, but the Ballistic Missile Early Warning system at Clear Station remains operational. Distant Early Warning Line facilities, which were coastal and stretched out the Aleutian Island chain, have been mostly dismantled, and attempts to locate them have been unsuccessful.

*Aircraft Control and Warning Radar System (1951-1968)*

In 1949, the US Congress approved funding for the construction of a new radar system in Alaska. The planned system proposed 12 radar stations located in both perimeter and interior sites across Alaska. The outbreak of the Korean War in 1950 accelerated the funding and construction efforts, and the system was expanded to include six more sites. The first ten sites were completed and brought on-line between 1951 and 1954. Two intercepts were constructed in 1954 to cover gaps in radar projection in the interior, and six additional surveillance sites were completed by 1958.[64] The sites followed a standardized plan based on location (interior, perimeter, control center) and the Air Force used prefabricated designs for individual buildings to minimize construction time.[65] Communication between AC&W sites was initially through high-frequency radio which proved to be unreliable. In 1954, the Alaska Communications Study Group requested that Bell Electric Systems create a new communications network to link the AC&W sites. The newly devised technology would be named the White Alice Communications System (WACS)[66].

*Distant Early Warning Line (1950-1957)*

[61] Siedler, *The Coldest Front*, 5.
[62] Waddell, *Cold War Historical Context 1951-1991 Fort Richardson, Alaska United States Army Alaska*, Accessed, November 26, 2015, http://dnr.alaska.gov/parks/oha/publications/ftrichcoldwar.pdf, 23.
[63] Siedler, *The Coldest Front*, 8.
[64] Argonne National Laboratory, *Defending Attack from the North: Alaska' Aircraft Control and Warning Radar System During the Cold War*. Prepared by Argonne National Laboratories in cooperation with the Alaska Office of History and Archaeology, Anchorage, Alaska. Prepared for the Environmental Planning (Cultural Resources) unit, 611th Civil Engineer Squadron, Pacific Air Forces, US Air Force. Anchorage, Alaska, 2001, 4.
[65] Argonne National Laboratory, *Defending Attack from the North: Alaska' Aircraft Control and Warning Radar System During the Cold War*, 2001, 6.
[66] Argonne National Laboratory, 10.

In 1950, the US Air Force (USAF) established a series of Bering Sea coastal surveillance stations which were then linked into a larger system that circumnavigated the Arctic coast referred to as the Distant Early Warning (DEW) Line.[67] The line grew out of the same concerns that prompted the creation of the AC&W system and intensified by the Korean War.[68] The DEW Line stretched through the Aleutian Island chain and connected Air Force bases and other military installations via a communication network called White Alice. Designed to detect incoming attacks via radar warning and communications systems, the Alaska DEW Line was completed in 1957. This system eventually became obsolete as technology advanced faster than military planning and construction.[69]

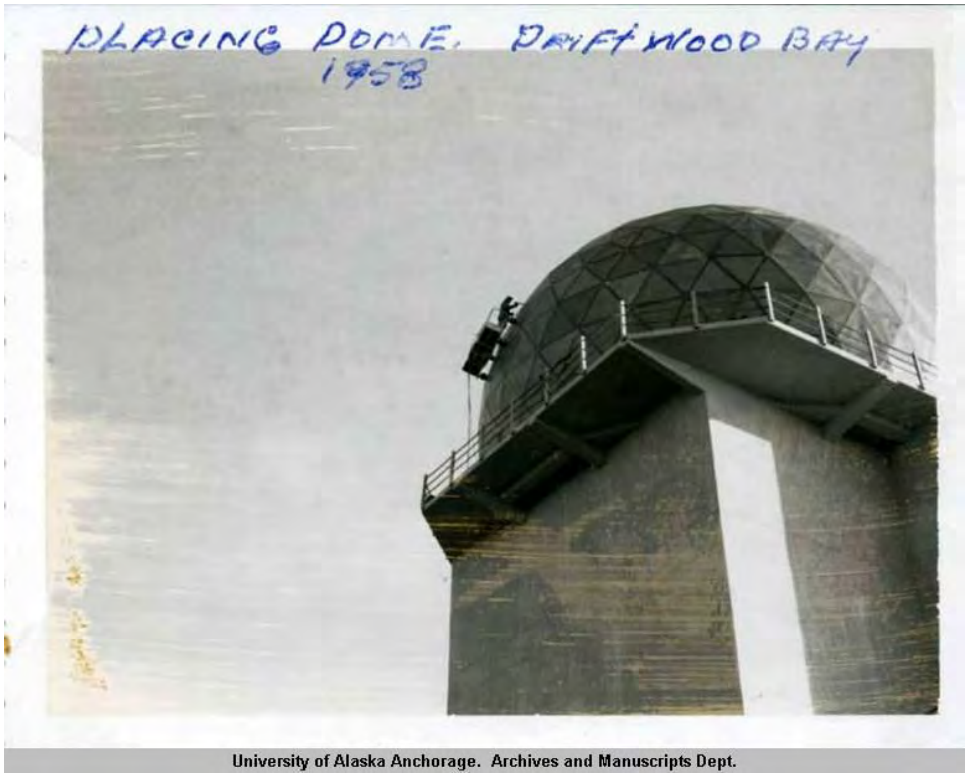


*Figure 4. Driftwood Bay DEW Line extension construction, Unalaska Island, 1958; no longer extant (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Howard and Mabel Jonish papers, 1910-1989, UAA-HMC-0428).*

*Ballistic Missile Early Warning System (1961-present)*

The purpose of the Ballistic Missile Early Warning System (BMEWS) was radically different from that of the DEW Line. BMEWS addressed a new strategic reality in which US defense forces simply could not intercept an intercontinental ballistic missile (ICBM).[70] The early warning nets were intended to provide

[67] Natalie K.Perrin, Heather Lee Miller, and Amanda Bennett, National Register of Historic Places Multiple Property Listing for the Alaska Federal Scout Readiness Centers (FSRCs) 1959-1974. Written by NHG Alaska, LLC., for the Alaska Department of Military and Veterans Affairs, Facilities Management Division, Anchorage, Alaska, 2013.
[68] Siedler, *The Coldest Front*, 13.
[69] Perrin et al., National Register of Historic Places Multiple Property Listing for the Alaska Federal Scout Readiness Centers (FSRCs) 1959-1974, 2013.
[70] Siedler, *The Coldest Front*, 19.

sufficiently early warning that US and Canadian forces could defend against and retaliate to Soviet bomber attacks. The system consisted of three sites across the northern reaches of the globe: Clear Station (BMEWS Site II) located 75 miles south of Fairbanks, and one each at Thule, Greenland (BMEWS Site I) and, Flyingdales Moor, England (BMEWS Site III). Clear Station was completed in 1961 and complemented with microwave and cable communications equipment. At a cost of $360 million, BMEWS could give at least 15 minutes' warning to Strategic Air Command bombers located in the US heartland.[71]

The complex at Clear had three main areas: Tech Site, Composite Site, and Camp Site. A large radome that housed the 25-meter parabolic tracking radar and three 400- x 165-foot static radar assemblies dominated the site. Each billboard reflector stood on 40 concrete piers. Each pier was 20 feet tall and contained 45 cubic yards of concrete and steel. Each pier rested on a foundation of 5,400 cubic yards of concrete and reinforced steel bars. The antennas were built to withstand earthquakes and winds of 180 miles per hour.[72] The Clear BMEWS facility has undergone technological modifications since operations began in 1961. Upgrades included replacing the older rotating radar with new phased array technology.[73] The site is still in use, and the Department of Defense has proposed to improve the systems.

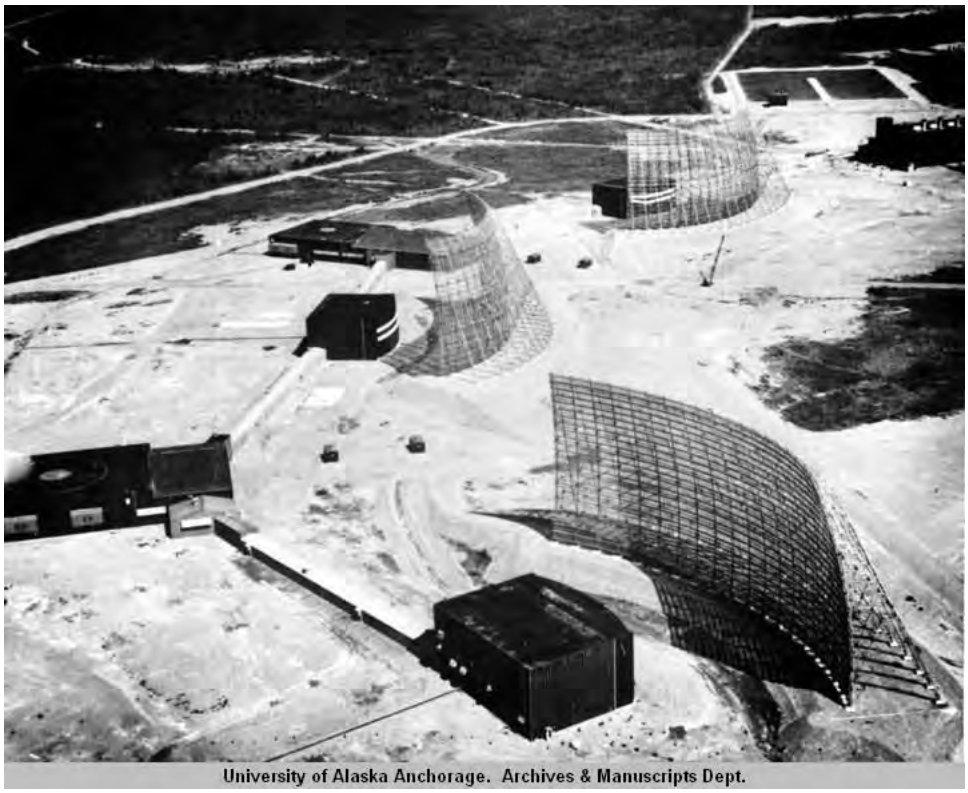


*Figure 5. Clear Station BMEWS, 1963; station has been modified yet it is still in use (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Christine M. McClain papers, 1907-1992, UAA-HMC-0370).*

[71] Siedler, *The Coldest Front*, 18.
[72] Siedler, *The Coldest Front*, 19.
[73] Siedler, *The Coldest Front*, 20.

### 2.2.3 Communicate

As with the previously mentioned facilities used to detect and monitor during the Cold War, communications systems readily advanced with technological leaps that surpassed the ability to construct the facilities. Almost as soon as a communications line was built, it was already outdated and soon replaced. In many instances, the military dismantled them like the White Alice System at Amchitka, Cold Bay, Hoonah, Big Mountain, Boswell Bay, North River, Pillar Mountain on Kodiak, Adak, and Sparrevohn. However, some of the structures remain: the White Alice site at Nome, Annette Island, Elmendorf, Bethel, Granite Mountain, and Tok can still be seen today.

*White Alice Communications System (1954/55)*

By 1954, tropospheric scatter communication systems (tropos for short) had been developed for use in Alaska. This new technology involved beaming radio signals off the troposphere back down to a receiving antenna. Tropos used an ultra-high- frequency (UHF) radio signal that can travel up to 200 miles by bouncing part of the signal off the troposphere. Previously available technology required line-of-sight and was suitable for Alaska's terrain and vast distances. Thirty-one WACS stations were constructed and nearly half of them were collocated with AC&W installations.[74] Some sites were converted from DEW Line technology to White Alice tropospheric stations.[75] Three sizes of Antennae were used at WACS sites and include 30-foot circular dishes and 60 and 120 foot billboard antennas. In 1960, Project Bluegrass extended the network out to Adak and Shemya. The total network was completed in 1968 when the US sold the WACS facilities to Radio Corporation of America Alaska Communications which operated them until the late 1970s. In the 1980s, several White Alice sites were demolished.[76] Tropo antennas can still be seen in Nome and on Annette Island.

[74] Argonne National Laboratory, 11.
[75] D. Colt Denfield, The White Alice Communications System, US Army Corps of Engineers, Alaska District, Anchorage, 2001
[76] Argonne National Laboratory, 11.

*Figure 6. White Alice Communications Site at Wasilla, 1955, with microwave tower and tropo antenna; no longer extant (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Leland A. Olson papers, 1955-1961, UAA-HMC-1064).*

### 2.2.4 Intercept and Respond

The Cold War marked the advent of the modern jet and rocket ages. Like radar, jets and rockets came from technology existing prior to and after WWII but whose true significance and potential were realized during the Cold War.[77] In the early years, US strategic doctrine focused on defense and deterrence as a means of preventing open confrontation with the Soviet Union. In Alaska, the emphasis was on air defense responsibility with major developments in support of the Air Corps mission and programs.[78]

Military presence in Alaska was well established by the end of the 1940s, and it was not going anywhere. Alaska's close proximity to the Soviet Union and cold weather training capabilities paved the path for continued military buildup. In 1946, the military commenced construction and expansion of major defense facilities at Fort Richardson, Elmendorf Air Force Base (AFB), Eielson AFB, Fort Greely, Kodiak Naval Air Station, and Adak Naval Air Station. The US Air Force (USAF) was founded

[77] Siedler, *The Coldest Front*, 31.
[78] Karen Waddell, *Cold War Historical Context 1951-1991 Fort Richardson, Alaska United States Army Alaska,* (Anchorage: Natural Resources Branch, US Army Alaska, Fort Richardson, 2003,), 21, accessed November 26, 2015, http://dnr.alaska.gov/parks/oha/publications/ftrichcoldwar.pdf.

September 18, 1947 in partial response to the increasing need for air defense. From the late 1940s to the 1950s, propeller driven air craft were replaced with interceptor jets, and the USAF built an extensive aircraft control and warning radar system with sites located throughout the Alaskan interior and along coastal regions. WACS and the NORAD Regional Operations Control Center (ROCC) at Elmendorf served as the nerve center for all air defense operations in Alaska during this time.[79] Air defense forces reached their zenith in l957 with almost 200 fighter aircraft assigned to six fighter interceptor squadrons located at Elmendorf AFB and Ladd AFB. Eighteen aircraft control and warning radar sites controlled their operations. Elmendorf earned the motto "Top Cover for North America."[80] "The late 1960s and early l970s brought about a gradual decline in air defense forces in Alaska due to mission changes and the demands of the Vietnam War resulting in the inactivation of five fighter squadrons and the closure of five of its warning radar sites."[81] Although Alaska witnessed a gradual decline of air defense forces during this time, Air Force bases continued to play an important role in shaping Alaska's future as a state.[82]

*Elmendorf Air Force Base (1940 – Present)*

Elmendorf AFB in Anchorage has served over the years as headquarters of the Alaskan Defense Command, Alaskan Command, Alaskan Air Command, and 11th Air Force. It has been the Alaska Air Command (AAC) headquarters since 1946 and the Alaska Command (ALCOM) headquarters since 1947. It was an important air-intercept base, NORAD Regional Combat Center, and administrative center for all military activities in Alaska throughout the Cold War.[83] Due to increasing emphasis on air defense by the military command, the post in Anchorage was expanded in 1948 when the existing Elmendorf Air Field at US Army Fort Richardson, used by the AAC, was transferred into the ownership of the newly formed USAF. The AAC was a unified command under the Joint Chiefs of Staff based on lessons learned during WW II when a lack of unity of command hampered operations to drive the Japanese from the western Aleutian Islands of Attu and Kiska.[84] In 2010, the base was merged with Fort Richardson to form the Joint Base Elmendorf-Richardson.

Buildings still standing from Elmendorf's early construction period include several operations-type hangars, a birchwood hangar, and the Alaska Chateau that served as guest quarters built in 1942 that housed such luminaries as General of the Army Douglas MacArthur, Bob Hope, and then-Senator John F. Kennedy. The Elmendorf Air Force Base Flightline Historic District was determined to be eligible for listing on the National Register in 1999. Begun in 1942 with construction continuing through 1948, the district consists of thirteen contributing buildings arranged in an "L" shaped plan. The buildings include four hangars, runway aprons, and associated aircraft maintenance structures that were determined to be eligible under Criteria A for their association with the nation-wide Cold War build-up of aviation defense facilities after WWII.

[79] US Air Force, Joint Base Elmendorf Richardson, "Fact Sheet: Elmendorf Air Force Base History," *a*ccessed February 5, 2016, http://www.jber.af.mil/library/factsheets/factsheet_print.asp?fsID=5280&page=1.
[80] USAF, JBER, "Fact Sheet."
[81] USAF, JBER, "Fact Sheet."
[82] Siedler, *The Coldest Front*, 8.
[83] Siedler, *The Coldest Front*, 35.
[84] USAF, JBER, "Fact Sheet."

*Figure 7. Housing constructed in 1954 on Elmendorf Air Force Base, extant (source: Stokes 2006).*

*Ladd Air Force Base (1939-1960)*

Ladd AFB, now Fort Jonathan Wainwright, was established as a cold weather testing station in 1939 and was the first AAC base in Alaska. Authorized by the Wilcox Act of 1935, land near Fairbanks for the base was withdrawn in March 1937 by President Franklin Roosevelt under Executive Order 7596. Construction began in August 1939—weeks before Nazi troops invaded Poland and sparked World War II. Ladd evolved into the hub of military activity north of the Alaska Range and served as the official handoff point for US Lend-Lease planes headed to the Soviet Union during World War II. For the first years of the Cold War, Ladd held the northern air defense line against the USSR while fulfilling concurrent missions of cold weather testing and long-range reconnaissance.[85] Consequently, Ladd was the hub of military activity north of the Alaska Range serving AAC, SAC, and USARAL. By 1945, the runway had been lengthened to 9,000 feet, and a tank farm had been constructed. Early operations at Ladd AFB, as it became known following the Air Force's creation in 1947, focused on reconnaissance, polar navigation and exploration, cold weather testing, and the primary combat mission air defense. Its official titles were Northern Sector Headquarters and 11th Air Division Headquarters.

Runways, hangars, ground-control facilities, and housing were deemed essential to the Cold War mission.[86] Ladd survived primarily because of these developed facilities, cold weather testing station, its function as the terminus of the CANOL pipeline, and its location at Fairbanks. The Air Force's Arctic Indoctrination School, or "Cool School," was transferred from Marks AFB at Nome to Ladd in 1950, where it stayed until October 1960. In 1958, air defense control passed to Elmendorf when the Alaskan NORAD Region Command and Control Center became active[87]. Ladd's 9,200-foot runway was soon found to be insufficient to the Air Force's needs and could not be lengthened due to geography. The base was also too close to Fairbanks for easy expansion. The budgetary restrictions of the late 1950s sealed

[85] Siedler, *The Coldest Front*, 40.
[86] Siedler, *The Coldest Front*, 41.
[87] Siedler, *The Coldest Front*, 44.

Ladd's fate. It was condemned in September 1959, and its closure kept secret until mid-1960. On January 1, 1961, Ladd AFB was renamed Fort Jonathan Wainwright and turned over to the US Army.[88]

The Ladd Air Force Base Cold War Historic District, located on present-day Fort Wainwright, was determined eligible for the National Register in 2001. The district contains 68 contributing buildings including the airfield itself and several large hangars that are nationally significant under Criteria A for their association with Cold War era events associated with U.S. Air Force remote sites (DEW Line, AC&W, Forward Operating Bases, WACs), air defense, and arctic research.

*Eielson Air Force Base (1944-Present)*

From its inception, Eielson AFB had a major polar geophysical mapping, intelligence, and reconnaissance role. The new airfield was constructed in 1943 to alleviate increasing air traffic at Ladd Field. It was commonly known as Mile 26 Strip due to the distance between Fairbanks and the main gate of the field.[89] It was constructed southeast of present-day North Pole and necessitated road improvements along the Richardson Highway, and the Alaska Railroad built a spur line out to the new field for supply-use. Along the rail line, the tracks passed homestead claims in the area of North Pole. In 1948, the air field was formally designated Eielson Air Force Base.[90] The runway was lengthened to its current span of 14,507 feet—the longest runway in North America at the time. During the Cold War, Eielson AFB served as a base of operations for intelligence-gathering and electronic eavesdropping activities. Eielson, along with its neighbor Ladd, fielded numerous expeditions to collect air samples from Soviet airspace. An Eielson flight returning to Alaska from Japan had the dubious honor of detecting the first Soviet nuclear blast on September 1, 1949. Eielson took part in the Ferret flights over Russia from the 1950s into the 1970s and Rivet, Cobra Ball and U-2 flights beginning in the 1960s.[91]

Eielson's other prominent mission was as a launch platform and arctic training station for the Strategic Air Command's (SAC) nuclear bomber fleet. By the late 1950s, the Air Force had transferred many of Ladd's functions to Eielson. Cold weather testing was named a joint duty for Ladd and Eielson in 1955 with all operations to be moved to Eielson as soon as expeditious. After the transfer of Ladd to the Army, Eielson assumed command of cold weather testing of aircraft and equipment. The Air Force Arctic Survival School, Cool School, moved to Eielson from Ladd in October 1960. Eielson's role in facilitating training would increase in importance as the Cold War progressed and even after its passing. Though Eielson was the sole remaining full-size USAFB base north of the Alaska Range, its time on the frontlines of the nuclear bomber "war" was drawing to a close. The last B-47s were reassigned by 1963. Refueling tankers replaced the bombers.[92] By the end of the Cold War, Eielson's missions included reconnaissance and cold weather testing, tactical air support and training, aerial refueling, and fighter interceptor duties. Today, the base remains open and active.

[88] Siedler, *The Coldest Front*, 45.
[89] 354th Fighter Wing History Office (FWHO), "History of the 354th Fighter Wing and Eielson Air Force Base," 2010, accessed April 7, 2011, http://www.eielson.af.mil/shared/media/document/AFD-090923-132.pdf
[90] 354th FWHO, "History." 2010
[91] Siedler, *The Coldest Front*, 46.
[92] Siedler, *The Coldest Front*, 47.

The Eielson Air Force Base Flightline Historic District is located southeast of Moose Creek and contains buildings that provided an invaluable window on the enemy's progress and, most importantly, helped guard the delicate geographical interface between two competing ideologies. There are twenty buildings and one runway that contribute to the nationally significant historic district that make a tangible connection to the Cold War era.

*Figure 8. Eielson Air Force Base, Building 1120, Aircraft Maintenance Dock (Nose Dock), as seen in 2004; contributing building within the Eielson Air Force Base Flightline Historic District (source: McCrosky 2004).*

*Shemya Air Force Base/Eareckson Air Force Station (1943-1995)*

Shemya Air Force Base, now Eareckson Air Station, was founded in 1943. Located just east of Attu at the far end of the Aleutian chain, it was a minor intercept base, a stopover for international flights, and an important link in the Cold War intelligence net.[93] Shemya was constructed in response to the Japanese landfall on Attu Island. Shemya served as a fighter base and a refueling point for planes flying the Great Circle route to Asia.

All Aleutian bases closed after World War II except for Adak Naval Station and Shemya Air Force Station. For the first few years of the Cold War, Shemya made do with World War II-era facilities. AAC ordered some rehabilitation in 1952. Shemya's position on the Great Circle route ultimately saved it when AAC planned on abandoning it in favor of Thornbrough AFB at Cold Bay. The Air Force briefly left in 1954. In a concession to Congress' concerns, they leased the airfield to Northwest Orient Airlines (NOA). NOA remained until 1961, three years after the Air Force revived Shemya Air Force Station, as an intelligence and interceptor base. Shemya was considered important enough to receive a White Alice station through Project Bluegrass assuring reliable communications with AAC. The first of Shemya's post-1958 missions was weather reconnaissance, but Shemya was soon pressed into service as a refueling point for the B-52s and KC-135s of Operation Chrome Dome. Chrome Dome was a 1960 SAC initiative wherein B-52s flew just outside Soviet airspace equipped with nuclear weapons. Tankers, fueled at Shemya, would meet the SAC bombers and refuel them in the air.[94]

[93] Siedler, *The Coldest Front*, 51.
[94] Siedler, *The Coldest Front*, 52.

Shemya has numerous historic properties, virtually covering the island. Four birchwood hangars were built in World War II. During the Cold War, their roofs were raised to house larger aircraft. Two hangars survived as of 1998. Permanent barracks replaced the World War II Quonset huts. There is an abandoned runway in addition to the active airstrip, warehouses, petroleum storage tanks, a pre-Cobra Dane BMEWS-associated radar building, an Army Security Agency radome, and the White Alice billboard reflectors.

*Forward Operating Bases (1948-1989)*

"Forward Operating Bases (FOBs) extended the reach of the US Air Defense Command's ability to intercept airborne intruders. Acting as satellites to the main bases at Ladd (later replaced by Eielson) and Elmendorf, the FOBs provided on-the-spot fighter aircraft, whose mission was the protection and patrol of American airspace near the Soviet Union. Alaska's two largest FOBs, Galena and King Salmon, served as key interceptor bases during the 1950s and 1960s at the height of the Cold War and the Soviet bomber threat. The Alaskan FOBs intercepted more Soviet aircraft than any other base. Like the DEW Line and the Nike sites, the FOBs' importance decreased markedly as the development of ICBMs rendered massive bomber attack obsolete."[95]

*Nike Hercules Sites (1959-1979)*

The US Army's Nike Hercules program was one means of defense which the country deployed in large numbers and at great expense. This ground-based anti-aircraft missile system protected vital US cities, industrial centers, and military bases from aerial attack. Multiple Nike sites were built in rings around areas in need of defense and would have deployed missiles armed with high-yield explosives or nuclear weapons to destroy attacking aircraft formations. The Alaskan Nike Hercules story is exceptional in terms of time, design and, service. Here sites operated longer, under isolated conditions, and at a heightened state of alert. Alaska's Nike batteries practiced live missile firings making this one of just two states in the country where active sites had such an opportunity. Also, several design alterations were used to adapt the standard Nike site to the Alaskan climate.

Named after the Greek goddess of victory, the 20-foot long guided missiles traveled faster than sound and their warheads were designed to explode only in flight.[96] A series of radars and computers identified and tracked targets and guided the missiles to the point of detonation. Batteries were composed of two areas including a launch site where missiles were actually fired, and the Integrated Fire Control area, where radars and control operations were located. The Department of the Army announced in 1958 that Nike Hercules installations would be placed in Alaska. Alaska's Nike sites were designed to protect the Air Force bases, and there were several reasons for having multiple batteries guarding a single location.[97] Nine Nike batteries at eight sites formed the air defense artillery arm of ALCOM.[98] The first Nike installation was Site Bay near Anchorage activated March 20, 1959. Sites Point and Summit, near Anchorage, and Sites Tare, Peter, Mike, and Jig, near Fairbanks, achieved initial operational status in

[95] Siedler, *The Coldest Front,* 49.
[96] Waddell, *Cold War Historical Context,* 27.
[97] Kristy Hollinger, *Nike Hercules Operations in Alaska 1959-1979,* (Anchorage: Conservation Branch Directorate of Public Works, US Army Garrison Alaska, 2004), 10.
[98] Siedler, *The Coldest Front,* 33.

May. Fairbanks' Site Love began operations in 1960. At peak deployment there were 145 Nike Hercules batteries in the US. Only thirty-five sites were designed specifically for the Hercules system; all others were modified from previous use of the Ajax batteries[99].

A study of the Nike battery locations shows them to be triangulated around Elmendorf AFB and Eielson AFB. The system would have offered some default protection of Anchorage and Fairbanks, but urban protection in Alaska was likely an ancillary, indirect function.[100] While Nike sites in the Lower 48 were largely decommissioned by 1974, the three Anchorage Nike batteries continued operating until 1979.[101] The only Nike battery that remains with sufficient integrity to be listed on the National Register is Site Summit in Anchorage.

*Figure 9. Nike Site Summit, Arctic Valley, 1962; note clam shell over radiodome (source US Army in Hollinger 2004).*

### 2.2.5 Guard and Defend

The onset of the Cold War led to the restructuring of various branches of the US military including the National Guard. In 1947, the Department of Defense (DOD) was formed combining the former War and Navy Departments and incorporating the newly created Air Force. The Alaska Territorial Guard (ATG) was established in the early 1940s.[102] The ATG Eskimo Scouts, which eventually transformed into the Alaska National Guard, were also formed shortly thereafter. In ca. 1948, the ATG was at peak strength enrolling more than 3,000 Alaskans ready and able to defend its homeland.[103] The small groups were

[99] Hollinger, *Nike Hercules*, 9.
[100] Hollinger, *Nike Hercules*, 10.
[101] Hollinger, *Nike Hercules*, 1.
[102] Natalie K. Perrin, Heather Lee Miller, and Amanda Bennett, *National Register of Historic Places Multiple Property Listing for the Alaska Federal Scout Readiness Centers (FSRCs) 1959-1974*, (Anchorage: Alaska Department of Military and Veterans Affairs, Facilities Management Division, 2013), 5.
[103] Muktuk Marston, *Men of the Tundra: Eskimos at War*, (New York: October House, Inc, 1969), 176.

considered a first line of defense against the Soviets on the tundra during the Cold War and provided unique artic survival and military skills. In 1949, Scout Battalions were formed in Alaska under the auspices of the Alaska Army National Guard.[104] In the 1960s, the Eskimo Scouts began participating in joint training exercises with the US Army and were given modern equipment. The tremendous skills the scouts possessed were shared with and harnessed by the larger US Army.[105]

In recognition of the importance of the service of both the Territorial Guard in Alaska and the National Guard units from Alaska, the War Department permanently established the Alaska National Guard (AKARNG) in 1949. The Army was relegated to land warfare, occupation duty, and ground-based air defense. Since the Army's primary foe was the Soviet Union, Alaska assumed new importance as a center for northern warfare training. The Army has conducted Alaskan training exercises approximately every other year since 1947.[106] Exercises during the Cold War were conducted using multiple combinations of forces including Alaskan troops, other US units, Canadians, and Norwegians.

The AKARNG was officially headquartered at Fort Richardson in Anchorage with units in the major population centers as well as in villages along the coastal regions. The Air National Guard was formed in 1952 and is headquartered at Elmendorf AFB in Anchorage, and the Naval Militia was formed during the 1960s.[107] In 1960, a campaign began to build Federal Scout Readiness Centers (FSRCs) in 48 villages and towns across Alaska. Additional armories and units were built in the early 1960s and early 1970s. In some cases AKARNG FSRCs were located in villages that had previously been home to ATG units though not all former ATG locations received FSRCs.[108] No other National Guard in America was organized like it was in Alaska: a combination of regular guardsmen populated urban centers like Juneau and Fairbanks, and a small vigilant force of scout units scattered from Bristol Bay to Barrow.[109] The FSRC buildings are still present and in use in many rural villages, and a multiple property documentation for National Register listing has been completed on behalf of the Alaska Department of Military and Veterans Affairs that includes a historic context for the development and use of the buildings.[110]

*Fort Greely*

A base was operated by the Army Air Corps at Big Delta, beginning in 1941 as Station 17 of the Air Transport Command's Alaskan Wing that was used as a refueling point for American pilots delivering aircraft to Ladd Army Airfield for the Lend-Lease Program. Troops at Big Delta Post from 1949 until 1953 made do with temporary World War II airfield buildings. Fort Greely proper was constructed between 1953 and 1954. The construction program included post headquarters, engineer facilities, an auditorium, fire station, warehouses, power plant, shops, barracks, a library, a dispensary, and the CWMS

[104] Perrin et al., *FSRCs,* 7.
[105] Adam D. Russell, Richard Stern, and Jason Rogers, *Alaska National Guard Environmental Gap Analysis of Armory Significance,* Technical Paper No. 486, (Anchorage: State of Alaska Department of Military and Veterans Affairs, 2011), 11.
[106] Siedler, *The Coldest Front*, 59.
[107] Sgt. Marc McNab, *Alaska Army National Guard and Other Stories*. Ed. by Lt. James Richardson, historian, (Anchorage: 134th Public Information Detachment, Alaska Army National Guard, 1984).
[108] Perrin et al., *FSRCs,* 1.
[109] Perrin et al., *FSRCs,* 7.
[110] Perrin et al., *FSRCs,* 2013.

facilities. An expansion in 1955 gave Fort Greely a PX and theater, a gymnasium, and a service club. More facilities arrived in the late 1950s and early 1960s.[111]

In 1955, it assumed its final name, Fort Greely, in honor of Major General Adolphus Washington Greely, arctic explorer and founder of the Alaska Communications System.[112] Its mission remained essentially constant throughout the Cold War: to guard the military airfield, support the cold weather testing and training operations, support troops assigned to the post for other missions, and guard communications centers. Its vast maneuver areas were used in numerous exercises, an experimental nuclear reactor powered the base for ten years, and its cadre researched better methods of cold weather warfare and trained soldiers.[113] It was chosen because it combined the extreme winter conditions of the Alaska interior with a great variety of terrain including rivers, lakes, swamps and open plains. Throughout the Cold War, between three and five thousand soldiers a year flew to Fort Greely for short tours. Instruction included weeks-long waterways navigation courses, winter operations, ski instructor training, and mountain warfare skill building.[114]

The post was designated the Arctic Training Center in 1949. Originally, the center consisted of three subdivisions in addition to the post headquarters personnel: the Army Arctic Indoctrination School, Army Training Company (School Troops), and the Test and Development Section. It was renamed again 1952 as the Arctic Army Center. Construction began on the permanent buildings located a mile from the airfield in 1953. These buildings are referred to as "main post" today while the original temporary buildings near the airfield are called "old post". During the same year, the US Army Chemical Corps-Arctic Test Team was established at the post. The Arctic Indoctrination School became the Army Cold Weather and Mountain School in 1957. The Department of the Army redesignated the Cold Weather and Mountain School as the Northern Warfare Training Center (NWTC) in April of 1963. NWTC was then given the mission of training units in the conduct of warfare in northern areas of operation.[115] In 1966, the Army began using the base and nearby Gerstle River Military Reservation as sites for testing biological, chemical, and other weapons.

A Fort Greely Cold War Historic District was proposed in 1999 but found to be too ambiguous for a determination of eligibility to be completed. The proposed boundaries included over one-hundred buildings, but many were recommended non-contributing or fell outside the period of significance. A revised district was proposed in 2000, yet again, details regarding period of significance arose. Approximately 168 buildings were slated for demolition by the US Army as part of a base realignment action. However, many of the buildings remain and some may retain enough integrity for National Register listing.[116]

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[111] Siedler, *The Coldest Front*, 72.
[112] Fort Greely, Office of Public Affairs, *History of Fort Greely*, 2014, accessed February 9, 2016, http://www.greely.army.mil/about/history.aspx
[113] Siedler, *The Coldest Front*, 71.
[114] Siedler, *The Coldest Front*, 71.
[115] Fort Greely, *History of Fort Greely*
[116] Alaska OHA, IBS Portal, 2016.

*Figure 10. Fort Greely, near Delta Junction, 1957 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Grace P. Hurst photograph album, 1957, UAA-HMC-0914-17d).*

*Fort Richardson (1940-Present)*

Fort Richardson Army Base is located in Anchorage. It originally contained an airstrip known as Elmendorf Field. In 1949, Fort Rich, as it is commonly known, was home to training sites for AKARNG Eskimo Scout Battalions, on Camp Denali (later named Camp Carroll).[117] During the 1950s Fort Richardson provided training and supervision for National Guard and US Army Reservists as well as Reserve Officers' Training Corps (ROTC) activities.[118] Coordination of emergency rescues was also provided for the Alaska community at large, playing a vital role following the Good Friday Earthquake in 1964, by providing immediate relief for earthquake and tsunami victims and in the stabilization, security, and clearing of property within the affected areas.

The 1947 establishment of the US Air Force prompted defense officials to consider an air installation in the Anchorage area. Since Elmendorf Field had an existing air strip, it was more economical to hand the facility over to USAF rather than build a new airfield. In 1950, the property was handed over to USAF and became known as Elmendorf Air Force Base. Non-air defense facilities were reestablished as the Fort Richardson Military Reservation[119] which included 33,000 acres of land.

The new facilities were designed by the US Army Corps of Engineers, Alaska District between 1950 and 1958, using generic building designs that were developed for nationwide use on military bases. Construction at Fort Richardson initially consisted of roadways, barracks, a rifle range, bachelor quarters, cantonments, and a hospital. The cantonment was laid out in a grid with the Old Glenn Highway (renamed Richardson Drive) as the central "spine" of the grid system reflecting the suburbia movement of

[117] Waddell, *Cold War Historical Context,* 22.
[118] Waddell, *Cold War Historical Context,* 26.
[119] Waddell, *Cold War Historical Context,* 23.

the period.[120] The new fort was largely made of permanent concrete buildings. Between 1950 and 1953, barracks, warehouses, family housing, underground utilities, service clubs, streets, schools, a theater, field house, and more were constructed. Most family housing was in the south with industrial buildings in the north and administration in the center. Housing exploded in the 1950s. In one year, Fort Richardson jumped from 24 family housing units to nearly 1,200 by the end of 1951. Alaska was experiencing a Cold War construction boom, and the military struggled to keep up.[121] Moose Run Golf Course opened in 1951 to military personnel only.[122] By 1954, Fort Richardson's boundaries had expanded to encompass terrain north of Eagle River making the military reservation 67,296 acres.[123]

The 1960s saw a transition from defense to mission support in Alaska for Fort Richardson with major emphasis placed on aiding Elmendorf AFB operations. In 1960, the first missile was launched from Nike Site Summit, and the Port of Whittier was closed and placed in caretaker status.[124] Joint training efforts involving both branches of the military were held almost annually in winter settings from Kodiak to Barrow. Live-fire training at the Chugach Missile Range was suspended in 1965 due to the increased population in the Eagle River Valley. As Fort Richardson transitioned to mission support, new developments began on the base to support the troops stationed there and their families. Childcare centers, housing units, and a golf clubhouse at the Moose Creek Golf Course were erected for comfort while the central heat and power plant was converted to natural gas. Mission support construction saw a new airfield flight control tower, a new hangar, Army Reserve Armory, and the M60 machine gun range.[125]

Construction was interrupted by the Good Friday Earthquake of 1964 while Fort Richardson provided immediate emergency assistance and aided in the long-term reconstruction of communications and infrastructure. Water and food, medical aid, sleeping bags and cots, and fuel oil were all brought from the base into the communities in Anchorage, Seward, Valdez, Whittier, Kodiak, Homer, Seldovia, and Cordova. "Operation Helping Hand" provided communications, emergency power, search and rescue operations, and the use of the military hospital on base; the Providence Hospital in downtown Anchorage had been severely damaged during the earthquake. Construction contracts were soon issued locally to repair damages on base totaling over $3.5 million.[126] Post-earthquake construction was minimal on base and consisted primarily of expanding family housing and support buildings. The installations infrastructure had been created during the initial period of construction (1951-1958) and the current mission did not require new development.[127]

Many of the buildings constructed during the Cold War period are still present at Joint Base Elmendorf-Richardson. In 2003, a Fort Richardson Historic District was proposed located along the area referred to as Headquarters Loop. The area includes the central spine arrangement developed from 1950 through 1958. The proposed district contained over 55 buildings many of which were recommended to be contributing to the district; they are still in use on the base.

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[120] Waddell, *Cold War Historical Context,* 23.
[121] Seidler, *The Coldest Front*, 62.
[122] Waddell, *Cold War Historical Context,* 102.
[123] Siedler, *The Coldest Front,* 61.
[124] Waddell, *Cold War Historical Context,* 105.
[125] Waddell, *Cold War Historical Context,* 32.
[126] Waddell, *Cold War Historical Context,* 33.
[127] Waddell, *Cold War Historical Context,* 34.


*Figure 11. US Army Corps of Engineers Building on Fort Richardson, ca. 1950 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Christine M. McClain papers, 1907-1992, UAA-HMC-0370-series15a-2-59.)*

*Fort Wainwright (1961-present)*

From the 1940s on, Ladd/Fort Wainwright's training areas hosted the bulk of ground exercises in Alaska. On January 1, 1961, after the hero of Corregidor, the US Army took over Ladd AFB and renamed it Fort Jonathan Wainwright. The Army had already been at Ladd guarding the airfield, training recruits and conducting a cold weather school. The new fort maintained the Army's presence, in force, north of the Alaska Range. Its mission evolved from ground and air defense to training.[128] Fort Wainwright's early missions were ground and air defense of Alaska and its Air Force bases, northern warfare doctrine development, training and support, logistics, National Guard and Reserve support, and civil defense assistance. Units were understaffed through the late 1960s, and exercises were minimally attended or cancelled.[129]

A large number of existing buildings at Fort Wainwright were constructed after 1945 and have already been documented. While there is currently no collective Fort Wainwright Historic District, many of the buildings have been determined eligible under Criteria A for their association with Cold War efforts, including DEW Line communications and cold weather testing and training.

[128] Siedler, *The Coldest Front*, 64.
[129] Siedler, *The Coldest Front*, 65.

*Figure 12. The Bassett Army Hospital, Fort Wainwright, completed 1954; demolished (source: Douglas 2007).*

*Naval Bases*

Alaska's naval infrastructure dates almost entirely from World War II and the Cold War. The Alaskan Naval Sector, established in 1941, was commanded from Kodiak and was subordinate to the 13th Naval District in Seattle. During that window, and again from 1971 until its closure, Adak served as headquarters for naval operations in Alaska. Sitka Naval Base on Japonski Island and Fort Mears at Dutch Harbor both closed in 1944 as WWII came to an end. The 17th Naval District was tasked with defending Alaska's sea approaches and protecting its sea lines of communications. Its primary activities were aerial reconnaissance, training, and logistical support. It was also the service tasked with emergency defense of Alaska. In the event of a nuclear strike that took out ALCOM headquarters, the Commander of the 17th Naval District would assume command of ALCOM. Following the disestablishment of the Alaskan Sea Frontier, the Navy continued its intelligence and antisubmarine operations from Adak until the end of the Cold War.[130]

*Naval Operating Base Kodiak (1948-1971)*

Kodiak was the command post for defense and sea patrols in the early Cold War. It was one of eight Pacific bases retained by the US Navy. The base's location fit well with ALCOM's "heartland" defense concept. Naval Station Kodiak was established on September 23, 1947. Naval Operating Base Kodiak was the overall administrative command comprising the US Naval Air Station (NAS), the US Naval Station, and the Marine Barracks. Day-to-day missions for Naval Operating Base Kodiak components included exercise support and numerous search and rescue missions. An ice reconnaissance survey, Exercise BAREX (Point Barrow Resupply Expedition), occupied NAS Kodiak during the early 1950s along with search and rescue operations. During the Korean War, Kodiak received sufficient extra personnel to warrant construction of 56 new housing units.[131] Little other construction was undertaken throughout the postwar period until after the Coast Guard takeover. As the Soviet submarine threat grew, Kodiak received additional funding. Notably absent was any kind of traditional naval force based at Kodiak. The base served intelligence, logistics, command, and control missions until its closure.

[130] Siedler, *The Coldest Front*, 54.
[131] Siedler, *The Coldest Front*, 55.

The Kodiak Naval Operating Base and Forts Greely and Abercrombie National Historic Landmark was listed on the National Register in 1984 under Criterion A and Consideration G for association with WWII events that predate this period of significance for post-WWII resources. However, during the Cold War era, new construction on the base was completed in the form of housing units, many of which have been documented; they were evaluated for their ability to contribute to the NHL- a resource with a WWII period of significance. They have not yet been evaluated for their eligibility as Cold War-era resources.[132]

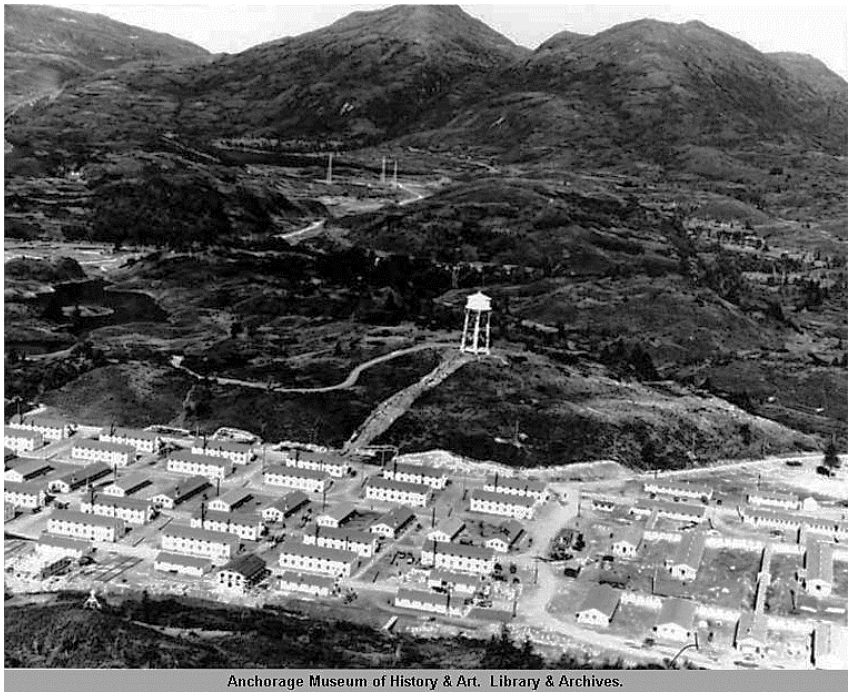


*Figure 13. Naval Air Station, Kodiak, ca. 1945, portions extant (source: Anchorage Museum at Rasmuson Center, General Photograph File, AMRC-b80-75-3).*

*Naval Air Facility Adak/Naval Complex Adak (1942-2000)*

Following completion of the Aleutian Campaign in 1944, Adak became headquarters for the Alaskan Sea Frontier. Like Shemya, Adak was considered as a potential jumping-off point to invade Japan via the Kurile Islands. By 1945, Adak had staging facilities and depots, could accommodate 50,000 troops, three months' supplies, and had 4,500 men stationed at the post. Six ships could be berthed at a time, and a 1,500-foot breakwater and 2,900-foot retaining wall were emplaced. In 1946, the Alaskan military commands moved back to Kodiak, Elmendorf AFB, and Fort Richardson. The Air Force took over Adak and renamed it Davis Air Force Base. Adak had minimal staffing and limited importance until the 1970s. In 1953, Adak housed only 200 personnel, a number that grew to just under 1,000 by 1966.[133]. Substantial classified activity took place at Adak. Major operations included radio direction finding, specialized signal monitoring, subsurface sound detection, and low frequency communications to US submarines in the Pacific and Arctic oceans. Adak would continue to grow into the 1990s. A White Alice Communications Station was built at Adak during the Project Bluegrass expansion, but it was dismantled by the Navy prior to the base's closure.

[132] Alaska OHA, IBS Portal, 2016.
[133] Siedler, *The Coldest Front*, 56.

### 2.2.6 Tomorrow's War

In nuclear experimentation, arctic research and cold weather training, Alaska was at the forefront of the Cold War technology race. Fort Greely's inhospitable surroundings made it perfect for an experimental nuclear reactor designed to operate far from traditional infrastructure and also for an arctic and mountain warfare school. Likewise, Amchitka Island's location minimized fallout concerns. Point Thompson, one of the more isolated corners of Alaska, would ostensibly be made less secluded by its deep-water port.[134]

*Atomic Alaska (1958-1972)*

In 1946, the Atomic Energy Act created the Atomic Energy Commission (AEC). AEC's mandate was to pursue peaceful uses for atomic fission. Alaska was the site for a proposed attempt to use nuclear devices peacefully, three underground nuclear detonations, and an experimental nuclear reactor.[135] Mission status, military facilities, and cold weather training were rethought and further developed as the US entered the Cold War. By the end of the 1940s, evidence was mounting that the Soviets were building their forces around the globe. An Air Force RB-20 on patrol off the coast of Siberia detected proof of a Soviet nuclear test in 1949. At the same time, Communist Party takeover in China had been successful, and the USSR refused to participate in United Nations efforts to establish separate Korean governments.[136] The events led to an increased military presence in Alaska as the world entered the Atomic Age.

The US Army maintained a Nuclear Power Program from 1954-1974 in response to Cold War threats. Small-scale reactors were constructed at military installations for heat and power. The goal was to reduce dependence on fossil fuels, create reliable operation, and improve cost-effectiveness. In Alaska, Fort Greely was the primary reactor facility. By the 1960s, there were three systems in place to deploy nuclear weapons to deter the Soviets: long-range manned aircraft carrying nuclear bombs, land-based intercontinental ballistic missiles (ICBMs) with nuclear warheads, and nuclear powered submarines armed with nuclear ballistic missiles.[137]

*Project Chariot (1958-1963)*

In 1957, the AEC began the Plowshare Program to "investigate and develop peaceful uses for nuclear explosives." Plowshare would attempt to harness the nuclear beast and transform it into a peacetime workhorse. The first operation of Plowshare would be "Project Chariot," an experiment "to provide scientific and engineering data for excavation projects." The AEC hoped the experiment would be a prelude to the excavation of a new, sea level Panama Canal. The AEC initiated Project Chariot in northern Alaska with a plan to use nuclear explosives to excavate the harbor at Cape Thompson. In early 1958, the AEC selected a site at the mouth of Ogotoruk Creek near Cape Thompson and began developing plans for an experimental harbor excavation.[138]

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[134] Siedler, *The Coldest Front,* 66.
[135] Siedler, *The Coldest Front,* 67.
[136] Waddell, *Cold War Historical Context,* 21.
[137] Waddell, *Cold War Historical Context,* 31.
[138] Siedler, *The Coldest Front,* 67.

By the conclusion of Project Chariot in August of 1962, more than 40 bioenvironmental studies had been carried out. The compilation of these studies, titled *Environment of the Cape Thompson Region Alaska,* was the first genuine environmental impact statement. However, no one had consulted the residents of Point Hope which was just 30 miles north of ground zero. They were told that all the people living in Point Hope, Kivalina, and Noatak would be temporarily relocated to Kotzebue or Nome for a year or so after the blast. They would then be relocated again, not back to their original homes, but to modern dwellings near the brand new harbor in the Ogotoruk Valley. The first-ever meeting of the Alaskan Eskimos at the Point Barrow Conference on Native Rights convened in Barrow in 1961 as a direct result of Project Chariot. The flurry of activism marked the beginning of an era of political maturity for Alaska Natives which led to a successful resolution of their land claims in Congress in 1971.[139]

Late in 1962, after the extensive scientific studies, the AEC announced that it "would deter further consideration of the proposed Chariot experiment" due in part to public criticism. No nuclear detonations were ever conducted as part of Project Chariot. In 1963, the AEC transferred its land and facilities at Ogotoruk Creek to the Naval Arctic Research Laboratory (NARL). In December of 1966, the Department of the Navy assumed control of all the AEC improvements in the Ogotoruk Valley and obtained a BLM Special Land Use Permit (SLUP) effective for five years. 4,700 acres became identified as the Cape Thompson Naval Site. The site was used as a logistical support base for NARL. The Navy maintained the buildings at the old Project Chariot base camp and utilized them as living quarters, shops, garages, and generator facilities. The three airstrips were also re-worked and improved.[140]

*Amchitka Nuclear Test Site (1965-1971)*

Amchitka was selected by the AEC to be the site for underground detonations of nuclear weapons, due to its perceived remoteness. Three such tests were carried out: Long Shot, an 80-kiloton blast in 1965; Milrow, a 1-megaton blast in 1969; and Cannikin in 1971, a 5-megaton blast and the largest underground test ever conducted by the United States.[141] Long Shot was a nuclear detection research experiment detonated in October 1965 at a depth of 2,300 feet below ground surface while Milrow was a high- yield (about 1,000 kilotons or 1-megaton) weapons calibration test detonated in October of 1969 at a depth of 4,000 feet. Cannikin was detonated in November of 1971 at a depth of 5,875 feet below ground surface.[142] Of the Amchitka tests, only Cannikin was large enough to produce surface disruptions obvious today. The explosion activated faults and violently expelled groundwater from them.[143]

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[139] Douglas L. Vandegraft, *Project Chariot: Nuclear Legacy of Cape Thompson*, 1993, (Anchorage: US Fish and Wildlife Service, Cartographic Unit Division of Reality, 1993), accessed February 2, 2016, http://arcticcircle.uconn.edu/VirtualClassroom/Chariot/vandegraft.html

[140] Vandegraft, *Project Chariot*

[141] John Eichleberger, Jeff Freymueller, Graham Hill and Matt Patrick, "Nuclear Stewardship: Lessons from a Not-So-Remote Island," Consortium for Risk Assessment for Stakeholder Participation (CRESPII) for the US Department of Energy, 2002, accessed February 5, 2016, http://www.geotimes.org/mar02/feature_amchitka.html.

[142] US Department of Energy, "Amchitka, Alaska, Site: Fact Sheet," (Grand Junction, Colorado: Department of Legacy Management, 2006), 2, accessed February 5, 2016, https://web.archive.org/web/20070630165411/http://www.lm.doe.gov/documents/sites/ak/amchitka/factsheet/amchitka.pdf.

[143] Eichleberger et al., "Nuclear Stewardship."


*Figure 14. Officer's Mess Hall at Amchitka, ca. 1945 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Albert S. and Patricia Aiken World War II papers, 1940-1945, 1991, HMC-0700).*

*Fort Greely SM-1A Nuclear Plant*

The US Army desired an air-portable nuclear reactor that could be transported to remote locations and, in 1954, entered into an agreement with the AEC to develop a prototype. A successful example, active in April 1957, was built at Fort Belvoir, Virginia. The Stationary Medium Power Reactor (SM-1) was state of the art, and used advanced safety precautions. The next step was to actually build and use the SM-1 in a remote location where power was expensive. In 1958, Secretary of the Army, William M. Brucker, announced that the next Army reactor would be built at Fort Greely, Alaska, the first field installation. [144]

Fort Greely was home to the US Army Chemical Corps – Arctic Test Activity (previously the Chemical Corps Arctic Test Team). The name of the group again changed in 1957 as the Arctic Test Board, and the name lasted until 1963 at which time they became known as the Arctic Test Center.[145] Numerous tests using radioactive materials were completed on military lands in the area. The fort was the primary nuclear reactor site in Alaska under the US Army's Nuclear Power Program (ANPP). It was the largest nuclear power plant in Army hands in 1962 and was a pressurized water system. The fission process created heat which raised the temperature and pressure of water in a closed system. This, in turn, boiled more water which produced steam. The steam drove a turbine creating electricity. Through a system of pipes, the steam also heated buildings at Fort Greely. Total output was 500 times smaller than typical commercial reactors, and it also supplied steam for heating the post. The reactor was designed to be transported by air, quickly installed, and operated under extreme environmental conditions. It used highly enriched uranium, requiring refueling every two years.[146]

The ANPP developed a static exciter-voltage regulator system and an electric-hydraulic steam turbine governor for the SM-1 that enabled the conventional turbine generator at the SM-1 to meet the load

[144] Siedler, *The Coldest Front*, 69.
[145] Fort Greely, *History of Fort Greely*.
[146] Fort Greely, *History of Fort Greely*.

transient criteria for powering a Nike Missile Site.[147] The reactor was decommissioned in 1972, and its highly radioactive material removed to the Lower 48. The reactor housing, designed to last 150 years, was encased to prevent radiation seepage pending final disassembly in 2023. The SM-1A was the first US nuclear reactor to be decommissioned. It provided nuclear engineers a wealth of information on how to decommission other sites around the country.[148]

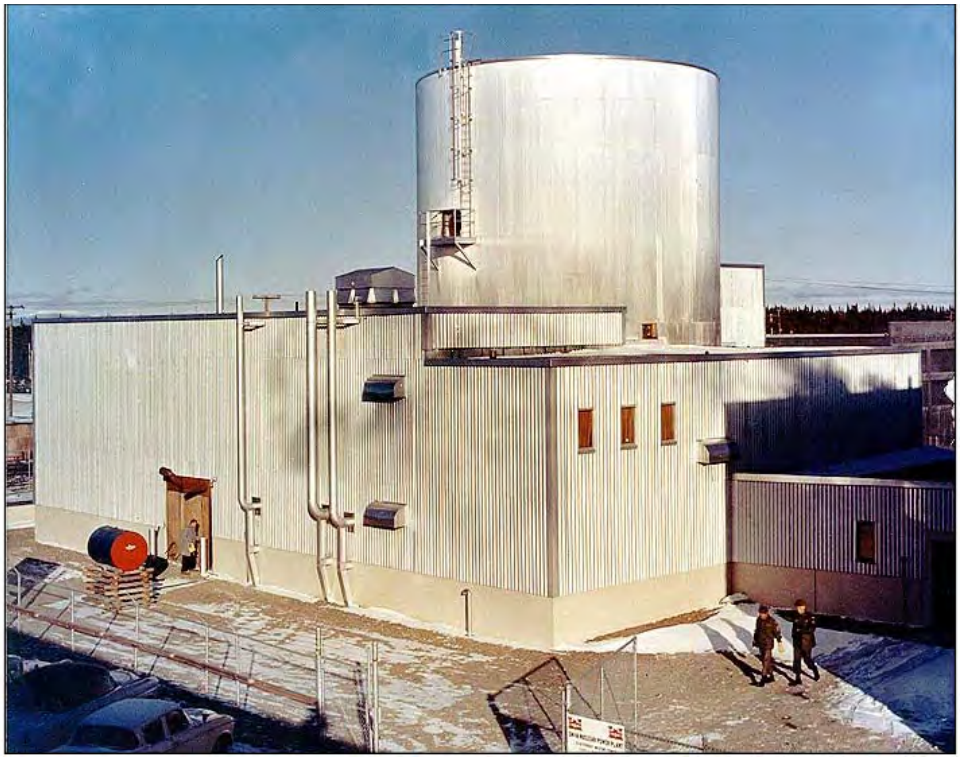

*Figure 15. The SM-1 Reactor Facility at Fort Greely, ca. 1965 (source US Army 1965).*

*Cold Weather Testing and Arctic Research*

All the Armed Services conducted cold weather testing and arctic research during the Cold War. The Air Force's Cold Weather Test Detachment and Arctic Aeromedical Laboratory tested planes, equipment, and personnel striving constantly to perfect cold weather air operations and the people who performed them. The Navy's Arctic Research Laboratory (NARL) performed a wide range of experiments. The Army used Fort Greely and its environs to not only conduct cold weather experiments but to train its personnel in arctic and mountain warfare techniques.[149]

The Arctic Test Branch was established in 1949 at Fort Greely and was supplanted by the Arctic Test Center in 1964. The test center had six divisions headquartered at Fort Greely with the research and development office and special projects division detached to Fort Wainwright. One of several Army cold weather research programs in the Cold War, the test center frequently supported other civilian and

[147] Norman Chance, "Fort Greely, Alaska, Introduction", accessed February 9, 2016, http://arcticcircle.uconn.edu/SEEJ/NMD/alaska/greely/introduction.htm
[148] Siedler, *The Coldest Front*, 69.
[149] Siedler, *The Coldest Front*, 70.

military agencies in their research and field testing. It was renamed the Cold Regions Testing Center (CRTC) in 1976.[150] In 1957, the Arctic Indoctrination School at Fort Greely became the Army Cold Weather and Mountain School. The Department of the Army redesignated the Cold Weather and Mountain School as the Northern Warfare Training Center (NWTC) in April of 1963. NWTC was then given the mission of training units in the conduct of warfare in northern areas of operation.[151]

The most unusual of Fort Greely's Cold War activities was the testing of chemical weapons. Between 1962 and 1967, the US Army Chemical Corps Arctic Test Activity conducted emplacement and dispersion experiments. Researchers used field trials and laboratory analysis of agents and munitions to determine their feasibility for use in varied Arctic terrain. Unlike the Amchitka nuclear blasts and the proposed harbor at Cape Thompson, the Gerstle River operations were classified and occasioned almost no public comment.

*Naval Arctic Research Laboratory (NARL; 1947-1980)*

The Office of Naval Research (ONR) established the Arctic Research Laboratory (ARL) at the US Navy's PET4 support camp at Barrow in 1947. The Air Force took over NARL's logistical support in 1953. The ARL was renamed in 1967 as the Naval Arctic Research Laboratory (NARL). NARL's stated mission was "research in all appropriate scientific fields related to the Arctic environment." The facility was the support center for research in the physical, biological, and social sciences providing laboratory and other services on a year-round basis to the arctic region.[152] Navy planners needed basic arctic environmental information to aid in engineering, maritime, submarine, air navigation, human and mechanical performance in severe arctic conditions. NARL was not limited to its home base at Barrow. Its researchers performed experiments all over northern Alaska including the Ogotoruk Creek site designated for Project Chariot and at Fort Greely. NARL scientists also worked at four drifting ice stations.[153]

The facility began with two warehouses and one Quonset hut in 1947.[154] By the end of 1970, there were 190 buildings in the complex, primarily Quonset huts aligned in 3 rows parallel to the Chukchi Sea. A Naval Arctic Research Laboratory Historic District was proposed in 2010 for the existing 46 of 190 buildings. In 2001, the Alaska SHPO concurred with the recommendation that ten buildings contributed to the historic district with their national significance under Criterion A, C, and G for the cutting edge arctic research it supported and the advancements in our understanding of the Arctic, for early Alaskan oil exploration, and for its role in the Cold War.[155]

[150] Siedler, *The Coldest Front*, 71.
[151] Fort Greely, *History of Fort Greely*.
[152] Valerie Gomez and Richard Stern, *Historic Overview, Property Types, and Preliminary Cultural Resources Analysis of the Naval Arctic Research Laboratory (NARL) Barrow, Alaska*, (Anchorage: LCMF Engineering Services, Inc. 2010), 9.
[153] Siedler, *The Coldest Front*, 70.
[154] Gomez and Stern, *Naval Arctic Research Laboratory (NARL)*, 12.
[155] Gomez and Stern, *Naval Arctic Research Laboratory (NARL)*, 35-37.

*Figure 16. Naval Arctic Research Laboratory (NARL) Quonset huts, 1955 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Ruth A.M. Schmidt papers, 1912-2014, UAA-HMC-0792).*

*LORAN System (Long-Range Aid to Navigation; 1942-1980)*

The LORAN system is a Long-Range Aid to Navigation that, in the US, was created by John Alvin Peirce at MIT in ca. 1942. The basic system consists of a chain of three or more land-based transmitting stations each separated by several hundred miles. Within each chain, one station is designated as a master station and the others as secondary transmitters. LORAN monitoring sites are situated throughout the chain to receive signals from transmitter stations and provide feedback on system quality issues.[156]

It was developed to allow a boat captain, military or civilian, to determine his position by comparing the arrival times of pulses from two pairs of radio transmitters. Each pair provides information for drawing a line of position (LOP) on a map set, and the intersection of the two lines marks the captain's location. LORAN navigation receivers placed in watercraft depict the LOP location. By 1943, the US Coast Guard (USCG) was operating the first chain of transmitters, LORAN-A, that consisted of eight chains spanning the Atlantic and Pacific Oceans. In Alaska, LORAN-A sites were primarily located in the Aleutian Islands and on Bering Sea islands; they were not in operation around the clock until 1944.[157]

At the close of WWII, at least 75,000 receivers had been distributed offering nighttime coverage of 30% of the earth's surface. Research completed after WWII developed a more accurate, longer range system in various versions with names such as LORAN-B, Cyclan, Cytac, and ultimately LORAN-C which was operational in 1957 and under USCG control in 1958. The USCG continued developing LORAN-A sites in Southeast Alaska through the 1950s as the LORAN-C system was being tested. Considered third-generation, the sites in Southeast Alaska were characterized by the use of prefabricated Quonset huts interconnected to create administration, electronics rooms, and quarters all under one roof. In some

[156] Alice Coneybeer, *LORAN-A Historic Context*, (Alameda, California: US Coast Guard – Maintenance and Logistics Command, Alaska (District 17), 1998), 2.
[157] Coneybeer, *LORAN-A Historic Context*, 3.

instances flat-roofed concrete multi-use buildings were erected. Both LORAN-A and LORAN-C remained simultaneously operational in Alaska until 1980.[158] The Bering Sea and Western Aleutian Chain played a significant role in the north Pacific campaigns at the end of WWII. USCG has been unable to locate remains of the early chains, and it is believed that none of the Aleutians or Bering Sea sites remain today; the Southeast Alaska chain buildings are still partially present at Cape Sarichef, Spruce Cape, and Sitkinak. Cape Spruce is currently part of the Navy's Cold Weather Testing Training program.[159]

*Figure 17. The LORAN Station at Murder Point, Attu, Aleutian Islands, 1950 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Lawrence Eastman photographs, circa 1949-1951, UAA-HMC-1050).*

### 2.2.7 Conclusion

The impact of post - World War II and Cold War activities on the state of Alaska was profound. The increase in military defense and testing resulted in a dramatic increase in population across the state concentrated in the larger urban areas of Anchorage and Fairbanks. With the influx of military personal and families came civilian support activities and booming infrastructure in areas of military activity such as construction, retail, and even recreational areas and activities. Considered the first line of defense against Soviet aggression, Alaska played an important role in the defense of the United States, and the amount of money and growth invested by the US reflect this importance.

## 2.3 Statehood (1959)

### 2.3.1 Alaska Statehood and Department Turnovers

Statehood for Alaska was discussed with regularity as early as 1910. The population of Alaska had grown as a result of subsequent gold rushes and gradual homesteading, and many Alaskans were eager to take control of their own land and natural resources. These included a major interest in control of regulation of fish, game, and the fur industry. Judge James Wickersham introduced the first bill of statehood to Congress in 1916. The entrance of the US into World War I, however, stalled any debate on statehood for Alaska until the 1920s. President Harding declared his support for Alaska statehood in an address just

[158] Coneybeer, *LORAN-A Historic Context,* 3.
[159] Coneybeer, *LORAN-A Historic Context,* 4.

prior to his death in 1923 following a successful trip to Alaska to open the Alaska Railroad.[160] During the 1920s, it was proposed that Alaska be split into two states with the Panhandle in Southeast Alaska broken off from the main body of the territory and made its own state. At this time, the population, economics, and expected industry increase in Southeast Alaska supported this initial split.[161] Politics and the onset of the Great Depression, however, further stalled statehood.

Serious debate on the issue of statehood resumed in earnest following the end of World War II. While an Alaskan referendum in 1945 showed that the population of Alaska was in favor of statehood by a margin of 3-2, there were serious reservations expressed by both the Alaskan populace and the federal government.[162] These concerns largely carried forward old arguments of land management and financial concerns. The costs of transitioning to statehood were staggeringly large and were documented in detail in 1947.[163] A territorial tax system implemented in 1949 helped to alleviate some of the financial concerns by demonstrating Alaskan willingness and ability to help fund and support their own government. The issue of statehood was pushed again, however, at the outset of the Korean War in 1950, but it was not addressed again until 1953.[164]

As a territory of the United States, federal agencies provided public services throughout Alaska.[165] The US General Services Administration (GSA) was created in 1949 to consolidate the federal government's immense building management and general procurement functions. GSA responded to a tremendous backlog of building needs coming out of unprecedented Depression-era and wartime expansion. The decades of the 1950s, 60s, and 70s stand out as a period of extensive Federal Government growth with the number of federal employees, federal budget, and GSA's budget increasing dramatically. Between 1960 and 1976, GSA undertook more than 700 building projects in the US.[166]

When the issue of statehood was addressed again following the end of the Korean War, President Eisenhower voiced his reluctance to support statehood for Alaska "because he believed it would limit the president's ability to withdraw lands in Alaska for defense purposes."[167] Alaskans, however, pushed the legal channels for statehood drafting a constitution in 1956.[168] Statehood was approved by Congress on

[160] Claus M. Naske and Herman E. Slotnick, *Alaska: A History of the 49th State,* (Norman: University of Oklahoma Press; Second Edition, 1994), 220.
[161] Naske and Slotnick, *Alaska*, 227.
[162] Naske and Slotnick, *Alaska*, 224.
[163] George Sundborg, *Statehood For Alaska: The Issues Involved*, (Juneau, Alaska: Alaska Statehood Association, 1946), 38-44, accessed March 2, 2016, http://www.alaska.edu/creatingalaska/downloads/Statehood-for-Alaska.pdf.
[164] Naske and Slotnick, *Alaska*, 229.
[165] "Federal Facilities in Alaska," Department of Environmental Conservation, accessed April 18, 2016, https://dec.alaska.gov/spar/csp/federal.htm#civilian.
[166] Judith Helm Robinson and Stephanie S. Foell, G*rowth, Efficiency and Modernism: GSA Buildings of the 1950s, 60s, and 70s*, (Washington, D.C.:US General Services Administration, Office of the Chief Architect, Center for Historic Buildings, 2003), 6.
[167] Naske and Slotnick, *Alaska*, 230.
[168] Brian Rogers, "Honoring Alaska's Constitutional History," co-chair of Creating Alaska Advisory Board, University of Alaska, 2009, accessed March 3, 2016, http://www.alaska.edu/creatingalaska/news-clippings/commentary-brian-rogers/

July 7, 1958, and ratified by public vote in Alaska in November. Alaska officially entered the Union on January 3, 1959.[169]

Statehood in Alaska began the process of transferring control of federal departments and properties to the state governments. Among the systems gradually handed to the newly-formed state government were the justice and penitentiary systems, health and mental services, education services, road construction and maintenance, and natural resources including minerals, fish, game, and fur. An original amount of $28.5 million was approved by Congress in the Omnibus Bill to help in the transition to state governance with the purpose of aiding the new state in building new necessary infrastructure. The amount was originally intended to be distributed over the course of five years with the assumption that with the burgeoning gas and oil industry, the state would be financially self-sufficient by the end of that period.[170] Many existing material resources were given directly to the government including federally-constructed school buildings and road construction equipment.[171] As a result, much of the architecture constructed during the period of 1948 to 1968 resembles federally-mandated designs. Likewise, much of the new state governmental built environment was previously existing and transferred directly to the state for continued use.


*Figure 18. The Anchorage Federal Building on 4th Avenue, with the 49th star pinned to the US Flag (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Donald Arthur Post slides, 1953-1959. UAA-HMC-0917).*

## 2.4 1964 Good Friday Earthquake

> *"One of the greatest geotectonic events of our time occurred in southern Alaska late in the afternoon of March 27, 1964. Beneath a leaden sky, the chill of evening was just*

[169] Naske and Slotnick, *Alaska*, 234.
[170] Naske and Slotnick, *Alaska*, 255.
[171] Naske and Slotnick, *Alaska*, 254.

> *settling over the Alaskan countryside. Light snow was falling on some communities. It was Good Friday, schools were closed, and the business day was ending. Suddenly without warning half of Alaska was rocked and jarred by the most violent earthquake to occur in North America this century."*[172]
>
> *– The Alaska Earthquake of March 27, 1964; field investigations and reconstruction effort*

The damage was vast and catastrophic. Over 100 people lost their lives, with deaths occurring as far away as Oregon and California due to tsunamis.[173] There were over 50,000 square miles of damage, resulting in over 300 million USD in property damage.[174] Ports were destroyed; rail lines mangled, roads ruptured and in some instances entire cities, towns and settlements disappeared. Damage was caused by earthquake, landslides, land spreading, avalanches (rock and snow), ground fissures, floods, fires, and, in coastal areas, by the subsequent tsunamis.

The earthquake and its after effects were a massive economic setback. The Alaska Railroad system suffered $27 million in damages, seventeen bridges were damaged or destroyed, most of it occurring along the 150-mile stretch between Seward and Anchorage.[175] Highway damage was estimated at $21 million dollars. Along the Seward Highway, 22 bridges were destroyed.[176] In addition to the damages to infrastructure, hospitals, schools, homes, offices, and a host of other public and private buildings and structures were destroyed.

[172] W.R. Hasen, E.B. Eckel, W.E. Schaem, R.E. Lyle, W. George, and G. Chance, 1966, "The Alaska Earthquake of March 27, 1964; field investigations and reconstruction effort," US Geological Survey Professional Paper 541, (1966), 1, accessed March 4, 2016, http://pubs.usgs.gov/pp/0541/.
[173] The total number of fatalities reported vary with most numbers being above 100 and below 139. The majority of the fatalities were the result of the subsequent tsunamis. The USGS Report, *The Alaska Earthquake March 27, 1964, Field Investigations and Reconstruction Efforts*, lists the total number of fatalities in Alaska as 114 (pp.1).
[174] Hansen et al., "The Alaska Earthquake," 3.
[175] Hansen et al., "The Alaska Earthquake," 25.
[176] Hansen et al., "The Alaska Earthquake," 27.

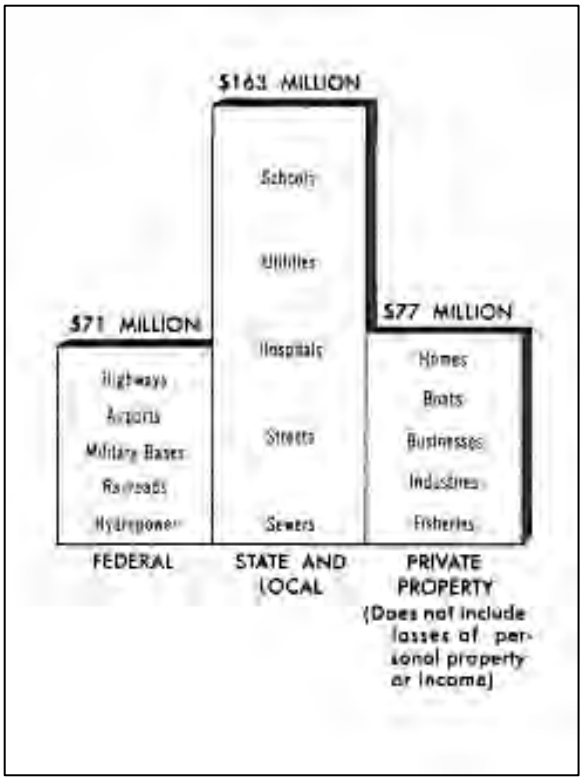


*Figure 19: Earthquake damages in Alaska. From estimates by the Office of Emergency Planning (source: Hansen and Eckel 1964).*

The earthquake devastated the most highly developed and populous area of the state.[177] In Anchorage, thirty blocks of houses were destroyed or damaged in the downtown area. Landslides in Anchorage were one of the main problems. They occurred at the business section of downtown Anchorage, Government Hill, and Turnagain Heights, which experienced the largest and most devastating landslide, covering an area of about 130 acres and a loss of 75 residential homes.[178] Other notable losses in Anchorage include the Government Hill School, the Hillside Apartment Building, JC Penney and dozens of other buildings. Although Anchorage sustained greater total losses, many smaller communities were more dramatically affected by the earthquake because it destroyed vital infrastructure, the main industry, or both. Seward, Whittier, and dozens of other communities suffered significant damage. In the case of some communities, like Valdez, a 4,000 x 600 foot section of land slid into the sea and necessitated the relocation of the entire town.[179]

[177] Hansen et al., "The Alaska Earthquake," 2.
[178] Hansen et al., "The Alaska Earthquake," 59.
[179] Edwin B. Eckel, *The Alaska Earthquake, March 27, 1964: Lessons and Conclusions,* US Geological Survey Professional Paper 546. Vol. 546, Geological Professional Paper, Washington, D.C.: United States Department of the Interior, USGS Printing Office, 1970.

*Figure 20. The six-story Four Seasons Apartment building in downtown Anchorage; it completely collapsed with only the elevator shaft remaining intact, 1964 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Edith and Edward Lindsay papers, 1964, UAA-HMC-1135-p7).*

### 2.4.1 Rebuilding and Recovery

The prompt and direct application by the Federal Government of knowledge drawn from earth scientists and engineers to the problems of reconstruction that resulted from the Alaska earthquake was unique in the history of disasters.[180] The United States Geological Survey (USGS) published the results of these investigations in six professional papers:

- Professional Paper 541 is an introduction to the story of a great earthquake—its geologic setting and effects, the field investigations, and the public and private reconstruction efforts.
- Professional Paper 542 describes the effects of the earthquake on Alaskan communities.
- Professional Paper 543 describes the earthquake's regional effects.
- Professional Paper 544 describes the effects of the earthquake on the hydrologic regimen.
- Professional Paper 545 describes the effects of the earthquake on transportation, communications, and utilities.

[180] Eckel, *The Alaska Earthquake.*

- Professional Paper 546 is a summary of what was learned from a great earthquake about the bearing of geologic and hydrologic conditions on its effects and about the scientific investigations needed to prepare for future earthquakes.[181]

Despite the scope and scale of the earthquake, because of governmental and military presence in Alaska, the speed and scale of recovery was unprecedented. The investigations into the cause of the earthquake helped promote "smart re-evaluations"[182] about growth that had many long-term benefits and changed the pattern of post-quake development. Post-quake recovery efforts brought a surge of economic investment to the state where facilities were improved, upgraded, enlarged, damaged buildings rebuilt and new ones constructed. Because of this investment, the federal monies and other funds invested in the recovery effort exceeded the total damage of the cost of the earthquake.[183]

"It presented communities with an opportunity to revision their future."[184] Urban renewal project planning played an important role in the reconstruction efforts in Anchorage, Seldovia, Cordova, and Valdez. The ultimate objective of these projects was to provide earthquake damaged communities with better land utilization, rehabilitate blighted communities, and to provide more effective traffic patterns."[185]

In addition to the economic investment by both the private and public sector, the improved understanding of seismology and seismic architecture altered post-quake development patterns. Some areas that had been built up before the earthquake were not redeveloped after the earthquake if the land proved to be unsuitable, and some towns were completely relocated. In some instances structures that withstood the earthquake were repaired and the new understanding of seismic architecture was applied to new construction efforts. Some of the efforts during the recovery included:

- Repairs to the Anchorage West High School (1953) were undertaken in three phases with a new one-story classroom wing being added to the existing auditorium and two story-classroom wing which were heavily damaged during the earthquake.
- Construction started on the $1.75 million dollar Captain Cook Hotel as well as nearly all of the damaged businesses and establishments restored or modernized within the year following the earthquake.[186]
- In Anchorage, Earthquake Park was created in 1967 to honor those who died in the 1964 earthquake. The park includes a portion of the two-mile slide area produced by the earthquake.

[181] The papers are an excellent summary of quake damage and recovery efforts. The descriptions above are taken from-http://pubs.usgs.gov/pp/0541/
[182] Michael E. West et al., "Why the 1964 Great Alaska Earthquake Matters 50 Years Later," Seismological Research Letters 85, no. 2 (March/April 2014): 245–251.
[183] Eckel, *The Alaska Earthquake.*
[184] West, Michael E., Peter J. Haeussler, Natalia A. Ruppert, and Jeffrey T. Freymueller, "Why the 1964 Great Alaska Earthquake Matters 50 Years Later," Seismological Research Letters 85, no. 2 (March 2015): 245-251, asccessed March 3, 2016, http://srl.geoscienceworld.org/content/85/2/245.full.pdf.
[185] Eckel, *The Alaska Earthquake.*
[186] Russell Rowe Dynes and E. L. Quarantelli, *Reconstruction in the Context of Recovery: Thoughts on the Alaskan Earthquake,* (Newark, Delaware: University of Delaware, Disaster Research Center, 1989).

- The Anchorage "L" Street Apartments (Inlet Tower), built in 1951 and the McKinley Towers, built 1952, sustained severe damage during the earthquake but were repaired.
- The city of Valdez was completely relocated to an area of approximately 200 acres.
- The Alutiiq village at Afognak, which had consisted of 38 homes, one store, a school, a community hall, and a saw mill was largely destroyed by a post-quake tsunami. The town was relocated and rebuilt with help from "Lions International, 49th District," and the settlement was renamed Port Lyons (*Masiqsirraq* in Alutiiq) in 1967.
- The tsunami inundation zone in Seward was repurposed as camping and public beach. [187]
- The pattern of rail-sea transport was drastically changed. It was discovered that that the port of Anchorage, usually closed in winter, could actually be used year round despite the ice in Knik Arm.[188]

Land use patterns also occurred, changes in zoning, the prohibition of building in earthquake zone areas forever altered communities across the state. Construction patterns also changed. The massive need for reconstruction efforts, required builders to come up with new ways to extend the construction season. For example, plastic tents over their buildings permitted construction work to continue during the sub-Arctic winter.[189] Buildings that collapsed or were damaged, as well as those that survived unscathed, were intensively studied. Studying the various regions of Alaska helped to advance the emerging understanding of plate tectonic theory which suggested differing magnitudes, differing soils and geology, as well as a host of other factors impacted the damage incurred by the built environment. The combined advances in both areas led to new construction techniques for seismically active regions.

The significance of the earthquake extended well beyond the borders of the state; the massive investment in recovery and redevelopment efforts paved the way for the centennial celebrations which would occur three years later.

## 2.5 Alaska Centennial

The centennial celebration in 1967 was an important marker for Alaska in which it honored the official purchase of Alaska from Russia in 1867. Discussion of purchase had taken place as early as the 1850s, although plans weren't put into motion until the close of the American Civil War. [190] Russia, at this point, was desperate for funds, and the US viewed the purchase of Alaska as natural expansion under the Manifest Destiny mind set. The treaty authorizing the sale of Russia was signed on March 30th, 1867, and control was formally handed over at Sitka on October 18th, 1867.[191]

Across the state, plans were being discussed for centennial celebrations as early as 1960. The centennial celebrations were marketed as a means to promote the tourism industry in Alaska and as a method of gaining federal investment in the burgeoning state. The military investment in the state had done much to bolster the infrastructure of the state, but the centennial was a reason for national celebration and "also a splendid opportunity to give America's frontier state a little boost by appropriating funds to build needed

[187] West, et. al., "the 1964 Great Alaska Earthquake."
[188] Eckel, *The Alaska Earthquake*, 31.
[189] Eckel, *The Alaska Earthquake*, 31.
[190] Naske and Slotnick, *Alaska*, 88.
[191] Naske and Slotnick, *Alaska*, 94-95.

civic amenities." That fall, Congress appropriated $4.6 million in federal matching grants for centennial-related projects in Alaska,[192] and the centennial projects enacted had far-reaching impacts across the state during the centennial year and into the future. While centennial projects did include projects related to Native history such as totem pole restoration efforts in Klawock and Hydaburg, as a whole, "the Centennial projects were celebratory in conception, but predominantly reflected only one point of view."[193]

The purchase of Alaska from Russia passed Alaskan indigenous peoples and their lands from one imperialist nation to another. The result: a systematic subjugation of Native cultures characterized by the forcible removal of children from their families to far-away boarding schools, outlawing of traditional ceremonies and practices, pandemic Western diseases, lack of civil rights, segregation, exclusion, and more. Generations of Alaska Natives have suffered the negative impacts of these practices. However, their communities were not excluded from the Centennial construction efforts. Small projects were funded in select Native communities such as the relocation and refurbishment of Tigara Hall in Point Hope. Originally constructed by the Bureau of Indian Affairs as a school, Tigara Hall was moved to higher ground with the help of Centennial funding in order to protect the building from the eroding coast line and ensure its continued use as a community center building. In Kotzebue, a museum celebrating Inupiaq heritage was planned and executed, appropriately named, Utukkaktakagvik, or "place having old things."[194]

*Figure 21. Map Showing Alaska '67 Projects, from View from the Future (source: Brown 2015).*

[192] George Bryson, "Introduction: The Year We Turned One Hundred," ccessed April 14, 2016, http://museumas.alaska.gov/LAM/view2017/vff_cover.html.
[193] Brown, Tricia, George Bryson, Mark Kelley, Dermot Cole, Charles Mason, Nick Jans, Clark Mishler, Nancy Lord, Jim Lavrakas, Kathleen McCoy, Jeff Schultz, Debra McKinney, and Matt Hage, *The View from the Future, 2017: Fifty Years after the Alaska Purchase Centennial*, (Juneau, Alaska: State of Alaska, Department of Education and Early Development, Division of Libraries, Archives, and Museums, 2015), 10.
[194] Brown et al., *View from the Future*, 77.

### 2.5.1 Alaska Centennial Commission

The Alaska Centennial Commission was established in 1962 by Governor William Egan. The goal was that centennial celebrations would advertise Alaska to the rest of the world and garner cultural endowments for the state. US Senators Ernest Gruening and E.L. Bartlett lobbied Congress for federal investment in the celebrations. The funding was far less than the original $7.2 million the senators asked for, but it was enough to accomplish projects across the state.

For projects to be selected for a matching grant, supporters needed to demonstrate how the project might benefit a community economically and how half the costs of the project would be covered. Over a two-year period, hundreds of proposals from throughout the state were submitted. Many communities that applied did not receive funding and many that did received substantially less than requested. In the end, the statewide commission selected forty-two projects, "ranging from the construction of new museums, theaters, and community centers, to the restoration of historical buildings and monuments, to the opening of campgrounds, theme parks and medical clinics including community centers."[195] In Anchorage, the Igloo-Puk was constructed at the airport and was intended to highlight Alaska Native cultural history and arts for tourists. The building was short-lived, however, and was taken down in 1970 to make more room for the expanding airport infrastructure.[196] While other small projects in predominantly Native communities were enacted through Centennial funding, the large bulk of Centennial spending took place in the larger urban and tourist centers throughout Alaska.

### 2.5.2 Fairbanks and the Exposition Center

The center for the centennial celebrations had long been assumed to be Sitka, the former capital of Russian America and the first capital of the Alaska Territory. However, Fairbanks was selected as the location for the construction of the main Alaska '67 Exposition by Governor Egan in 1964. The idea of a Centennial Park on the Chena River had been in the works since 1957 with the Pioneers of Alaska Igloo No. 4 campaigning for a historic park highlighting Alaska history.[197] The State of Alaska, the (Fairbanks) North Star Borough, the City of Fairbanks, and the Alaska Centennial Commission joined forces, and 40 acres of state-owned land on the Chena River was donated for the purpose.

The Alaska '67 Exposition was designed to be "part Disneyland and part history" and included the relocation of historic buildings into the Gold Rush Town and the installation of the riverboat Nenana. Additionally, the main exposition building, the Civic Center, was constructed to house the art, culture, and history exhibits along with dance, music, and theater performances.[198] The circular building is iconic to the Exposition. The construction of the Alaska '67 Exposition cost in total $6.7 million (an equivalent today of $48.2 million).[199] Projections for the park prior to its opening predicted 300,000 visitors during its run from May to September 1967 and was expected to triple the annual spending of tourists to Fairbanks to approximately $6 million. The exposition was also supposed to encourage visitors to eventually desire to move to Fairbanks, thereby, promoting population and industry in the region. The

[195] Bryson, "Introduction."
[196] Brown et al., *View from the Future*, 109.
[197] Brown et al., *View from the Future*, 9.
[198] "What 67 Means to Alaska," Alaska '67, accessed, November 15, 2015, http://www.co.fairbanks.ak.us/pioneerpark/about/images/a_67_brochure.pdf
[199] Brown et al., *View from the Future*, 9.

exposition, according to promotional material, would transform Fairbanks into one of the cultural centers of America.[200]

The resulting portion of the park that reflected the history of Alaska was named Pioneer Park (aka Alaskaland). The reality of the park fell far from projections; it operated at a financial loss during the summer of 1967 and was forced to close a month early due to the historic flood of August 1967 which caused the Chena River to effectively flood out the entirety of downtown Fairbanks and threatened to float the *Nenana* back into the river. The park was purchased by the City of Fairbanks in 1970 and renamed Alaskaland. The park did continue to serve as a tourist center, historic park, and even civic gathering place long after 1967. The historic buildings of Gold Rush Town and the Civic Center, a two story round building that serves the community as venue for celebrations and conferences, are still in the park. The steamship *Nenana* is a National Historic Landmark.

*Figure 22. Alaska '67 Exposition Center, Fairbanks, 1967 (Dennis Cook Collection from Brown et al. 2014).*

### 2.5.3 Other Notable Centennial Efforts

Many projects tried to honor the cultural history of the state, and there was an abundance of museum projects. With large museum projects in Juneau and Anchorage and smaller projects in repurposed buildings in Wrangell (Wrangell Museum and Library), Bethel (Yugtarvik Regional Museum), Barrow (Barrow Community Center), and Nome (Carrie M. McClain Memorial Museum). [201] Notable projects include the Alaska State Museum in Juneau[202] and the preservation of a short section of the Iditarod Trail and establishment of the Iditarod Sled Dog Race. These projects ranged widely in both scale and purpose; matching funds were found in a variety of ways: tax levies, federal matching funds, grants, donation and sponsorship. The Centennial Building in Sitka was constructed at no cost to the residents as the building

[200] "What 67 Means to Alaska," Alaska '67.
[201] Brown et al., *View from the Future*, 39.
[202] The museum, designed by John Forrest under Linn A. Forrest Architects, AIA, was demolished in 2014.

was constructed on land created by the dredging of a new harbor and donated as the location. Many small communities were able to come up with matching funds by donating services and materials for construction process as happened with the conversion of the cannery in Haines into a Performing Arts Center.[203]

### 2.5.4 Conclusion

The Alaska Centennial was an important event across the state marking a century of ownership of Alaska by the United States. The impact on the built environment was immediate and lasting with the creation of museums and infrastructure across the state to showcase Alaska history and resources, and to attract tourism. Many of these projects continue to be utilized by the local communities, such as Alaskaland, which was renamed Pioneer Park in October 2001. The park remains a gathering and event location for community events year round and is an excellent example of the continued impact of Centennial activities on the communities of Alaska.

## 2.6 Resource Exploration and Extraction

With the advent of World War II, labor across the US was diverted to help with the war effort. In Alaska, this meant that various trade and manufacturing that fueled the economy were interrupted as forestry, fishing, and mining industries slowed down and the civilian public was directed to help carry out the military's mission. This posed a challenge for post-WWII regeneration of resource exploration as those involved in the natural resource industries were lured away and Alaska "strained to accommodate the realities of militarization and crashed areas of development."[204] Some industries did not rebound to their pre-war status. Mining was not nearly as profitable as it had once been with the cost of gold down and the cost of labor rising. Many of the large gold mines in Southeast Alaska closed and never reopened. Other industries grew beyond what their pre-war status had been. Logging became highly profitable as did areas of fishing, like purveying king crab. The most notable expansion was that of the oil and gas industry, which boomed after the discovery of oil and gas deposits on the Kenai Peninsula, and the discovery of one of the largest oil deposits in the world on the North Slope.

### 2.6.1 Fisheries

Salmon had always been Alaska's largest fishery, but new markets for Alaska's seafood opened in the years following World War II. Demand for shark liver and oils prompted a new market.[205] Perhaps the most profound market to come out of the post-WWII era was the crabbing industry. This new fishery was concentrated in the Bering Sea region, with smaller operations carried out in Southeast Alaska. Red kings, golden kings, and Tanner crab were harvested in both the Bering Sea and Southeast Alaska regions while blue kings and Dungeness crabs were a focal point of the Southeast Alaska fishery. Dungeness and king crab fisheries had steady growth from statehood and throughout the 1960s.[206]

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[203] Brown et al., *View from the Future*, 39.
[204] (Rogers 1962; Nielson 1988; Haycox 1989; Spence 1995; Seidler 1996) in Hummel, "The US Military as Geographical Agent," 55.
[205] Jim Mackovjak, *Navigating Troubled Waters: History of Commercial Fishing in Glacier Bay, Alaska,* (Gustavus, Alaska: National Park Service, Glacier Bay National Park and Preserve, 2010), 23.
[206] Mackovjak, *Navigating Troubled Waters, 42.*

During the 1960s, advancing technology prompted another change in Alaska's fishing industry as fish could now be frozen and flown to markets throughout the US. Thousands of pounds of fish and crab were frozen daily and shipped out to market.[207] As a result, cold storage facilities were built all over the state in the 1960s. This included the transformation of existing canneries into cold storage facilities and the development of small processing plants.[208] Cold storage facilities created yet another influx of people to Alaska as processing locations in places such as Petersburg, Cordova, Kodiak, and Dillingham grew into larger communities.[209]

### 2.6.2 Mining

Prior to World War II, much of Alaska's mineral wealth came from gold, but an increase in operating and labor costs[210] in the 1950s impacted large-scale gold mining across Alaska. One such mine to shut down due to this was B 91 in Prince William Sound. An increase in small placer mines, however, like those at Donlin Creek and Resurrection Creek near Hope, continued well into the 1970s.[211] As gold mining waned, extraction of rock, sand, and gravel increased to accommodate the demand of development and infrastructure improvements.

The Federal Government also spearheaded mining ventures to extract "defense" minerals such as mercury and uranium. In 1952, the DeCoursey Mountain Mining Company began to develop the Red Devil deposits downstream from Sleetmute. Extraction at this mind included nearly two miles of shafts, crosscuts, and tunnels on five underground levels. The mine produced more than 20,000 flasks of mercury (a flask equaled 76 pounds) before the cinnabar veins were exhausted after four years of extraction.[212]

Government supported exploration and extraction continued throughout the 1950s as part of the Cold War. The Atomic Energy Commission was desperately seeking new sources of uranium in 1951 for use in nuclear applications. A financial incentive was presented to the first mine in the US that could produce 20 tons of 20-percent uranium oxide from a single location. By 1955, many prospectors in Southeast Alaska were aware that radioactive deposits were present in the Ketchikan Mining District. An aerial survey was conducted to locate ideal mining areas. In 1957, production began at the Ross-Adams Mine on Prince of Wales Island which was Alaska's first and only mine to extract uranium. By fall of 1957, the mine had extracted 15,000 tons of 0.80-percent uranium oxide. The mine eventually shifted to an underground operation with only sporadic extraction. The mine closed in 1971 after the deposits were exhausted.[213]

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[207] Mackovjak, *Navigating Troubled Waters*, 39.
[208] Mackovjak, *Navigating Troubled Waters*, 51.
[209] Mackovjak, *Navigating Troubled Waters*, 8.
[210] "Alaska History and Cultural Studies - Alaska's Heritage – Chapter 4-15: Mining," Alaska Humanities Forum, accessed February 13, 2016, http://www.akhistorycourse.org/americas-territory/alaskas-heritage/chapter-4-15-mining.
[211] J. Simon Bruder, *Prospects and Producers: Historic Context for Mining Properties, Chugach and Tongass National Forests, Alaska, 1850s-1950s.* (Anchorage: USDA Forest Service, Alaska Region, 2002), 109.
[212] "Alaska History and Cultural Studies - Alaska's Heritage – Chapter 4-15: Mining," Alaska Humanities Forum.
[213] Bruder, *Prospects and Producers*, 85.

Coal mining in Alaska began at a time when the US Navy started converting its ships from coal to oil in the early 1920s.[214] Some of the earliest mines were those in Healy and the Matanuska-Susitna Valley. In 1948, Usibelli Coal Mine was incorporated under the laws of the Territory of Alaska and was responsible for accommodating the military's increasing demand for coal throughout the 1950s. In 1954, Usibelli began its first commercial sales to utilities in the Fairbanks area. In 1961, it purchased the neighboring Suntrana Mining Company (the successor to the Healy River Coal Company) and, subsequently, became the largest supplier of coal to the military. Usibelli operated both surface and underground mines throughout the 1950s and into the 1960s. As underground coal became more difficult to produce, the company decided it was safer and more economical to mine from the surface. Usibelli began surface mining as an exclusive practice in 1962, forever changing coal extraction in Alaska, as underground mine shafts were abandoned in favor of open-pit strip mines that were easier to maintain and far safer for miners than the previously used shafts.[215]

### 2.6.3 Timber and Logging

The Alaska Spruce Log Program (ASLP) began in 1942 and ended in 1944 when metal replaced wood in aircraft construction. The program, which was administered by the US Forest Service and financed by the Commodity Credit Corporation, was developed to produce 100 million board feet of spruce airplane lumber per year. Nine logging camps were established in Southeast Alaska (four of which were floating wanigans) to accommodate up to 12 foresters hired to cruise timber stands. A post-WWII shortage of newsprint and an increasing demand for rayon, however, was responsible for creating a boom in Alaska's forestry. The Tongass Timber Sales Act of 1947 opened the Tongass National Forest to harvesting by private companies with interest in filling this void.[216] A group of willing investors formed the Ketchikan Pulp Company shortly after the Act was passed and built a $55 million mill at Ward Cove. It was the largest single industrial investment made in the territory at the time. The Ketchikan Pulp Company then signed a contract agreeing to purchase 1.5 billion cubic feet of timber over a 50 year span.[217] The first load of pulp was shipped from Ward Cove to Argentina under the brand name Tongacell in 1954.[218] The population of Ketchikan grew quickly as workers at the mill relocated from other parts of the state and the Lower 48 to the small coastal town. Housing developments such as subdivisions and high-rise apartment towers were built during this period to provide housing for the workers.

The US Forest Service (USFS) signing of several long-term timber contracts throughout the 1950s was the onset of large-scale logging in Alaska.[219] Annual timber harvest increased from 50 million board feet

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[214] Roy D. Merritt, *Chronicle of Alaska Coal Mining History*, (Fairbanks, Alaska: Alaska Division of Geological and Geophysical Surveys, 1986), 9.
[215] Merritt, *Chronicle of Alaska Coal Mining History*, 10.
[216] Mead and Hunt, *Alaska Roads Historic Overview Applied Historic Context of Alaska's Roads,* (Juneau: Alaska Department of Transportation and Public Facilities, 2014), 93.
[217] Aaron, Jayne and Steven Chris Baker, *Historic Context and Evaluation of Ranger Boats in Alaska, Chugach and Tongass National Forests,* (Alaska Region: US Forest Service, 2011), 4-17.
[218] "Alaska History and Cultural Studies - Alaska's Heritage -Chapter 4-17: Farming, Herding, and Lumbering," Alaska Humanities Forum, accessed February 24, 2016, http://www.akhistorycourse.org/articles/article.php?artID=182
[219] Aaron and Baker, *Ranger Boats,* 4-18.

in 1949 to 350 million board feet in 1960[220]. With limited access to much of the forested land in Southeast Alaska, floating logging camps, consisting of wanigans, were towed to timber harvest units. However, the boom years of logging were short lived as legal challenges, the exhaustion of timber reserves, and shifts in USFS policy resulted in a reduction of contracts.[221] New laws were passed that not only protected forest lands from clear-cutting, but also changed the goal of the US Forest Service from development of a timber industry to managing forest lands and achieving long-term sustain yields from logging.[222] Development of recreation grew during the period resulting in the construction of several public use cabins and information centers.

### 2.6.4 Oil Boom

*Southcentral Exploration and Extraction*

Advances in technology and innovation spurred a resurgence of interest in Alaska's oil fields after World War II. Several major oil production companies built their headquarters in Anchorage when oil was discovered on the Kenai Peninsula in 1957.[223] The discovery of the Swanson River oil field by Marathon Oil and Unocal (now Chevron) triggered increasing interest from potential oil investors like the Richfield Oil Company of California (later known as ARCO), Phillips Petroleum, Shell, Sunray, Mobil, and Texaco. Richfield was the first to drill and struck oil with their first well on July 15, 1957. It tested at 900 barrels a day making it the first major commercial discovery in Alaska. Two refineries were built on the Kenai Peninsula following the 1957 discovery. Other companies quickly began drilling programs in the area, and in 1959, Unocal discovered a major natural gas field near the Swanson River oil field.[224] "In 1960, following the statehood of Alaska and the creation of the state natural resources agencies, oil companies bought exploration leases for work in Cook Inlet. Two years later the Middle Ground Shoal oil field was discovered off Port Nikiski, at the same latitude as the onshore Swanson River field. Production began from Middle Shoal in 1967."[225]

Subsequently, seven oil fields and 13 gas fields were discovered offshore in Cook Inlet. Cook Inlet Oil and Gas provided Alaskans with gasoline, diesel fuel, heating oil, jet fuel, and asphalt. Natural gas began to be supplied to the Anchorage market in 1961, and new fields in Trading Bay and McArthur River in the offshore areas of Cook Inlet were discovered in 1965.[226] A pipeline was built to carry natural gas from the Kenai Peninsula, beneath Turnagain Arm, to heat homes and businesses in Anchorage.[227] Beluga, on the north shore of Cook Inlet, became a center for gas production and power generation in the 1960s and

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[220] "Alaska History and Cultural Studies - Alaska's Heritage -Chapter 4-17: Farming, Herding, and Lumbering," Alaska Humanities Forum.
[221] Aaron and Baker, *Ranger Boats*, 4-24.
[222] "Alaska History and Cultural Studies - Alaska's Heritage -Chapter 4-17: Farming, Herding, and Lumbering," Alaska Humanities Forum.
[223] Steven R. Braund and Associates, *Alaska Stand Alone Pipeline Final Environmental Impact Statement, Cultural Resources Results*, (Anchorage: Alaska Gasline Development Corporation, 2012), vol. 5, 13-25.
[224] "Alaska History and Cultural Studies - Modern Alaska - Oil Discovery and Development in Alaska," Alaska Humanities Forum, accessed February 09, 2016, http://www.akhistorycourse.org/articles/article.php?artID=140.
[225] "Alaska History and Cultural Studies - Modern Alaska - Oil Discovery and Development in Alaska," Alaska Humanities Forum.
[226] Alan Baily, "Marathon to Exit Alaska," *Petroleum News*, Vol 17, No 16, accessed February 09, 2016, http://www.petroleumnews.com/pntruncate/943451226.shtml.
[227] Alaska Humanities Forum, Chapter 4-15: Mining.

1970s.[228] Phillips Petroleum (now Conoco Phillips) and Marathon teamed to construct a liquefied natural gas (LNG) plant in Nikiski that went online in 1969 to export gas to Japan.[229]

*North Slope Exploration and Extraction*

As the US Naval fleet converted from coal to oil, President Harding issued an Executive Order in 1923 establishing the Naval Petroleum Reserve No. 4 (PET4). It covers nearly 23 million acres in northwestern Alaska north of the Brooks Range. The region was set aside as a future source of oil for the Navy during wartime shortages. In 1946, federal exploration under the US Geological Survey and the Navy began as an eight-year program along the North Slope of Alaska, near Barrow, at PET4. Teams drilled 36 test wells but found only two minor oil deposits. Gas from the Barrow field would be pumped to the village of Barrow for limited distribution, but otherwise none of the oil was used. The PET4 explorations resulted in the identification of three oil fields and seven natural gas fields.[230] PET4 was renamed the National Petroleum Reserve-Alaska, or NPRA, in 1976. Concurrently, the Office of Naval Research (ONR) established the Arctic Research Laboratory (ARL) at the PET4 support camp at Barrow in 1947. The ARL was renamed in the 1960s as the Naval Arctic Research Laboratory (NARL).[231] Much information about northern conditions and transportation needs resulted from this program.[232] Many of the test wells have been relocated and some have been remediated by the BLM.

In 1959, the federal government granted the new State of Alaska 103.5 million acres of what was considered public domain. Among the early land selections was acreage east of the Naval Petroleum Reserve that encompassed the western half of the North Slope. Indications of hydrocarbon presence spurred interest in the area and the federal government approved the land selections and transferred ownership to the state.[233]

Atlantic Richfield Company (ARCO) chose an area to explore for oil within the Prudhoe Bay State #1 lease area, based on the data provided by geologists and geophysicists. ARCO teamed with Humble Oil Company (later known as Exxon) to procure funding for the exploration.[234] By 1967, a number of wildcat exploration wells that were dry had been drilled on its North Slope leases and began to leave the Slope. Their final effort began with freeze-up in 1967[235] when a convoy of exploration vehicles, pulled by Caterpillar tracked vehicles, was transported 65 miles from the last dry hole to a new well location. Workers spudded the well on April 22, 1967. On December 27, 1967, the first significant gas deposits was encountered at 8,500 feet. On February 1, 1968, they hit a layer of oil and sand about 40 feet thick at roughly 8,600 feet, which was the first solid indication of a major oil discovery. The total depth of the

[228] Braund, *Alaska Stand Alone*, 13-25.
[229] Baily, "Marathon to Exit Alaska."
[230] Gomez and Stern, *Naval Arctic Research Laboratory (NARL)*, 9.
[231] Gomez and Stern, *Naval Arctic Research Laboratory (NARL)*, 9.
[232] "Alaska History and Cultural Studies - Modern Alaska - Oil Discovery and Development in Alaska," Alaska Humanities Forum.
[233] Christopher B. Wooley, *National Register of Historic Places Registration Form for the Prudhoe Bay Oil Field Discovery Well Site*, (Anchorage: ARCO Alaska, Inc., 1999).
[234] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 4.
[235] "Alaska History and Cultural Studies - Modern Alaska - Oil Discovery and Development in Alaska," Alaska Humanities Forum.

well was 12,005 feet[236] and when the rig was opened and tested, it flared successfully. The partnership issued a press release announcing the discovery on March 12, 1968. ARCO drilled a second well, Sag River #1, on May 3, 1968 at a site eight miles southeast of the discovery well. Sag River #1 confirmed the presence of a very large oil deposit,[237] and the oil field was estimated to contain 10 billion barrels of oil. It was the largest oil field discovered in the United States and the fourth largest oil field in the world.[238] Geologist Gill Mull wrote that the massive oil deposit "resulted from a one-in-a-million chance of a fortuitous combination of geological attributes that took at least 360 million years to form."[239] The total cost for the discovery well was $4.1 million,[240] and from 1968 until 1985 ARCO had a well at the discovery site.[241]

At the time of the 1968 Sag River drilling, there were four drilling rigs on the North Slope. By the end of the year there were more than a dozen drilling rigs and at least a dozen oil companies actively exploring the area. A September 1969 lease sale brought the State of Alaska over $900 million. The initial discovery led to a series of adjacent field discoveries from the Colville to the Canning Rivers on the North Slope.[242] The discovery of massive oil deposits led to rapid changes on the North Slope and throughout Alaska as extensive development occurred. It brought great prosperity to a financially strapped young state.[243] There were job opportunities in construction of oil field facilities and support services; tradesmen could earn two to three thousand dollars a week laboring seven days a week at ten to twelve hour shifts. Engineers developed solutions to overcome geographic and climactic challenges. Materials and equipment funneled through West Coast ports heading for Alaska. Revenue generated from North Slope oil production resulted in economic change, shifts in demographics, and the establishment of new institutional structures on the North Slope and throughout Alaska.[244]

The discoveries also altered the Inupiat people's use of land in the Prudhoe Bay area and their way of life. After the establishment of the North Slope Borough, a tax base for funding basic village infrastructure and job opportunities were presented. For Alaskan Natives it contributed to the landmark land claims settlement act (ANCSA) in 1971.[245]

Shortly after the Prudhoe Bay discovery, the Oil Petroleum Exporting Countries (OPEC) significantly reduced their supply of oil to the world market and the domestic prices of gasoline and home heating oil skyrocketed. The US turned its focus to the newly discovered field and passed a law that required all North Slope oil to be shipped to US refineries. Getting the oil to market would be a challenge that eventually led to the construction of the Trans-Alaska Pipeline System (TAPS). Oil from the North Slope

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[236] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 5.
[237] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 8.
[238] "Alaska History and Cultural Studies - Alaska's Heritage – Chapter 4-15: Mining," Alaska Humanities Forum.
[239] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 8.
[240] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 25.
[241] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 5.
[242] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 8.
[243] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 7.
[244] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 8.
[245] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 8.

would not reach the contiguous US until 1977.[246] At its height, the Prudhoe Bay field produced 1.5 million barrels of oil per day accounting for 25% of the US daily oil production.[247]

*Haines-Fairbanks Pipeline / ALCANGO (1955)*

The main military pipeline system known as CANOL (Canadian Oil Pipeline) was shut down at the close of WWII. By 1952, a decision was made to construct a new, larger system capable of carrying a larger capacity of various petroleum products.[248] Known as the ALCANGO pipeline (Alaskan-Canadian-Gas-Oil), it transported fuels from the Haines fuel terminal through the Yukon, along the Alaska-Canada Highway (ALCAN), and on to Fairbanks. Spur-lines were constructed in Canada to reach various Canadian facilities. The Haines-Fairbanks Pipeline (HFP) was the Alaskan spur of the line. The HFP had an eight inch diameter and was 626 miles in length. From sea level at Haines the line rose to cross the 3,700 foot high Chilkoot Pass and then descended to the 450 foot level at Fairbanks in the interior. Much of the pipeline was laid on the ground surface, but approximately 96 miles of pipe near Delta Junction and most of the 42 miles of pipe between the Haines Fuel Terminal and the Canadian border were buried. In addition to the line, terminal docks for tanker ships, pumping stations, and a huge tank farm were built in Haines.[249] Storage facilities and stations were built along the line and linked together by the telephone and teletype networks of the Alaska Communications System (ACS). The military pipeline system was completed in 1955 to provide fuel to interior Alaska military bases. When finished, ALCANGO was the northernmost major pipeline in the world and the first multi-purpose military line ever built. As designed, it could deliver 10,000 barrels of petroleum products daily. In 1962, an additional six pump stations were added to the line. Each station had support facilities, family housing, and storage buildings creating new small towns along the ALCANGO route. The new stations doubled the system's capacity.[250]

### 2.6.5 Conclusion

Resource exploration during the period declined immediately following WWII. Mineral exploration and extraction never did return to pre-WWII numbers due to labor costs and a drop in the market prices of most minerals and metals. Energy-related resources such as coal, declined in production largely due to a decrease in demand after the war. Later in the period, oil and gas exploration increased resulting in the discovery of two large oils fields on the Kenai Peninsula and north of the Brooks Range as well as natural gas deposits in Cook Inlet. The discovery marked a turn in oil and gas extraction, which dramatically increased in the early 1970s due to the finds. Timber resources fluctuated during the period from robust lumbering to meet high demand during the immediate post-WWII years to a decline in harvest and sale as environmental consciousness evolved in the US during the latter portion of the period. The fishing industry turned from canning seafood to increased commercial crabbing largely due in part to advances in food storage and transportation. All of these industries are reflected in the built environment today either as abandoned/condemned buildings or are still in active use. Lumber mills and various outbuildings in oil fields are still present as are remnants of mining operations from the period. Docks, warehouses, and cold storage facilities built during the period are, largely, still in use in coastal communities.

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[246] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 13.
[247] Wooley, *Prudhoe Bay Oil Field Discovery Well Site*, 26.
[248] "History of the Alaska District, 1946-1974, 1989," US Army, Corps of Engineers (USACE), 43, accessed February 28, 2016, http://www.poa.usace.army.mil/Portals/34/docs/AKdistrict/jacobs_history_2.pdf.
[249] "History of the Alaska District, 1946-1974, 1989," USACE, 43.
[250] "History of the Alaska District, 1946-1974, 1989," USACE, 44.

## 2.7 Transportation

Many forces shaped the development of the post-World War II transportation infrastructure including new legislative incentives and both public and private investment. A complex interlinked system of land, air, and water routes evolved during the Cold War era for use in supporting the military effort, enabling an enhanced scope of resource exploration, and opening new regions of Alaska to tourism. New infrastructure meant more development and more development meant new infrastructure. Along with the new network, an array of associated resources emerged from motels and gas stations to border crossings and ferry terminals.

Projects often required the cooperation of multiple agencies at the federal, state, and local level. The Alaska Road Commission was established in 1905 by the War Department. In 1932, the ARC was transferred to the Department of the Interior. When Alaska achieved statehood in 1959, the state became responsible for most of the road construction.

Given the importance of the evolution of the transportation network, specifically the road network that was built during and after WWII, it is not surprising that this category of resources was already studied in 2014 when the Alaska Department of Transportation & Public Facilities released *Alaska Roads Historic Overview Applied Historic Context of Alaska's Roads*.[251] The document provides a comprehensive overview of the development of, and a context for, Alaska's historic roads. A brief summary of the relevant sections of that document is excerpted in a short timeline below.

### 2.7.1 Roads

***Alaska Highway/ ALCAN 1941-1944 (1948 Public Access)***

At the onset of World War II, the Territory of Alaska emerged as a region of strategic importance in the Pacific Theater. Military airfields were constructed at Northway and Tanacross, and the Northwest Staging Route geared up for the Lend-Lease Program of military airplanes to allied forces. Transportation of fuel and goods was needed between the airfields and the Lower 48 spurring the construction of a roadway leading from interior Canada to interior Alaska. On February 11, 1942, President Roosevelt authorized the highway's construction. An agreement with Canada specified that the US would maintain the highway until the end of the war and six months after the war's conclusion would turn over the Canadian section for integration into that country's national highway system with the condition that US citizens be permitted to use it freely.[252] The selected route extended roughly 1,500 miles with all but 150 miles as an entirely new route. It began at an established rail head at Dawson Creek, British Columbia west towards Watson Lake in Canada's Yukon Territory and continued northwesterly until entering Alaska at Boundary. The portion within Alaska continued for approximately 200 miles before reaching a junction with the Richardson Highway just south of Big Delta. The ground-link was called the Alaska-Canada Highway (ALCAN).[253]

[251] Mead and Hunt, *Alaska Roads*.
[252] Mead and Hunt, *Alaska Roads*, 82.
[253] Burr Neely, *Cultural Resources Survey for Alaska Highway MP 1222-1235 Rehabilitation Project Near the Yukon-Alaska Border*, (Fairbanks: PDC Engineering, 2007), 8.

Coinciding with the construction of the transportation route was a telecommunications line that was installed for quick, reliable communication between airfields and central command in the Lower 48 known as the Alaska Military Highway Telephone and Telegraph Line. From 1953 to 1954 a military fuel, line known as the Haines-Fairbanks Pipeline, was installed in the right-of-way partially buried in some areas with associated bulk fuel storage facilities at Haines and Tok. The line carried diesel, automotive gas, and jet fuel until 1971 when the line was shut down.[254]

Survey crews were the first on the ground flagging possible routes ahead of the caterpillars that cleared large swaths of land. The road matrix consisted of corduroy-lain wood slash, topped with soil, to counter areas of permafrost. Bridges at water crossings were initially held afloat by pontoons, and then replaced with log structures. The entire route was completed in eight months and twelve days with one construction crew beginning near Delta Junction and a second construction crew beginning in Dawson Creek. The entire route was completed October 28, 1942 and dedicated on November 20, 1942 at Soldier's Summit.[255]

The road was initially referred to as the ALCAN Highway but, in 1943, Canada and the US exchanged diplomatic notes formally naming it the Alaska Highway. The Alaska Highway is primarily recognized for being a remarkable feat of construction; it was constructed as a pioneer road in just under nine months.[256] The route was used solely for military purposes until the rerouting and straightening of the route was completed in 1948 when the highway was opened to the general public. Wood bridges were replaced with steel structures, guardrails were set, and signage began to appear along the roadway.

The first edition of a new guidebook, The Milepost, was published in 1949 to assist travelers in planning their trip on the Alaska Highway. With the opening of the Alaska Highway and spur highways within Alaska, highway vehicles emerged as the primary mode of travel between road-accessible Upper Tanana villages and to the Copper River Basin beginning in the early 1950s when the ARC made steady progress on paving the Alaska portion of the highway.[257] Today, the ALCAN has been reengineered and most of it is paved over or sealed dropping its total length to 1,387 miles in 2012 (even through the sign in Delta Junction still reads “Historic Milepost 1422”).

[254] United States Army, Corps of Engineers (USACE), *Haines-Fairbanks Pipeline Final Brochure; Gate Valves: History, Construction, and Function*, (Anchorage: USACE, Alaska District, Joint Base Elmendorf-Richardson, 2015).
[255] “British Columbia Geographical Names, GeoBC: Contact Creek,” Province of British Columbia, accessed December 15, 2015, http://apps.gov.bc.ca/pub/bcgnws/names/13395.html.
[256] Mead and Hunt, *Alaska Roads*, 86.
[257] Mead and Hunt, *Alaska Roads*, 86.


*Figure 23. Bridge construction along the Alaska Highway, 1943 (source: Alaska State Library, Historical Collections, Alaska Highway Construction Photograph Collection, ca. 1942-1943, ASL-PCA-193-047).*

### *Taylor Highway 1946 - 1953*

The 161-mile road from the Alaska Highway northeast to Eagle opened in 1953 when the road linked up with existing local roads south of Eagle. The road was named the Taylor Highway to honor Ike P. Taylor, and it served the Fortymile Mining District.[258]

### *Sterling Highway (1946-1950)*

The road linking the towns on the western side of the Kenai Peninsula with Seward was named for, Hawley W. Sterling,[259] a lifetime ARC employee. It opened for use in the winter of 1950. Additional surface improvements were required for summer traffic the following season. The Sterling Highway opened up the isolated Kenai Peninsula to trade, tourism, and sportsman offerings by linking Anchorage to the peninsula via Turnagain Arm Road and the Seward Highway.

### *Plan for Alaska Roads (1949)*

The ongoing military presence in the state meant that as the number of military personnel stationed in Alaska grew so, too, did the need for transportation infrastructure in Southcentral Alaska. However, it was not until after 1948 that public road building agencies changed their focus to linking up the territory's main roads. Commissioner of the ARC, Colonel John R. Noyes, outlined the ARC's priorities in the 1949 "Plan for Alaska Roads." The plan included the "improvement and extension of the interior road system of Alaska, as necessary and improvement of the road from Haines to central Alaska and the seaport of

[258] Mead and Hunt, *Alaska Roads*, 91.
[259] Mead and Hunt, *Alaska Roads*, 90.

Haines." Other transportation priorities included improvement of roads in Canada connecting to Alaska, including the Alaska Highway, and the establishment of a car ferry service and related ferry infrastructure for the Southeastern Alaska region.[260]

### *Denali Highway (1950-1957)*

Construction on the 160-mile Denali Highway began in 1950 and was completed in 1957. Created to support tourism by providing road access to Denali (formerly Mt. McKinley) National Park, the highway linked the Richardson Highway starting at Paxson (south of Fairbanks) to the park via Cantwell just south of the park.[261]

### *Haines Highway (1950 Reconstruction)*

Reconstruction of a 40-mile section of the Haines Highway in Southeastern Alaska started in 1950 with the addition of a bituminous surface.[262] The highway connected roads and ocean terminals, but winter closures and a lack of ferry terminal services in Haines were limiting factors in achieving increased commercial activity.

### *Seward Highway (completed 1951, paved 1956)*

The Seward Highway linked Anchorage with the Kenai Peninsula by road for the first time.[263] The 127 mile route follows old established trails that were once used by Native hunters in the region. Later the route was adopted by traders, explorers, and gold miners. It features rivers, lakes, and glaciers in mostly mountainous terrain that is partially paralleled by the Alaska Railroad.

### *The Highway Revenue Act (1956)*

The modern era of the Interstate began in the early 1950s as lobby groups pushed for a nationwide road network.[264] In 1956, Alaska was included in the Federal Aid Highway Act (FAHA)[265] legislation for the first time.[266] The Revenue Act provided the funding for programs outlined in the FAHA.[267] The Omnibus Act of 1959 also provided funding during the transition from federal territory to statehood status for transportation under a newly formed Division of Highways (Department).[268] The start of the Pioneer Access Road Program in 1962-1963 showed the state's effort to access resources. The purpose of the program was to "provide access to isolated areas of the State that are rich in natural resources."[269] Federal appropriations to Alaska for roads between 1949 and 1955 totaled an unprecedented $135 million

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[260] Mead and Hunt, *Alaska Roads*, 88.
[261] Mead and Hunt, *Alaska Roads*, 91.
[262] Mead and Hunt, *Alaska Roads*, 89.
[263] Mead and Hunt, *Alaska Roads*, 81.
[264] Mead and Hunt, *Alaska Roads*, 16.
[265] The Federal-Aid Highway Act-FAHA (1944) expanded the federal-aid primary road system, encompassing roads that states had designated as main transportation routes of the national highway system. The act also provided new funding for construction of secondary roads (also known as feeder roads, which included farm-to-market roads, rural free delivery routes, and public school bus routes) and urban highways in areas with a population over 5,000 (Mead and Hunt, *Alaska Roads*, 15).
[266] Mead and Hunt, *Alaska Roads*, 90.
[267] Mead and Hunt, *Alaska Roads*, 17.
[268] Mead and Hunt, *Alaska Roads*, 99.
[269] Mead and Hunt, *Alaska Roads*, 104.

enabling the transformation of the road network to more than 5,100 total miles many of which served as an interconnected roadway system by 1957.[270]

### *Elliot Highway (completed 1959)*

Linking Livengood to Manley and named for Major Malcolm Elliott, president of the ARC from 1927 to 1932, the road was completed in 1959.[271] From 1959 through 1977, the roadway was expanded although it remained gravel-surfaced.[272]

### *Good Friday Earthquake (1964) Effect on Roads*

The Good Friday Earthquake in 1964 damaged a portion of the state's road network and altered the state's road-building efforts. The earthquake and following tsunami caused significant damage to Alaska's roads especially in Southcentral Alaska and on Kodiak Island. The Richardson and Seward Highways, as well as portions of the newly-constructed Copper River Highway, were located near the epicenter and experienced the most damage. The Department immediately began emergency repair work on roads and bridges to enable supplies to reach hard-hit areas and restore traffic in urban areas.[273] By the end of 1964, over $10 million had been spent on emergency construction work on roads with 197.6 miles of road repaired.[274]

The decade following the earthquake can be categorized as a multi-faceted approach to road development as road repair, reconstruction, and upgrade were occurring at the same time as highway expansion, development, and construction. State initiatives included connecting major communities, expanding urban transportation systems, fostering rural road development, and accessing natural resources.[275] From the mid-1960s through the 1970s was one of expanding and upgrading the state-wide road system in both urban and rural areas. Achievements included completion of the Parks Highway and construction of new access roads to natural resources in remote areas of the state. It is also during this period that several miles of forest roads were being developed in the Tongass National Forest by the US Forest Service to support the growing timber industry.[276]

[270] Mead and Hunt, *Alaska Roads*, 87.
[271] Mead and Hunt, *Alaska Roads*, B-2.
[272] Mead and Hunt, *Alaska Roads*, 187.
[273] Mead and Hunt, *Alaska Roads*, 106.
[274] Mead and Hunt, *Alaska Roads*, 107.
[275] Mead and Hunt, *Alaska Roads*, 109.
[276] Mead and Hunt, *Alaska Roads*, 109.

*Figure 24. Large fissure on a roadway in Anchorage after the earthquake, 1964 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Alice and Bob Arwezon photographs, 1949-1973, UAA-HMC-1140).*

### *Copper River Highway (1964)*

Constructed along the abandoned right-of-way of the Copper River and Northwestern Railway, parallel to the Copper River, the route was intended to create a fourth road to an ice-free port by providing overland access to Cordova from the Richardson Highway west of Chitina.[277] Construction was halted by the 1964 earthquake and never resumed. The 1964 completion date represents the point at which the highway reached its current northern terminus at the Million Dollar Bridge.[278] The bridge, damaged during the quake, is listed on the National Register.

### *Palmer-Wasilla Highway (1960s)*

The Palmer-Wasilla Highway was a wagon road that directly connected the towns of Palmer and Wasilla. The road was improved and widened in the 1960s and has since become a major east-west thoroughfare connecting the two communities.

### *Alaska Highway Study (1965)*

Despite federal funding restrictions in the late 1960s, the state forged ahead with accomplishing its goals of roadway expansion.[279] The Alaska Highway Study, released in 1965, was one of the most influential reports on the direction of road development in the state. Congress required the study under the 1962 FAHA to better understand the existing road system. The consultants concluded that Alaska's highways comprised an important transportation system in the state even if modest when compared to the state's size. The study provided five principal recommendations[280] including road classifications, designation of priority and non-priority areas for improvements within the state, focus on international access with

[277] Mead and Hunt, *Alaska Roads*, 91.
[278] Mead and Hunt, *Alaska Roads*, 187.
[279] Mead and Hunt, *Alaska Roads*, 109.
[280] Mead and Hunt, *Alaska Roads*, 109.

Canada, and road maintenance efficiency increases.[281] According to the Study, "Much of the existing designated primary and secondary highway systems have suffered considerable deformation due to frost action and drainage maintenance difficulties. It will be necessary to reconstruct nearly all of the primary system and most of the secondary system to meet projected usage."[282] As it had since statehood, the federal government primarily funded these road building efforts. In 1966, alone the federal government funded 79 percent of the department's $91 million budget. The 1965 National Highway Beautification Act provided needed funds to complete beautification efforts which included landscaping, installation of new lighting and medians, construction of scenic overlooks, rest areas, tourist spots, campgrounds, screening of junkyards, and removal of signs along highways; this was partially tied to the state's upcoming centennial celebration of Alaska's purchase in 1967.[283] During that year, the Division of Highways allocated an additional $219 million over five years for continued rehabilitation and construction efforts on Alaska's primary and secondary highways including the Kodiak, Sterling, Seward, Parks, Glenn, Tudor, Fairbanks-Fox (a portion of the Steese Highway), and Richardson Highways as well as additions to the coastal network of highways in Southeast Alaska. All road improvements and construction were completed using the department's first standard design plans, prepared in 1966, patterned after guidelines prepared by the American Association of State Highway Officials (AASHO).

### *Bridges*

"The year 1948 was the water-shed mark for the evolution of bridge types and materials in Alaska. Pressure from the military and Congress during the Cold War resulted in new design standards calling for wider bridges with greater load-carrying capabilities. The new standards prompted the ARC to switch from timber stringer and steel truss designs to steel stringer/girder and continuous bridges. The huge windfall of funding and the new priorities outstripped the ability of the ARC and the Bureau of Public Roads (BPR) to design and build bridges themselves forcing them to change the way they built bridges by contracting the work out to private businesses. The steel stringer/girder bridges were built in significant numbers throughout the 1950s and early 1960s. The BPR built a small number of concrete bridges in the late 1940s and early 1950s as did the State of Alaska in the early 1960s. Glu-laminated timber girder bridges were introduced in the 1950s, but the number built was small. By the mid-1960s, steel stringer/girder bridges had become the preferred bridge types for new construction in Alaska."[284]

At the request of the military, the federal government placed a new requirement on the ARC that existing roads be widened during the on-going bridge construction efforts to accommodate military supply vehicles. Congress eventually appropriated $28 million to connect Anchorage and adjacent military installations with, Alaska's principal port in Seward. In addition, Congress authorized a 6-year road program (in excess of $170 million) to convert, improve, and pave the primary road system in Alaska.[285] The ARC began upgrading its highways and replacing hundreds of first and second generation timber and

[281] Mead and Hunt, *Alaska Roads*, 110.
[282] Mead and Hunt, *Alaska Roads*, 110.
[283] Mead and Hunt, *Alaska Roads*, 111.
[284] Rolfe Buzzell and Christopher Chambers, *Bridging Alaska: Historic Context for the Inventory of Alaska's Highway Bridges (draft)*, (Anchorage: Office of History & Archaeology, Division of Parks and Outdoor Recreation Alaska Department of Natural Resources, 2002), ii.
[285] Board of Road Commissioners for Alaska (ARC), *Alaska Road Commission Annual Report, For the Fiscal Year Ended June 30, 1955,* US Department of the Interior, Office of Territories, (Juneau, 1955), 3.

steel truss bridges which were too narrow and not designed for the weight of a new generation of heavy trucks and military vehicles.[286]

### 2.7.2 Aviation

The Federal Airport Act of 1946 (1946 Airport Act) made it the responsibility of the Civil Aeronautics Administration (CAA) to administer the Federal Aid to Airports Program (FAAP) which was the first program of financial assistance aimed exclusively at promoting development of the nation's civil airports after World War II. It was in the same year this legislation was passed that Azimuthal World Air Charts became cartographic standard for air navigation. The challenge of reproducing the earth's spherical surface on a flat piece of paper was met by projecting the globe onto a plane surface that touches the globe at one point. This allows for routes to *appear* as straight lines on the charts so pilots can fly with more precision and accuracy.[287] Later the same year, the CAB announced its study for future aviation patterns in Alaska and the feasibility of a North Pacific air route, from North America to Asia, across the North Pacific Ocean.

The Anchorage Chamber of Commerce started a campaign to promote Anchorage as part of this proposed North Pacific route. The shortcut between Europe and Asia via the Arctic route made the journey from New York to Tokyo two thousand miles shorter than the Central Pacific route through San Francisco. Twenty Anchorage businessmen chartered an Alaska Airlines DC-3 and flew the proposed route to Chicago which was so well received they continued on to Washington and told their story to President Truman. In August of 1946, the CAB announced that three new air routes would converge in Anchorage. It wasn't long before airlines were requesting routes through Anchorage. Northwest Airlines received the direct flights between Seattle and Anchorage, Anchorage and Minneapolis-St. Paul, and Chicago and New York via Canada. Anchorage also became the North American terminal for the Great Circle Route to Asia. CAB Chairman, James M. Landis, estimated that 75 percent of the Asia travel would pass through Anchorage.[288]

In May of 1948, Congress authorized CAA to procure lands, issue contracts for design, construction, improvement, maintenance, protection, and the operation of an international airport in the vicinity of Anchorage. Adjacent to Lake Hood, a site was selected outside the city center. Spenard Road would connect Anchorage to Lake Hood. Funding for the new airport was appropriated in 1948 and construction on the $12 million project began in the spring of 1949. Construction was completed and flights began flying out of the airport in January of 1952. A wooden-frame control tower from Yakutat was used until the terminal building was completed at which time it was moved to Lake Hood. The CAA was going to

[286] Buzzell and Chambers, *Bridging Alaska*, 124.
[287] M. Diamand, "1000 Events that Shaped The World," National Geographic Society, accessed February 25, 2016, https://books.google.com/books?id=8AceAd-41awC&pg=PA344&lpg=PA344&dq=Great+Circle+Route+1946&source=bl&ots=uh-245UGvv&sig=_4kUTTAOk8T1dTRmbQlLGzNvBe4&hl=en&sa=X&ved=0ahUKEwiS_ZDOn5TLAhVB6GMKHeHVCZIQ6AEINDAG#v=onepage&q=Great%20Circle%20Route%201946&f=false.
[288] Municipality of Anchorage, "Merrill Field: Anchorage Aviation History & Development," accessed February 26, 2016, http://www.muni.org/Departments/merrill_field/Pages/History.aspx.

close Merrill Field, but it remained in use by Reeve Aleutian Airways and other small, private operators. By 1954, the CAA ranked Anchorage as the nation's fourth busiest aviation center.[289]


*Figure 25. Fairbanks Airport Terminal, built 1951 and designed by Thomas Bourne architect; seen here in 1953 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Donald Arthur Post slides, 1953-1959, UAA-HMC-0917).*

### 2.7.3 Alaska Railroad Rehabilitation Project

The Alaska Railroad Rehabilitation Project began in 1947, after approval from Congress, for use of $75 million to improve ailing Alaska Railroad facilities, replace aging rail ties, and pull the rail system out of deficit.[290] According to a 1947 report issued by the US Department of the Interior, the rail line had an obsolete power plant, subsidized competition, inadequate labor supply, and pilferage as well as $2.5 million deficit with projected future losses.[291] The rehab program was justified with a principal basis that adequate rail facilities should be available for military personnel, their day-to-day operations, and in case of a national emergency.[292] The project improved and replaced rail and ties on nearly 418 miles between Fairbanks and Whittier and vastly improved the Anchorage rail yard. A projected increase in power consumption and inability to rely on local energy producers to provide for the increasing demand led to the construction of a steam power generation plant at the rail yard.[293] Diesel locomotives, modern coaches, and dining cars were introduced to the line in an effort to boost public transportation and tourism as other avenues of rail use. Passenger terminals were built at key rail stops and in some instances, such as Denali National Park, the Alaska Railroad built lodging accommodations for visiting tourists.

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[289] Municipality of Anchorage, "Merrill Field."
[290] MacRostie Historic Advisors, LLC, "Knik Arm Power Plant, Anchorage Alaska, Historic Preservation Certification Application Part 1 for Dgheyaytnu Energy, LLC.," (Anchorage: MacRostie Historic Advisors, 2006), 6.
[291] MacRostie, "Knik Arm Power Plant," 7.
[292] MacRostie, "Knik Arm Power Plant," 7.
[293] MacRostie, "Knik Arm Power Plant," 8.

### 2.7.4 Alaska Marine Highway System

The Alaska Marine Highway System, established under the name Chilkoot Motorship Lines in 1948 by private individuals Steve Homer and Ray and Gustav Gelotte of Haines and operated by the state in the 1960s, connected the highway systems of Juneau and Skagway to the Haines Highway.[294] It provided a much needed mode of transportation to help alleviate the loss of the steamship passenger services. The Board of Road Commissioners (BRC) supported Chilkoot Motorship Lines and provided funding for three wood ramps to be built at Tee Harbor, Haines, and Skagway in 1949.[295] The company faced bankruptcy after just a few years in business and, in 1951, was purchased by the Alaska Territorial Legislature.

By 1957, the single ferry vessel in the fleet, MV Chilkoot, was deemed too small and the MV Chilkat began daily service between Tee Harbor (Auk Bay, Juneau), Haines, and Skagway. The first Alaska Legislature meeting in 1959 approved the Alaska Ferry Transportation Act. That same year, voters approved bond issues totaling $18 million to expand the ferry fleet. These bonds enabled the state to commission four new vessels and build docks throughout Southeast Alaska and the Kenai Peninsula.[296] In 1963, the Division of Marine Transportation was formally established founding the Alaska Marine Highway System (AMHS). Three ships were added to the fleet, and five communities gained service. The MV Chilkat was joined by the MV Malaspina, MV Taku, and MV Matanuska; ferry service was expanded to Ketchikan, Petersburg, Sitka, Wrangell, and Prince Rupert, British Columbia.[297] In 1964, Kodiak, Cordova, Homer, Seldovia, Valdez, and Seward were added to the system and serviced by the MV Tustumena. At the time the AMHS had 5 ferries and 16 ports of call.[298] Problems with the Canadian ferry system and rockslides on the highway out of Prince Rupert finally convinced Alaska to create an alternate route and move the terminus south to Washington. Alaska built the “marine highway” to make the state more accessible for tourists. By 1967, communities in Southeast Alaska along the marine highway were connected to the southern terminus in Bellingham, Washington. Those arriving by ferry and wishing to travel inland drove the Haines Highway to the Alaska Highway through the Yukon Territory and a portion of British Columbia. Members of the US Congress felt it was vital to pave that portion of highway due to its increased use after the implementation of the ferry system in 1963.[299] In 1968, the communities of Port Lions, Tatitlek, Whittier, and Valdez were added to the system. The Whittier stop linked with the Alaska Railroad to provide sea-to-land transportation route to both Southcentral and Interior Alaska.

[294] Mead and Hunt, *Alaska Roads,* 104.
[295] “History of AMS,” Alaska Department of Transportation and Public Facilities (DOT&PF), Alaska Marine Highway System, 2016, accessed January 2, 2016, http://www.dot.state.ak.us/amhs/history.shtml.
[296] “History of AMS,” Alaska DOT&PF.
[297] “History of AMS,” Alaska DOT&PF.
[298] “History of AMS,” Alaska DOT&PF.
[299] Mead and Hunt, *Alaska Roads,* 102.

*Figure 26. Auk Bay Ferry Terminal, Tee Harbor, 1963; demolished (source: Alaska State Library, Historical Collections, Alaska State Library Place File, ASL-Juneau-Vicinity-AukeBay-TeeHarbor-11).*

## 2.8 Travel and Tourism

During World War II, more than 100,000 US and Canadian service members were stationed in Alaska. In the decades following the close of the war, large numbers of veterans would return on their own or with their families to "experience Alaska in a more peaceful way.[300]" Prosperity after the war, a surge in automobile ownership, and the ongoing development of the transportation and tourism infrastructure meant that Alaska's tourism industry continued to expand after the war. Alaska captured the imagination of Americans. It represented the last vestige of wild North America. Early travel and tourism was made possible by ship, rail after WWII rehabilitation of the Alaska Railroad, by air via bush pilots in the west and northern extremes, and automobiles once the Alaska and Parks Highways opened.

### 2.8.1 Transportation Improvements Impact on Tourism

Tourism in Alaska came to a halt during World War II as nearly all travel ceased from 1940 to 1946. The War did, however, open Alaska to opportunities for tourism in the post-WWII era. Thousands of service members stationed in Alaska returned as tourists and the infrastructure constructed during the War was opened to the public.

The ALCAN was opened for civilian use in 1948. In the years following the War, both the United States and Canadian governments poured money into improving the highway so that it could be used for travel

[300] David Kiffer, "A Steady 'Boom' in Tourism Post World War II, accessed November 26, 2016, http://www.sitnews.us/Kiffer/Tourism3/122910_tourism_pt3.html.

and tourism. [301] Communities and travel accommodations such as service stations, motels, recreational areas, post offices, and campgrounds were established along the roadside from the Alaskan-Canadian border to Fairbanks and Anchorage as public use increased throughout the 1950s and into the 1960s.

Airfields and airports constructed during WWII in support of the military effort opened to commercial airlines in the years following the War. Pan American and Pacific Northern airlines both began routine services to Alaska and brought visitors and tourists from around the world. As these large, commercial airliners continued to open Alaska to tourism in the 1950s, some of the smaller operators consolidated into larger companies such as Reeve's Aleutian Airways, Northern Consolidated Airlines, and Alaska Airlines. Travel and tourism continued to grow as air travel improved throughout the 1950s and into the 1960s. New airfields and airports were built, and substantial improvements were made to existing facilities.

Tourism in Southeast Alaska got a slow start after the close of World War II when compared to other regions such as Southcentral and the Interior. Communities in Southeast Alaska relied heavily on commercial fishing and other marine-based economies. During this time, harbors and docks were mostly built to accommodate shipping and freight rather than travelers. The demand was realized, however, as small vessels specializing in tourism excursions began to operate throughout Southeast Alaska. Steam ships were converted to passenger vessels to accommodate a gradually growing tourist industry. These vessels functioned as small cruise ships with services offered in the peak travel season from May until September.[302] As this was happening, the Territorial Government took interest in the development of a marine highway ferry system to provide an alternative to air travel to coastal communities in Southeast and Prince Rupert, BC.

Travel and tourism in Southeast increased as marine infrastructure improved.[303] Larger tour companies, such as Westours, began offering cruises into Southeast Alaska waters. Westours was a travel company based in the Interior that offered riverboat tours on the Chena River beginning in 1949[304] and later purchased by Holland America.[305] A growing cruise ship industry in Southeast Alaska demanded improved harbors and docks as well as more excursions and entertainment to accommodate the influx of tourists into the region. Cruising Alaska's southeast waters was relatively small when compared to other travel industries at that time. In 1964, only 11,000 visitors traveled into Southeast Alaska by cruise ship and 13,250 came to Alaska by air travel. By 1970, however, cruise line numbers had tripled to more than 30,000. The 1970s experienced even more growth as large liner vessels, such as Princess (created by Canadian Railways and previously navigating South American waters), entered into Alaska water.[306][307]

[301] Kiffer, "A Steady 'Boom'."
[302] Kiffer, "A Steady 'Boom'."
[303] Lee Cerveny, "Tourism and its effects on southeast Alaska communities and resources: case studies from Haines, Craig, and Hoonah, Alaska," Research Paper PNW-RP-566, (Portland: US Forest Service, Pacific Northwest Research Station, 2005), 35.
[304] Alaska State Museum, *The Lure of Alaska: A History of Tourism in the Great Land: Exhibition Catalog*, (Juneau: Friends of the Alaska State Museum, 2007), 36.
[305] Kiffer, "A Steady 'Boom'."
[306] Kiffer, "A Steady 'Boom'."
[307] Alaska State Museum, *The Lure of Alaska*, 10.

### 2.8.2 Parks and Recreation

The establishment of the national parks in Alaska contributed greatly to the growing tourism industry after World War II. An Executive Order in 1933 transferred 56 national monuments and military sites from the Forest Service and the War Department to the National Park Service. This action was a major step in the development of national park system —a system that includes areas of historical, scenic, and scientific importance.[308] In Alaska, Mount McKinley National Park, Glacier Bay National Monument, and Katmai National Monument were slowly developing their tourism plans by 1949. Both Glacier Bay and Katmai were later declared National Parks and the development of tourism and public access to all three parks was a joint venture between federal and territorial agencies and private interests.

Parks in Alaska were referred to as "last frontier parks" because they captured the allure of the last wild place in North America. Mount McKinley National Park was the focal point of the park experience due to its relative ease of access when compared to Glacier Bay and Katmai. Established in 1917, Mount McKinley National Park contained North America's highest mountain, 20,320-foot Mount McKinley (recalibrated in 2013 to be 20,237 feet and renamed as Denali in 2015). Large glaciers of the Alaska Range, caribou, Dall sheep, moose, grizzly bears, and timber wolves are highlights of this national park and preserve.[309] The Denali Highway was constructed in 1957 to enhance tourism into the park. Mount McKinley National Park was renamed Denali National Monument in 1978 and Denali National Park and Preserve in 1980.[310]

To further attract tourists into the National Parks, the National Park Service initiated a directive referred to as Mission 66. This ten-year park development program, from 1956 to 1966, funded the modernization of parks and improved visitor accessibility and services. Several projects resulted from this program including a new visitor's center at Glacier Bay National Monument which was received with much hype and successfully increased visitation to the park.[311] A lodge at Bartlett Cove was also completed under Mission 66 and, by 1969, more than 3,000 people visited Glacier Bay. Increased park attendance was made possible by improvements in marine travel throughout the 1950s and 1960s. Approximately 1,600 of the 3,000 visitors arrived on cruise ships.[312]

Katmai was proclaimed a National Monument in 1918 for its vast landscape of lakes, forests, mountains, marshlands, and abundant wildlife. In 1912, Novarupta Volcano erupted violently and formed the ash-filled "Valley of Ten Thousand Smokes" where steam rose from countless fumaroles.[313] The monument was expanded to include the Brooks River area in 1931 including the Valley of Ten Thousand Smokes.

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[308] National Park Service, *The National Parks: Index 2009-2011 (revised to include the actions of the 110th Congress ending January 3, 2009)*, (Washington, D.C.: Office of Public Affairs and Harpers Ferry Center, 2011), 7.
[309] National Park Service, *The National Parks*, 17.
[310] "National Park System Areas Listed in Chronological Order of Date Authorized Under DOI", the National Park Service, accessed March 4, 2016, https://web.archive.org/web/20120311003821/http://home.nps.gov/applications/budget2/documents/chronop.pdf.
[311] "Spaces & Places: America's Cultural Landscapes, Glacier Bay Lodge Complex," National Park Service, accessed, December 10, 2015, http://www.nps.gov/cultural_landscapes/snp/100035.html.
[312] John Sisk, "The Southeastern Alaska Tourism Industry: Historical Overview and Current Status, Chapter 9.8" In *The Coastal Forests and Mountains Ecoregion of Southeastern Alaska and the Tongass National Forest, A Conservation and Resource Assessment Synthesis in Southeast Alaska*, ed. John W. Schoen and Erin Dovichin, (Juneau: the Nature Conservancy and Audubon Alaska, 2007), 2.
[313] National Park Service, *The National Parks*, 18.

The monument was closed to the public from 1919 to 1949 which was a period known within the park as the "Era of Neglect." In 1950, Katmai National Monument was re-opened to the public. Alaskan bush pilot, Ray Peterson, established five fishing camps in and around the park including Brooks Camp and, known as "angler's paradise, Colville Camp. Northern Consolidated Airlines (NCA) provided tourists with fly-in fishing along with other small outfitters. Increased operations in the park from private interests prompted the park service to build a ranger station at Brooks Camp in 1955 and a road to the Valley of Ten Thousand Smokes in 1963. [314]

The Sitka National Historical Park Visitor Center was built in 1965 as part of the Mission 66 initiative. It was designed by John Morse who also designed the lodge at Glacier Bay. [315] Under Mission 66, the National Park Service expanded visitor services, and construction efforts were undertaken across the country.

State parks within Alaska have their beginnings just prior to statehood. The "Division of Parks" was not established until 1970, but the transfer of 32 Bureau of Land Management campgrounds and associated recreational areas to the care of the newly formed Department of Natural Resources in 1959 was the basis for the later state park system. Several of these areas are still in use today including the recreation areas at Johnson Lake on the Kenai, Big Lake in the Matanuska Valley, and the Clearwater outside of Delta Junction. The first legislatively designated recreation areas came in 1966 and 1967 with the establishment of the Nancy Lake State Recreation Area outside of Houston and the Chena River State Recreation area outside of Fairbanks.[316] With the establishment of the Division of Parks in 1970, the state park areas of Kachemak Bay, Denali, and the Chugach State Parks were formally established and designated.

[314] Katherine Johnson Ringsmuth, "Tourism and Early Park Development Resources of Katmai National Park and Preserve Multiple Property Documentation Form," accessed, November 26, 2015, http://dnr.alaska.gov/parks/oha/publications/tourismearlykatmai.pdf, 3.
[315] "Sitka National Historical Park Visitor Center," National Park Service, US Department of the Interior, accessed March 8, 2016, http://www.nps.gov/media/photo/view.htm?id=C0CBC3D3-1DD8-B71C-07F83B51810EDDCB.
[316] Melissa DeVaughn, *Alaska State Parks: Recollections from the People who Shaped Alaska's State Park System*, (Anchorage, Alaska: Alaska Humanities Forum, 2010), 3.

*Figure 27. Dining Hall at Camp Denali in Mount McKinley National Park, 1961 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Charlotte E. Mauk slides, 1944-1963, UAA-HMC-0752).*

### *Resorts and Lodges*

The mid-century period saw a general increase in recreational opportunities for Alaskans as well as for tourists. Military activity in Alaska during World War II had also done a fair bit to increase the infrastructure of resorts and lodges for sport hunting, fishing, and snow sports. During the war, many military posts saw the construction of ski areas, in particular, both for cross country skiing and downhill sports. The wintertime activity helped to boost morale and keep the troops active and occupied during cold, dark months. Following the war, many of these ski areas were taken over by local Alaskans and continued to operate for many years. Several, such as Birch Hill on Fort Wainwright and Ravenwood Ski Area on Eielson AFB, remain operational.

The increase in tourism that followed the war period and the increasing popularity of snow sports spurred a boost in construction of ski areas throughout the state. Long-term ski areas were established in Fairbanks, Anchorage, Sitka, and many other smaller communities. Generally, these areas were equipped with rope tow lifts to transport skiers to the top of the hill and had rudimentary lodges and first aid stations. Some, such as Ski Boot Hill in Fairbanks and Romig Hill in Anchorage, repurposed military surplus Quonset huts into basic lodges that functioned primarily as warm-up huts and rental stations for area skiers.[317] Others were not equipped with rope tows at all, but instead opted to bus skiers from the base to the top such as at the ski area established at the Murphy Dome Air Force Station outside Fairbanks.[318]

[317] "Ski Boot Hill," Alaska Lost Ski Areas Project, accessed June 14, 2016, http://www.alsap.org/SkiBootHill/SkiBootHill.htm.
[318] "Murphy Dome AFS Rope Tow," Alaska Lost Ski Areas Project, accessed June 14, 2016, http://www.alsap.org/MurphyDomeAFS/MurphyDomeAFS.htm.

It was also during this period that one large resort was established in Girdwood, Alaska. In 1956, eleven families in Girdwood formed the Alyeska Ski Corporation and purchased the land that would become Alyeska Ski Resort. By the 1960s, Alyeska was developing into a first-class resort with the financial backing and management provided by Alaska Airlines. The development resulted in the growth of Girdwood and the transformation from an Alaskan town of log and simple frame structures to a community consisting primarily of chalet-style architecture.[319]

Sport hunting and fishing at this time also saw an increase in activity. The nature of backcountry sport necessitated the construction of lodges in remote areas. Many lodges repurposed preexisting structures such as old roadhouses providing profitability and stability to aging structures in remote areas across Alaska. These included the Tonsina Roadhouse and Rapids Roadhouse on the Richardson Highway. Rapids Roadhouse had even constructed a 400-ft runway in the 1940s to better accommodate hunters.[320]

Overall, the mid-century period saw an increase in available infrastructure for recreational activities such as skiing, hunting, and fishing. An increase in population within Alaska, an uptick in tourism, and the growing popularity of these outdoor pursuits led to the establishment and construction of facilities in locations across Alaska. Many remain operational; some, such as the ski area at Curry, followed the lifecycle of the population center they were constructed to serve and are no longer extant.[321]

[319] Robert L. Meinhardt, *Historic Structures Survey Report (HSSR) for the Olympic Mountain Loop Project Located in Girdwood, Alaska*, (Anchorage, Alaska: Cultural Resources Consultants and DOWL HKM), 2011), 5.
[320] "Airplane Lands at Roadhouse." *The Alaska Miner* (Fairbanks), August 6, 1940, accessed June 14, 2016, https://www.newspapers.com/newspage/10781309/.
[321] "Curry Ski Hill," Alaska Lost Ski Areas Project, accessed June 14, 2016, http://www.alsap.org/Curry/Curry.htm.

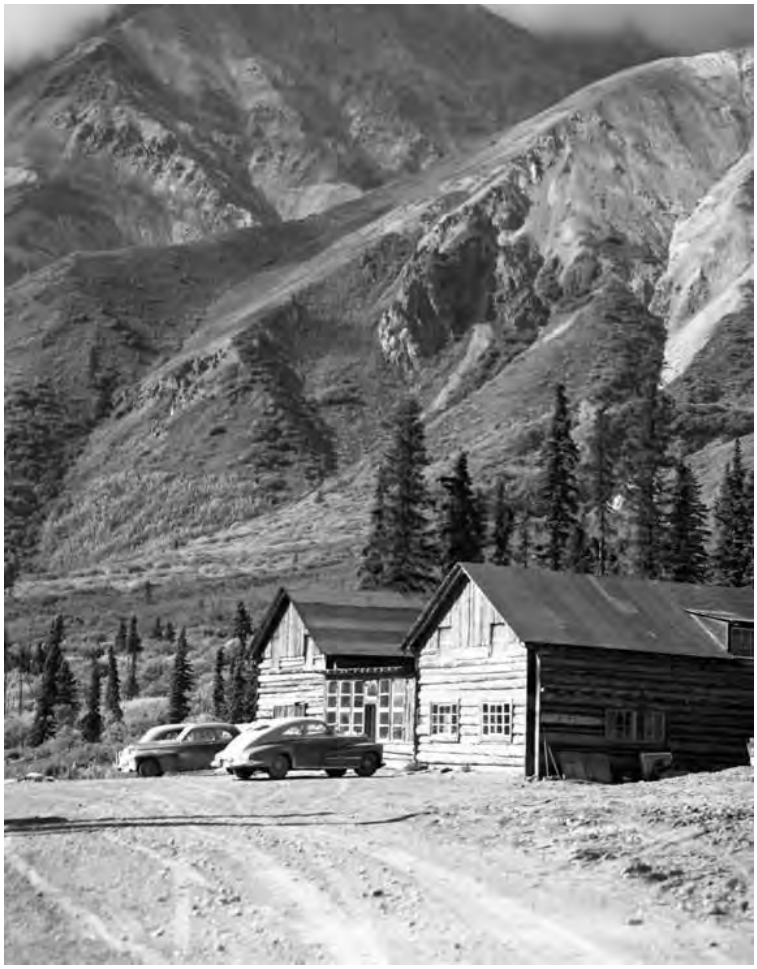

*Figure 28. Sheep Mountain Lodge, ca, 1948, extant (source: Anchorage Museum at Rasmuson Center, Sidney Hamilton Photograph Collection, AMRC-B1976-82-271).*

## 2.9 Education

> *"The decade between 1950 and 1960 was one of tremendous growth in Alaska's public school enrollments. The average daily attendance of local school districts increased from 8,671 in 1949-1950 to 25,283 in 1959-1960. During that same period, enrollment at rural schools run by the Department of Education increased from 2,073 to 11,772. The overall enrollment increase was 352 percent. The federal Johnson-O'Malley Act provided some funding for the territory to deal with the dramatic increase in numbers of students. The federal government gave the territory funds to operate Bureau of Indian Affairs schools until the facilities were improved to meet territorial standards. At that time, the schools would be transferred to the territory to operate."*
>
> *– Alaska Humanities Forum*

### 2.9.1 Primary and Secondary Education

Systematic Western education in Alaska was first introduced in the second half of the nineteenth century in the decades following the Alaska purchase from Russia. The Alaska Organic Act of 1884 was the first attempt to provide education for Alaskans. Five religious denominations entered into contracts with the

Bureau of Education to provide missionary education in communities throughout the Territory.[322] This system persisted until 1905 when the Nelson Act transferred supervision of education in Alaska from the Bureau of Education to the Territorial Board of Education. The Bureau of Education continued providing education to Alaskan Natives[323] until being transferred to the Bureau of Indian Affairs in the 1930s.[324]

The Bureau of Indian Affairs began transferring schools in Alaskan Native villages to the Territory of Alaska to be operated as contract schools beginning in 1951. With the advent of statehood in 1959, the Alaska Department of Education was established to oversee the administration of educational systems within boroughs and other incorporated areas and "provide centralized management of schools in rural Alaska."[325] Enrollment in schools increased by 352 percent between 1950 and 1960. The Johnson-O'Malley Act provided federal funds to accommodate the increased enrollment.[326]

A large number of schools were constructed during this period many of which are still in use. These schools reflected the architecture at the time and are even considered excellent stylistic examples, including the Joy and Nordale Elementary Schools in Fairbanks, constructed in the early 1960s. Many schools were also worked on by noted architects who have since been recognized for their importance to the state and even regionally such as the Kake Elementary School, which was designed by Linn Forest and constructed in 1962. The influx of funding following statehood and the increase in enrollment also led to the construction of schools in previously small rural communities such as Dillingham, Kenai, and Sand Point. The increase in student enrollment also required the construction of separate elementary and junior and senior high schools. These included North Pole Junior/Senior High School in North Pole (now North Pole Middle School), Lathrop High School and Ryan Middle School in Fairbanks, and Bartlett and Central High Schools in Anchorage.

[322] Donald Craig Mitchell, *Sold in America: The Story of Alaska Natives and their Land, 1867-1959*, (Hanover, New Hampshire: University Press of New England), 1970.
[323] "Alaska History and Cultural Studies - Alaska's Heritage - Chapter 4-20: Education," Alaska Humanities Forum, accessed, Nov. 24, 2015, http://www.akhistorycourse.org/articles/article.php?artID=185
[324] Ray Barnhardt and Angayuqaq Oscar Kawagley, ed., *Alaska Native Education: Views from Within*, (Fairbanks: University of Alaska, Alaska Native Knowledge Network Center for Cross-Cultural Studies, 2010 0, 11.
[325] Barnhardt and Kawagley, *Alaska Native Education*, 12
[326] "Alaska History and Cultural Studies - Alaska's Heritage - Chapter 4-20: Education," Alaska Humanities Forum.


*Figure 29. Anchorage High School (west), 1955, Manley and Mayer architects, extant (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-1654-2).*

### 2.9.2 Post-secondary Education

Post-secondary education had been available in Alaska as early as 1917. Prior to that, Agricultural Experiment Stations across the state offered tutelage. It has also long been funded both federally and territorially. In 1935, the Alaska Agricultural College and School of Mines in Fairbanks became the University of Alaska and offered classes in Anchorage in 1950 at Fort Richardson. The campus was expanded throughout the 1950s and 1960s. Under the Community College Enabling Act, Chapter 57 of the Session Laws of Alaska, 1953, six community colleges were established across Alaska after WWII:

- Anchorage Community College (ACC), a joint venture of the Anchorage Independent School District and the University of Alaska, opened in 1954 in the second floor of what is now West High School. It became part of the University of Alaska in 1962 and construction on a new ACC campus at Goose Lake began in 1968.[327]
- Ketchikan Community College opened in 1954. It became part of the University of Alaska Southeast in 1972.
- Palmer Community College opened in 1958 and offered vocational training, two-year associates degrees, and community enrichment programs. It changed its name to Matanuska-Susitna College in 1963.
- Alaska Methodist University opened in Anchorage in 1960 as a private school. Its affiliation changed to non-denominational, and the name was changed to Alaska Pacific University in 1978.[328]

[327] "History," University of Alaska Anchorage, accessed April 08, 2016, https://www.uaa.alaska.edu/ctc/about/history.cfm.
[328] "History," University of Alaska Anchorage.

- Sitka Community College opened in 1962. It became part of the University of Alaska Southeast in 1972.
- Kenai Peninsula College opened in 1963, and its student body consisted of primarily service members from Wildwood Air Force Base enrolled in Adult Basic Education classes. It received community college status in 1964.
- Kodiak College opened its doors in 1968 using local high school facilities until college buildings were completed beginning in 1972. It became an extension of UAA in 1987.[329]

*Figure 30. Alaska Methodist University, Campus Center Building, Edward Durrell Stone architect, ca. 1965, extant (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Stewart's Photo Shop slides, 1964-1992. UAA-HMC-1181).*

## 3.0 OVERVIEW OF POST-WWII ARCHITECTURE AND DEVELOPMENT IN ALASKA

Alaska, because of its strategic location and abundance of natural resources, experienced a surge of growth during World War II that continued into the Cold War. The 1968 discovery of oil in Prudhoe Bay brought another intensification of development. The massive military build-up to support both World War II and the Cold War brought much-needed infrastructure, like the ALCAN Highway, to the state. The concomitant population growth, driven by the influx of military personnel and of those providing support services, meant that homes, schools, civic buildings, factories, commercial buildings and the like were needed to accommodate them. Meeting those needs was not simple. Materials could be difficult to obtain and when obtained were expensive. The crushing demand for new construction, and the challenges of building in such an environment meant that construction costs were also high. A short construction season, a lack of easy access to some areas, and a severe climate meant that building types and styles,

[329] "Kodiak College," Wikipedia, accessed April 08, 2016, https://en.wikipedia.org/wiki/Kodiak_College.

readily replicable in the Lower 48, were seldom well-suited to the often unforgiving environment. Although the military operations brought architects, engineers, contractors, and other building professionals to the territory, and the construction industry was one of the widest sources of employment, the state still lacked a formal architectural program at any of its institutions of higher education. After World War II, many of the architects either came from the outside, or if residents of the state, got their education in the Lower 48 and returned to Alaska to practice.

Although the more remote areas had been inhabited by the indigenous population for centuries, the harsh climate, combined with a lack of adequate infrastructure and utilities, meant that many newcomers settling in these areas faced significant challenges simply to establish a dwelling. Within the Native population, traditional forms of construction were becoming increasingly scarce.[330] Despite the image of the state as the last frontier, most new arrivals settled in urban areas, and those settling in cities faced their own set of challenges. The pace of population growth outstripped that of development. Anchorage, Fairbanks, and other communities faced severe housing shortages. Most of the newcomers came from the Lower 48, including African-Americans, who had first come to the state in significant numbers during WWII. Asian immigrants continued to move to the territory in search of economic opportunities. Although in sheer numbers, the Native population was eclipsed by that of outsiders, the indigenous population continued to grow and the civil rights movement gained considerable momentum.

It was during this period of dramatic change that Alaska experienced one of its most significant periods of growth. While the climate, politics, remoteness, and seismic vulnerability of the state posed challenges, development in the state still reflected national trends including increased automobile ownership, economic growth, and new land use patterns. Existing property types were altered and new ones emerged. Historicist architectural styles gave way to a new modernist aesthetic made possible in part by innovations in building construction techniques and the proliferation of new, mass manufactured building materials. Whether an A-Frame cabin in a remote area or a new high-rise in downtown Fairbanks, from massive military installations to minimal traditional houses, the range of development and cultural change during the period was impressive.

## 3.1 Overview of Federal and State Funding Programs

Federal and State funding incentives were instrumental in the development of many of the post-WWII construction efforts in Alaska. Affordable housing in urban areas had been an issue for the United States since the turn of the twentieth century when populations began shifting into urban areas in search of industrial work. Cramped, unsanitary tenement buildings for low-income workers had sprung up in inner cities during the latter half of the nineteenth century, and after the start of the Great Depression in the early 1930s, the conditions in these tenements had become a source of great alarm. Low-cost sanitary housing became part of the New Deal legacies of the 1930s.

In 1932, the National Industrial Recovery Act established the Public Works Administration (PWA). Within the PWA, was the Housing Division; its primary objective was to build low-cost housing within urban areas. Focus was chiefly on large block apartment-style housing as was in use in European centers, and was adapted for use by the Housing Department. These apartment complexes created neighborhoods

[330] Hoagland, *Buildings of Alaska,* 51.

complete with schools, laundry facilities, recreational facilities, and commercial buildings as well as residential structures.[331]

The success of the Housing Division led to the passage of the U.S. Housing Act of 1937. The act was intended to make the Housing Division a permanent feature, thus continuing the effort to provide affordable housing. The reality, however, was that the act was stripped to bare basics, and confined construction efforts to the cheapest construction possible for the lowest income citizens. The result was the construction of slum areas within cities with cheaply constructed residential superblocks that deteriorated quickly in value.[332] These devalued urban areas in turn led to massive urban renewal programs from 1949 to 1972 which cleared vast tracts of inner city property and further displaced the low-income residents.[333]

In a second effort to solve the country's housing situation, the Federal Housing Administration (FHA) was established in 1934 with the passage of the National Housing Act.[334] The goal of the FHA was to provide mortgage insurance for homebuyers with federally backed loans should the homebuyer default. FHA funding lowered the down payment necessary to obtain a home loan, bringing the payment to just ten percent of the value of the loan, and allowed the banks to create loans with repayment plans of up to thirty years. Previously, home loans were often restricted to a fifty percent down payment with a five-year repayment plan restricting home ownership to the upper crust. FHA financing; therefore, created home ownership options for many lower-middle class citizens who previously had been unable to purchase property.[335]

Housing pressures in Alaska became a problem during the late 1940s with the buildup of defenses throughout the territory in response to aggression from the Soviet Union at the start of the Cold War. In addition to a massive influx of military activities and personnel, there was also an increase in civilian workers and economic growth across Alaska. Military housing was overcrowded, and housing for civilians was overpriced and hard to find.

The population of Alaska had grown from 73,000 residents in 1940 to over 129,000 in 1950 including 26,000 military personnel. Not included in these figures were the numbers of transient workers who moved from place to place as work was available. Most of the growth was in urban areas surrounding military installation such as Anchorage, Fairbanks, and Seward[336], but across the entire state, quality, affordable housing was hard to come by.

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[331] Gail Radford, "Modern Housing for America: Policy Struggles in The New Deal Era," ed. Robert Leighninger, Louisiana State University, *The Journal of Sociology & Social Welfare*, Vol. 25: Iss. 1, Article 13 (2015,) http://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=2477&context=jssw, 3.
[332] Radford, "Modern Housing," 4.
[333] Tom Hanchett, "The Other 'Subsidized Housing' Federal Aid to Suburbanization, 1940s-1960s," In *Tenements to Taylor Homes: In Search of Urban Housing Policy in Twentieth Century America*, (University Park, Pennsylvania: The Pennsylvania State University Press, 2006), 5, http://www.historysouth.org/wp-content/uploads/2015/12/The-Other-22Subsidized-Housing22-Federal-Aid-To-Suburbanization-.pdf.
[334] "US Department of Housing and Urban Development - 1930-2010." HUD Interactive Timeline, accessed March 25, 2016, https://www.huduser.gov/hud_timeline/.
[335] Hanchett, "Subsidized Housing," 2.
[336] Naske and Slotnick, *Alaska*, 205.

The lack of housing in Alaska was the result of several factors with the large increase in population being just one. One factor was the high cost of building materials due to shipping costs. A small number of lending institutions in Alaska, with their limited amount of capital available to private developers, also contributed to the lack of housing. Building housing, either single-family homes or apartments, was simply not cost-effective to the developer in Alaska. Government action was required to assist the Territory of Alaska in meeting the housing demands of its people. As President Harry Truman acknowledged in 1948, "It is in the Nation's interest, therefore, for the Government to assist the balanced development of Alaskan resources and to help open economic opportunities on a sound long-term basis".[337]

The United States government enacted legislation to ease the post-World War II housing crisis that gripped the nation. To do so, U.S. Congress "liberalized" Section 608 of Title VI of the National Housing Act of 1934. Originally, the intention of Title VI of the National Housing Act was to increase the number of rental units for defense workers only. Its liberalization, however, encouraged the construction of private (low to moderate) rental housing. Additional post-WWII amendments to Section 608 included many which translated into profits for the developers. Amortization of Section 608 mortgages were reduced lengthening the maturity by five years or more. Working capital requirements were reduced. Of the 532,000 project units (units in structures containing five or more units) in the US started under FHA insurance between 1946 and 1952 with over 80 percent were insured under Section 608.[338]

The Alaska Housing Act acknowledged the housing shortage in Alaska and worked to alleviate it. Due to the high cost of construction in territory, the Federal Housing Commissioner was granted the ability to set higher mortgage amounts (principal obligations) for mortgages insured under the Act covering property located in Alaska in an effort to compensate for higher costs. Under the FHA's Section 608 and the Alaska Housing Act, several large apartment complexes were built in the 1950s to accommodate the growing population. Towers in Fairbanks, Anchorage, Sitka, Juneau, Ketchikan, and Whittier were all completed. Neighborhoods were developed in areas of larger populations including Weeks Field in Fairbanks, South Addition in Anchorage, and Carlanna in Ketchikan.

Due to the lucrative terms of the loans, the banking industry actively sought projects to invest in which led to the rise of suburban developments across the country. Developers would purchase huge tracts of undeveloped land and create affordable single-family homes for lower-middle class and middle class citizens, and then sell the houses at a profit under FHA loans. Others planned large high-rise towers that included all necessary amenities for daily life. Still others constructed multi-family dwellings such as duplexes and fourplexes.

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[337] Michael R. Yarborough, and Amanda Welsh, *Determination of Eligibility for the Marine View Condominiums (KET-1363) in Ketchikan, Alaska*. (Anchorage: DOWL Engineers, 2014), 4.
[338] Kenny Gunn, *Alaska SHPO Section 106 Review for the JN3053 Ketchikan Cell Tower Relocation 2016*, (Portland: Summit Solutions Group, LLC., 2016,) 3-2.

There were restrictions on the types of housing constructed with FHA financing. Wanting to avoid standardization, the FHA did not provide "stock or prepared plans for general use"[339] for the construction of housing. Instead, the FHA hoped to stimulate economic growth by providing funding for local architects and builders by maintaining local traditions and "producing housing suitable to local topography and climate."[340] The FHA did lay out some guidelines including regulations on neighborhood design. In a similar effort to promote local growth, the FHA recommended that local planners and architects layout neighborhood designs in such a way as to promote a residential, communal, and friendly feel with cul-de-sacs and slow moving residential streets being ideal. The dwellings themselves were to be functional. The principles of plan efficiency, economic use of materials, and proper equipment, which are important in any class of dwellings, become paramount. Every square foot of space, every odd corner, every length of pipe, every pipe connection, and every foot of lumber that could be eliminated had to be removed. At the same time, these economies and efficiencies could not be obtained at the sacrifice of substantial construction or of minimum standards for convenience and comfort. The planning of FHA housing, thus, became a special art, rigidly limited by the necessity for low cost yet, nonetheless, exacting in its requirement for functional arrangement and aesthetic satisfaction.[341] Ideally, the houses and individual units were to be of minimum cost but well-constructed with good quality materials that would withstand the environment within which they were used. While it may be necessary to reduce the basic structure to a box, it must, nevertheless, be a well-proportioned box with its materials and openings treated with imagination and skill; and, even at some moderate increase in cost, elements whose sole justification is their decorative quality are to be regarded as essential to the pleasure which the owner will take in his home or the renter in his unit.[342]

The period of 1949 to 1954 saw the most significant building boom of the period within Alaska including the creation of entire neighborhoods of Alaskan cities still in use today. The Spenard suburb of Anchorage exploded during this period to boast over 3,000 residents; many financed their homes through FHA and similarly backed Veterans Affairs (VA) home loans. Investment from outside parties during this period also saw the construction of apartment block complexes such as Fairview Manor in Fairbanks and the Government Hill Apartments in Anchorage.[343] These federally backed construction projects helped to ensure housing for a population that was becoming increasingly permanent residents of the territory. The passage of the Department of Housing and Urban Development Act of 1965 created HUD as a Cabinet-level agency. The Fair Housing Act of 1968 ensured adequate housing for all individuals free of discrimination due to race, gender, or religion.[344]

## 3.2 Postwar Building Materials and Construction Techniques

From glass and steel curtain walls to concrete parabolic roofs, advances in materials and building technology made a host of new construction techniques possible. Because an understanding of building materials and construction techniques can be an important part of the evaluation process and

[339] Federal Housing Administration, *Technical Bulletin No. 4. Principals of Planning Small Houses,* (Washington, D.C.: United States Government Printing Office, 1936), 2.
[340] FHA, *Technical Bulletin No. 4,* 2.
[341] FHA, *Technical Bulletin No. 4,* 3.
[342] FHA, *Technical Bulletin No. 4,* 5.
[343] Naske and Slotnick, *Alaska*, 205.
[344] "US Department of Housing and Urban Development - 1930-2010." HUD.

understanding how the use of materials and construction techniques evolved during the period, this section will provide an overview of some common building materials and construction types.

In discussing construction types, it is helpful to clarify what is meant by construction type. Indeed, the line between building type and construction type is sometimes blurred. For the purposes of this report:

- **construction type** refers to how the structure is made, assembled, or constructed (i.e. prefabricated)
- **building type** can refer to the building's or structure's function (i.e. airplane hangar) or how the building is used (commercial, industrial, residential).

Thus, this section will discuss construction types; whereas, building types and architectural styles will be discussed in Section 4.0.

Although these distinctions are important, they are not always clear-cut. Because construction type or method can influence the outward appearance or aesthetics of a structure, construction type and style are often linked. For example, curtain wall is often described both as a type of construction and a style of building.

The following section details some of the construction types and building materials typically employed during the period. It should be noted that this compilation of construction types and building materials, while comprehensive, is by no means exhaustive nor representative of all building materials and construction types extant during the period. While the overall history of mid-twentieth century building materials and construction techniques in the United States is increasingly well-documented, there is still more research that needs to be done in order to better understand how popular trends, in both the production of materials and in construction techniques, was regionalized in Alaska. In addition, for each of the individual building types, the available documentation occurs when available and relevant additional information on the specific examples of building types is included.

### 3.2.1 Construction Types

#### *Prefabricated*

> *"Mass production methods have proved themselves superior to hand methods in the production of automobiles, clothes, and breakfast food. The construction of houses is proving to be no exception to the rule. Prefabrication, when employed on a substantial scale, affords a number of important advantages to the home builder over traditional methods of building."*
>
> *– A Practical Guide to Prefabricated Houses, 1947*[345]

Prefab, short for prefabrication, is both a building type and a construction technique. Prefabrication is used for a range of building types including residential, commercial, institutional, and industrial. The components of a prefabricated building are generally manufactured off-site, and the structure can both be assembled at the factory and shipped, or the components of the structure can be shipped and assembled on site. *The Practical Guide to Prefabricated Houses* divides prefabricated structures into five categories: precut, panel, sectional, complete assembly, and cast concrete.[346]

[345] A. L. Carr, *A Practical Guide to Prefabricated Houses*, (New York: Harper, 1947).
[346] Carr, *Prefabricated Houses*, 1947.

In a vast area, with a short construction season, and in some areas with a lack of available buildings supplies, prefab buildings could be quite practical especially in remote areas. Even so, erection and habitation, or use of those structures that were not designed for such a harsh climate, could be problematic. Although prefab structures were in use before the war, World War II sparked the development and use of several types of prefabricated structures.[347] Dozens of types of structures, like the Loxtave Houses, were designed, deployed and, discarded. Assembled in Anchorage and designed by the US Navy, they were declared surplus by the US Government and of the dozen or so constructed in the Government Hill neighborhood, only two of those houses survived.[348] Other types of prefabricated structures were more enduring, and prefabricated structures became increasingly popular with Alaskans.[349]

### *Quonset Hut*

While the Quonset is perhaps the best known of the military structures, the military used a number of huts including Pacific Huts (Navy), Jamesway Huts, Stransteel Huts, Yakutat huts, and others. The huts varied in size, exterior form, material and use; and they could be transported by aircraft and rapidly assembled in the field. Huts no longer in use by the military were declared surplus and put to a wide variety of uses from residences to restaurants. In Anchorage, an ordinance was passed in 1969 which limited the repair and construction of such housing; thus, bringing about the end of their widespread use.[350]

- Example: *The Garden of Eatin' 2502 McRae Road Anchorage, Alaska 1949*

  Erected in 1948 or 1949 for Hans and Jerry Kirchner who had a farm on the site. In 1951 they converted the hut to a restaurant. Despite the wooden additions on either end, the character defining arched form is still visible.[351] The establishment is currently a part of the Fiori D'Italia Restaurant in Spenard

[347] Hoagland, *Buildings of Alaska*, 50.
[348] Hoagland, *Buildings of Alaska*, 103.
[349] Hoagland, *Buildings of Alaska*, 75.
[350] Hoagland, *Buildings of Alaska*, 75.
[351] Hoagland, *Buildings of Alaska*, 102.

*Figure 31. The Garden of Eatin' Restaurant in Spenard, ca. 1950 (source: Steve McCutcheon Collection, No. MCC 175, Anchorage Museum of History and Art).*

### *Knock-Downs*

Prefabricated units were used for military housing in the western regions of the state including the popular 800 series. Known simply as "KDs," the units were sold as surplus items when military installations were disbanded as was the case of Marks Airfield in Nome. The units provided basic shelter beneath a gabled roof covering a 25 foot rectangular shape. The simple unornamented design was wood framed and easily moved from location to location.[352]

*Figure 32. KD 800 Series military housing still in use in Nome (source: Kulash and Price 2009).*

[352] William Kulash and Kathy Price, *Nome Roads Improvement Project. Determination of Eligibility and Finding of Effect*, (Fairbanks: Alaska Department of Transportation and Public Facilities, 2009), 28.

*Wanigans*

One-story buildings built on skids, wheels, or pontoons for easy transportation all earned the name Wanigan. Manufactured homes or trailers are the modern version of the wanigan.[353] The US Forest Service uses floating wanigans on the Tongass National Forest as mobile camps.

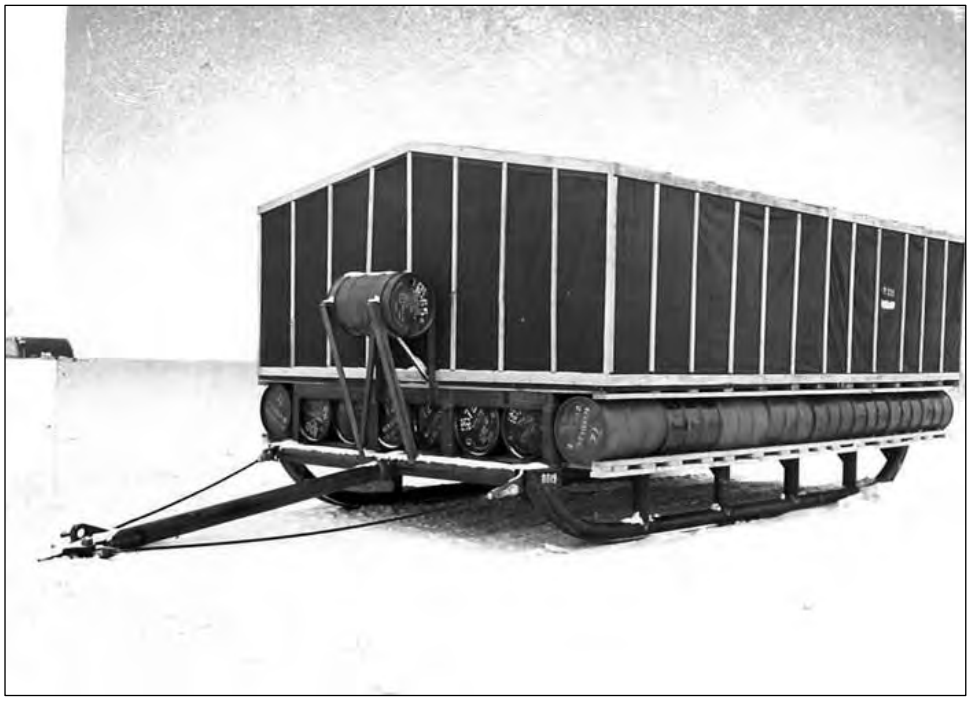

*Figure 33. Amphibious food wanigan, located near Barrow, 1950 (Source: U.S. Geological Survey Professional Paper 301, Figure 74, 1958).*

*Harman Houses*[354]

A prefabricated steel design manufactured by a company in Philadelphia. Four of these houses were erected in the Government Hill neighborhood in Anchorage (SAH)."[355]

[353] Hoagland, *Buildings of Alaska*, 50.
[354] Otto Suchsland and George E. Woodson, *Fiberboard Manufacturing Practices in the United States*, (Washington, D.C.: U.S. Dept. of Agriculture, Forest Service, 1987), 1, accessed April 1, 2016, http://naldc.nal.usda.gov/download/CAT87881030/PDF.
[355] "Harman Houses," eds. Gabrielle Esperdy and Karen Kingsley, *SAH Archipedia*, (Charlottesville: UVaP, 2012), acessed April 1, 2016, http://sah-archipedia.org/buildings/AK-01-SC035.4.

*Figure 34. Example of a Harman House, a pre-fabricated metal residence, located on Government Hill, Anchorage (source: Hoagland 1993, 104).*

### *Pre-cut or Kit Homes*

Pre-cut and kit homes were a type of prefabricated housing where each component of the structure was cut at the factory and designed to be assembled on site by local workmen or the homeowner. Factory made, pre-cut, kit, or catalog houses first gained popularity in the early nineteenth century with soldiers returning from World War I seeking affordable housing to start a family.[356] At the end of World War II, pre-cut or kit homes were looked on as another way to address the profound housing shortage. Refinement of the manufacturing process, the development of new building materials, and improved distribution systems made these dwellings a popular and economical choice for homeowners and spurred the second wave of factory-made buildings to new heights of affordability and sophistication.[357] Many of these houses, like the Pan Abode cabins, shipped from the Lower 48.

> ***Pan Abode***
>
> The Pan Abode was a type of kit home. The company was founded in 1948 in Canada by a Danish master carpenter, Aage Jensen, who had a dream to make it possible for anyone to build a retreat in the midst of the peace and restfulness of nature. He partnered with the engineer and businessman, Albert "Doc" Steiner, to ensure the Pan-Abode dream was affordable and buildable for all families. The combined energies of these two visionaries made Pan-Abode homes a feature on nearly every lakefront throughout North America; thus, playing a vital role in the evolution of Cottage Culture on this continent. Additionally, Pan-Abodes were built as summer camps, mining

[356] Cynthia E. Johnson, *House in a Box: Prefabricated Housing in the Jackson Purchase Cultural Landscape Region, 1900 to 1960*, (Frankfort, KY: Kentucky Heritage Council, 2006), 23.
[357] Ima Ebong, *Kit Homes Modern*, (New York: Collins Design, 2005).

camps, churches, fishing lodges, hotels, motels, restaurants, gas stations, and banks.[358] The small cedar kit cabins were used by the US Forest Service Alaska Region beginning in 1960.[359]

*Figure 35. A group of guests in front of the Pan Abode cabin at Grosvenor Camp (source: Norris 1992).*

### *Mobile Homes/Trailer Homes*

Initially developed in the early 1930s as a house trailer, intended for short-term occupancy and high mobility, in the post-World-War II era the use evolved from a house trailer to a mobile home.[360] While a vehicle, mobile homes were not designed for high mobility. Also called trailer homes, the FHA differentiated between the two types defining a mobile home as, "a moveable unit designed for year round occupancy and sometimes termed a trailer home."[361] A mobile home is a vehicle, movable but intended for permanent settlement, which is heavier than 4,500 pounds and longer than 25 feet. While a trailer is also considered a vehicle, it generally weighs less than 4,500 pounds and is less than 25 in length. A trailer sits on wheels and comes with a prominent tow hitch at its front.[362]

With a massive population surge, an overburdened construction industry and demand for housing that outstripped the supply, mobile homes and trailer homes were well suited to the environment (if not the climate). They proved especially popular in rapidly developing urban areas like Anchorage where, by

[358] Pan Abode, *Pan Abode the Original Heritage Series*, (Richmond, B.C.: Pan Abode, 2015).
[359] K. Nicole Lantz, *Everyone's Cabin in the Woods: Historic Context for Public Recreation Cabins in the Alaska Region 1960-1971*, (Juneau, Alaska. U.S. Forest Service, Alaska Region, Publication R10-FR-009, 2012), 55.
[360] ICF International, *Village Trailer Park 2930 Colorado Avenue Santa Monica, California City Landmark Assessment Report*, (Santa Monica: City of Santa Monica Planning Division, 2001), 7.
[361] Ernest R. Bartley and Fredrick H. Bair, *Jr. Mobile Home Parks and Comprehensive Community Planning*, (Gainesville, Florida: Public Administration Clearing Service of the University of Florida, 1960), 17.
[362] ICF International, *Village Trailer Park*, 7.

1955, there were twenty-five trailer courts across the city, and between 1960 and 1965 over 2,000 trailer homes were sold.[363] As of 2000 there were over 67 trailer/mobile home parks in Anchorage. [364]


*Figure 36. Man in front of a mobile home in Anchorage, 1966 (source: University of Alaska Anchorage. Consortium Library, Archives & Special Collections, William L. McNutt photographic slides, 1934-1973, UAA-hmc-0456-518).*

### *Curtain Wall Construction (1945-present)*

Viewed as both a type and style of architecture, curtain wall construction was perhaps the most iconic of the twentieth century building innovations. So called because the exterior "curtain" wall was a non-load bearing wall which "hung" from the concrete or steel frame. The development of the curtain wall was made possible by improvements in steel and concrete framing, glass manufacturing, gasket systems, and the development of advanced HVAC systems. Because the exterior walls of the building were not load bearing walls, vast expanses of glass (or other cladding materials) were possible. Improved framing techniques meant that fewer load bearing walls were needed on the interior, thus interiors could often feature open plans lit by natural light. Although glass was a popular sheathing material, porcelain enamel, aggregate panels, and decorative metals were also used. These new materials, and the manner in which they were arranged, created a new construction technique not previously seen in the built environment. Curtain walls were a dominant building style in Alaska and widespread during the 1950s and 1960s used for commercial, institutional, educational, and government buildings of a variety of sizes."[365]

[363] Steven M. Dunn, "Prebuilts and Conventional Construction: A Comparative Analysis of Single Family Residential Development in Alaskan Metropolitan Areas," Typescript, 1972.
[364] Larry Campbell, *Disappearing Neighborhoods*, October 2, 2002.
[365] "Architectural Style Guide - Curtain Wall," Alaska Office of History and Archaeology, Architectural Style Guide, accessed March 31, 2016, http://dnr.alaska.gov/parks/oha/styleguide/curtainwall.htm.

*Figure 37. First National Bank, Northern Lights Branch, Anchorage, present-day (source: TNSDS 2016).*

### *A-Frame (1936-1980s)*

Like the curtain wall, the A-Frame could be considered both a construction type and style. As the name implies, the structural frame of the building was created by using steeply angled members that rested directly on the foundation. The distinctive A-frame was by no means a new type of construction. Used for centuries across the globe, "roof huts" were used for cooking houses, farm storage sheets, animal shelters, and peasant cottages. In the US, A-frames were initially used for utilitarian purposes. Austrian-born architect Rudolph Schindler who, in 1934, designed a vacation cottage for a client, the Bennati House, popularized the design for use as a residential structure.[366] The design was standardized and adopted as a vacation-type home. Soon after, A-Frame kits were widely distributed throughout the country. After World War II, the post-war vacation home boom began. A-Frames became extremely popular throughout the United States, especially in areas like Alaska, where recreation was developing. The Alaska Region of the National Forest Service began using A-Frames in a rustic style in 1962.[367] Constructed by volunteers or Forest Service Employees, they were made from off the shelf lumber, plywood, and Plexiglas.

Although residential use was more common than commercial or governmental, A-frame designs were also seen in churches, restaurants, motels, gas stations and national chain stores. The steep sloped roofs were well suited to the climate preventing snow accumulation in the winter. The underlying building structure was generally made of wood, but a range of roofing materials, exterior cladding materials, and stylistic elements were often employed.

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[366] Chad Randl, "The Mania for A-Frames." *Old House Journal*, accessed July 2004, http://www.oldhouseonline.com/the-mania-for-a-frames/.
[367] Lantz, *Everyone's Cabin*, 47.

*Figure 38. Our Savior's Lutheran Church, Nome (source: OHA Alaska Historic Buildings Survey Manual and Style Guide 2016).*

### 3.2.2 Materials

Before the War, buildings were often made with whatever materials were available locally; improvements in infrastructure, manufacturing techniques, and distribution meant that an ever-wider array of building materials were available. In general, in the industrial age, war on a massive scale often resulted in innovations material science. Metals, glass, plastics, and wood were all important strategic materials. Innovations abounded and when the war ended, this had a trickle-down effect to the building industry. The massive industrial complex that emerged in service to the war effort was now in service to the post-World War II building boom providing everything from homestead panels to colorful Formica countertops. The bounty of new building materials, while often readily accessible in the Lower 48, were often not so readily accessible in Alaska. Cost, availability, transportability, and ability to withstand the rigors of a severe climate were factors to consider. Thus, popular building materials during the war, concrete, wood products, and metal, remained so afterwards.

While there is increasingly abundant documentation on the manufacture and use of mid-twentieth building materials in the United States, what materials were used in Alaska and how they were used is less well studied and documented. Thus, this section focuses primarily on the most common or "popular" building construction materials such as concrete, wood, metal, and glass. Representative examples of specific buildings employing those materials, discovered during the literature review, are included.[368]

[368] *Twentieth-Century Building Materials: History and Conservation* by Thomas Jester is an excellent source of additional information on the range of building materials used during the period.

### *Concrete*

Concrete, made by combining a cementious material (such as Portland cement), aggregates (fine and coarse), and water, was a highly versatile building material. Changes to the mix could radically alter the aesthetic and structural properties of the concrete; thus, making it suitable as a decorative and functional material.[369] Although concrete had been in existence since Roman times, in the US, it first came in to use in the 1920s. In Alaska, its potential as a building material was not fully realized until after World War II. Advancements in the composition of the concrete structural and mechanical systems accompanying it meant that concrete could be used economically and expressively. The material could be mixed in Alaska, poured in place, and was fireproof made it an ideal construction material.[370] The Anchorage Sand and Gravel Company (AS&G) was the first ready-made concrete manufacturer in the territory.[371]


*Figure 39. Concrete demonstration home built at 1435 L Street in Anchorage, 1948 (source: Alaska Sand & Gravel 2016).*

#### *Concrete Masonry Units and Decorative Concrete Block*

CMU's or concrete masonry units came into widespread use in the 1940s and 1950s as a means to quickly construct low-cost housing. First developed as a structural element, the decorative possibilities of the material were later realized.

The technology was first developed in the early twentieth century but was not widely utilized until after the War. As Portland cement became more available, block manufacturers organized to create standard

[369] Hoagland, *Buildings of Alaska*, 50.
[370] Hoagland, *Buildings of Alaska*, 50.
[371] "Anchorage Sand & Gravel History - Part I," Anchorage Sand & Gravel, accessed April 16, 2016, http://www.anchsand.com/default.aspx?tabid=125.

block sizes, and the industry began to use testing to improve the material's reliability and durability. Trade organizations also began to promote concrete block usage in magazines, catalogues, and books. It's widespread use as a decorative element (decorative concrete blocks) gained popularity in the late 1950s and early 1960s with such uses as decorative screen blocks.[372]

*Figure 40. The IRS building in Anchorage, 1964, built using concrete masonry units (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Edith and Edward Lindsay papers, 1964, uaa-hmc-1135-s13).*

### *Reinforced Concrete*

Reinforced concrete, concrete supplemented with rebar or other reinforcing elements, was durable and readily available. Made by surrounding reinforcing elements with forms, pouring the concrete in and removing the forms when the concrete had set, this process often left visible marks of the formwork such as wood grain. While this was often covered over with paint, a sheathing material, or other decorative elements, in some structures, this was incorporated as a design element. For example, in Brutalism structures, also called heroic concrete, these designs used reinforced concrete as both a design and structural element.[373] Reinforced concrete initially used for commercial and public buildings made its first appearance in the state in the 1930s.[374]

[372] Lisa Mauslof, *Twentieth Century Architecture in New Hampshire*, (Concord, New Hampshire: New Hampshire Employment Security, 2012), 54.
[373] Mauslof, *Twentieth Century Architecture*, 53.
[374] Hoagland, *Buildings of Alaska*, 82.


*Figure 41. The facade of the Fourth Avenue Theater in Anchorage is made of reinforced concrete, 1949 (source: Anchorage Museum at Rasmuson Center, Sidney Hamilton Photograph Collection, Gift of Emily Turner, B1976.82.31).*

### *Architectural Pre-cast Concrete*

Unlike reinforced concrete, which was often cast or poured on site, architectural pre-cast concrete could be manufactured off-site. Originally developed during the World War II era, the precast concrete allowed for standardization, quality control, and ease of assembly. It was suitable for transport and offered an array of finish options and could be used for both structural and decorative elements.[375]

### *Thin Shell Concrete*

Thin shell concrete was used to create three-dimensional structures using thin curved slabs or plates. Thin shells were characterized by their load-carrying ability which was determined by the geometry of their shape, the manner in which they were supported, and the nature of the applied load.[376] Because of its thinness, a shell had little bending resistance and was unsuitable for concentrated loads.

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[375] Mauslof, *Twentieth Century Architecture,* 55.
[376] "ACI 318.1-14 Thin Shells, Approved Version, 2013-10-08," American Concrete Institute, (Farmington Hills, MI, 2008), accessed March 31, 2016, https://www.concrete.org/portals/0/files/pdf/318reorg/thinshells_code_and_commentary_approvedversion_revised_13-10-08.pdf.

*Concrete Folded Plate*

Concrete folded plate construction was used for the same purpose as thin-shell concrete construction which was to span large spaces without intermediate supports. Formed by joining flat, thin slabs along their edges to create a three-dimensional spatial structure, often cast in "V" or "W" shapes,[377] the concrete often had the appearance of being folded.

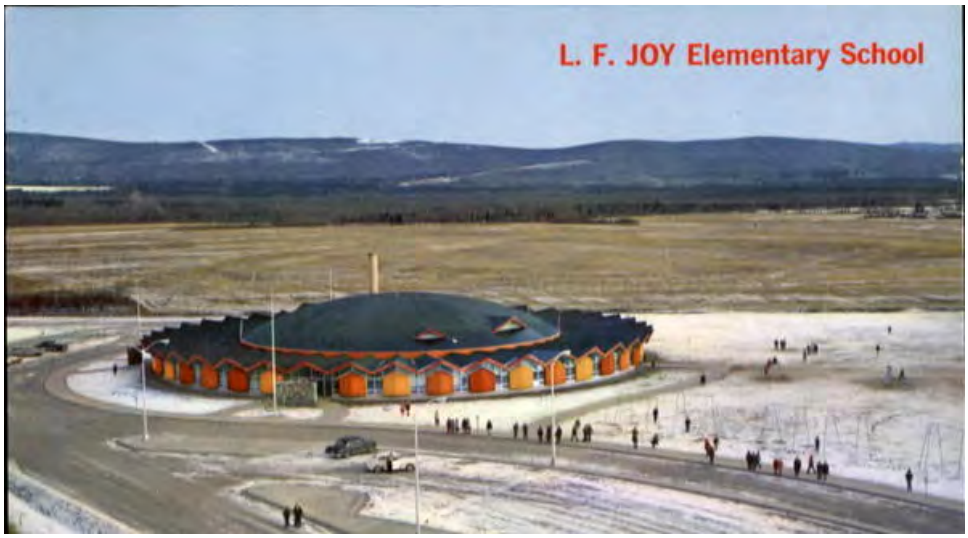


*Figure 42. Joy Elementary, Fairbanks, 1962; displays folded concrete plate technology along the edges of the domed roof. Post Card caption reads" L. F. Joy Elementary School. One of the buildings in the Fairbanks, Alaska modern School system. Recipient of national and international recognition for architectural design." (source: Mike Roberts, nd).*

*Lift Slab Construction*

Similar to precast concrete, lift slab construction was developed in the early 1950s as an economical concrete construction method. It involved casting the concrete floor and roof slabs of a multi-story building on the ground and lifting or jacking them into place and fixing them to supports and columns.[378] Construction began on the first lift slab building constructed in the state, the Four Seasons Apartments in Anchorage, in 1963. The project, nearing completion, was destroyed during the 1964 Earthquake.[379] Analysis of the Four Seasons and other pre-stressed concrete structures led to recommendations for improvements so that buildings could better withstand seismic activity.

[377] Diana Painter, Montana Post-World War II Architectural Survey and INvensotry HIstroic Context and Survey Report, (Helena, Montana: State Historic Preservation Office, Montana Historical Society, 2010), 38, accessed March 03, 2016, https://mhs.mt.gov/Portals/11/shpo/docs/Montana Mid-Century Survey Report.pdf.
[378] Erik Johan Von Heidenstam, "Lift-slab Construction of Buildings, US Patent US3017723 A," filed March 17, 1958, and issued January 23, 1962.
[379] Walter E. Kunze, John A. Sbarounis, and James E. Amrhein, "Behavior of Prestressed Concrete Structures During the Alaskan Earthquake," Technical paper, (Washington DC: Precast Concrete Institute, 1965).

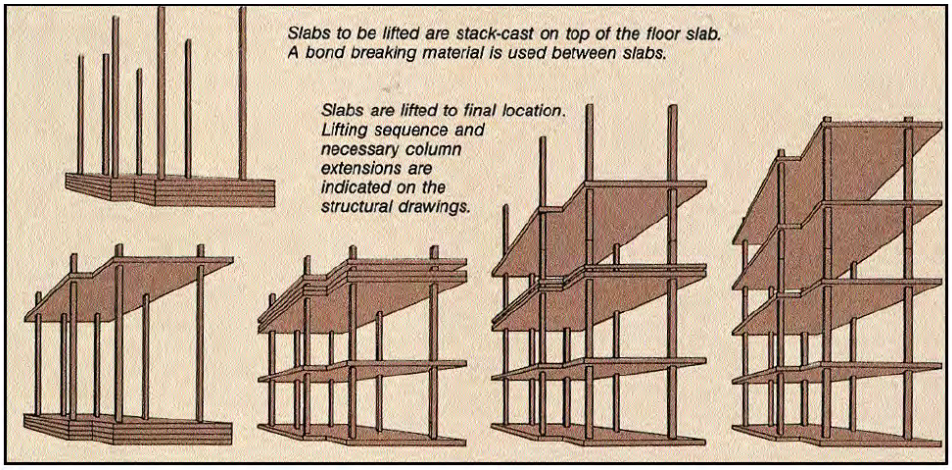


*Figure 43. Schematic diagram of lift-slab construction; the resulting structure has been determined to be unstable in seismic zones (source: Frank A. Randall, Jr. 1986).*

### *Exposed Aggregate Finish*

Aggregate was a substance added to concrete that gave it strength and durability. It could also radically alter weight and appearance of the concrete. By removing the cement and brushing, pressure washing, or using a light acid wash, the aggregate could be exposed, or in some instances, applied as an overlay.[380] Panels, with exposed aggregate finishes, could also be used as a decorative element.

*Figure 44. Exposed aggregate wall with pebble dash (source: TNSDS 2014).*

[380] Mauslof, *Twentieth Century Architecture,* 57.

### *Wood*

Because of its availability, wood was always a poplar building material in Alaska. In the post-WWII era the timber and logging industries surrounding the production of plywood, pulpwood, and fabricated woods expanded and assisted a growing freedom in architectural design with cheap and innovative materials. Prefabricated housing, recreational vehicles, and other outdoor equipment were among the many uses for new fabricated woods.

Whether fabricated wood or not, wood was still used as a framing material and was still the primary one for residential construction, "whether log cabins or wood-framed houses, the architecture used wood freely and without artifice. This reliance on wood had continued to the present."[381]

#### *Fiberboard*

The term fiberboard applied to a category of sheet products that was part of the larger family of wood composition boards. These wood composition boards were distinct from solid wood in that they were composed of wooden elements of varying sizes held together by an adhesive bond. It could be manufactured at numerous densities and thicknesses. It had been used for insulation, sheathing, and finishing of both interior and exterior. It was also known by trade names including Masonite, Homasote, American Wallboard, Beaver Board, Cornell Board, Feltex, Fir-tex, Insulite, Nu-Wood, Upson Board, and others. It came into widespread use during World War II. In the post-war era, the industry created hundreds of products. Homasote, because of its isolative properties and its ability to withstand extreme temperatures, was used on a range of military projects from the barracks, mess halls, and other facilities at Woody Island near Kodiak, Alaska beginning in 1939 to the construction of the Distant Early Warning (DEW) Line radar sites.[382]

[381] Hoagland, *Buildings of Alaska*, 157.
[382] "About Homasote® and Homasote Company," Homasote Company, accessed April 01, 2016, http://www.homasote.com/about.

*Figure 45. End wall of a quonset hut made of fiber board at Fort Richardson, used for barracks (University of Alaska Anchorage. Consortium Library. Archives & Special Collections, Keith W. Egan photograph album, 1941-1962, uaa-hmc-0605-44c).*

### *Plywood*

Made by assembling hardwood or softwood veneers and bonding the layers with an adhesive, plywood is known for its strength, stability and ability to be molded into curves and other shapes, thus making it well suited for architectural uses. Plywood was widely used during World War II and was declared an essential war material. Production and distribution came under strict controls. Despite its vital importance to the war effort, it was not until 1954 that the first pulp mill in Ketchikan shipped the first Alaska plywood to market."[383]

In the post-World War II period there were several innovations in wood. There was a surplus of plywood manufacturing equipment after the war and it naturally evolved into being one of the most predominant building materials used. Plywood, as a structural sheathing member began to be employed in the 1950s and soon replaced board sheathing on walls, floors, and roofs.[384] It was well suited to Alaska because it allowed an even tighter building by eliminating the many cracks and joints common with earlier plank and shiplap construction. This meant less natural air leakage and less fuel use.

*Figure 46. A public use cabin at Shelter Island, built by USFS in 1955, using plywood (source: Lantz 2010).*

[383] Alaska Forest Association, *Alaska Timber Industry History Southeast Alaska*, accessed April 1, 2016, http://www.akforest.org/Alaska Timber Industry History.pdf.
[384] Nick Gromicko and Ben Gromicko, "Structural Design Basics of Residential Construction for the Home Inspector," International Association of Certified Home Inspectors, accessed June 06, 2016, http://www.nachi.org/structural-design-basics-residential-construction.htm.

*Logs*

From the south slope of the Brooks Range, which more or less defined the northern limit of the Boreal Forest, to the rain forests of the southern panhandle, the state was blessed with an abundance of trees suitable for building log structures.[385] An iconic symbol of the frontier state, log structures, whether pre-cut or handmade, remained a popular building type and material for construction in the post-war period. Companies like Pan Abode of British Columbia and Washington made log homes readily available. During the '67 Centennial, dozens of log cabins were moved from downtown Fairbanks to the exposition site at Alaskaland affording visitors ample opportunity to enjoy food and drink in an original log cabin.[386]

- Example: *Anchorage Visitor Center,* Anchorage Fourth and F Streets, 1954, Edward B. Crittenden. Built in Homer in 1954, the Visitor Center harkens back to a past Anchorage never really had; it was never strictly a log cabin town.[387]
  - Example: *Richard L. Proenneke National Historic Site,* Lake Clark National Park and Preserve. Recognized for its stature as an excellent example of an Alaskan bush log cabin and its association with Dick Proenneke, an important voice in the preservation of wilderness in Alaska, who built the cabin in 1968; it was listed on the National Register in 2007.

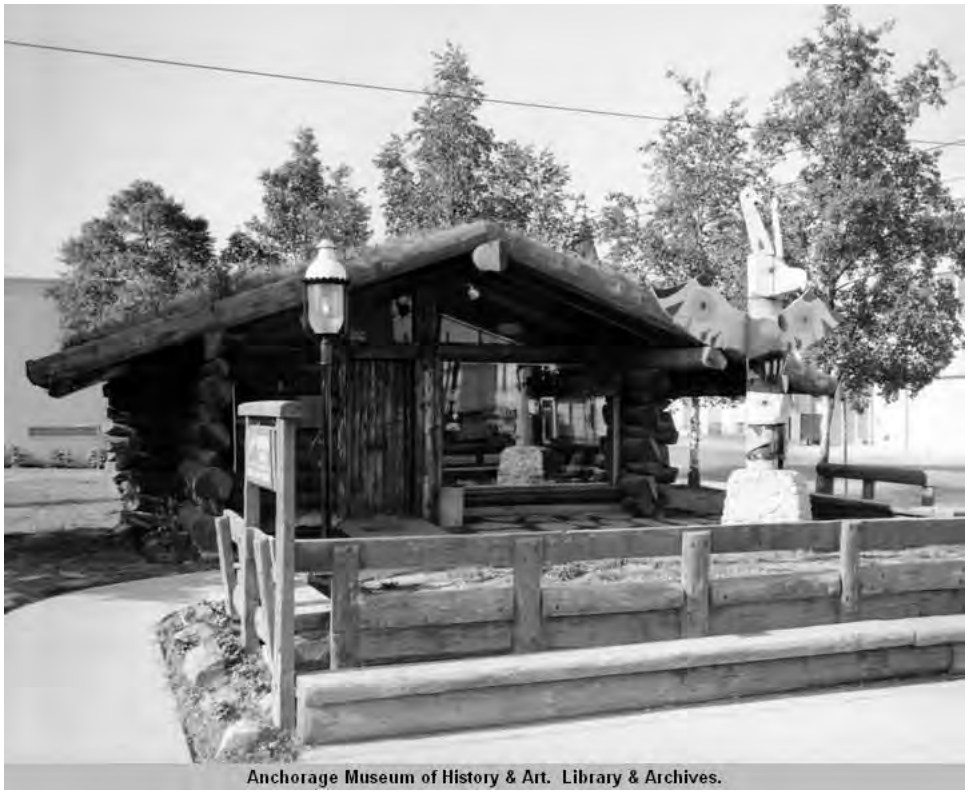


*Figure 47. Anchorage Visitors Information Center Cabin, 1963, designed by Edwin Crittenden in 1954 and still present on 4th Avenue (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-4059-1).*

[385] Alaska Forest Association, *Alaska Timber.*
[386] Tity De Vries, "Ambiguity in an Alaskan History Theme Park: Presenting 'History as Commodity' and 'History as Heritage,' The Public Historian 29, no. 2 (2007): 55-79, accessed February 23, 2016, http://tph.ucpress.edu/content/29/2/55.
[387] Hoagland, *Buildings of Alaska,* 83.

### *Metals*

Popular because of its durability, malleability, fireproof qualities, and cost, metal came into widespread use as a building material in the US during the Industrial Revolution. Different metals had different properties, and a range of metals were used as framing elements, ornamentation, hardware, roofing material, cladding material, accessories building, and a host of other uses. It was also a popular building material for pre-fabricated buildings.

With the advent of World War II, metal became a strategic material, and its use was largely limited to construction related to the War effort. Used in the production of everything from airplanes to mess kits, a massive metal production industry emerged. At the close of the war, whether used as a structural element, a decorative one, or both, improvements in technology, a surplus of material, and an industrial complex dedicated to its manufacture meant that metal became an increasingly common building material in the mid-twentieth century.

#### *Aluminum*

Aluminum was characterized as being lightweight, malleable, resistant to corrosion, and one of the most widely abundant metallic elements.[388] Prior to the war steel siding was used as a building material, but war time shortages brought a halt to the use of steel, aluminum, and other metals. Use of aluminum, used in aircraft construction, increased greatly during the war and resulted in a postwar surplus. The nation's housing crisis helped revive the industry and address the surplus. Aluminum manufacturers found new markets in the construction industry where the material was used for doors, windows, ornament,[389] roofing, exterior cladding, curtain wall systems,[390] and carports.

[388] Thomas Jester, ed., *Twentieth-Century Building Materials: History and Conservation*, (Los Angeles: Getty Conservation Institute, 2014), 13.
[389] Mauslof, *Twentieth Century Architecture,* 48.
[390] Jester, *Twentieth-Century Building Materials,* 17.

*Figure 48. Cleary Summit Ski Lodge on the Steese Highway, 1966; built in 1960 with an aluminum roof but longer extant (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Alfred and Mae Bakken slides and memorabilia, UAA-hmc-0589-4-107).*

### *Enameled Metal Panels*

Metal panels coated with an enamel finish or coating were colorful, durable, and well suited to the climate.[391] The smooth, hard, and often glossy panels were similar to glass panels but nontransparent. Fired at a high temperature, the panels are rigid and had a very low porosity, repelling moisture. The process of enameling metal sheets was not a new one. It had been developed in Germany and Austria in the mid-1800s. Because porcelain enamel was tough, did not fade, and was easy to clean, it was quickly adopted by manufacturers of signs, appliances, bathrooms, and kitchen fixtures. By the end of the nineteenth century, metal enameling was being done on an industrial scale in the United States. Iron was initially used for the base metal; sheets of low-carbon steel became available in the early twentieth century. A technological breakthrough during World War II used lower heat for the enameling process which allowed manufacturers to use lighter-gage metal, and in turn lowered the price of the panels.[392]

Providing colorful options for patterns and breaking up the glass-faced walls, the lighter panels were ideal for early curtain wall systems. The panels were also used for gas stations, restaurants, utilitarian buildings, and even houses such as the Lustron Home, a pioneering porcelain enamel coated steel paneled house, intended to help solve the post-War housing crisis. Only about 2,680 of the houses were produced,

[391] Hoagland, *Buildings of Alaska*, 50.
[392] "Lustron Preservation," National Trust for Historic Preservation, accessed June 16, 2016, http://apps.ohiohistory.org/lustronpreservation.org/htdocs/meet-the-lustrons/lustron-history/.

and a small shipment of them was sent to Alaska in 1948. The location of the houses and if they are extant is unknown.

*Figure 49. An enameled metal panel with "crackling" finish (source: TNSDS 2016).*

### 3.2.3 Conclusion

While this section provides an overview of materials used during the period, it is by no means a comprehensive inventory. In Alaska, as in the rest of the United States, in the decades following World War II, new construction materials and advances in building technology dramatically changed the look of new construction. However, the wide array of "new" materials, more readily available in the Lower 48 were not always available, nor were they always suited to the climate. The on-going military presence and innovations in the use of materials like concrete and plywood meant that those materials remained in widespread use. Although improved infrastructure made a wider array of materials available, the short construction season, cost, and ability of the materials to withstand the climate remained considerations. While the study and understanding of the evolution, application, and conservation of twentieth century building materials is rapidly evolving, especially in Alaska, there is still much study to be done. From understanding the evolution of local industries producing everything from concrete, prefabricated structures, mobile housing, and assessing how mid-twentieth century materials were adapted to extreme conditions, the study of the use of twentieth century building materials in the state is in need of further investigation.

## 4.0 ARCHITECTURAL TYPES, STYLES AND DESIGN TRENDS

Just as building construction methods often are also types of buildings, the lines between type and style are equally blurred. While the previous section focused specifically on building materials, construction

techniques, or types, this section will explore different building types and architectural styles present between 1945 and 1968. Defining modern architecture and the styles that emerged still provokes much debate. Yet, the identification of building types, styles, developing an understanding of the history, evolution, and defining features of those various types and styles is an integral component of the survey, identification, and evaluation process. This section will provide an introduction to building types, architectural styles, and design trends present during the period.

## 4.1 What Style (or Type) Is It? Style vs. Type

There is also much debate between architectural style vs. architectural type and where an architectural type ends and style begins and vice versa. Generally speaking, architectural styles classify architecture in terms of form, materials, time period, region, etc. Not always easily identifiable, the style is visible. It is a way of classifying architecture that gives emphasis to its design characteristics. Building type often refers to a building's use or function. For example, a gas station is a type of commercial building, but it can be executed in an array of styles. However, not all distinctions between style and type are so easy. For example, A-Frame buildings could be considered both a type and style of architecture, and A-Frame buildings might have additional stylistic characteristics like Swiss Chalet. Thus, some resources can be considered both a type and a style of architecture.

## 4.2 Building Types and Design Trends in Alaska

### 4.2.1 Overview

The severe climate in Alaska often meant that the first and second buildings constructed on a site were done out of an immediate need for shelter.[393] The surge in population growth after the war also meant that speed, economy, and utility were important forces in shaping the built environment. Popular architectural styles and trends did make their way north even if in a more subdued form. Urban planning was often given little consideration with the rapid development, and in cities like Anchorage chaotic traffic patterns emerged.[394]

While development occurred throughout the state, most of the population was clustered in urban areas in Anchorage, Juneau, and Fairbanks. Some high-rises and higher density clusters did emerge, but outside of the population centers, the majority of the growth during the period was characterized by a "loose collection of isolated small cities, towns, and villages scattered in coastal areas and developed as military bases, mining interests, scientific observatories, and administrative, or shipping hubs. Irrespective of population and size, the typology of development was one of suburbanized north with low density, single family detached homes with yards and driveways, a scattering of administrative, commercial, cultural buildings, schools, above-ground infrastructure, utilidors, an adjacent airport, and small dock for connecting the city to the outside world."[395]

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[393] Hoagland, *Buildings of Alaska,* 49.
[394] Hoagland, *Buildings of Alaska,* 49.
[395] Jull, Matthew G., and Leena S. Cho, "Architecture and Urbanism of Arctic Cities: Case Study of Resolute Bay and Norilsk," School of Architecture, University of Virginia, accessed April 2, 2016, http://www2.gwu.edu/~ieresgwu/assets/docs/JULL_CHO_%20Architecture%20_Urbanism_of%20Arctic%20Cities_FINAL_X.pdf.

Just as the military buildup for World War II and the Cold War brought a surge of economic investment and development to the state, so too did the Good Friday Earthquake of 1964. Post-quake recovery efforts brought significant investment in infrastructure and new development.

In the decades following the war, "Americans influenced Native architecture to the point of extinction of traditional form."[396] Building programs, intended to help improve living conditions, replaced Native construction with western buildings. In its wake, hybrid forms reflecting the influences of Native architecture on western building forms continued to evolve.

### 4.2.2 Climate Architecture & Seismic Architecture

Commercial, residential, civic, institutional, or industrial structures alike needed to be built to withstand the severe climate and seismic sensitivity. The strong regional differences in climate meant that in some areas, little adaptation of popular design trends and styles was needed or even considered while in others, like the west and north, severe temperatures and strong winds prompted architects, builders, and designers to utilize prefabricated structures and to invent a number of high-tech solutions to cope with the severe cold such as roofs designed for a minimum of wind resistance, setting structures on raised piers so that the snow blows under them, and installing water and sewer pipes in insulated conduits called utildiors.[397]

#### *Climate Architecture*

Permafrost or perennially frozen ground which underlies approximately 85% of the state posed significant engineering problems for the design, construction, and maintenance of all structures and resulted in tremendous maintenance costs or even the relocation or abandonment of highways, railroads, and other structures.[398] Frost heaving, or the earth (and the structures on it) moving, was a significant problem. The thaw could be caused by natural cycles or from the heat from the structure causing the land beneath to thaw. The subsidence could cause significant damage. A 1969 report by the United States Geological Survey stated, "Permafrost and Related Engineering Problems in Alaska" suggested adaptations like careful site selection, minimization of the destruction of existing vegetation, using enough gravel to provide insulation and prevent thaw, and climate sensitive modifications like utilidors, air vents, and jacks could help minimize the adverse effects.[399] Because of the unique geologic-environmental conditions that existed in permafrost areas, special engineering procedures should be used, not only to minimize disruption of the natural environment, to provide the most economical and sound methods for developing the natural resources of the permafrost region of Alaska.[400] Other common modifications included building orientation, insulation, and arctic entries (small rooms, vestibules or entryways, sealed from the outside and inside by separate doors).

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[396] Hoagland, *Buildings of Alaska,* 51.
[397] Hoagland, *Buildings of Alaska,* 51.
[398] Oscar J. Ferrians, Jr., Ruben Kachadoorian, and Gordon W. Greene, "Permafrost and Related Engineering Problems in Alaska," USGS Professional Paper, Report no. 678, (Washington DC: United States Government Printing Office, 1969), 36.
[399] Ferrians, Kachadoorian, and Greene, "Permafrost."
[400] Ferrians, Kachadoorian, and Greene, "Permafrost."

*Figure 50. Arctic entry on a residence located at 142 East 10th Avenue, Block 13 Lot 15 in Anchorage's Pilot Row Neighborhood (source: True North SDS 2014).*

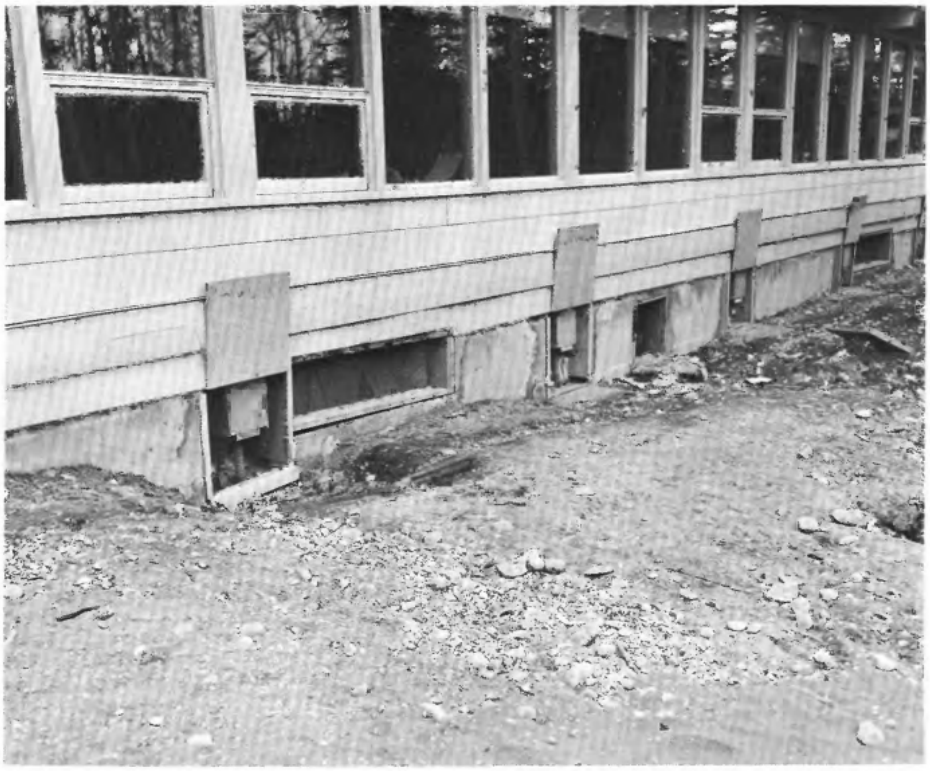

FIGURE 34.—View of the schoolhouse at Glennallen. Air vents, which are open, allow cold air to enter crawlway in winter to counteract heat from building. The vents are closed during the summer. Jacks are used to counteract any differential settlement. Photograph by T. L. Péwé, May 1954.

*Figure 51. Schoolhouse at Glennallen with foundation air vents that allow warm air to escape in the winter and jacks positioned to counter any differential settlement (source: Ferrians, Kachadoorian and Greene 1969).*

With the establishment of what would become the Naval Arctic Research Laboratory (NARL) in 1947 and other such institutions, much scientific research on the arctic region was undertaken. However, most of it was in support of military operations and resource exploration and extraction; it wasn't until 2006 that the Cold Climate Housing Research Center opened.

Even with the unique climate of the state, with some notable exceptions, much of its architecture resembles that of the Lower 48. While some attempts were made to "create a truly polar architectural vernacular building…both building and community planning follow mid-latitude design principles."[401]

### *Seismic Architecture*

The vertical displacement caused by the Good Friday Earthquake of 1964 spanned over 520,000 square kilometers.[402] Because of the military presence in the state, the recovery efforts were swift, and the quake was one of the most studied in history. Dozens of studies and papers were produced including six by the United States Geological Survey. *The Alaska Earthquake March 27,1964: Field Investigations and Reconstruction Effort* gives a detailed inventory of the clean-up and reconstruction efforts in Anchorage, Seward, Valdez, Cordova, Homer, Seldovia, Whittier, and other communities.

The flow of economic investment to aid in the recovery efforts outstripped the amount caused by damages and resulted in a significant improvement in infrastructure, housing, and other services. The iconic images of "houses broken apart by land sliding at Anchorage's Turnagain Heights" demonstrated the importance of considering earthquake effects in urban planning and development."[403] Studies recommended improvements to mapping and documentation and, after the quake, base maps, topographic maps, hydrographic charts, pertinent reports, and maps on local geology and soils were created or improved.[404] While consideration of site selection and construction modifications were not always consistently applied, existing buildings were retrofitted while new buildings were designed to withstand the shaking, and new developments in known hazardous areas were discouraged.[405]

[401] Harold Strub, *Bare Poles: Building Design for High Latitudes*, (Ottawa: Carleton University Press, 1996).
[402] "Historic Earthquakes: 1964 Great Alaska Earthquake." USGS Earthquake Hazards Program, accessed April 02, 2016, http://earthquake.usgs.gov/earthquakes/states/events/1964_03_28.php.
[403] William Leith, "Hearing: Oversight hearing entitled 'Advances in Earthquake Science: 50th Anniversary of the Great Alaskan Quake,' Subcommittee on Energy and Mineral Resources (Committee on Natural Resources)," accessed April 17, 2016, http://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=101949.
[404] Eckel, *The Alaska Earthquake*, Cited in Zheng, X. Y. (2012).
[405] P. Haeussler, R. Hansen, R. Combellick, P. Whitmore and T. Smayda, T., "Are you prepared for the next big Earthquake in Alaska?" Alaska Earthquake Information Center, (cited in Zheng, 2012).


*Figure 52. Moore Hall (built 1966) and Skarland Hall (built 1964) at the University of Alaska Fairbanks, as seen in 1966. The two dormitories were built after the 1964 earthquake and use seismically resistant design, including wide/low form and equal placement of window openings across all load-bearing walls. Moore was designed by Crittenden, Cassetta, Wirum and Cannon, while Skarland Hall was designed by Alaska Architecture and Engineering Company. Both dormitories are still in use (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Mark C. Glunz Slide Collection, 1966-1967, UAF-1996-167-82).*

### 4.2.3 Building Types

This section includes a summary of building types typical of the period. Although comprehensive, it is certainly not exhaustive. In addition, while some building types such as libraries vary greatly in terms of their design characteristics and architectural styles, other building types are more easily distinguished by their design characteristics. Where appropriate, those characteristics are summarized.

#### *Residential*

At the end of the war, the housing backlog that began in the Great Depression and accelerated during the war years had left approximately 3,600,000 families across the United States without homes. In relative numbers, Alaska did not experience as great a surge in residential construction as in other states such as Arizona, California, and Florida; however, particularly in urban areas, there was still a significant amount of growth during the period.[406]

Housing across the state ran the gamut from single-family to multi-family and ranged from hastily assembled utilitarian homes to high-style, architect-designed extravaganzas. While some came to the state seeking the homesteading, off-the grid experience, most newcomers wanted the same standard of living to which they were accustomed. Military bases could not build family housing fast enough to accommodate

[406] Arthur C. Nelson, "Toward a New Metropolis: The Opportunity To Rebuild America," Brookings Institute, (December 01, 2004), accessed March 17, 2016, http://www.brookings.edu/research/reports/2004/12/metropolitanpolicy-nelson.

the families pouring in, so they turned to the local economy in search of housing. The result in the early 1950s was a severe housing shortage in Anchorage and Fairbanks that resulted in astronomical housing costs. Military families lived in shoddy conditions. As a result, shanty towns of "wanigans" – military Quonset huts with Arctic entryways – and makeshift shacks sprang up overnight. This phenomena, in return, created an excess of housing available for military families as well as any newcomer who could not afford the exorbitant rent elsewhere.[407]

Federal agencies and business corporations that moved their headquarters to Anchorage during and after World War II did their part to address the inadequate supply of housing for their employees. Some residential tracts and complexes were constructed by the Army Corps of Engineers and the Civil Aeronautics Administration (CAA) for use by their employees in Anchorage's four original neighborhoods. The Army Housing Association, a cooperative created by service members and their families, built 32 Minimal Traditional style homes on Block 13 of the Third Addition in the summer of 1940; this portion of 11th Avenue also earned the nickname "Pilots' Row" because many bush pilots and aviators lived on that block in the 1940s and 1950s. Northwest Airlines built clusters of identical small ranch-style houses for their employees in the South Addition after World War II.[408]

By 1960, the influx of military and associated personnel had begun to diminish, and the 1964 Good Friday earthquake and post-earthquake urban renewal projects helped to improve the quality of housing in the state. While prefab houses, mobile homes, multi-family units, and high-rises were found throughout the state, the predominant residential building type was single-family residential.

### *Single-family*

More than 13 million homes were built in the United Sates between 1945 and 1954. The largest increase in housing was in metropolitan areas with the majority of houses being built in suburban areas. In Alaska the most significant growth occurred in urban areas. Single-family homes varied greatly in architectural, style, size, and quality of construction and included prefabricated homes and mobile homes. From small starter homes, to architect-designed residences, the houses were built as infill construction in existing neighborhoods, tracts, subdivisions and stand-alone construction. Lot sizes, number of stories, and orientation to the street were equally varied.

While most homes were designed by builders, developers, contractors, or home owners there were several notable houses designed by in-state architects or architects from the outside including the Willis Harpel House No. 2 designed by John Lautner and completed in 1966.

*Characteristics:*

- 1 or more stories
- Entrance doors all lead to one unified internal space
- 1 or more rooms
- Yard space

[407] Hummel, "*The US Military as Geographical Agent*."
[408] BGES. *Anchorage Original Neighborhoods Historic Preservation Plan, (*Anchorage: Historic Preservation Commission, 2012), 186.

*Figure 53. A single family residence along the Glacier Highway in Juneau (source: Schlenker 2011).*

*Figure 54. A single family residence located in the eastern half of Nome (source: TNSDS 2012).*

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Totem Poles, a Wheeling Ceiling and a Wide Open Lakeside View

From its mighty wheel-shaped ceiling down, Willis Harpel's house in Anchorage is as big and bold as all outdoors, which is saying something in Alaska. Flanked by a massive fireplace—Harpel hung its 600-pound native stones himself—and facing the immense living lakefront mural that sweeps across the wall of glass panels, the interior seems a logical extension of the natural wonders outside. The living room alone (*right*) is big enough to hold a three-bedroom tract house and easily accommodates the three massive totems carved into the supporting pillars of the house. And in the wintry arctic twilight which sometimes lasts 16 hours a day, cheery colors keep the room congenial (*bottom*), and the generous indoor garden provides a warm touch of the tropics.

*Figure 55. Life Magazine feature on the Willis Harpel House, Stanford Drive, Anchorage (source: Life Magazine October 1967).*

### *Multi-family*

The most prevalent home type was single-family dwellings, however, there were several types of multi-unit dwellings constructed during the period as well. These included:

***Duplexes*** – A two-unit dwelling with each unit having its own exterior entrance. The units can be side-by-side with a shared wall between or a complete unit on each floor of the building. Generally, the size of a single residential house, but the term cannot be extended to a dwelling with more than two units.
*Characteristics:*

- Side by side units with shared or separate entrances
- Common wall
- 1-2 stories

*Figure 56. A duplex in Auk Bay, Juneau (source: Schlenker 2011).*

***Apartment buildings*** - Multi-unit dwelling structures that came in a variety of forms from small units of 2-3 apartments to large buildings with dozens of dwelling units.[409]

*Characteristics:*

- Three or more dwelling units
- One or multiple entrances
- Examples: Panoramic View Apartments, Anchorage, 1951; Richardson Vista, Anchorage, 1951

***Types of Apartment Buildings***

**Mid-rise–** A multiple unit dwelling that was generally between six and ten stories with internal access to individual units. They could be a single building or grouped with numerous buildings of mirrored design.

*Characteristics:*

- Vertically stacked dwelling units
- Between six and ten stories

[409] BGES, *South Addition Historic Context Statement & Building Survey - Anchorage, Alaska*, (Anchorage: Municipality of Anchorage, 2011), 10.


*Figure 57. Knik Arms, a mid-rise apartment building in Anchorage, as seen in 1953; the building is still in use (source: Sidney Hamilton Photograph Collection, Anchorage Museum, Gift of Emily Turner, B1976.82.116).*

**High-rise/apartment tower** - while there is some debate as to where a mid-rise building ends and a high-rise begins, a high-rise building can be defined by an apartment tower of at least ten stories. Despite the increase of population during the post-war period in residential high-rises, they remained the exception rather than the norm, with low-rise horizontal outward growth being the dominant form of residential expansion.

*Characteristics:*

- Vertically stacked units
- 10 or more stories
- Elevator
- Example: Inlet Towers, Anchorage, 1952 (Earl W. Morrison in association with Donald Mac Donald, Architects); McKinley Tower Apartments, 1952 (Francis B. Mayer, using a Morrison design). Both 14-story, International Style buildings were constructed to help alleviate the housing shortage in Anchorage. Both buildings featured similar design details, corner windows, a strong vertical emphasis, minimal ornamental details, and a two-tone paint scheme. Both buildings were heavily damaged in the 1964 Earthquake. The McKinley Tower Apartments was listed on the National Register in 2006."[410]

[410] Hoagland, *Buildings of Alaska,* 94.


*Figure 58. McKinley Tower Apartments, Anchorage, a high-rise apartment building, as seen in 1952. (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-1323-1 ).*

- Example: Hodge Building, Whittier, 1957; Built by the Army Corps of Engineers for family housing and bachelor officer quarters the building. The building withstood the Good Friday Earthquake without suffering significant damage. In 1969, the building was transferred from the Army to the State of Alaska and deeded to the city of Whittier in 1973 and in 1974 was officially renamed Begich Towers in remembrance of Congressman Begich and formed into a condominium association. The Association has been operating continuously since that time. Today, the 14-story building is home to many of the town's residents.

*Figure 59. The Hodge Building, Whittier, a high-rise apartment building, as seen in 1964 (AMRC-b79-38-23).*

- Example: Marine View Tower, formerly known as Wingren Court, is one of three high-rises in Ketchikan, designed by Earl W. Morrison of Seattle; it was completed in 1953. Similar to Inlet Tower in Anchorage, the high-rise apartment building was constructed in response to the growing demand for rental housing in Alaska. The 11-story apartment is relatively void of ornamentation with a vertical emphasis and two-tone paint application that was common in Morrison designs at that time.[411]

[411] Yarborough and Welsh, *Marine View Condominiums,* 11.

*Figure 60. The Marine View Tower (formerly Wingren Court) as seen today (source: Yarborough and Welsh, 2014).*

### *Commercial*

In the Lower 48, by 1969, 79 percent of families owned an automobile.[412] In Alaska, 48.9 percent of the population owned automobiles.[413] Post-war prosperity and automobile ownership meant massive changes to how people lived, worked, and consumed. Existing building types and styles evolved and new ones emerged in response to these changes. The list of types of commercial buildings below includes information on new building types that emerged during the period and descriptions of how existing building types evolved.

#### *Bank*

Changes to banking law to permit statewide branching was seen as a way to lessen the problems arising from the inability to diversify in local areas and to serve a population scattered over a vast area.[414] Prior to the changes in the law, banks generally had a central location in the main business district. With the new laws enabling branch banks, a new building type emerged during the period that was a specific response to these changes in banking law. Alaska had dozens of regional branch banks. While some branches were placed in existing storefronts or constructed in revival styles, the design of the new branch buildings sometimes featured more modern designs with interiors that reflected changes to the banking industry, often favoring the modern design or revival styles over the classical and on the interior, an open plan and tellers visible behind partitions or glass walls rather than the grills and cages of older banks. Drive-up banking, modern interiors, and futuristic design were just some of the features these branch banks sometimes displayed.[415]

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[412] US Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, Part 1, (*Washington, D.C.: US Government Print Office, 1975), 717.
[413] US Bureau of the Census, *US Census of Population: 1960.*
[414] Richard H. Keehn, "Banking on Alaska: The Story of the National Bank of Alaska," EH.Net - Economic History Services, (July 2004), accessed March 01, 2016, http://eh.net/book_reviews/banking-on-alaska-the-story-of-the-national-bank-of-alaska/.
[415] Carol J Dyson and Anthony Rubano, *Banking on the Future: Modernism and the Local Bank. Preserving the*

*Characteristics:*

- Stand-alone structure
- Transparent interiors, large expanses of glazing made the interior visible from the street and sidewalk, night lighting designs that highlighted this transparency
- Drive-through access or amble parking were common features
- Example: The Key Bank on Gaffney Road in Fairbanks (now closed) was a rather unique example of the incorporation of Googie design elements into a regional branch bank building.

*Figure 61. Key Bank, 612 Gaffney Road, Fairbanks, n.d.; status unknown (source: Jessie Diamond 2013).*

### *Professional building*

Prior to the War, in urban areas, many "professionals" such as doctors, lawyers, dentists, accountants, etc were located in storefronts and upper stories of low-rise commercial buildings in downtown districts. With increased automobile ownership and residential development outside of the urban core, many professionals chose to locate away from the central business district in single-story, professional buildings that housed one office or a cluster of them. If associated with a medical practice, it was not uncommon to find these buildings located near hospitals and care centers, whereas, professional buildings for lawyers might be located near a courthouse or governmental building.

*Characteristics:*

- 1-3 stories
- Often stand-alone buildings or built in clusters
- Ample off-street parking spaces and landscaping elements
- Numbers and building names as design elements

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*Recent Past*, ed. Deborah Slayton and William G. Foulks, (2000), 2-43.

### *Commercial High-rise*

Prior to the war in the larger cities, like Anchorage and Fairbanks, few tall buildings of ten or more stories punctuated the skyline. However, in the decades following the War, tall buildings graced the skyline of Anchorage, Juneau, and Ketchikan. Prior to the oil boom, most commercial high-rise buildings were built for hotels like the Hotel Captain Cook in Anchorage and the Polaris in Fairbanks. The post-war oil boom brought an array of new non-residential high-rises.

*Characteristics:*

- More than ten stories in height
- Primarily steel and concrete
- Numerous internal units
- Highly Visible Corporation Signage

*Figure 62. Anchorage Hilton Hotel, ca. 1960, is still operational (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Stewart's Photo Shop slides, 1964-1992, uaa-hmc-1181-764).*

### *Strip Mall*

With increased automobile ownership and the development of suburban residential areas, clusters of commercial buildings emerged along commercial roadways. The first strip mall was built in Anchorage in 1951; the now demolished Hollywood Shopping Center was at the heart of the Government Hill neighborhood. In Spenard, the Northern Lights Center was developed by Wally Hickle in 1960. Beginning in 1968, Pete Zamarello began to construct his strip mall empire starting in the Muldoon area.

*Characteristics:*

- Linear development oriented towards street
- Parking in front
- Clusters of buildings often connected or clustered in strips

*Figure 63. Olympic Center, formerly Olympic Plaza, at the corner of Artic Boulevard and 36th Street in Anchorage. It is one of many strip malls built by Pete Zamarello in the late 1960s; it has since been remodeled (source: TNSDS 2016).*

### *Shopping Mall*

The first shopping malls emerged in the United States in the 1930s. Initially outdoor spaces of shops linked by pedestrian plazas with improvements in HVAC systems, changes in retail patterns, and consumer preferences, the existing outdoor malls were enclosed, and new enclosed malls were built. While mall development was prevalent in the Lower 48 in suburban areas, it wasn't until the 1960s that the first mall came to Alaska. In 1966 the Aurora Village Shopping Center, at the corner of Northern Lights Boulevard and Minnesota Drive, opened with a new Carr's Grocery Store as the anchoring storefront. The Mall in Anchorage opened in 1968 at the corner of Northern Lights Boulevard and the Seward Highway and contained a Sears store.

*Characteristics:*

- Linear development of enclosed stores
- Store access using an internal corridor
- Climate controlled


*Figure 64. Aerial image, dated 1966, of the Aurora Village Shopping Center on Northern Lights Boulevard (source: Anchorage Museum at Rasmuson Center Ward Wells Collection, AMRC-wws-4411-10).*

### *Storefronts*

Businesses that remained in the established business districts often remodeled. New construction reflected the transition from pedestrian to auto-bound consumers, and design elements were intended to catch the eye of passing motorists and highlight the abundance of consumer goods available.

#### Open Front/Visual Front

Open front/visual front was a style of commercial architecture that offered shoppers a dramatic view of the interior sales space while the exterior of the building could be used for attractive signage. This effect was often accentuated at night by dramatic lighting schemes such as neon. The visual front began appearing in downtowns in the mid-1930s, but it did not gain widespread popularity until after WWII.
*Characteristics:*

- Exterior of the building "framed" display windows
- Large display windows or expanses of glass at ground level with minimal framing. Occasional upper story framed display windows.
- Flush mounted or projecting signs scaled to address automobile traffic on exterior walls
- Dramatic lighting schemes
- Interior spaces designed to highlight merchandise

*Figure 65. Example of open front commercial building, 600 E. Northern Lights Blvd., Anchorage; Built 1968 (source, Washington Post, 2016).*

## Closed Front

Closed front businesses were often used for shops where privacy or exclusiveness were needed or desirable such as high-end boutiques or jewelry stores. Perhaps one of the most iconic examples of the closed front was Frank Lloyd Wright's V.C. Morris Store in San Francisco, of the design, Wright wrote, "we are not going to dump your beautiful merchandise on the street, but create an arch-tunnel of glass, into which the passers-by may look and be enticed…they will suddenly push open the door, and you've got them!"[416]

*Characteristics:*

- Flat billboard-like front which obscures view of interior spaces
- Partitions, curtains, and windowless doors limit view of interior space
  Closed front can be at building line or recessed from the building line
- Closed front can be punctuated with small display windows or cases

[416] "V.C. Morris Gift Shop," MIT Libraries Dome, accessed June 17, 2016, https://dome.mit.edu/handle/1721.3/179719.

*Figure 66. Example of semi-closed front, David Green Master Furrier, Anchorage, date unknown (source: Lambin 2015)*

### Recessed Open Front

Like the open front, the street front wall features large display windows or large expanses of glass. Recessed storefronts provided an opportunity to attract pedestrians and shelter window shoppers from the elements.

*Characteristics:*

- All or part of the building front was recessed several feet back from the building line
- Sometimes featured corner windows or display cases within the recessed space

*Figure 67. Example of a recessed open front commercial building, Stewart's Photo Shop, Anchorage (source: Roy Neese 2011).*

### Slipcover

Just as a piece of furniture could be given a new look with a bit of fabric, for buildings in existing districts, the "slipcover" was a popular way to update buildings. In some instances the updates were purely ornamental with the new façade applied over the old (and sometimes historic), in other instances, the existing façade was largely demolished and replaced with a new one.

*Characteristics:*

- Cladding element covered original exterior of building
- Openings in upper-stories often covered or obscured by cladding material
- Signage or building name used as decorative element on upper stories of façade

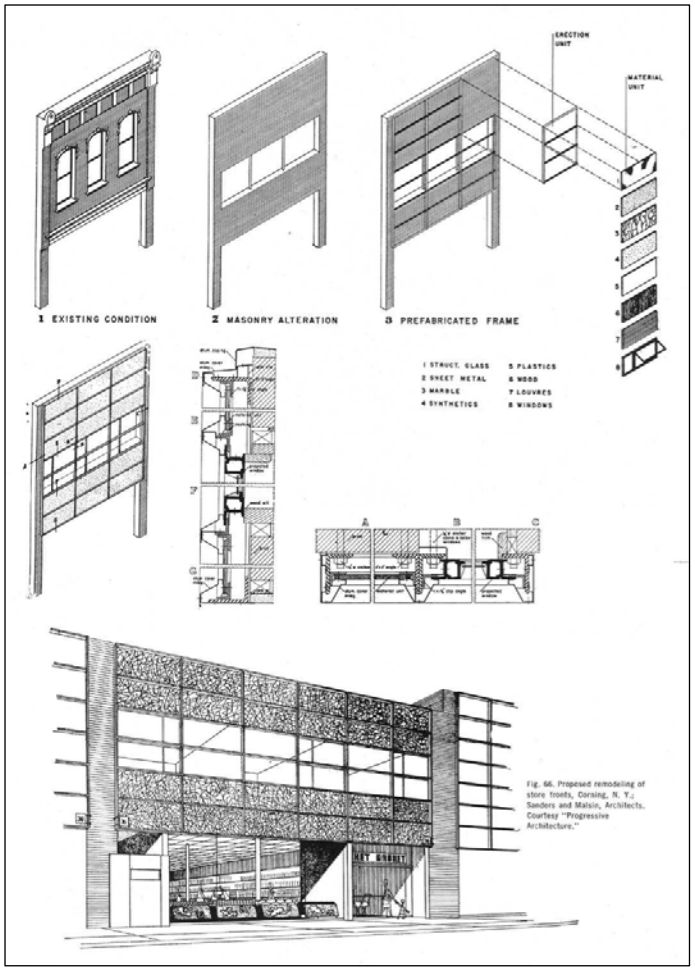


*Figure 68: Morris Ketchum, Design for Modernization, example of a slipcover design, 1948 (Source: Lambin Collection)*

### *Roadside Commercial*

The rise in automobile ownership meant a more mobile population in need of services like gas, food, and lodging but with the proliferation of businesses, it also meant that the architecture or design of a building could be a means to entice would be customers to patronize your business.

#### Gas/Service Station

A station is referred to by various popular names including filling station (approximately 1910–1920), gasoline or gas station (1920–1940), or service station (meaning a place where a variety of automobile services are provided, 1920 to post World War II). The evolution of the term reflected the gradual expansion of a commercial enterprise in a small town to a sophisticated corporate distribution program that offered a branded product along an interstate highway system. The development of the gas station also evolved from a simple and common building form to a complex building form during the twentieth century attracting the attention of major industrial designers and architects. Despite the commonality of the property type, specific forms and styles arose during progressive time periods, in different areas of the country, and evolved through the corporate design influence of a number of oil and gas companies. Gas

stations, like many building types of commercial and roadside industries, often underwent alterations or changes over time.[417]

*Characteristics:*

- 1 or more gas pump islands possibly beneath car port
- Open front building with bright signage
- Painted colors that reflected the brand of gasoline sold at the location
- 1 or more overhead door bays for service area


*Figure 69. Beacon Service Station on 5th Avenue, Anchorage, as seen in 1957 (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wwc-2616).*

### *Billboard*

Billboards, also called "ducks," were self-identifying buildings where the building itself acted as a sign or billboard for the business inside. For example, a hotdog stand would be designed to look like a giant hotdog. Corporations, like McDonald's, expanded on this idea and created signature structures that were easily recognizable which could be adapted for different climates but contained the same signature elements such as a mansard roof or golden arches. Pizza Hut also adapted a signature style using a South Pacific island design. In Alaska, Carr's grocery stores embraced such a signature design. Although the type is relatively rare in Alaska, business like Carr's grocery stores (see previous Figure 65) embraced such a signature design. Perhaps the most iconic example of the type is the Leon Smith Igloo, "the igloo---the residential form most associated with Alaska, correctly or not, makes a vivid advertisement to passing motorists."[418]

*Characteristics:*

[417] W. Dwayne Jones, *A Field Guide to Gas Stations in Texas,* Historical Studies Report No. 2003-03, (Austin, Texas: Texas Department of Transportation, Environmental Affairs Division, Historical Studies Branch, 2003), 1.
[418] Hoagland, *Buildings of Alaska,* 139.

- Highly visible signage or commercial logo
- Reflected what the commercial entity was offering to consumers
- Standard design replicated all locations operated by the business


*Figure 70: Leon Smith Igloo, Cantwell, 1970s-1992 (Source: Alaska.org 2016)*

### *Motel*

The motel was a building type that emerged in the 1920s to cater to auto-bound travelers. Development of this type slowed first because of the Great Depression then because of World War II. At the close of the war, as more people took to the roads, the motel or motor-hotel became more commonplace.

*Characteristics:*

- Usually 1-2 story buildings
- Structure set back behind parking area
- Often found on outskirts of developed areas, along highways, or arterial road


*Figure 71. The Fairbanks Inn on Cushman Street, Fairbanks, 1964; it was later the Best Western Fairbanks Inn and then Quality Inn but by 2011 it was no longer operational; the building is still standing (source: Alaska Research Company 1962).*

### *Cultural Institutions*

Investment from federal funding from the Alaska '67 Centennial Celebration was intended to make permanent investment in Alaska, "advertise Alaska," and build up the cultural endowment of the state. The program required matching funds from local communities which responded with "imaginative and enterprising projects including museums, community centers, performing arts facilities, libraries, campgrounds, historical parks, and a variety of restoration projects."[419] With over eighty projects funded by the federal matching funds and spin off projects, almost every community in the state benefitted in some way. Whether new facilities, like the Anchorage Museum of History & Art were built, or existing structures were repurposed, like the converted cannery model, or replicas were constructed like the Chilkat Center for the Performing Arts in Haines, the cumulative efforts significantly increased the number of cultural institutions across the state. At statehood there were only six museums in the territory; the Centennial construction projects alone doubled that number,[420] with new museums constructed in Anchorage, Juneau, Ketchikan, Petersburg, Wrangell, Kodiak, Kotzebue, Nome, Bethel and Homer, and historical building restoration efforts at Fairbanks, Gambell, Ninilchik, Kenai, Knik, Anchorage, Klawock, and Hydaburg.

#### *Museums*

Museums, being a collection and repository space in function, could have a wide variety of characteristics. They ranged in size from small, single-rooms in civic buildings to massive buildings that filled entire city blocks. The size was generally related to available funding and many expanded and received new additions over time.

- Example: The Anchorage Museum of History and Art, 1968; Designed by Kirk, Wallace, and McKinley of Seattle in association with Schultz/Maynard of Anchorage, the initial stage of the building was completed in 1968. The Sixth avenue façade featured a broad frieze designed by sculptor Alex Duff Combs. The use of brick as a building material softened the formal lines of the

[419] Brown et al., *View from the Future*, 8.
[420] Brown et al., *View from the Future*, 17.

exterior. The building was expanded in 1974, 1986, and 2009 and is currently undergoing renovations though portions of the first iteration of the building can still been seen complete with the sculpted frieze.

*Figure 72. Anchorage Museum of History and Art, extant (source: Alaska-in-pictures.com 2010).*

- Example: Alaska State (Centennial) Museum, 1967; in 1967, the citizens of Juneau implemented a one percent sales tax to help fund the building of a Centennial Museum. Designed by Steven Forrest, of Linn A. Forrest Architects, AIA, the building housed cultural materials from the northwest coast, Russian colonial era, early pioneer materials, natural history, and fine art. Featuring stylized stamped concrete panels of Alaskan Native motifs, the building was demolished in 2015.


*Figure 73. Alaska State (Centennial) Museum, Juneau, demolished (source: Alaska State Library - Historical Collections, Don Steffa Photograph Collection, ca. 1958-1977, ASL-P283-2-451 ).*

- Example: Kenay Museum, 1967, Kenai; the Kenay Museum in Kenai was created in 1967 by reconstructing a Russian Orthodox Church school; the museum was housed on the second level of the building. The land was once part of Fort Kenay, which contained the still extant Holy Assumption Russian Orthodox Church, the Saint Nicholas Russian Orthodox Chapel, and a Russian Orthodox rectory. Four historical buildings and a log cache were moved from various locations around Kenai to the area for viewing as well.[421]

[421] Hoagland, *Buildings of Alaska,* 117.

*Figure 74. Fort Kenay in Old Town Kenai, extant (source: Brown 2015).*

### *Recreations*

Recreations of historic buildings that have been lost due to fire, weather, or other unavoidable circumstances can be completed using previously compiled documentation such as photographs, drawings, and the collective memory of a community. Use of Historic American Building Survey documentation had been a very successful tool when used in conjunction with obtaining building materials that reflect the period of the building's construction. As part of centennial efforts or in a bid to attract tourists, many communities refurbished existing buildings or built new ones recreated in historic styles with the log cabin being an ever-popular motif.

- Example: Haines, Tlingit Plank House, 1964; constructed as part of an effort to turn Fort Seward in Haines into a tourist attraction a Tlingit plank house was constructed in the Fort parade ground in 1957–1964. The design of the 40-foot square house was based on a combination of original plans, slightly adapted to meet contemporary needs, and the drawings of George T. Emmons. The exterior featured carvings on the corner posts, as well as the front, with a totem pole incorporated into the rear facade. Built adjacent to the house was a one-story trapper's cabin "intended to illustrate the architecture of the first whites in the area."[422]

[422] Hoagland, *Buildings of Alaska*, 167.

*Figure 75. Tlingit Plank House on the grounds of Fort Seward, Haines, 1970, extant (source: National Register Nomination Form 1972).*

### *Libraries*

Libraries were constructed or expanded to accommodate the growing population across the state. Expansion of the university system also included new library buildings in Fairbanks and Anchorage. New library facilities, or combination of library/museum complexes were also constructed under the Alaska ’67 Centennial efforts including those in Wrangell, Cordova, and Ketchikan. Many have since been demolished or modified.


*Figure 76. The Z.J. Loussac Library, Anchorage, William Manley architect, 1955; demolished (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-1640-2).*

*Figure 77. The Seward Library after its 1967 remodeling effort, as seen in 2015 (source: Brown 2015).*

### *Civic/Government*

After World War II, the surge in population meant that an increasing array of public facilities to accommodate the needs of the growing population needed to be built. These structures were built by the

federal, state, and local governments including office buildings like the Hurff A. Saunders Federal Building in Juneau (Olsen and Sands, architects, 1966), courthouses, post offices, museums, and border stations.[423] The building type, style, and quality of construction varied from high-style federal buildings and courthouses to simple utilitarian structures.


*Figure 78. The Snowden Administrative Office Building in Anchorage houses the Alaska Judiciary and associated staff (source Dinker022089 2015).*

### *Courthouses*

Courthouses built during the post-WWII era were either a new building constructed solely for that purpose or a repurposed building. In Sitka, the existing courthouse originally built in 1936 was renovated in 1963. Some of Alaska's most prominent architects were involved with the design and construction of Alaska's courthouses. In Anchorage, a courtroom and offices were added to the Federal Building in 1958 which were designed by architect Edwin Crittenden. Completed in 1966, the firm Olson and Sands designed the US Post Office and Courthouse for the US District Court in Juneau.

[423] Robinson and Foell, *GSA Buildings,* 6.


*Figure 79. US Post Office and Courthouse, Juneau, Alaska, 1966, extant (source: History of the Federal Judiciary 2016).*

*Figure 80. The 1958 Crittenden Addition to the Anchorage Federal Building, extant and modified (source: Schlenker, Allen and Steely 2010).*

*Post Offices*

There were 199 post offices in Alaska prior to World War II.[424] Similar to the pre-war era, those constructed after WWII consisted of simple utilitarian structures or high-style buildings reflecting popular national design trends of the period. Invoking many of the popular characteristics of storefront buildings with the use of supergraphics, large-scale painted, applied geometric, or typographic designs on the sign frieze level so that the building itself served as advertisement or billboard for what was inside. Some designs employed for post offices, such as the geodesic dome used for the North Pole post office, were replaced with larger buildings of a more contemporary design.


*Figure 81. Post Office, Fairbanks, n.d. (source: Joe Schumacher 2005).*

[424] Federal Writers' Project, *The WPA Guide to Alaska: The Last Frontier State*, (San Antonio, Texas: Trinity University Press, 2013).

*Figure 82. Post Office, North Pole, n.d., removed (source: Mel Anderson, nd).*

### *Transportation Facilities*

Travel and tourism in Alaska increased throughout the post-war era. New airport terminals were constructed across the state while new rail stations and hotels were built along the route of the Alaska Railroad. Roadside administrative buildings serving as border crossing and weigh stations were built. Improvements to marine services, such as the construction of new docks, wharfs, and ferry terminals, were also undertaken to meet the demand of an increasing population and growing tourism industry.

#### *Automotive Transport*

Spurred by military need to efficiently transport personnel and supplies, the Alaska road system grew substantially during the post-war years. At the Alaska and Yukon border, border stations were constructed to support US and Canadian customs agents. The Alaska Road Commission (ARC) and Bureau of Public Roads (BPR) built steel stringer/girder bridges in significant numbers throughout the 1950s and early 1960s. The ability to administer and manage on-going operations, construction, and rehabilitation efforts was key to the successful increase in all areas of transportation during the period. Maintenance of the growing road system required labor camps and support facilities to successfully meet the demand for construction supplies and road improvements. In some instances, temporary camps for road expansion efforts became semi-permanent and, ultimately, led to the establishment of small towns as was the case for Glennallen.[425]

[425] Robert L. Meinhardt, *Section 106 Review for BIA Funding Allocated for Housing Improvements on the William Buck House (Alaska Road Commission Cook House) Located at Mile 185.5 of the Glenn Highway (Gulkana Quadrangle),* (Anchorage: BIA Office of Regional Archeology, 2005), 5.

*Figure 83. The Alaska Road Commission depot at Glennallen, ca. 1950, some buildings still extant (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Fred Machetanz Collection in the National Archives).*


*Figure 84. Tok Customs Station, ca. 1960, built in 1948 (source: Anchorage Museum at Rasmuson Center, Wien Collection, AMRC-b85-27-780).*

*Figure 85. The Brotherhood Bridge, Juneau, 1965; the bridge has since been demolished (source: Sharley and Krier 2013).*

### *Air Transport*

During the post-WWII period, many existing airfields were expanded. Fairbanks received a new terminal in 1951, and Juneau received two expansions of its terminal facilities in 1949 and 1957 (both by Foss Olsen Sands). Several villages also constructed airports including Nondalton, Shaktoolik, Nenana, and Harding Lake. The Kenai Municipal Airport was constructed in 1965-1966 and was designed by Arthur Bunnell.[426] The Anchorage International Airport was a new construction effort completed in 1952 with the main terminal designed by Manley and Mayer. The Anchorage airport sustained major damage in the Good Friday Earthquake of 1964 with the complete collapse of the air traffic control tower that was later replaced with a design by Edwin Crittenden. Hangars were built at airports and airstrips to house aircraft and for service of the vehicles. In coastal areas, the hangars were set on piers over the water as was the case in Juneau, Ketchikan, and other Southeast Alaska communities. They varied in size based on the type of aircraft they could accommodate. Small, single craft hangars were built along airstrips in villages like Platinum, and airfields had groups of small hangars. The small hangars were often constructed of wood or metal with flat or salt-box roofs (some had a domed roof). Military-surplus Quonset huts were also used as hangers during this time due to their availability after World War II.

#### Terminals

As air transport grew across the US, its popularity and availability in Alaska also grew. It opened up vast areas of the territory that had previously been inaccessible to most individuals. Population growth and movement of goods spurred increasing interest in aviation, and the appointment of Alaska as a key element of the Great Circle Route prompted all sizes of commercial aviation ventures to establish

[426] "Notice: City of Kenai Airport Construction Public Input Advertisement," *Fairbanks Daily News Miner*, (February 22, 1965), 4.

themselves in Alaska. New air terminals were built in Anchorage, Fairbanks, and Juneau. The Anchorage International Airport was a new construction effort, completed in 1952, with the main terminal designed by Manley and Mayer. The Anchorage airport sustained major damage in the 1964 Good Friday earthquake due to the complete collapse of the air traffic control tower. Designed by the international architecture firm of Thomas Bourne, Fairbanks received a new terminal in 1954. The Juneau Municipal Airport was dedicated in 1949 and received a massive addition in 1958 that included an air traffic control tower, designed by the architecture firm of Olsen Sands, and was rededicated as an International Airport.

Airfields with smaller terminals were built in villages and small communities including Nondalton, Shaktoolik, Nenana, and Harding Lake. The Kenai Municipal Airport was constructed in 1965-1966 using a design by Arthur Bunnell.

*Characteristics:*

- Located directly next to runways/airstrip
- Rows of windows for viewing flight arrivals and departures
- Parking area directly in front of building
- Contained internal functional areas for ticketing, baggage handling, seating
- May have an air traffic control tower


*Figure 86. Fairbanks International Airport Terminal and Control Tower, 1961 (University of Alaska Anchorage. Consortium Library. Archives & Special Collections, Donald Arthur Post slides, 1953-1959, UAA-hmc-0917-619).*


*Figure 87. Juneau International Airport with control tower, ca. 1960 (source: Anchorage Museum at Rasmuson Center, MRC. Wien Collection, AMRC-b85-27-1304).*

### Administrative Buildings

Offices and administrative buildings that supported air operations were located both on and off the airfields. On-site facilities, like the CAA buildings located in several small villages and prominently seen at Merrill Field in Anchorage, were used in instances of small aircraft use and also for support services such as flight and cargo booking, fee payment, fueling and repair services, and accounting. Many on-site buildings included some form of communications towers. Off-site buildings housed employees responsible for marketing, accounting, and daily business operations such as the Pan Am Building in Anchorage. Military administrative buildings were used for flight dispatch, equipment issuance, command offices, and flight oversight.

*Characteristics:*

- Located either next to or within a few miles of runway/air strip
- Numerous internal room
- May have associated radio tower or communications towers


*Figure 88. Alaska Coastal Airlines Building, Juneau, 194 (source: Alaska State Library - Historical Collections, Shell Simmons Photograph Collection, 1929-1996. ASL-PCA-356).*


*Figure 89. Civil Support Team building, (Bryant Army Air Field, built 1960) Elmendorf Air Force Base, present day (source: Sneddon and Miller 2012).*

## Hangars

Hangars were built at airports and airstrips to house aircraft and for service of the vehicles. In coastal areas the hangars were set on piers over the water, as was the case in Juneau, Ketchikan, and other Southeast Alaska communities. They varied in size based on the type of aircraft they could accommodate.

Small, single craft hangars were built along airstrips in villages like Platinum; air airfields had groups of small hangars. The small hangars were often constructed of wood or metal, with flat or salt-box roofs; some had a domed roof. Military-surplus Quonset huts were also used. Larger aircraft required very large hangar buildings with tall siding doors for entry. These were typically constructed at international and military facilities of wood, concrete, and metal. Commercial air carriers typical constructed their own hangars.

*Characteristics:*

- 1 to 2 stories
- Flat or domed roof of metal or wood
- Man door
- Large doors on rail or overhead doors
- Located on edge of runway/airstrip or in coastal waters

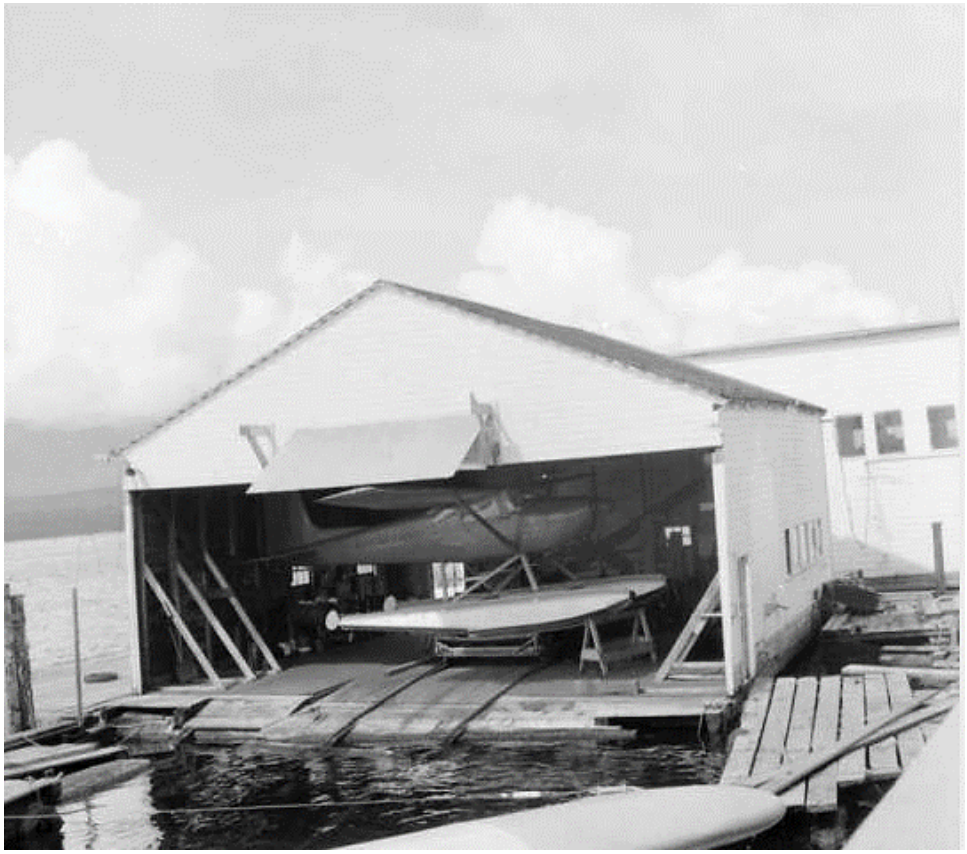

*Figure 90. Ellis Air float plane inside a hangar, ca. 1945, Juneau (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Kay J. Kennedy Aviation Photograph Collection, UAF-1991-98-68).*


*Figure 91. New hangar at Anchorage International Airport, 1953 (University of Alaska Anchorage. Consortium Library. Archives & Special Collections, Donald Arthur Post slides, 1953-1959, UAA-hmc-0917-1036).*

## Air Traffic Control Towers

Air traffic control towers were used at larger airports to effectively communicate and facilitate numerous incoming and outgoing aircraft. Towers were either standalone structures or portions of the main terminal during the period.

*Characteristics:*

- 2 or more stories
- Typically, square with rows of windows for easy visibility of aircraft
- Top story contained large windows often canted outward
- Located on edge of runway or adjacent to runway
- Radio communications and weather stations attached to the rooftop


*Figure 92. The standalone air traffic control tower at Anchorage International Airport, ca. 1955; it was destroyed in the 1964 Good Friday Earthquake (source: University of Alaska Anchorage, Consortium Library, Archives and Special Collections, Donald Arthur Post slides, 1953-1959, UAA-hmc-0917-1033).*

### *Marine Transport*

Nearly every coastal community in Alaska had a harbor; some were small with a single dock while others offered port and marina facilities. The size of the facilities within a harbor was related to population and distance to inland transportation such as rail or road.

#### Ports

The ports in Alaska varied in size. Ports offered the ability to load and unload cargo from ships and onto further destinations. Ports could be configured for the types of cargo they handled. For instance, Valdez specialized in oil transport; Seward had coal transport facilities, and Dutch Harbor had seafood processing facilities. Major shipping ports included Dutch Harbor/Unalaska, Anchorage, Seward, Juneau, and Valdez. While each port catered to a specific type of commodity, all were capable of loading and unloading large cargo vessels and container ships.

*Characteristics:*

- Located in a harbor/sheltered area either next to an arterial roadway, airport, or railroad
- Off shore moorings and onshore docks
- Large cranes to load/unload ships
- Open storage areas for cargo
- Warehouses for cargo storage
- Administrative buildings
- Fuel Pumps/Tanks


*Figure 93. Port of Anchorage, with Alaska Railroad yards in background, 1965 (source: Anchorage Museum at Rasmuson Center, AMRC. Ward Wells Collection, AMRC-wws-4317-1).*

Marinas

Marinas offered shelter for small to medium sized vessels. They could be located in a natural harbor or in a manmade harbor. Marinas could consist of a few moorings such as those in Angoon or they could be large planned marinas with several docks, moorings, fuel docks, and fish processing stations like those in Seward and Petersburg.

*Characteristics:*

- Floating docks and shoreline boardwalks
- Gas Pump Islands
- Shore side administrative buildings with large viewing windows
- Breakers along outskirts of marina to provide shelter

*Figure 94. The Homer Spit, ca. 1969, with newly constructed marina; accessed through a breakwater-sheltered canal to the left of the image (source: Anchorage Museum at Rasmuson Center, Steve McCutcheon Collection, B1190.14.5.T.74.10).*

### Ferry Stations

In Alaska, ferry docking locations and sizes varied by community. Some were small, single ramp loading docks with no associated buildings, set outside of a community marina, as was the case of Angoon. Others, like Cordova, had passenger service buildings and were set inside a marina.

*Characteristics:*

- Wood or metal gangway for pedestrians
- Cribbed landing with decking/ramp for vehicles access to vessels
- Dock pilings/ferry slip
- Wooden docking platforms/wharfs
- Headframe with pulley system for movement of deck ramp

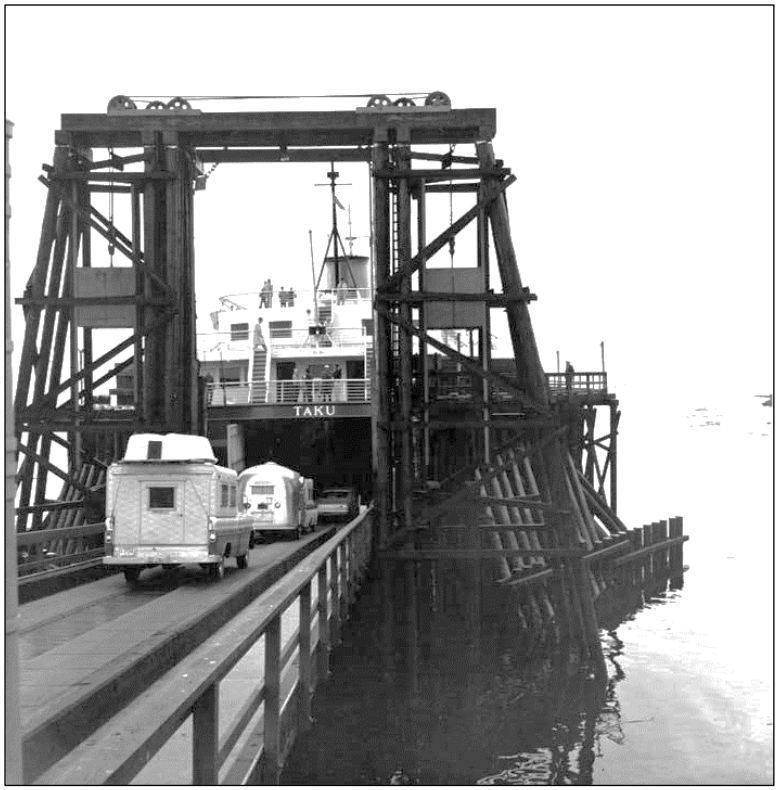


*Figure 95. Vehicles Boarding Taku Ferry, Auk Bay, Juneau, ca. 1960 (ASL-P22-07-017).*

### *Rail Transport*

The primary purpose of the rail system prior to World War II was transport of military personnel and equipment, shipment of natural resources to market, and back-haul goods for local communities when available. Under the Alaska Railroad Rehabilitation Project, rail systems in Alaska were revitalized. The rehabilitation project provided maintenance for the aging rail lines, facilities, and expanded the operations of the Alaska Railroad Corporation. Power generation facilities in Anchorage, administrative offices, and expanded rail yards were constructed during the post-war years. The addition of civilian passenger service aided to the increase in tourism in the region and created a need for rail-side station buildings such as the Mount McKinley National Park Railroad Station and Hotel. In 1948, the Alaska Railroad completed an expansion of the Anchorage depot.

*Figure 96. The Alaska Railroad Anchorage Depot, as seen in 1999 (source: National Register Nomination, Blasingame 1999).*


*Figure 97. The Mount McKinley National Park Railroad Station and Hotel, 1950; it was built by the Alaska Railroad but is no longer extant (source: uaa-hmc-0756-243).*


*Figure 98. Railroad yard at Ship Creek, 1951, with warehouses, power facilities, and administration buildings (source: University of Alaska Anchorage. Consortium Library. Archives & Special Collections, William O. Chinn photographs, 1951-1973, UAA-hmc-0620-series1-f1-50).*

### *Educational Facilities*

Construction of educational facilities in Alaska increased both during and after World War II. An increasing population created a demand for primary and secondary education. Similarly, higher education, largely centered near military installations, was also in demand as service members sought educational opportunities.

#### *Primary and Secondary Education*

Construction of elementary, junior, and senior high schools increased throughout Alaska after World War II to meet the demands of a growing population. From Nome to Ketchikan, and in villages large and small, elementary schools were raised as quickly as funds could be secured. Several schools were built throughout Alaska in the years following World War II creating work for local and out-of-state architects. The largest number of newly constructed elementary schools in the territory during this time was in Anchorage. Primary schools were also built in rural communities in Alaska such as Dillingham, Sitka, Kenai, Valdez, Sand Point, and Seward.

Southeast

- Kake Elementary, Linn Forrest architect, 1952, demolished
- Auk Bay Elementary, Juneau, John Forrest architect, 1967, substantially altered
- Petersburg Elementary, 1968, extant
- Sitka Elementary, William Johnson architect, demolished
- Mendenhall School, William Johnson architect, extant

Interior

- LF Joy Elementary, Fairbanks, Doug Ackley and Lee S. Linck architect and engineer, 1960, extant

- Nordale Elementary, Fairbanks, Lee S. Linck designer, 1953, extant
- Chena Elementary School, Fort Wainwright, Fairbanks, Lee S. Linck designer, 1961, substantially altered
- Moose Creek School, Roger Cotting architect, status unknown
- Fairbanks Elementary School, Jennings Graham architect, 1960, possibly now Hunter Elementary

Southcentral

- Ursa Major, Elmendorf Air Force Base, Anchorage, William Manley architect, extant
- Ursa Minor, Elmendorf Air Force Base, Anchorage, William Manley architect, extant
- Wonder Park Elementary School, Ralph Alley and Donald Coolidge architects, extant
- Bartlett Elementary School, Edward Osborne architect
- Government Hill Elementary School, 1956, demolished
- Inlet View Elementary School, 1960/61, extant
- North Star Elementary School in Spenard, 1951, extant
- Wasilla Elementary School, Jennings Graham architect, 1961, possibly now Tanaina Elementary or Cottonwood Creek
- Kenai Elementary School, Merle McEntire and Mike Pendergast architects, possibly now Kenai Middle School

Secondary schools (junior and high) were also built to accommodate population growth and the migration of peoples after the War. Projects were completed in major population centers, as well as Kodiak, Cordova, Palmer, Fort Yukon, and Wrangell.

Southeast

- Juneau-Douglas High School, Linn Forrest architect, 1960, extant
- Batchy Junior High School, Juneau, John Forrest architect, 1967, now Floyd Dryden Middle School, extant

Interior

- Ryan Junior High School, Fairbanks, Doug Ackley architect, extant
- Lathrop High School, Fairbanks, extant
- North Pole High School, extant
- Delta Junction School, 1968-1970, Sands Olsen architects, now Delta Junior High, extant

South Central

- Bartlett High School, Edwin Crittenden with Manley and Mayer architects, extant
- Orah D Clark Junior High School, Anchorage, Crittenden, Cassetta, Wirum and Jacobs architects, 1958, demolished
- Central Middle School of Science, Anchorage, Edwin Crittenden architect, extant
- Anchorage West High School, Manley and Mayer architects, extant
- Kodiak High School, William Johnson architect, 1958

Southwest/Aleutians

- Dillingham High School, Sands Olsen architects, 1955, status unknown
- Bristol Bay High School, Lucien Cassetta architect, 1968-1969, status unknown
- Sand Point School, Sand Point, William Manley architect, 1958, extant

*Characteristics:*

- One to two stories (secondary schools tended to have multiple levels)

- Curtain walls, window ribbons
- Sprawling design, intended for later additions
- Arched gymnasiums
- Single front portico/avenue to access
- Parking areas

*Figure 99. Kake Elementary School, Kake, Alaska, Linn Forrest architect, 1952, demolished (source: Alaska State Library Historical Collection).*


*Figure 100. Inlet View Elementary School, Anchorage, 1961, with Inlet Towers in background; the school is extant (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-3313-1).*

*Figure 101. Dillingham School, Foss, Olsen and Sands architects, 1955; status unknown (source: Anchorage Museum at Rasmuson Center, Steve McCutcheon Collection, B1990-014-5-TV-046-24).*


*Figure 102. Kodiak High School, William Johnson architect, 1958; it has received numerous additions (source: University of Alaska Anchorage. Consortium Library. Archives & Special Collections, Hans and Margaret Hafemeister papers, 1943-1995. UAA-HMC-0126).*

*Figure 103. Lathrop High School, Fairbanks, Alaska, 1958 (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Ernie Carter Photographs, UAF-2004-68-96).*

### *Higher Education*

In 1935, the Alaska Agricultural College and School of Mines in Fairbanks became the University of Alaska. Many new buildings were added during the period, and a master plan for the campus was

completed in 1965 by Knorr-Elliot and Associates along with architect Lawrence Lackey.[427] Some of the buildings on campus included Constitution Hall (1953), the Brooks Building (1954), the President's House (1958), a men's dormitory (1961), the Patty Center (1963), the Bunnell Building (1959), Duckering Hall (1964), Moore Hall (1966), Skarland Hall (1966), a dining hall (1953), and faculty housing.

The University of Alaska campus in Anchorage was expanded during the 1950s and 1960s to include several new buildings. Anchorage Community College (ACC), a joint venture of the Anchorage Independent School District and the University of Alaska, opened in 1954 in the second floor of what is now West High School. After statehood, the ACC became a unit of the University of Alaska. Construction began on the new Anchorage Community College (ACC) campus in 1968 at Goose Lake.[428] Edwin Crittenden developed the first campus master plan which included a "spine" concept.[429] The master plan for the University of Alaska Southeast in Juneau, which opened its doors in 1972, was designed by Jinks Graham.[430]

The campus at Sheldon Jackson College underwent an expansion in 1956 and included the designs by Edwin Crittenden for the Condit House, Austin House (Presidents House 1957), and the Hames Physical Education Center. Alaska Methodist University in Anchorage opened in 1960, and the original campus included Grant Hall (1959), the Atwood Center (1963-1966), Gould Hall (1960), the North Atwood, and South Atwood dormitories (1966). The campus was expanded after evolving to the non-denominational Alaska Pacific University in 1978.[431]

*Characteristics:*

- Campus plan/design, sometimes covering dozens of acres
- Annual addition of function-specific buildings that reflected current architectural trends (dining halls, science facilities, gymnasiums, dormitories)
- Pedestrian and vehicle traffic layouts
- Student housing
- Multiple parking areas
- Green spaces

[427] "University of Alaska, Fairbanks, Master Plan, Fairbanks, AK (1965)," Pacific Coast Architecture Database (PCAD), accessed March 30, 2016, http://pcad.lib.washington.edu/building/4178/.
[428] "History," University of Alaska Anchorage.
[429] "Edwin Butler Crittenden, Obituary," *Sitka Sentinel*, accessed March 10, 2016, http://www.sitkasentinel.com/7/2012-05-10-22-08-43/obituaries/8177-edwin-butler-crittenden.
[430] "Jennings Heber "Jinks" Graham," Find A Grave, accessed March 19, 2016, http://www.findagrave.com/cgi-bin/fg.cgi?page=gr.
[431] "Alaska Pacific University - History," Alaska Pacific University, accessed April 11, 2016, https://www.alaskapacific.edu/history/.


*Figure 104. University of Alaska, Fairbanks, Food Service Building, Foss, Malcolm, and Olsen architects, 1953 (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Bunnell Collection, UAF-1958-1026-1115).*


*Figure 105. University of Alaska, Fairbanks, Patty Center with Gymnasium, 1966, Linn Forrest architect (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Mark C. Glunz Slide Collection, 1966-1967, UAF-1996-167-101).*


*Figure 106. Grant Hall, Alaska Pacific University (Alaska Methodist University), 1966, Manley and Mayer architects (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, William L. McNutt photographic slides, 1934-1973, UAA-hmc-0456-458).*

### *Health Care*

An increase in population after World War II meant a need for readily available medical care. Hospitals and medical buildings of various functions, including surgical centers, sanatoriums, and laboratories, were built to accommodate population growth. In larger communities, medical districts or groupings of medical buildings were developed near hospital facilities. During this period, tuberculosis was a growing concern in the villages prompting the need for increased access to medical care. Medical clinics provided preventative and emergency services.

#### *Hospitals*

Hospitals generally treated emergencies and severe cases of illness requiring specialized care. Located in areas of sizable populations, the facilities were designed to grow over time to meet increasing demand and specialties. Generally multiple stories or high-rise, they usually reflected the architectural style of the period in which they were designed and constructed. The military maintained hospitals at installations in Fairbanks, Anchorage, and Delta Junction. A hospital in Anchorage specifically for Alaskan Natives was opened in 1953.

*Characteristics:*

- Designed for easy additions
- Tended to be concrete
- Single to multiple stories
- Main entrance generally single story
- Vehicle port for emergency vehicles
- Numerous window openings for natural light
- Power generator facilities in back

- Set on large land parcels for future growth


*Figure 107. Elmendorf Hospital, Elmendorf Air Force Base, Anchorage, 1963 (sources: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Christine M. McClain papers, 1907-1992, UAA-hmc-0370-series15b-30-17-1).*

*Figure 108. New Providence Hospital, Anchorage, 1959, Edwin Crittenden architect (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Stewart's Photo Shop slides, 1964-1992, uaa-hmc-1181-634).*

*Figure 109. Alaska Native Medical Hospital, Anchorage, 1959 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections, Robert Fortuine papers, 1957-1999, UAA-hmc-0455-6603aM19).*

### *Medical Buildings*

Medical buildings were used by medical specialists and provided support functions such as primary care, imaging, and therapy. The buildings could be designed for certain uses such as radiology or laboratory needs. Often, several professionals specializing in different medical disciplines worked in the same building providing the benefit of easy access to their patients. These types of buildings tended to be built near each other and were referred to as districts, plazas, or malls. They were typically close to hospitals for easier access in the event of a medical emergency. In Fairbanks, Roger Cotting designed the Medical Dental Arts Building, and the Alaska Architectural and Engineering Company designed and constructed the Medical and Surgical Clinic. E.L. Mills and Associates of Seattle designed the 4th Avenue Medical Complex in Fairbanks, with Burgess Construction.

*Characteristics:*

- Interior compartmentalized for numerous practices
- Located near hospitals/other medical buildings

*Figure 110. Fairbanks Medical Dental Arts Building, Lathrop Street, as seen today, Roger Cotting architect.*

### *Medical Clinics*

In small communities and villages, medical care was generally available at the clinic with limited staff and hours. Services ranged from emergency care, vaccinations, and setting broken bones. The clinics could be housed in buildings that generally adhere to standard characteristics ranging from defunct post offices to modular and prefab buildings. In northern regions and areas of harsh climate, the clinics tended to be located in prefabricated and, later in the period, ATCO buildings.

*Figure 111. Hooper Bay Medical Clinic, ca. 1960 (source: Archives and Special Collections, Consortium Library, University of Alaska Anchorage, Robert Fortuine papers, UAA-hmc-0455-6606dK03)*

## *Industrial Facilities*

Facilities built for various types of industries that flourished in the post-war era did not follow a cohesive method or type of construction, rather, they were built for function specific to business operations. For example, oil refineries contained pipelines and fuel storage tanks while pulp mills contained conveyors, mill and pulping machinery, and docking. Power plants contained a variety of equipment, based on the energy source (coal, gas, water) needed to turn the power generators, which also lead to various other

structural needs such as rail lines (for coal) and tail-races (for water). Industrial facilities in Alaska post-WWII reflected resource exploration and extraction. They are abundant and their history is quite detailed, warranting that their own historic contexts be developed outside of this document. They were briefly touched upon herein as a reminder to readers that buildings reflecting the history of industry are still present in Alaska; that they need to be considered, yet more research needs to be completed for each specific industry type.


*Figure 112. The Standard Oil Nikiski Refinery, Kenai, 1959 (source: Alaska State Library - Historical Collections, Alaska Division of Tourism Photograph Collection, ca. 1950-[ongoing]).*

*Figure 113. Ketchikan Pulp Mill Administration Building, present day, Wilbert Yahn architect (source: Keeny 2007).*

*Figure 114. Hoonah crab processing plant, 1949 (source: Anchorage Museum at Rasmuson Center, Steve McCutcheon Collection, B1990-014-5-TV-075-2).*

*Figure 115. Prudhoe Bay State No. 1 Discovery Wells, 1969 (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Atlantic Richfield Company Collection, UAF-1982-146-3).*

### *Recreation*

Improved transportation combined with increased interest in tourism to Alaska meant a need for recreational accommodations such as cabins, lodges, and information centers. Roadside businesses provided food, service, gas stations, recreational guide services, and equipment rentals. Recreational building types varied from rustic, log cabins to elaborate visitor centers and lodges. Under the Mission 66 Program, the National Park Service constructed and consolidated visitor centers/facilities and improved access to many of the national parks. The Alaska Railroad constructed a station and hotel in Denali National Park (formerly Mount McKinley National Park) to boost visitor numbers and, similarly, a new lodge was built in Glacier Bay.

#### *Lodges*

Communal places of gathering were built during the period to meet the demands of a growing tourism and recreation industry. The purpose was to provide temporary accommodations in a generally rustic setting. A lodge could be the sole building providing sleeping quarters or a meeting place among a cluster of cabins. Lodges, during the period, were built in parks along rivers and lakes for hunting and fishing ventures and at ski hills for winter sports enthusiasts.

*Characteristics:*

- Typically embodied a rustic feel or reflected the surrounding landscape
- Internal fireplace with chimney
- Large interior gathering space
- Windows and porches for viewing the outdoors
- May have a dining hall and individual sleeping quarters

*Figure 116. The Mount Alyeska Round House, ca. 1960, extant and restored (source: National Register Nomination 2002).*

*Figure 117. Glacier Bay Lodge, John Morse architect, 1966, extant (source: NPS 2015).*

### *Cabins*

Cabins were built not only in parks but also in state and federal forests. While some cabins provided basic shelter from the elements, others had additional comforts including running water and electricity.

Regardless of the level of amenities, the buildings generally retained a rustic feel. In Katmai, a ranger station and guest cabins were constructed. Pan Abodes were also used by the parks. The Forest Service erected many small log cabins and A-frame cabins on the Tongass and Chugach National Forests for public use.

*Characteristics:*

- Small to medium size
- Gabled, flat, or A-frame roof
- Wood construction (log or plywood)
- Some as prefabricated kits

*Figure 118. Brooks River Ranger Station, Katmai, 2000 (source: Ringsmuth 2015).*

*Figure 119. Devil's Pass Cabin, Chugach National Forest, Seward Ranger District. The typical design used by USFS Alaska Region beginning in 1962 (source: Lantz 2012).*

### *Campgrounds*

Coupled with the rise in American motoring was the increased ownership of tow-behind campers. Motorists could travel without limitations to lodging by bringing their own accommodations with them. Tent camping was also increasing in popularity as more Americans could afford leisure time and desired to be out in nature. Campgrounds were established in state and federal forest and parks as well as in city parks, to meet the needs of large volumes of camper vehicle owners. Some campgrounds even offered small rental cabins. After the 1964 Good Friday earthquake, the City of Seward converted the old rail yard that had sustained massive damages into Waterfront Park; this was a city park with both motorhome and tent sites in a large, waterfront campground. Whittier has a similar, smaller city campground for recreational visitors.

*Characteristics:*

- Planned camper/tent sites, some with water and electricity
- Outhouse(s)
- Pavilions and other communal buildings
- Fire rings and picnic tables
- Roadways and walkways

## ***Religious***

Population growth brought increased religious interests to Alaska in the post-war era. Prolific growth of religious facilities occurred during the period, however, they were heavily weighted towards Christian interests. New houses of worship were constructed when funds allowed, but often buildings would be modified or renovated for the needs of each congregation. Chapels, generally smaller than a church, constructed during the period had characteristic steeple/cross configurations on the roofline. New Baptist churches sprang up across the larger population centers generally following the design of long-hall with

steeple/cross configurations on the roofline similar to Catholic buildings. As the period progressed, groups with more lenient guidelines for construction of worship facilities would adopt current architectural trends. Some houses of worship, ultimately, reflected reuse of older buildings or an industrial rather than spiritual look and feel. Many of the religious organizations developed small campuses containing a church/rectory, education facilities, and dormitories for visiting missionaries.

Jewish interests had been present in Alaska since the days of early exploration when the region was a Russian Territory. During the post-WWII period, the order did not see the abundant growth and construction of new facilities. One example, the Temple Sukkat Shalom, on Douglas Island was known to have been constructed during the period and displayed an interesting take on a bridge-like suspended span that passed over a natural spring.

Examples of Christian religious facilities built during the period included St. Mary's Episcopal Church (Edwin Crittenden architect, 1958), First Presbyterian, First Methodist (Edwin Crittenden architect, 1955), First Baptist (1965-1966), Hillcrest Presbyterian, Shiloh Baptist, Holy Family Church alterations (Merle McEntire and Mike Pendergrast architects, 1966) and additions to various existing facilities in Anchorage. In Fairbanks, Zion Lutheran, Sacred Heart Cathedral (Doug Ackley architect, 1966), the 7th Day Adventist Church, and a school addition for First Methodist (Lee S. Linck designer, 1965-1966) were completed. The Sacred Heart Catholic Church in Emmonak was completed in 1953, and Saint Michaels in McGrath was dedicated in 1960. Juneau's Chapel by the Lake in Auk Bay was completed in 1958 (Linn Forrest and Harold Foss architects). The A-frame style Our Savior's Lutheran Church was built in 1957 in Nome, and Haines Presbyterian Church was completed in 1969 (Melverne Ensign architect). Somewhat remote yet unique in design, Christ the King Church in Umkumiut, on Nelson Island, was built in 1969 as well (Father John Hinsvark designer). St. Mathew's Episcopal Church was reconstructed in Fairbanks after the first iteration of a similar design burned (firm of Bell and Upjohn architects, 1948). The Sitka Lutheran Church, reconstructed on the site of the first Lutheran Church in Sitka, was completed in 1966 after a devastating fire hit the downtown area in 1965. A few blocks down the street from the Lutheran Church, the Cathedral of Saint Michael the Archangel (also known as St. Michaels Orthodox Cathedral) was also destroyed and reconstruction began in 1967.

Characteristics of religious buildings during the period varied widely from old commercial buildings and Quonset huts to custom-built facilities that reflect old architectural styles from Europe.

*Figure 120. Temple Sukkat Shalom, Douglas Island, Juneau, 2009 (source: bridginc 2009).*

*Figure 121. Christ the King Church, Umkumiut, 1969; status unknown (source: Newsletter of the Diocese of Fairbanks July-August 2013)*

*Figure 122. Sacred Heart Cathedral, Fairbanks, present day (Catholic Bishop of Northern Alaska 2016).*

*Figure 123. First Baptist Church, Anchorage, present day (source: A Week in Anchorage 2013).*

*Figure 124. Sitka Lutheran Church, present day (source: NPS 2015).*

### 4.2.4 Architectural Styles

***Overview***

In the past, architectural historians often looked to architectural details to define the style of a building. Although much of the post-WWII "traditional" architecture followed this pattern of detail as definition, many architects working in a modern idiom had certain distaste for ornamental details. Thus, many "modern" buildings were not executed in an easily recognizable revival style, lacked distinguishing clues, and a neatly categorical style. Architectural historians continued to debate how to define modernism both stylistically and temporally built during the period. One reason why few agreed-upon style names existed for this period of architecture was because architects were trying to create a style of architecture without historical precedent that reflected technological advances and new materials. Just as the pattern and stylebooks of previous generations encouraged architects to design in a particular fashion, "modern" architects were encouraged *not* to design buildings in an "old" established style. Decades of survey, evaluation, and documentation helped establish an agreed upon nomenclature to describe the resources of the more remote past.

Because the nomenclature for modern architecture is still evolving, "modern" is a term given to a number of building "styles" with similar characteristics such as simplified forms and lack of excessive or applied ornament. However, the term does not begin to describe the broad range of styles that emerged during the mid-twentieth century. Moreover, people often use the terms modern, mid-century, post-war, and the recent past. For the purposes of this document, they are defined as follows:

### *Modern*

There is much debate among scholars and professionals regarding the definition of Modern Architecture and when the Modern Movement began in the United States. Some feel that Modern architecture (with a capital M) is different than modern architecture (with a small m). In addition, many people use "modern" and "contemporary" interchangeably to describe a more recently constructed building or structure. Some feel that the term Modern casts too broad a brush and needs to be broken down into more specific style types. Others advocate for eschewing those stylistic classifications. Scholars and professionals will no doubt continue to debate the use of the term Modern for decades to come. For the purposes of this document Modern (as opposed to modern) will be used as a general term to describe buildings built between the late 1940s and the mid-1960s. Characteristics include:

- Absence of historical references
- Use of new and experimental materials and construction techniques

### *Mid-Century (1940s-1960s)*

Mid-century is a useful term to describe the range of architecture from the 1940s to the 1960s. Because it is more of a temporal distinction rather than aesthetic, it encompasses the wide variety of types and styles built in the decades following WWII. It often refers to resources constructed during or immediately after WWII.

### *Post-war*

This is another useful term to describe the range of architecture built after World War II. However, in Alaska, because WWII was followed by the Cold War, the term "post-war" can lack clarity. This documented uses "post-war" to describe events occurring after the end of WW II.

### *The Style Guide*

The Alaska Office of History and Archaeology has recently published a new architectural survey manual within which is located the *Alaska Historic Buildings Survey Manual and Style Guide.*[432] For the sake of clarity and consistency in the evaluation process, a copy of this guide is provided in Appendix A for users to refer to when defining architectural styles in Alaska.

Because the resources from this period are still being studied and because the language of architecture is ever evolving, this guide is not intended to be a definitive style guide for resources in Alaska. It is worth noting that the history of architecture is rife with examples of buildings that don't fit neatly into any category. While many resources from this period will fit easily into some of the categories described in the guide, others will not. In addition, because the architecture from this period in Alaska has been studied

[432] Alaska Office of History and Archaeology (OHA), *Alaska Historic Buildings Survey Manual and Style Guide, by Summer Rickman,* OHA Report Number 162 (Anchorage, 2016), 57-90.

little, the regional variations of the style, or the relative prevalence of a style (or lack thereof), might not be reflected in the guide. As we gain more experience surveying, evaluating, and documenting the resources of the recent past, there is little doubt that the style names, building types, and the variations specific to architecture in the state will continue to grow and evolve.

## 4.3 Architects, Builders, and Developers

### 4.3.1 Introduction/Overview

Architecture, as a professional practice, first began to take shape in Alaska in the 1930s, after World War I. N. Lester Troast is considered to be the first licensed architect to open a firm in the state in 1930. He, like many architects after him, was not from Alaska. Having no architectural design school in the territory-turned-state, a formal education in architectural design had to be obtained outside of Alaska. Licensing in many states, including Alaska, did not require a degree in architecture at that time. Apprenticeships as draftsmen for licensed architects was an acceptable form of education as well as completing studies at universities. This was the route taken by architects Linn Forrest and Francis Mayer. Mayer's partner, William Manley, studied architectural design but did not receive a degree which was common practice among other notable Alaskan architects who ultimately went on to establish successful careers. The architects practicing in Alaska during the period were a mixture of individuals born or raised in Alaska, persons who moved to the state for military service, or those employed with firms in the contiguous states that had obtained contracts in Alaska and moved here during the post-WWII construction boom.

A pattern can be seen in the educational geography of the architects who practiced in Alaska during the time. Many were educated in the Pacific Northwest (Washington and Oregon), the upper Midwest (Michigan), and the New England states. Commonly attended schools included the University of Washington in Seattle, Oregon State University, Montana State University in Bozeman, Cranbrook School of Art, and various polytechnic institutes. Many architects of the period served in the military as designers and engineers, under the U.S. Army Corps of Engineers, and on large-scale projects still seen around the country such as the Bonneville Dam and the Grand Coolie Dam. Many were stationed as service members in Alaska and, after their service was complete, entered into private practice or remained in the public service sector with federal and state agencies.

### 4.3.2 Lists of Architects, Architectural Firms and Developers

Appendix B contains a table of architects who have practiced in Alaska during the period. Appendix C contains the initial efforts of research into prominent builders and developers in Alaska during the period. Since the period witnessed some the largest bursts of population, infrastructure, and housing construction in Alaska's history, additional research will clearly be needed. Both tables are merely a starting point for identifying architects, firms, and developers who were active from 1945 to 1968. While researching primary sources for architects practicing during this period, data regarding architects who were designing after the period were identified. Since the information was readily available, it has been added to Appendix D for future efforts as their buildings mature.

### 4.3.3 Biographies of Prominent Architects in Alaska from 1945 to 1968

A number of architects practicing in Alaska during the period were very prolific and their works can still be seen today. Brief biographies of prominent architects, along with lists of their notable works, are presented below. The sources cited are intended to provide the user with additional information including detailed and personal accounts of their overall life and work as prominent architects in Alaska.

***Douglas W. Ackley (1923-2014)***

**Firm(s) / Location /Years Practicing**

Douglas Ackley Architecture, Seattle, 1955-1956
Alaska Architectural and Engineering Co., Fairbanks, 1956-1968
Sands and Ackley, Juneau, 1968-1974
Ackley and Associates, Juneau, 1974-1979
Ackley Jensen, Juneau, 1979-1985

**Biography**

Douglas Ackley was born in Vancouver, Washington in 1923. He received a degree in architecture from Washington State University in 1951. He opened his own small firm, Douglas Ackley Architect, in 1955 in Seattle. In 1956, Ackley moved his family to Fairbanks and began working alongside with Lee S. Linck, founder of Alaska Architectural and Engineering Company. During his employment under Linck he assisted in the designs for LF Joy Elementary School in Fairbanks and Chena Elementary School at Fort Wainwright. Construction of both buildings were completed in 1960. He helped to survey the damage from the 1964 earthquake in Anchorage, and survived the 1967 flood in Fairbanks, which left 4 ½ feet of water in his house.[433] In 1968, he began working with the firm Olson and Sands, which was a later iteration of the Juneau firm established by Harold B. Foss in 1935, which evolved over the years to Sands and Ackley, Ackley and Associates, Ackley and Jensen, and is currently Jensen, Yorba, and Lott, Inc. Ackley's firm designed schools, banks, libraries and civic buildings across the state, including Juneau's Centennial Hall, the Juneau International Airport, and the University of Alaska Southeast Library.[434] Ackley thoroughly enjoyed Alaska, exploring the wilderness, camping and hunting in the Interior, and roaming the waters of Southeast Alaska. He wrote a book about his experiences flying in a B-17 bomber as a top turret gunner and engineer entitled *Twenty-Seven and a Half Missions in the Fifteenth Air Force*. His book recounted the year he spent behind enemy lines in rural Italy after being shot down. After his retirement in 1985, he and his wife moved to Scottsdale AZ, and after several years, moved back to the Pacific Northwest to Medford, Oregon.[435]

**Selected Portfolio[436]**

LF Joy Elementary School 1960 (under Lee S. Linck); Alaska State Jail; Delta Junction High School; Ketchikan General Hospital; Sitka Court and Office Building (1976); Petersburg Post Office and Federal Building; Seaalaska Plaza and Juneau Airport (Juneau); Hydaberg School; Ketchikan Community College; Ryan Jr. High School and Zion Lutheran Church (Fairbanks); Regional High School Gym (Nome); William A Egan Library at UAS, Juneau; Sacred Heart Cathedral, Fairbanks 1966 (as member of design team).

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[433] "Douglas W Ackley, Obituary," *Juneau Empire*, January 9, 2014, accessed March 31, 2016, http://www.legacy.com/obituaries/juneauempire/obituary.aspx?n=Douglas-Ackley&pid=168980021.
[434] "History," Jensen Yorba Lott, accessed March 15, 2016, http://www.jensenyorbalott.com/about/history.htm.
[435] "Douglas W Ackley, Obituary," *Juneau Empire*.
[436] Pacific Coast Architecture Database, accessed March 31, 2016, http://pcad.lib.washington.edu/firm/1425/.

*Figure 125. Ketchikan General Hospital was designed by Douglas W. Ackley in 1968 (source: Jensen, Yorba, and Lott, Inc. 2016).*

### *Kenneth D. Cannon (1929-1988)*

**Firm(s) / Location /Years Practicing**

Alaska Road Commission, Anchorage, Summers, 1946-1960
CCWJ (Crittenden, Cassetta, Wirum and Jacobs), Anchorage, 1962
CCWC (Crittenden, Cassetta, Wirum and Cannon), Anchorage, 1962-1969/70
CCC (Crittenden, Cassetta and Cannon), Anchorage, 1969/70-1989
CCC/HOK (Crittenden, Cassetta and Cannon/Hellmuth-Obata-Kassabaum), Anchorage, 1969/70-1982

***Notes on practice, licensing, etc. not captured in employment details***

AIA Alaska Chapter, past President; served on the Anchorage Planning and Zoning Commission, the Zoning Board of Examiners, and the Appeals and Platting Board

**Biography**

Kenneth D. Cannon was born in 1928 in Butte, Montana. He attended Montana State University in Bozeman, and received his architectural degree from the University of Washington in 1959 after serving in the U.S. Army. He first came to Alaska in 1946 to work for the Alaska Rail Road and Alaska Road Commission. Cannon moved to Anchorage in 1962 and began working for Crittenden, Cassetta, Wirum and Jacobs (CCWJ), a firm in which he would soon become a partner. The firm went through several name changes, nearly all including Cannon. They retained their reputation for quality work in the commercial and civic construction sector into the 1980s, at which time an economic recession crippled the construction industry in Alaska. He passed away in 1988 in Anchorage.[437]

**Selected Portfolio**

Sheraton Anchorage Hotel, Project Manager; William A. Egan Civic and Convention Center (1983); Atlantic Richfield Basecamp Expansion at Prudhoe Bay; Alyeska Pipeline Permanent Housing Project;

[437] OHA Files.

McLaughlin Youth Center Cottages (1967)[438]; Moore and Bartlett Halls (dormitories)[439], University of Alaska Fairbanks (1966 and 1970)

*Figure 126. Moore and Bartlett Halls, University of Alaska Fairbanks, designed by Kenneth D. Cannon in 1966 and 1970, (source: University of Alaska Fairbanks, Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, Ernie Carter Photographs, UAF-2004-68-3).*

### *Lucien Anthony Cassetta (1919-1994)*

**Firm(s) / Location /Years Practicing**
Mithun and Nesland, Bellevue, WA, 1955
Mallis and Dehart Assoc, Seattle, WA, 1956
Johnston Campanella Architects, Anchorage, 1956
Edwin Crittenden, Architects & Associates (Partner), Anchorage, 1957
CCWJ (Crittenden, Cassetta, Wirum and Jacobs), Anchorage, 1958-1962
CCWC (Crittenden, Cassetta, Wirum and Cannon), Anchorage, 1962-1969/70
CCC (Crittenden, Cassetta and Cannon), Anchorage, 1969/70-1982
Cassetta Krochina, Anchorage, 1982-1988
Studio 21, Albuquerque, NM, 1988-1994

***Notes on practice, licensing, etc. not captured in employment details***
AIA Alaska Chapter President 1966, Vice President 1965

**Biography**
Lucien Cassetta was born in 1919 in Oakland, California and grew up in California and Washington State. Cassetta was a weather forecaster for the US Army during WWII. He received a degree in

[438] OHA Files.
[439] Hoagland, *Buildings of Alaska,* 225.

architecture from the University of Washington in 1951 and worked for the firm of Mithun and Nesland (now Mithun of Seattle) and Mallis and Dhart before moving to Alaska in 1956.[440] In 1957, he began working for Edwin Crittenden and reached partner status. The firm was renamed Crittenden, Cassetta, Wirum and Jacobs (CCWJ) in early 1962, and would retain the Cassetta namesake until he left the practice in 1982. While working in partnership with Crittenden, Cassetta completed hundreds of educational and civic buildings across Alaska. Included in his portfolio in Alaska was the first hospital tower at the Providence campus in Anchorage and the Air Traffic Control Center in Anchorage. He continued practicing architecture in Anchorage with Pat Krochina from 1982 to 1988, at which time he moved to Albuquerque, New Mexico and opened small practice called Studio 21. Cassettta continued practicing until his death in 1994.

**Selected Portfolio[441]**

Anchorage Natural Gas Building (1969), Bristol Bay High School (1969)[442], McLaughlin Youth Center (1967), Air Traffic Control Center, Anchorage (1969)[443], Orah D Clark Junior High School, Anchorage (1958), 1st Federal Savings and Loan Association, Spenard (1960)[444], Consortium Library at UAA (1973)[445]

*Figure 127. Air Traffic Control Center, 700 North Boniface Parkway, Anchorage was designed by Lucien Cassetta, 1967 (source: Anchorage Air Route Traffic Control Center 2016).*

[440] R. R. Bowker, "The AIA Historical Directory of American Architects – 1962," accessed March 3, 2016, http://public.aia.org/sites/hdoaa/wiki/Wiki Pages/ 1962 American Architects Directory.aspx.
[441] Hoagland, *Buildings of Alaska,* 99.
[442] R. R. Bowker, "The AIA Historical Directory of American Architects – 1970" accessed March 3, 2016, http://public.aia.org/sites/hdoaa/wiki/Wiki Pages/ 1970 American Architects Directory.aspx.
[443] Bowker, "Directory – 1970."
[444] Bowker, "Directory – 1962."
[445] Hoagland, *Buildings of Alaska,* 99.

### *Roger Bruce Cotting (1931-?)*

**Firm(s) / Location /Years Practicing**[446]
Roger B Cotting, Fairbanks, 1959-1965
Gray, Rogers, Cotting, Fairbanks, 1965-1969
Roger B Cotting, Fairbanks, 1969-at least 1970

**Biography**
Roger Cotting was born in 1931 in Cleveland, Ohio. He received a Bachelor's Degree of Art from the Virginia Polytechnic Institute in 1952 and served as a 1st Lieutenant in the US Air Force. He started additional studies at the Massachusetts Institute of Technology (MIT) from 1954 through 1955 after completing his service.[447] Plans to build a Centennial park on the Chena River began in 1957, but it wasn't until 1966 that matching grant funding was secured from the federal government. Cotting was deeply involved as a member of a team of architects, (Gray and Rogers) that proposed on a centennial exhibition facility in Fairbanks for the Alaska '67 Exposition. He designed the entire site that was to be used as an exposition park, and was a chief investor, putting up $60,000 (equivalent of $400,000 today) for design and preliminary work in 1965.[448] He laid out the traffic flow, main exhibits, look and feel, necessary material types, and identified key personnel, such as architects and artists, needed for the completion of the park. The resulting development, Pioneer Land, included a civic center for the community and captured the spirit of the Last Frontier, and is still in use today. Cotting also designed several schools, libraries, and medical offices in and around Fairbanks. In the late 1970s, Cotting was a partner in a development company that purchased Chena Hot Springs Resort and transformed it into a destination spot for locals and tourists alike. He designed small cabins, outbuildings, and a small ski hill. The group divested the property in the late 1980s, although it still retains the rustic charm that Cotting visualized for the resort.[449]

**Selected Portfolio**
North Pole School (1966), First All Electric Home in Fairbanks "Purcell Home" (1965), Alaska '67 Alaskaland/Pioneer Park Design (1965-1967), Aurora Building, Moose Creek School, Medical Dental Arts Building, North Pole Library, adaptive additions to numerous historic buildings, Burgess Office Building (1969), Nerland Office Building (1970), Adak Hospital (1970)

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[446] Bowker, "Directory – 1970."
[447] Bowker, "Directory – 1970."
[448] "ALASKA '67 | Part Disneyland, Part History Lesson," View-from-the-future-20, accessed March 6, 2016, http://museums.alaska.gov/lam/view2017/HTML/view-from-the-future-20.xhtml.
[449] "Looking Back in Fairbanks Oct. 3," *Fairbanks Daily News-Miner*, accessed March 8, 2016, http://www.newsminer.com/news/local_news/looking-back-in-fairbanks-oct/article_d8f5a964-cc98-565c-8929-68ae8f8d099a.html.

*Figure 128. Alaska '67 Exposition, Main Entry Gate, designed by Roger Cotting in 1966 (source: Brown 2015).*


*Figure 129. Fairbanks Medical Dental Arts Building, Lathrop Street, Fairbanks, and designed by Roger Cotting (source: Google Earth 2016).*

### *Edwin Butler Crittenden (1916-2015)*

**Firm(s) / Location /Years Practicing**[450]

Crittenden practiced in Anchorage from 1950 to 1986 as:
Edwin B Crittenden, Architect
Edwin B Crittenden and Associates
CCWJ (Crittenden, Cassetta, Wirum and Jacobs)
CCWC (Crittenden, Cassetta, Wirum and Cannon)
CCC (Crittenden, Cassetta and Cannon)

[450] Bowker, "Directory – 1970."

CCC/HOK (Crittenden, Cassetta and Cannon/Hellmuth-Obata-Kassabaum of Seattle)
Crittenden Krochina
Architects Alaska Incorporated (the current iteration of his firm)

**Biography**

Often referred to as "the dean of Alaska architects," Ed Crittenden was born and raised in New Haven, Connecticut. Following his graduation from the Yale University School of Architecture in 1942, Crittenden enlisted in the US Coast Guard and was stationed in Ketchikan. He met his wife of 65 years, Katherine, while stationed in Ketchikan and the two were married in 1944. Crittenden left Alaska to pursue advanced architectural studies at MIT in 1946 after completing his service. He returned in 1950 and founded his architectural practice in Anchorage.[451] Of particular interest to Crittenden was the harsh, cold climate of Alaska. In 1963, he opted to take a break from practicing architecture for a year and moved his family to Helsinki, Finland, where he studied northern design, particularly the work of Alvar Aalto and Ralph Erskine. Applying what he learned from his sabbatical, he successfully made a name for himself as a leader in cold climate architecture, both mentoring and partnering with architects who would go on to become well-known architects in Alaska. In 1961, Crittenden co-founded the Alaska Chapter of the American Institute of architects and became Alaska's first AIA Fellow in 1979. Crittenden designed residences, schools, churches, health care facilities, and several other types of buildings throughout Alaska. Being a student of the 1940s, many of his completed works were of the International Style.[452] After retiring from his Anchorage practice in 1986, he moved to Sitka with his wife where he served as campus architect for Sheldon Jackson College. In 1990, he and his wife returned to Anchorage, where Ed continued to pursue his love of natural beauty through painting and sail boat adventures through the inside passage and Puget Sound. The Anchorage Museum of Art and History presented an exhibition of his work in 2006 and the University of Alaska has a large collection of his drawings and records in their archives. Notable honors include the Medal of Honor from the AIA Northwest and Pacific Regions chapter in 2009, and a Lifetime Achievement Award from the Alaska Association for Historic Preservation in 2007. In 2012, Ed received the Kumin Award from the Alaska AIA fellows for his contributions to the theory and practice of northern architecture. Crittenden also assisted in several educational publications regarding northern climate building techniques. He passed away in 2015 at the age of 99.

**Selected Portfolio**

Hotel Captain Cook First Tower (1965), St Mary's Episcopal Church (1958, Anchorage), ARCO Operations Center Prudhoe Bay, Anchorage Old Federal Building Court House Addition (1958)[453], Hillcrest Presbyterian, Shiloh Baptist, addition to Calvary Baptist, First Methodist (1955)[454], Austin House design and upgrades to the Sage Building (Sheldon Jackson Campus, Sitka), Egan Convention Center and Conoco Phillips (Anchorage), Anchorage Visitor Information Center Cabin (1954)[455], UAF President's House (1958), Bartlett High School additions and Central Middle School of Science

[451] "Edwin Butler Crittenden, Obituary," *Sitka Sentinel*.
[452] Amy Schlenker, Jason Allen, and Jim Steely, *Recommendation of Eligibility for the 1958 Crittenden Addition of Anchorage Old Federal Building, Anchorage, Alaska*, (Seattle: General Services Administration, Northwest/Arctic Region, 2010), 28.
[453] Schlenker, Allen, and Steely, *Crittenden Addition*, 28.
[454] "Crittenden Churches," E-mail to Robert L. Meinhardt, September 10, 2012, From John Crittenden, Architects Alaska.
[455] Hoagland, *Buildings of Alaska*, 83.

(Anchorage), The University District (UAA Master plan, Providence Hospital, McLaughlin Youth Center Campuses), Sitka U.S. Post Office modifications with Robert Fehlberg, Conoco Phillips Tower and Egan Convention Center (Anchorage), First Presbyterian Church (1968).[456]


*Figure 130. The Captain Cook Hotel, Tower 1, Anchorage, Alaska, built 1965 (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wwc-6318-1).*

[456] "Edwin Butler Crittenden, Obituary," *Sitka Sentinel*.

*Figure 131. First Presbyterian Church, 10th Avenue, Anchorage, built 1968 (source: Presbytery of Yukon 2016).*

### *John Stevens Forrest (1937-1991)*

**Firm(s) / Location /Years Practicing**

Linn A Forest, Architects, Juneau, 1952- at least 1970?

**Biography**

John Stevens Forrest, son of Linn Argile Forrest, was born in Portland, Oregon in 1937. He received his degree in architecture from Stanford University in 1960, as well as the Mortinmer C. Leventritt Award for all-around excellence of performance in the Department of Art and Architecture in 1959. After graduating, he moved to Juneau to work for his father at Linn A. Forrest Architects where he assisted with the design of the Mendenhall Glacier Visitor Center, Glacier Observatory. While working for his father he was involved with the design and redesigns of several schools in Southeast Alaska. However, his design of the Centennial Museum in Juneau for the Alaska ‘67 Centennial was perhaps his most well-known. The large modern, box-like building was clad in white concrete panels pressed with Alaskan

Native-inspired feather motif covering the entire building. John Forrest continued to practice at his father's firm until the mid-1970s. He lived his life out in Juneau until he passed away in 1991[457].

**Selected Portfolio[458]**

Glacier Observatory/Mendenhall Glacier Visitor Center, Juneau (1962), Fairbanks Pioneers' Home, Auk Bay Elementary School and Centennial Museum, Juneau (1967), Blatchy Junior High School and Swimming Pool, Sitka (1967) Juneau Centennial Museum/Alaska State Museum, Juneau (1967)

*Figure 132. The Centennial Museum (Alaska State Museum) in Juneau,as seen in 1967, designed by John Stevens Forrest in 1965 for the 1967 Centennial Exposition, (source: Alaska State Library, Historical Collections, Alaska State Library Place file Photographs, ASL-Juneau-Buildings-23).*

### *Linn Argile Forrest, Sr. (1905-1987)*

**Firm(s) / Location /Years Practicing**

F. Mason White, Portland, OR, 1926-1927
Hugh Thompson, Bend, OR, 1927-1928
Roi L. Morn, Portland, OR, 1929
Whitehouse, Stanton & Church, Portland, OR, 1929-1931
U.S. War Department, Bonneville Power Administration, Portland, OR, 1932-1934
U.S. Forest Service, architect (Regions 6 and 10), Portland and Alaska, 1934-1952
Alaska Public Works Commission/Civilian Conservation Corps, Juneau, 1937-1939
Linn A Forrest Architects, Juneau, 1952-1987

[457] Bowker, "Directory – 1970."
[458] Bowker, "Directory – 1970."

***Notes on practice, licensing, etc. not captured in employment details***

Co-authored *The Wolf and the Raven, Totem Poles of Southeastern Alaska* with anthropologist Viola Garfield[459]; restored historic totem poles

**Biography**

Linn Argile Forrest was born in 1905, in Bucyrus, Ohio. He attended Franklin High School in Portland, Oregon and the University of Oregon in Eugene. Although Forrest did not graduate with a degree, he received the prestigious Ion Lewis Traveling Fellowship (an annual award with the University of Oregon Dean of the School of Architecture and two members of the Oregon Chapter of the American Institute of Architects as trustees); After spending a year in Europe studying architecture, he returned to Portland in 1932 where he received a license to practice architecture. In June 1934, Forrest was employed by the War Department's Bonneville Dam Power Administration as a draftsman for the massive Columbia River Bonneville Dam. He accepted a position with the US Forest Service shortly thereafter, at which time he compiled a handbook of acceptable building designs for the region and designed recreation facilities such as ski resorts and bathing facilities.[460] Perhaps his most notable work with the Forest Service was Timberline Lodge on Mount Hood, which he drafted the floor plans and elevations, including the building's general layout.[461] In the late 1930s, the Forest Service contracted Forrest and regional forester, B. Frank Heintzleman, to oversee various Civilian Conservation Corps (CCC) operations in Southeast Alaska involving the restoration of totem poles and traditional Alaskan Native architecture, including the restoration of the Saxman Tribal House, Chief Son-I-Hat House, Chief Shakes Community House in Wrangell, and the creation of the Saxman Totem Park. His work with the Forest Service was decidedly rustic, continuing the style developed by Gilbert Stanley Underwood. In 1946, Forrest was permanently transferred to Alaska to become a USFS Regional Architect and to develop buildings similar to but smaller than those in the Pacific Northwest Region. The Forest Service work was not challenging architecturally, so Forrest left the agency in 1952 to form his own practice. Linn A. Forrest Architects completed notable buildings throughout Southeast Alaska, including the Mendenhall Glacier Visitor's Center in 1962 and Chapel by the Lake in Auke Bay with Harold B. Foss in 1958.[462] He also designed various educational buildings such as Juneau-Douglas High School (1960), Petersburg Elementary School (1968), University of Alaska Southeast Physical Education Building (1962), and Kake Elementary School (1952).[463] His work was generally of a modern design, with large panels of glass, vertical metal and arching columns. This was a stark difference to his early work with the Forest Service. In 1979, Forrest was elected to the College of Fellows of the American Institute of Architects for his contributions to

[459] R. R. Bowker, "The AIA Historical Directory of American Architects – 1956," accessed March 3, 2016, http://public.aia.org/sites/hdoaa/wiki/Wiki Pages/ 1956 American Architects Directory.aspx.

[460] John R. Grosvenor, *A History of the Architecture of the USDA Forest Service: Chapter 3 People: Leaders and Implementers, Linn Argile Forrest, Regional Architect, Region 10 (1934 – 1952),* (Washington, D.C.: Engineering Staff, U.S. Dept. of Agriculture Forest Service, 1999), accessed April 3, 2016, http://www.foresthistory.org/ASPNET/Publications/architecture/chap3d.htm.

[461] National Register of Historic Places, "Nomination: Timberline Lodge," Washington, D.C.,: National Park Service, accessed April 3, 2016, http://focus.nps.gov/nrhp/AssetDetail?assetID=e2655c58-4a1d-4d57-b17a-a7df77b03726.

[462] Bowker, "Directory – 1970."

[463] Robert L. Mienhardt, Casey Woster and Amy Ramirez, Determination of Eligibility of the Old Kake Elementary School, Located in Kake, Alaska and Recommendations for Issuing a Section 106 Finding for Demolition and Redevelopment, (Anchorage, Alaska: Shannon and Wilson, Inc., 2014).

Timberline Lodge and his design of Mendenhall Glacier Visitor Center. Forrest died in June 1987 at the age of 81.[464]

**Selected Portfolio**

Juneau-Douglas High School (1960); University of Alaska Physical Education Building (1962) and Geophysical Institute (1968)[465]; Petersburg Elementary School (1968); Sitka Branch of First National Bank (1970); Mendenhall Glacier Visitors' Center (1962)[466]; Wrangell, Chief Shakes Community House (1939-1940)[467]; Chief Son-I-Hat House (1938-1939); Totem Bight Community House (1940)[468]; Saxman Tribal House[469]; UAF Patty Gymnasium (1963)[470]; Timberline Lodge, Mount Hood, Oregon (1938); Bonneville Dam, Oregon (1934), Kake Elementary School (1952); Chapel by the Lake, Auke Bay, Juneau 1958 (with Harold Foss)

*Figure 133. Timberline Lodge, Mount Hood, Oregon (source: National Register Nomination 1973).*

[464] Grosvenor, *A History of the Architecture*, 1999.
[465]Bowker, "Directory – 1970."
[466] Hoagland, *Buildings of Alaska*, 178.
[467] Hoagland, *Buildings of Alaska*, 199.
[468] Hoagland, *Buildings of Alaska*, 205.
[469] Hoagland, *Buildings of Alaska*, 206.
[470] Hoagland, *Buildings of Alaska*, 226.

*Figure 134. Mendenhall Glacier Visitor Center, Juneau (source: Alaska State Library, Historical Collections, Western Airlines Photograph Collection, 1926-1969, ASL-PCA-51).*

### *Harold Byron "H.B. or Hal" Foss (1910-1988)*

**Firm(s) / Location /Years Practicing**

HB Foss Company, Juneau, 1935-1945
Foss Malcolm, Juneau, 1945-1949
Foss, Malcolm and Olsen, Juneau, 1949-1951
Foss Olsen, Juneau, 1951-1956
Foss Olsen Sands, Juneau, 1956-1958

**Biography**

Harold B. Foss was born in 1910, in Montesano, Washington. He graduated from the University of Washington in 1935 and went to Juneau that same year where he founded H. B. Foss Company. Foss is credited with having established the oldest architecture firm in Alaska.[471] The company underwent various name changes, beginning with HB Foss Company, Malcolm Foss, Foss, Malcom and Olsen, Foss Olsen, Foss, Olsen and Sands, until Harold's retirement in 1959, when it became Sands and Ackley, Ackley and Associates, Ackley and Jensen, and is currently Jensen, Yorba, and Lott, Inc. of Juneau. Foss designed many buildings across Alaska, including several private residences in Juneau. Some communities in Alaska are mostly a reflection of the work of Foss, as he assisted in rebuilding Hoonah after much of community burned in 1944, and designed the Buckner and Hodge buildings in Whitter in

[471] "History," Jensen Yorba Lott.

the mid-1950s.[472] The Buckner Building was a naval facility that housed an entire military installation, complete with apartments and leisure facilities, as well as underground tunnels to access the naval port and submarine facilities in the harbor. The Hodge Building, now known as Begich Towers, had a similar function but was used for civilian purposes. Today, nearly every resident of Whittier lives in the Hodge Building. Foss also teamed with other prominent architects of the period. He designed Chapel by the Lake in Auke Bay with Linn Forrest and was the on-site architect for the Cathedral Arms Apartments in Sitka and the Mendenhall Towers Apartments, which were designed by Earl W. Morrison of Seattle. His firm completed several hospitals across the state, from Bethel to Petersburg. He also designed government buildings in Juneau. Foss signed the 1949 AIA Membership application for Manley and Mayer of Anchorage, as their witness of good character. Foss was most well-known for his involvement with civic buildings in Alaska, several of which are still standing today. He retired in 1958 and moved to Palo Alto, California until he passed in 1988.[473]

**Selected Portfolio**

Juneau Memorial Library (1950, now Juneau Douglas City Museum)[474], Juneau City Hall (1950-51)[475], Terminal at Juneau International Airport (1948-1949 and 1956-1957)[476], Bethel Hospital, Bethel Armory (1956-1957), Alaska State Office Building, Juneau (1952), UAF Eielson Memorial Building upper levels (1940), Petersburg Hospital (1954), Mt Edgecumbe Hospital, Sitka (1947-1948), UAF Constitution Hall (1956), UAF Brooks Building (1952)[477], Chapel by the Lake, Auk Bay, Juneau (1958, with Linn Forrest), Buckner Building (1953) and Hodge Building (1954-1956, now Begich Towers) in Whittier[478], Cathedral Arms Apartments in Sitka (1950) with Earl W Morrison.

[472] "History," Jensen Yorba Lott.
[473] R.R. Bowker, “Name Look Up,” American Institute of Architects, accessed March 3, 2016. http://public.aia.org/sites/hdoaa/wiki/Wiki%20Pages/Find%20Names.aspx
[474] "History." Jensen Yorba Lott. Accessed March 15, 2016.
[475] Bowker, 1956.
[476] Bowker, 1970.
[477] Hoagland, *Buildings of Alaska,* 225.
[478] "History." Jensen Yorba Lott.


*Figure 135. The Buckner Building, Whittier, 1955 (source: University of Alaska Anchorage, Consortium Library, Archives & Special Collections. Christine M. McClain papers, 1907-1992. UAA-HMC-0370-series15b-31-6).*

*Figure 136. Constitution Hall, University of Alaska, Fairbanks, 1956 (source: Carey Postcards 2016).*

### *Jennings Heber "Jinks" Graham (1924-2001)*

**Firm(s) / Location /Years Practicing**

GA Pehrson, Spokane, WA, 1947

George C Ritter, Spokane, WA, 1947-1950, 1953-1956
Stationed at Ladd Field (Korean War) 1951-1953
Alaska Architecture and Engineering Company, Fairbanks, 1956
Gray, Rogers, Graham and Associates/Gray, Rogers, Graham and Osbourne, Fairbanks, 1957-1960
Olsen and Sands (partner), Juneau, 1960-1964
Private Practice, Ketchikan, 1964-?

**Biography**

Jennings "Jinks" Graham was born in 1924 in Hunters, Washington and raised in Spokane. He served in the U.S. Navy during World War II. After his discharge, Graham attended the University of Washington, where he earned a degree in architecture. He was employed during the summer months by small firms in Spokane while he attended the university. In 1951, Graham re-entered into service with the U.S. Air Force and was stationed at Ladd Air Force Base near Fairbank during the Korean War. At the end of the war, he returned home to Seattle, where he received his architectural license in 1956. He then returned to Fairbanks to work for Lee S. Linck at Alaska Architectural and Engineering Company. Graham opened his own firm with partners Gray and Rogers. In 1960, he moved his family to Juneau, where he worked for the firm Olsen and Sands.[479] In 1964, Graham moved to Ketchikan and opened another small practice where he is credited as being Ketchikan's first resident architect. While in Ketchikan he designed the Ketchikan Centennial Building completed in 1967 and was responsible for several other designs throughout Alaska, including commercial, educational buildings, and dormitories. He retired in Ketchikan and died in 2001 at the age of 77.[480]

**Selected Portfolio**

Fairbanks Super Market, Bowling Alley (1959), Fairbanks Elementary School (1960), Wasilla Elementary School (1961), Armory Building, Bethel (1961), Men's Dormitory, UAF (1961), Ketchikan Bank Building (1961)[481], Ketchikan Centennial Building (1967)[482], State Court and Office Building, Juneau, and the site plan for the University of Alaska Southeast in Juneau.

[479] Bowker, "Directory – 1962."
[480] "Jennings Heber "Jinks" Graham," Find A Grave.
[481] Bowker, "Directory – 1962."
[482] "Jennings Heber "Jinks" Graham," Find A Grave.

*Figure 137. Ketchikan Centennial Building, ca. 1967 (source: Lloyds Studio 1967).*

### *John Edward Lautner (1911-1994)*

**Firm(s) / Location /Years Practicing**

Taliesin Fellows East (Wisconsin) and West (Arizona), 1933-1938
Lautner Associates, Los Angeles, California, 1938-1994

***Notes on practice, licensing, etc. not captured in employment details***

Lautner and Associates became Lautner Associates-Helena Arahuette Architect, under Arahuette who worked with Lautner beginning in 1971.

**Biography**

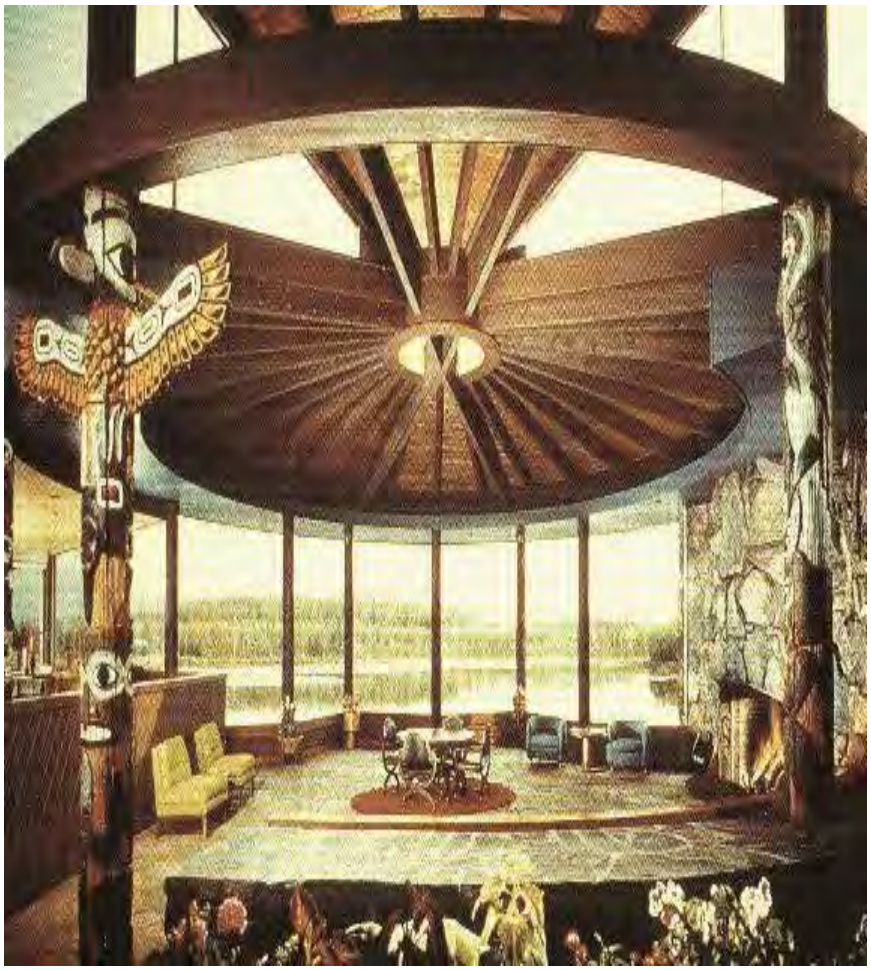
John Edward Lautner was born in Marquette, Michigan in 1911. His father was employed at the Northern State Normal School (now Northern Michigan University) and his pursuit of a life that included a well-rounded education influenced young John from an early age. Perhaps it was his father's pursuit of a life consisting of a well-rounded education combined with being present throughout the construction of a family home and summer cabin that helped to shape Lautner's future as a prominent American architect of the period. In 1933, Lautner graduated from Northern with a degree in liberal arts. He was accepted into Frank Lloyd Wright's Taliesin Fellowship program that same year. Accompanying Lautner on the move to Taliesin East in Spring Green, Wisconsin was his fiancée Mary Faustina Roberts.[483] The Lautners worked under Wright for six years at both Taliesin East and West (in Arizona), following the architect's integrative pedagogy to "learn by doing." In 1938, Lautner left for Los Angeles to work on Wright's Sturges House. He soon opened his own practice in the city and flourished in the artistic community.[484] He was revered as the "Father of Googie," which was a style embodied by Googie's Coffee Shop and countless other donut stops and diners in Southern California that reflected a modern space-aged theme. A genius of concrete molding, more than 100 of his designs consisted of commercial buildings, offices, schools, apartments, places of worship, theaters, and motels. However, it is his

[483] "John Lautner, Architect," John Lautner Foundation, accessed March 31, 2016, http://www.johnlautner.org/.
[484] Melissa Matuscak, *John Lautner: A Southern California Visionary with Northern Michigan Sensibilities*, Michigan Magazine, (Marquette, Michigan: DeVos Art Museum, Northern Michigan University, July/August, 2012,) 32-38.

residential designs that made him one of the most influential architects of the twentieth century.[485] Each design is a distinctive solution for an individual client and, most importantly, for a particular location. “It is the ability to blur the line between home and habitat that make John Lautner’s designs so incredible.”[486] The Willis Harpel House in Anchorage was built in 1966 and was the second house Lautner designed for Harpel, the other being in southern California. Characteristics of many of his residential designs, it has a semicircular main level living area with open floorplan and a massive wall of windows that look out to Lake Otis, where the house is located. The slender wooden piers that support the roof of the house are carved in Pacific Northwest Native totemic designs. He completed work in Mexico, Arizona, California, Alaska, Colorado, and Florida, and he continued his work on commissioned projects until his passing at the age of 83.

**Selected Portfolio**

The Willis Harpel House No. 2 (Anchorage, 1966), Leonard Malin residence (the Chemosphere in L.A.), Sheats-Goldstein residence (L.A.), Garcia Residence (L.A.) Marbrisa (concrete moat, Acapulco, Mexico)[487]



[485] “John Lautner, Architect,” John Lautner Foundation.
[486] Matuscak, *John Lautner*, 32-38.
[487] “John Lautner, Architect,” John Lautner Foundation.

*Figure 138. Harpel House #2, 1900 Stanford Drive, Anchorage, Alaska, Featured in Life Magazine in October 1967 (source: North Carolina Modernist Houses 2016).*

### *Lee Stanley Linck (1919-1978)*

**Firm(s) / Location /Years Practicing**

U.S. Smelting, Refining and Mining Company, Fairbanks, 1940-1942
U.S. Army Corps of Engineers, Ladd Field, Fairbanks, 1942-1944
Alaska Architecture and Engineering Company, Fairbanks, 1945-1971

**Biography**

Lee S. Linck was born in Arizona in 1919 and moved to Alaska during the 1920s with his family. He attended the University of Alaska, Fairbanks, where he received a degree in engineering in 1940. He worked as an engineer for the U.S. Smelting, Refining and Mining Company and for the U.S. Army Corps of Engineers at Ladd Field. In 1944, he enlisted for active duty military service and, upon his return to Fairbanks in 1945, he founded the Alaska Architecture and Engineering Company with his partners J.F. Potter and F.H. Mapleton. By 1949, Linck became the sole owner of the company.[488] He created innovative cold climate construction techniques using prefabricated materials and carried out site testing for weatherization. His firm was the launch point for many Alaskan architects who went on to establish their own firms. The firm consisted of upwards of 30 employees, educated in engineering, architecture, and drafting, and completed over 250 projects including over 50 educational facilities.[489] Many works were located in Fairbanks, but also at Ladd Field, the University of Alaska campus (Fairbanks), Fort Wainwirght, Fort Greely, Tok, Delta Junction, Eielson AFB, Nenana, Shaktoolik, and Cordova. Airports, schools, churches, hospitals, residential housing, recreational structures, industrial areas, government and military facilities were all in the firm's portfolio.

**Selected Portfolio**

Fairbanks, LF Joy Elementary School, 1960, with Douglas Ackley[490]; Nordale Elementary (53) and Nerland Commercial Building (Fairbanks); Chena Elementary School at Ft. Wainwright; Juneau Jail and Juvenile Detention Center; Fort Yukon High School, Duckering Building (UAF), Creamer's Dairy Processing Plant/Louden Barn (late 1940s), Royal Crown Bottling Plant; Eielson AFB Locomotive Roundhouse; Fairbanks Medical and Surgical Clinic; Airports in Nondalton, Shaktoolik, Nenana, Fairbanks, and Harding Lake[491]

[488] OHA File.
[489] OHA File.
[490] Hoagland, *Buildings of Alaska,* 223.
[491] OHA File.

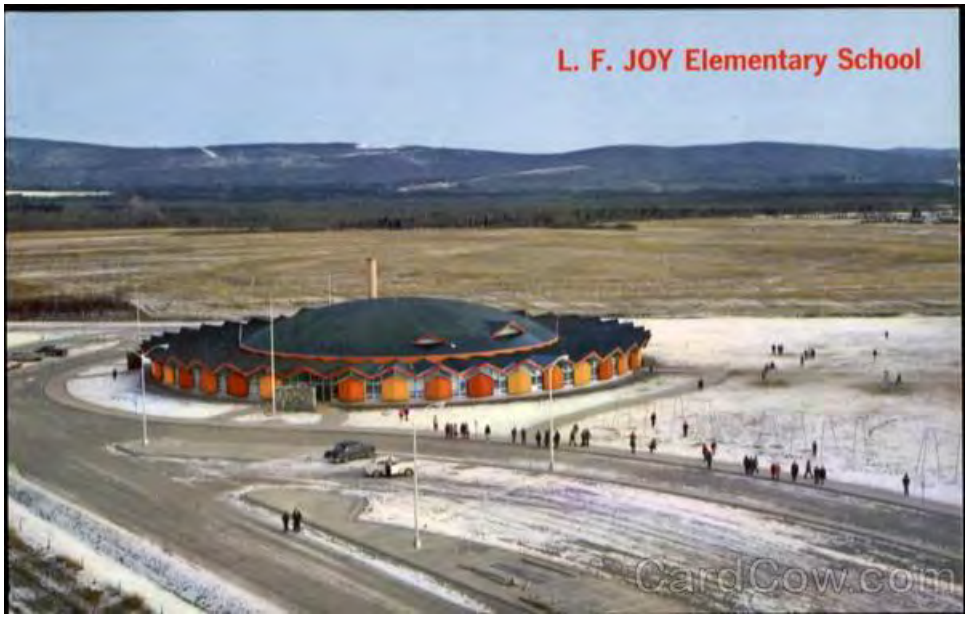


*Figure 139. L.F. Joy Elementary School, Fairbanks, 1960, with Doug Ackley (Source: C.P. Johnston Company 1962).*


*Figure 140. Nordale Elementary School, Fairbanks, (source: The Fairbanks Coal Bunkers 2016).*

### *William Arnold Manley (1903-1990)*

**Firm(s) / Location /Years Practicing**

David C. Lange, Moscow, ID, 1927-1928
L. Solberg, Wenatchee, WA, 1928-1931
N. Lester Troast, Juneau, AK, 1931-1933
Manley and Troast Architects, Juneau, AK, 1933-1937
William A. Manley (Manley and Troast), Anchorage, AK, 1937-1947
Manley and Mayer, Anchorage, AK 1947-1972
William A. Manley, Washington, 1972-1976

**Biography**

William Arnold Manley was born in 1903 in Blackdiamond, Washington and moved to Douglas, Alaska with his family where he attended Douglas High School, graduating with the class of 1922. He completed

four years of courses at the University of Idaho at Moscow but never earned his degree. During this time he was employed as a draftsman under various architects. Manley returned to Juneau in 1931 and worked with N. Lester Troast as an architect, eventually forming the partnership of Manley and Troast in 1933.[492] Manley moved to Anchorage in 1937 and opened a second office, where his styles shifted from a Colonial influence to a Moderne style of architecture.[493] At his Anchorage office he designed the Loussac Building as well as the Howard Romig House (now the Copper Whale Inn) at the northwest corner of 5th Avenue and L Street, in 1941. In 1947, he formed a new partnership with Francis Bernardo Mayer in Anchorage and one of their first designs was the Loussac-Sogn Building in downtown Anchorage.[494] Manley and Mayer moved their offices to the newly constructed building at the corner of 5th Avenue and D Street after construction was completed in 1947. Manley's application for membership in the AIA in 1949 was granted and his record of registration was signed by architect Linn Forrest of the Alaska Territorial Board of Engineers.[495] Several civic, commercial, and educational buildings were completed throughout Alaska under the title of Manley and Mayer. The duo is credited with having completed the first architect-designed private residences in Anchorage. Manley' partnership with Mayer dissolved in 1972. He moved back to Washington and practiced under the firm name of Manley until retiring from the in 1976.

**Selected Portfolio**

Howard Romig House (Anchorage; by Manley and Troast, first architecturally designed house in town, now the Copper Whale Inn), Loussac-Sogn Building (Anchorage), Alaska Railroad Depot in Anchorage, Fairbanks Main School, Inlet Towers and the Mt McKinley Building (Anchorage), Anchorage High School, Grant Hall and Gould Hall at APU, Anchorage International Airport North Terminal, Bartlett High School (Anchorage), Sand Point School, Valdez School, Z. J Loussac Library (original), Denali School (Anchorage), Bunnell Building at UAF and the Elmer E. Rasmuson Library (Fairbanks), Seward City Hall

[492] American Institute of Architects (AIA), Archived Membership Files, accessed March 6, 2016, http://public.aia.org/sites/hdoaa/wiki/AIA%20scans/M-P/MayerFrancisB.pdf
[493] Hoagland, *Buildings of Alaska*, 77.
[494] Hoagland, *Buildings of Alaska*, 88.
[495] AIA Archived Membership Files, *Mayer*.


*Figure 141. The original Z.J. Loussac Library, 1955, F Street, Anchorage, Alaska (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-1640-2).*

### *Francis Bernardo Mayer (1914-1985)*

**Firm(s) / Location /Years Practicing**[496]
Heath Gove and Bell Architects, Tacoma, WA, 1932-1936
Sutton Whitney and Dugan, Unknown, WA, 1937
Joseph Wohleb, Olympia, WA, 1938
Lytle and Shorett Architects, Seattle, WA, 1939
Seims Drake Puget Sound Company, Sitka, AK, 1940-1941
U.S. Army Corps of Engineers, Anchorage, AK, 1941-1944
Civil Aeronautics Administration (CAA), Anchorage, AK, 1944-1946
William A. Manley (extension of Troast and Manley), Anchorage, AK, 1946-1947
Manley and Mayer, Anchorage, 1947-1972

***Notes on practice, licensing, etc. not captured in employment details***
No college or degree listed in AIA Membership File/Application; likely gained education from apprenticeship

**Biography**
Francis Bernardo Mayer was born in Tacoma, Washington in 1914. He attended Lincoln High School in Tacoma and graduated in 1931. In 1932, he began as a draftsman's apprentice for a Tacoma area architectural firm. Through several years of direct experience, Mayer gained the necessary skills to become a licensed architect. In 1940, he was employed with the Seims Drake Puget Sound Company and

[496] AIA Archived Membership Files, *Mayer*.

moved to Sitka. The company served as a military contractor, designing and building WWII Naval facilities in Kodiak and Sitka. After successfully working in a defense contractor capacity, Mayer applied to the U.S. Army Corps of Engineers and was employed in the Anchorage office. During the war he took a position with the Civil Aeronautics Administration (CAA). After the war, Manley moved to private practice under William Manley.[497] In 1947, Manley parted ways with Lester Troast and formed the partnership of Manley of Mayer. One of their first designs was the Loussac-Sogn Building in downtown Anchorage at the corner of 5th Avenue and D Street, where the offices of Manley and Mayer were located upon its completion. He applied for membership in the American Institute of Architects in 1949 and his Record of Registration was signed by architect Linn Forrest (AK Territorial Board of Engineers).[498] Under the title of Manley and Mayer, many civic, commercial, and educational buildings were completed across Alaska throughout their 25 years of partnership.[499] Manley moved back to Washington in the early 1970s where he continued to practice. Francis Mayer retired in 1972, with the dissolution of his partnership, and moved to Perth, Australia.

**Selected Portfolio**

Inlet Towers and the Mt McKinley Building (supervising architect, Anchorage)[500], Anchorage High School, Grant Hall and Gould Hall at Alaska Methodist University Campus (now APU, Anchorage)[501], Anchorage International Airport North Terminal, Bartlett High School (Anchorage), Sand Point School, Valdez School, Z. J Loussac Library (original)[502], Denali School (Anchorage), Bunnell Building at UAF and the Elmer E. Rasmuson Library (Fairbanks)[503], Seward City Hall, East Anchorage High School, Homer High School[504]

[497] AIA Archived Membership Files, *Mayer*.
[498] AIA Archived Membership Files, *Mayer*.
[499] Bowker, "Directory – 1970."
[500] R. R. Bowker, "The AIA Historical Directory of American Architects – 1956," accessed March 3, 2016, http://public.aia.org/sites/hdoaa/wiki/Wiki Pages/ 1956 American Architects Directory.aspx.
[501] Hoagland, *Buildings of Alaska,* 100.
[502] Bowker, "Directory – 1962."
[503] Hoagland, *Buildings of Alaska,* 225.
[504] Bowker, "Directory – 1962."


*Figure 142. Grant Hall, Alaska Methodist University Campus, Anchorage, Alaska, 1963 (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-4135-1).*

### *Kenneth Douglas Maynard (1931-present)*

**Firm(s) / Location /Years Practicing**

Morross & Graff, Johannesburg, Gauteng, South Africa, 1950-1954
Morross & Graff, Empangeni, KwaZulu-Natal, South Africa, 1954-1957
Pearse Aneck-Hahn & Bristol, Johannesburg, Gauteng, South Africa, 1957-1960
Pearse Aneck-Hahn & Bristol, Anchorage, Alaska, 1960-1962
Crittenden Cassetta Wirum & Jacobs, Anchorage, Alaska, 1962-1965
Schultz & Maynard, Anchorage, Alaska, 1965-1968,
Kenneth Maynard Associates, Anchorage, Alaska 1968-1974
Maynard and Wirum, Anchorage, 1970s
Maynard NBBJ, Anchorage, 1975-1978
Maynard & Partch, Anchorage, Alaska, 1978-1996
Principal at USKH, Incorporated, Anchorage, since 1996

***Notes on practice, licensing, etc. not captured in employment details***

South African architect, South African National (but born in USA)

**Biography**

Kenneth Douglas Maynard was born on August 16, 1931 in Hackensack, New Jersey. In 1958, Maynard received his certification in architecture from University Natal, Durban, Republic of South Africa. After seven years as a draftsman for Pearse Aneck-Hahn & Bristol in Johannesburg and Empangeni, he joined an international design and architecture firm. Maynard moved to Alaska in 1960 after the firm opened an office in Anchorage. Maynard worked with Edwin Crittenden from 1962 to 1965. He participated in a

structural building survey with other architects following the Good Friday earthquake in 1964.[505] Two years later, his firm Schultz & Maynard was involved with a non-structural damage survey alongside the firm of Ayres & Hayakawa.[506] This partnership dissolved in 1968, when Maynard began his independent practice. He served as the AIA Alaska Chapter President in 1969 and later received a fellowship.[507]

**Selected Portfolio**

Anchorage Museum of History and Art (Schultz/Maynard), Anchorage Museum of History and Art West Addition (Maynard and Associates, 1973-1974)[508], Hotel Captain Cook Second Tower (early 1970s) and Helen S Whaley Center at APU (1972 as Maynard and Wirum), CIRI Building (1976-1977, Maynard NBBJ), Anchorage Museum of History and Art Seventh Ave Addition (1984, Maynard and Partch)[509]


*Figure 143. Hotel Captain Cook Tower #2 left of owner/developer Wally Hickle, 1974 (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-5282-5).*

### *Earl Wilson Morrison (1888-1955)*

**Firm(s) / Location /Years Practicing**

Morrison and Stimson, Spokane and Seattle Washington, 1911-1954

**Biography**

[505] "Kenneth Douglas Maynard," Prabook, accessed February 27, 2016, http://prabook.org/web/person-view.html?profileId=676146.
[506] "Kenneth D. Maynard Collection Description," Consortium Library Archives, accessed February 27, 2016, https://consortiumlibrary.org/archives/FindingAids/hmc-0172.html.
[507] Bowker, "Directory – 1970."
[508] Hoagland, *Buildings of Alaska,* 92.
[509] Hoagland, *Buildings of Alaska,* 92.

Born in Sibley, Iowa in 1888, Earl Wilson Morrison's family resettled in Spokane, Washington when he was four. He attended the Armour Institute in Chicago sometime around 1909. Morrison was drafted for the American Expeditionary Forces (AEF) and served in France, New York and New Mexico in World War I. He returned to Spokane in 1911 to practice architecture.[510] Morrison designed several residences before the age of 25 and became highly regarded as an architect. Locales referred to him as "Spokane's Boy Architect." His work flourished and continued to grow in his profession, eventually starting a partnership with Vas Salisbury Stimson. From 1917 to 1920, Morrison and his wife Hazel lived in Spokane from 1917 to 1920. They resided in the Marlborough Apartments, which was designed by Morrison three years prior.[511] As World War II intensified in 1942, he relocated to oversee the partnershop's Seattle office where he became known for his Moderne and Art Deco style buildings. He excelled at high rise apartment buildings, many of which are still part of the Seattle skyline. He drafted the original blueprints for the Inlet View Towers, which were subsequently replicated to create the Mount McKinley Apartments as a cost-saving development by the Brady Swalling Construction Company. The design was reflective of Morrison's Modern flare in designing high rise apartment complexes. Architect Francis Mayer oversaw the construction.[512] In addition to these two towers in Anchorage, Morrison's work in Alaska also included Cathedral Arms Apartments in Sitka, the Mendenhall Tower Apartments in Juneau, and Ferris Court (now the Mary Francis Condos) in Ketchikan[513]. Morrison died in San Diego, California in 1955.

**Selected Portfolio**

Anchorage, Inlet Towers and McKinley Apartment Building in association with Donald McDonald (51-52)[514], Cathedral Arms Apartments, Sitka (50) with HB Foss as local architect, Wingren Court (now Marine View, 53) and Austin Tower (now Tongass Tower, 54) in Ketchikan[515], Edward and Ellen Cannon House (Spokane, National Register listed), the Gainsborough, the Nettleton, the Grosvenor House (now Wall Street Tower in Belltown neighborhood), the Baldwin (All Seattle)[516]

[510] American Institute of Architects (AIA), Archived Membership Files, accessed March 14, 2016, http://public.aia.org/sites/hdoaa/wiki/AIA%20scans/M-P/MorrisonEarlW.pdf.
[511] "Admirer Unearths Memory of Young Architectural Genius," *Spokesman.com* (Spokane), accessed March 7, 2016, http://www.spokesman.com/stories/2012/jul/06/admirer-unearths-memory-of-young-architectural/./
[512] Michael R. Yarborough, Shawna M. Rider, Catherine L. Pendleton, and Amanda Welsh, *Determination of National Register of Historic Places Eligibility for the Inlet Towers (ANC-2900), Anchorage, Alaska, (Anchorage:* DOWL Engineers, 2008).
[513] Yarborough and Welsh, *Marine View Condominiums.*
[514] Hoagland, *Buildings of Alaska,* 94.
[515] Yarborough and Welsh, *Marine View Condominiums*.
[516] *PCAD*, accessed March 31, 2016, http://pcad.lib.washington.edu/person/1268/


*Figure 144. Inlet View Towers, L Street, Anchorage, 1968 (source: Anchorage Museum at Rasmuson Center, Ward Wells Collection, AMRC-wws-4696-2).*

*Figure 145. Ferris Court (now the Mary Francis), Ketchikan, Alaska, 1967 (source: Anchorage Museum at Rasmuson Center, Steve McCutcheon Collection, AMRC-B1990-014-5-TV-093-21).*

### *John Moore Morse (1911-2000)*

**Firm(s) / Location /Years Practicing**[517]

Markus and Nocka Architects, Boston, MA, 1939-1940
Passive Defense Project, Boston, MA, 1940-1941
Kastner and Hibben Architects, Washington, D.C., 1941
C.B. Ross Company, Washington, D.C., 1941-1942
George W Stoddard, Seattle, WA, 1942
Boeing Aircraft Company, Seattle, WA, 1943-1945
Chiarelli and Kirk Architects, Seattle, WA, 1945
Bassetti and Morse, Seattle, WA, 1947-1962
John M. Morse and Associates, Seattle, WA, 1962-2000
Kirk, Wallace, McKinley and Associates, Seattle, WA, 1969

**Biography**

John Moore "Jack" Morse was born in Brookline, Massachusetts in 1911. He attended Harvard University where he earned a degree in architecture from the Harvard Graduate School of Design in 1940. In 1942, Morse moved to Seattle and began working for architect George Stoddard. From 1943 to 1945, he was employed for the Boeing Company. In January of 1947, Morse began a successful partnership

[517] "John M Morse" Documentation and Conservation of the Modernist Movement, Western Washington (DoCoMoMoWeWa), accessed March 31, 2016, http://www.docomomo-wewa.org/architects_detail.php?id=46.

with fellow Harvard graduate, Fred Bassetti. He was a partner in the firm of Bassetti & Morse until 1962. During this time, the firm received several state and national awards for their achievements. The practice was devoted largely to residential designs from individual custom houses to large-scale developments and public housing.[518] Among their more notable residential projects are the G. J. Armbruster House in Lake Stevens (Seattle Chapter AIA Honor Award), the Gamma Rho Apartments, Seattle (1952 National AIA Honor Award), the Gerald Martin House, Seattle (1954 National AIA Honor Award), Norwood Village in Bellevue, Washington (1951), the Marshall Forrest Residence in Bellingham, and the Walter F. Isaacs House in Bellevue's Hilltop community (both residential plans being recipients of National Merit Awards in 1953).[519] Morse designed several well-recognized public and educational buildings in the Seattle area throughout this career. In Alaska, Morse designed the Glacier Bay Lodge in 1966 as part of the National Park Service Mission 66 Program and the Sitka National Historical Park Visitor Center in 1968.[520] Morse was an active AIA member from 1947 to 2000 and was president of the Washington State Chapter in 1953. He was nominated as a fellow in 1968.[521] Morse, who has been characterized by some academics as a structural rationalist, was devoted to clarity in architectural expression and was a strong advocate of urban design. He maintained a private practice in Seattle until the time of his death in 2000.[522]

**Selected Portfolio**

Glacier Bay Lodge (1966)[523], Sitka National Historical Park Visitor Center (1963-1964, 1968), With Frederick Bassetti: McChord AFB Housing (1957)[524], Union Washington Elementary School, Lynwood Shopping Center, Lynnwood Post Office, PUD Admin Building (Kennewick), Mercer Island Elementary School, Washington Corrections Center, Garfield Swimming Pool[525]; Teamed with Kirk, Wallace, and McKinley on Pike Place Market[526]

[518] "John M Morse," DoCoMoMoWeWa.
[519] "John M Morse," DoCoMoMoWeWa.
[520] "National Park Service: Mission 66 Visitor Centers (Appendix I)," National Parks Service, accessed March 7, 2016, http://www.nps.gov/parkhistory/online_books/allaback/vci.htm.
[521] "John M Morse," DoCoMoMoWeWa.
[522] "National Park Service: Mission 66 Visitor Centers (Appendix I)," National Parks Service.
[523] "Spaces & Places: America's Cultural Landscapes, Glacier Bay Lodge Complex," National Park Service, accessed December 10, 2015, http://www.nps.gov/cultural_landscapes/snp/100035.html.
[524] Bowker, "Directory – 1962."
[525] Bowker, "Directory – 1970."
[526] Bowker, "Directory – 1970."

*Figure 146. Glacier Bay Lodge, Alaska, ca. 1966 (source: NPS 2015).*

*Figure 147. Sitka Historical Park Visitor Center (source: NPS 2015).*

### *Bjarne Carl Olsen (1913-2012)*

**Firm(s) / Location /Years Practicing**[527][528]

B Dudley Stuart, Seattle, 1938-1939
HB Foss, Juneau, 1939-1941
Naramore, Bain, Brady and Johanson (NBBJ), Seattle, 1941-1945
Olsen and Olson, Seattle, 1945
Olsen Ridley and Olson, Seattle, 1946
Foss Malcolm and Olsen, Juneau, 1949-1951
Foss Olsen, Juneau, 1951-1956
Foss Olsen Sands, Juneau, 1956-1958
Olsen Sands, Juneau, 1958-1968

**Biography**

Bjarne Carl Olsen was born in Seattle, WA in 1913. He earned a degree in architecture from the University of Washington in 1938. He was employed with the HB Foss Company in Juneau after attending classes with Harold Foss at the University of Washington, returning to Seattle in 1941 where he worked for the noted architectural firm Naramore, Bain, Brady, and Johanson (NBBJ). In 1949, Olsen returned to Juneau and became a partner in the firm Foss Malcolm, where the three traveled extensively throughout Alaska, visiting communities with the intent to garner new projects. The partners were gone for months at a time and often completed projects before returning to their office in Juneau. Several hospitals and schools in rural and urban Alaska added to their portfolio, including Bartlett Hospital, University of Alaska labs for study of Musk Oxen, and the Alaska State Building.[529] The firm changed names periodically as partners retired and new architects joined the team. Olsen also served as Vice President and Director of Alaska Ellis Airlines. He was an artistic individual, particularly interested in wood block carving; his work "White Dot" is still used today as the company's logo.[530] Olsen retired in 1968 to Hawaii, but the firm continued and is still in practice today as Jensen, Yorba, and Lott, Inc. He passed away in 2012 in Honolulu.[531]

**Selected Portfolio**

Alaska Office Building (Juneau), Bethel Hospital, Hodge Building (Begich Towers, Whittier)[532], Bartlett Hospital, Alaska State Building in Juneau, Juneau Municipal Airport Terminal Building[533], Dillingham High School, University of Alaska Bio-Sciences Building[534]

[527] Bowker, "Directory – 1956."
[528] Bowker, "Directory – 1962."
[529] "History," Jensen Yorba Lott.
[530] "History," Jensen Yorba Lott.
[531] "Bjarne Carl Olsen," *Juneau Empire*, (August 14, 2012), accessed March 31, 2016, http://www.legacy.com/obituaries/juneauempire/obituary.aspx?n=Bjarne-Carl-Olsen&pid=159068496.
[532] "History," Jensen Yorba Lott.
[533] "History," Jensen Yorba Lott.
[534] Bowker, "Directory – 1962."


*Figure 148. The Hodge Building (now Begich Towers), Whittier, 1964 after the earthquake (source: Anchorage Museum at Rasmuson Center, Corps of Engineers 1964 Earthquake Photographs Collection, AMRC-b79-38-23).*

### *Myron "Mike" J. Pendergast (1920-2003)*

**Firm(s) / Location /Years Practicing**[535]
Pendergrast Architecture, Kirkland, WA, 1954-1958
McEntire and Pendergast, Anchorage, 1958-1980

**Biography**
Myron “Mike” Pendergrast was born in 1920 in Leavenworth, Washington and his family moved to Yakima in 1936 where he graduated high school. Pendergrast attended the University of Washington's School of Architecture from 1938 to 1942. He served in the Navy Seabees from 1943 to 1945. In 1954, he moved to Kirkland, Washington and opened his own firm. Mike moved to Anchorage, Alaska, where he co-owned McEntire & Pendergrast Architects from 1958 to 1980. His work in Alaska include designs for many civic and educational building on the Kenai Peninsula, including the Kenai Peninsula Borough Building in Soldota, Kenai Elementary School, and various multi-purpose facilities at schools in Anchor Point, Tustumena, and Sterling.[536] Pendergrast oversaw the construction of the Cordova Building in Anchorage, which was designed by Oregon architect, Edith Yang. McEntire and Pendergrast maintained

[535] Bowker, “Directory – 1970.”
[536] "Myron Pendergrast, New Rockford, N.D," INFORUM, accessed February 23, 2016, http://www.inforum.com/content/myron-pendergrast-new-rockford-nd.

an office in downtown Anchorage on 8th Avenue. After retiring in 1980, Pendergrast moved to Arizona, and New Rockford, North Dakota. He passed away in 2003.[537]

**Selected Portfolio**

Holy Family Church alterations for cathedral status (1966, Anchorage)[538], Kenai Peninsula Borough Building, Kenai Elementary School, Cordova Building (1959, Anchorage)

*Figure 149. Kenai Peninsula Borough Building, Soldotna, Alaska, ca. 1970 (source: Redoubt Reporter 2012).*

### *Augustine Antonio Porreca (1898-1992)*

**Firm(s) / Location /Years Practicing[539]**

Pennsylvania Railroad Company, Philadelphia, 1918
Augustine A. Porreca, Seattle, ca. 1955
Augustine A. Porreca, Philadelphia, ca. 1960

**Biography**

Attended University of Pennsylvania Graduate School of Fine Arts; today there is a Porreca Memorial Scholarship that is given annually in his and his wife's name.[540] His early career was as a draftsman for the Pennsylvania Railroad Company. Porreca briefly worked in Seattle in the 1950s before returning to the Philadelphia area. He designed three of the best surviving examples of Art Deco style buildings in

[537] OHA File.
[538] Hoagland, *Buildings of Alaska*, 85.
[539] PCAD, accessed March 31, 2016, http://pcad.lib.washington.edu/person/5673/
[540] "Porreca Memorial Scholarship," Scholarships and Fellowships, accessed March 30, 2016, http://www.sp2.upenn.edu/make-a-gift/scholarships-and-fellowships/.

Alaska (all located in Anchorage) including his work with developer Cap Lathrop of Fairbanks on the 4th Avenue Theater.

**Selected Portfolio**

Fourth Avenue Theater,[541] Anchorage 1947 (Lathrop Building), KENI Radio Building 1948, Anchorage,[542] Holy Family Cathedral 1952 (Anchorage)[543]


*Figure 150. KENI Radio Building, Anchorage, 1949, designed by Augustine Porreca in 1947 (source: University of Alaska Anchorage, Consortium Library, Archives and Special Collections, Donald Arthur Post slides, UAA-hmc-0917-715).*

### *Edward Elmer Sands (1910-1996)*

**Firm(s) / Location /Years Practicing**[544]
F.A. Naramore, Seattle, WA, 1934-1940
Naramore and Brady, Seattle, WA, 1940
Siems Drake, Puget Sound, WA, 1940-1943
U.S. Army Corps of Engineers, Seattle, WA, 1943-1945
Christenson and Decker and Christenson, Seattle, WA, 1945-1955
Alaska Architecture and Engineering Company, Fairbanks, 1955-1956
Foss Olsen Sands, Juneau, 1956-1958
Olsen Sands, Juneau, 1958-1968

[541] Hoagland, *Buildings of Alaska*, 84.
[542] Hoagland, *Buildings of Alaska*, 101.
[543] Hoagland, *Buildings of Alaska*, 85.
[544] PCAD, accessed March 31, 2016, http://pcad.lib.washington.edu/person/3272/

Sands Ackley, Juneau, 1968-1974

**Biography**

Edward Elmer Sands was born in 1910 in Seligman, Arizona. He received a Certificate of Graduation from the San Bernardino Junior College in California in 1931. In 1936, he earned a degree in architecture from the University of Washington, Seattle. He worked for local architecture firms in Seattle, including Naramore and Brady, an iteration of Naramore, Bain, Brady, and Johanson (NBBJ). Sands worked for the U.S. Army Corps of Engineers, Seattle District from 1943 to 1945 prior to becoming an associate at Christenson and Decker and Christenson.[545] Sands moved to Fairbanks in 1955 where he worked for Lee S. Linck's Alaska Architecture and Engineering Company for one year. He then moved to Juneau and became a partner with fellow alumni Harold Foss and Bjarne Olsen. Sands remained in Juneau and carried out his employment at the firm originally started by HB Foss until his retirement in 1974.[546] The firm is still in practice today as Jensen, Yorba, and Lott, Inc. He passed away in Washington in 1996.

**Selected Portfolio**

Juneau Municipal Airport Terminal (1959), Dillingham High School, University of Alaska, Fairbanks Bio-Sciences Building (1966)[547], Delta Junction High School, Ketchikan General Hospital (1968), Kodiak Hospital (1969)[548], Sitka Court and Office Building, Petersburg Post Office and Federal Building (1985)[549]

*Figure 151. The Irving Bio-Sciences Building, University of Alaska, Fairbanks, 1965 (source: Institute of Arctic Biology, University of Alaska Fairbanks 2015).*

[545] PCAD, accessed March 31, 2016, *Sands*.
[546] "History," Jensen Yorba Lott.
[547] "History," Jensen Yorba Lott.
[548] Bowker, "Directory – 1970."
[549] "History," Jensen Yorba Lott.


*Figure 152. Juneau Municipal Airport, 1959 (source: Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks, Ernest H. Gruening Papers, 1914-[1959-1969] 1974, UAF-1976-21-56564).*

### *Edward Durell Stone (1902-1978)*

**Firm(s) / Location /Years Practicing**[550][551]
Strickland, Blodgett & Law, Boston, 1922-1928
Schultze & Weaver, New York, 1929
Hood, Godley & Fouilhoux and Reinhardt & Hoffmeister, 1929-1933
Edward Durell Stone and Associates, New York and others, 1933-1973
Worked with Manley and Mayer, Anchorage, ca. 1965

***Notes on practice, licensing, etc. not captured in employment details***
Many works in New York; professor at New York University

**Biography**
Edward Durell Stone was born in Fayetteville, Arkansas in 1902. He attended the University of Arkansas in 1920, but his overall academic performance was poor and drafting was one of his few strengths. Stone moved to Boston in 1922 where he provided office assistance at the architectural firm of Strickland, Blodgett & Law. Stone attended night classes at the Boston Architectural Club (now Boston Architectural College). His academic achievements turned for the better in 1925 when he was granted a scholarship to Harvard University's School of Architecture and in 1926, and then transferred to Massachusetts Institute of Technology (MIT). He was member of a team of architects that assembled designs on Rockefeller

[550] "Edward Durell Stone, Life," Edward Durell Stone, accessed March 29, 2016, http://www.edwarddurellstone.org/.
[551] Bowker, "Directory – 1970."

Center in July 1930.[552] Stone became the principal designer for the center's two theaters: the 3, 700-seat Roxy Theater (later known as the Center Theater) and the 6,000-seat Radio City Music Hall. In Alaska, he designed the Campus Center Buildings (now Atwood Center) at the Alaska Pacific University campus in 1963.[553] Stone retired in New York City in 1974, however, his firm, which began in 1933, continued as Edward Durell Stone, Inc. until 1984.[554]

**Selected Portfolio**

Anchorage, Atwood Center (Campus Center) 1963-1966[555]; Waldorf-Astoria, New York; ABC Television Building, New York; Good Housekeeping Magazine House of the Fifties Model Home (1952); Philadelphia Museum (1954); Dallas Downtown Redevelopment (1958); JFK Center for the Performing Arts (DC 1959); National Geographic Building (Washington DC), Amarillo Fine Arts Museum; Buffalo Evening News Building (NY); Florida State Capitol complex design; University of Alabama Law School; Radio City Music Hall[556]


*Figure 153. Campus Center (Atwood Center) at APU, Anchorage, 1967 (source: University of Alaska Anchorage. Consortium Library. Archives & Special Collections, William L. McNutt photographic slides, 1934-1973, UAA-hmc-0456-459)*

### *Gilbert Stanley Underwood (1890-1960)*

**Firm(s) / Location /Years Practicing[557]**

[552] "Edward Durell Stone, Life."
[553] National Register of Historic Places, Nomination: Campus Center, (Washington, D.C.: National Park Service, accessed March 31, 2016, focus.nps.gov/nrhp/GetAsset?assetID=5094a369-dc81-4a17-895f-909f440c4f44.
[554] "Edward Durell Stone, Life."
[555] Hoagland, *Buildings of Alaska,* 100.
[556] "Edward Durell Stone, Life."
[557] "Biography (Gilbert Stanley Underwood)," National Parks Service, accessed March 10, 2016, http://www.nps.gov/parkhistory/online_books/sontag/underwood.htm.

Gilbert Stanley Underwood, Architect, Los Angeles, California, 1923-1946
Gilbert Stanley Underwood, Architect, Washington, D.C. 1947-1949

**Biography**

Gilbert Stanley Underwood was an architect best known for his National Park lodges. Born in 1890, Underwood his undergraduate degree from Yale in 1920 and a graduate degree from Harvard in 1923. He moved to Los Angles shortly thereafter and opened a private practice. Underwood became associated with the Park Service's Daniel Hull, the Chief Landscape Engineer for the agency.[558] He was recommended to the Utah Parks Company of the Union Pacific Railroad to design lodge complexes at Cedar Breaks National Monument, Zion National Park, Bryce Canyon National Park, and North Rim of the Grand Canyon National Park. In addition, he was contracted to design Yosemite National Park's Ahwahnee Hotel (1925-1927), which was perhaps his greatest triumph in the rustic style. In 1932, he joined the Federal Architects Project, under which he designed the Anchorage Federal Building (1939-1941). While working for the federal government in Washington, D.C., Underwood produced the preliminary designs for the Timberline Lodge at Mount Hood, Oregon, and went on to design more than 20 post offices and the U.S. State Department Building from 1939 to 1940. Working within the national parks, Underwood's greatest triumph was in defining the rustic style as envisioned by Stephen Mather.[559] His style helped set the tone for the massive building projects of the Mission 66 Program. Underwood represents the National Park Service's exceptional alliance with a private architect for developing park visitor facilities.

**Selected Portfolio**

Anchorage Federal Building (1939-1941)[560], Timberline Lodge (Mt Hood), Ahwahnee Lodge in Yosemite; Bryce Canyon Lodge, the Grand Canyon Lodge, and Zion Lodge (Utah); San Francisco Mint, Los Angeles Federal Building, US State Department Complex Building #1 (D.C.), consolidation of the Old Faithful Lodge

[558] "Biography (Gilbert Stanley Underwood),” NPS.
[559] "Biography (Gilbert Stanley Underwood),” NPS.
[560] "GSA Buildings – Alaska," General Services Administration, accessed March 25, 2016, http://www.gsa.gov/portal/ext/html/site/hb/category/25431/actionParameter/exploreByBuilding/buildingId/186.


*Figure 154. The Anchorage Federal Building, 4th Avenue, 1942 (source: Anchorage Museum at Rasmuson Center, Sidney Hamilton Photograph Collection, Anchorage Museum, Gift of Emily Turner, B1976.82.879, AMRC-B1976-82-048).*

### *Wallace "Wally" John Wellenstein (1921-2012)*

**Firm(s) / Location /Years Practicing**[561]

Unknown, Anchorage, 1949-1960
CCWJ (Crittenden, Cassetta, Wirum, Jacobs), Anchorage, 1960-1962
WJ Wellenstein Architectural Consultants, Anchorage and Minnesota, 1962-1983

**Biography**

Wallace "Wally" Wellenstein was born in Albany, Minnesota in 1921. He briefly attended St. John's University in Minnesota (1940-1942) before enlisting with the U.S. Army. He was stationed with the U.S. Army Transportation Office in Juneau, Alaska from 1942 until 1945. He left Alaska after his service and earned a degree in architecture from the University of Minnesota in 1948 before permanently moving back to Alaska in 1949. Wellenstein was employed by Crittenden, Cassetta, Wirum, Jacobs (CCWJ) and opened his own practice in 1962. He designed several buildings, including various educational buildings for the University of Alaska, Anchorage and in Fort Yukon.[562] He was the AIA Alaska Chapter President in 1965 and served on the Anchorage Urban Design Commission from 1992 to 1994. He was an avid outdoorsman, spending much of his free time on the Kenai River near his cabin and the salmon-fishing spot that was aptly named "Wally's Hole."[563] He passed away in 2012 and his film collection is archived at UAF.

[561] Bowker, "Directory – 1970."
[562] "Wallace J. Wellenstein's Obituary on St. Cloud Times," St. Cloud Times, accessed March 31, 2016, http://www.legacy.com/obituaries/sctimes/obituary.aspx?pid=157683897#sthash.OXfi9VrG.dpuf.
[563] "Wallace J. Wellenstein's Obituary," St. Cloud Times.

**Selected Portfolio**

Northern Lights Elementary School (Anchorage), Muldoon Elementary School (Anchorage)[564], Glenallen High School, UAA Building F (1972), First Arctic Valley Ski Lodge, UAA Administration Building (1983)[565], Fort Yukon Master Site Plan for a school

# 5.0 CONCLUSION

While the study of mid-twentieth century architecture has gained much momentum in the past two decades, there is still a considerable amount of research to be done. This is especially the case in Alaska. In general, the range of documentation for resources from the period varies considerably. While some aspects of the state's history and development, such as the military presence, have been relatively well documented, in other areas, such as the evolution of single-family housing, the documentation is sparse. Even in those instances where there has been a considerable body of research on the subject, there can be gaps. Historic events and trends might be well documented, but the impact those events and trends had in shaping the built environment can be missing from the record. While the body of research regarding post-World War II development in the Lower 48 is ever expanding, how those forces shaped the environment of Alaska, is less so. This document is an important step in contributing to the body of research, but there is still considerable research, survey, and documentation to be done. As many of these resources are now or will soon reach the age where they are vulnerable to insensitive alterations, updates or outright demolition the identification, documentation and evaluation of these resources is critical.

## 5.1 Evaluation Challenges

In addition to these issues, evaluation of these resources can also present unique challenges especially when it comes to the evaluation of integrity. Integrity is the ability of a property to convey its significance. Traditionally, alterations, updates, and changes in material could be viewed as changes that might compromise the integrity of a property. The challenge is that many of these resources were built; it was often anticipated that property owners would add to, update, and modify the structure over time. For example, many of the residential resources or "starter" homes like Minimal Traditional homes or other such simple, small houses, were often built with the intention that the homeowner would add to, modify, alter or improve them over time. Thus, the modifications were part of the original intent. In assessing the integrity of these changes and alterations, it is important to examine period of change, the pattern of change and then current practices of property care, updates and maintenance.

In other instances, modifications of older structures were made to keep current with new design trends. In commercial districts, business owners and property owners did not want their property to look dated thus façade updates or improvements; both at the storefront level and to the upper stories were common. Storefront kits, modular designs elements and ready-made components, made storefront replacement relatively easily. In other instances, when a more dramatic change was desired, the entire façade could be removed and replaced with a "slipcover." In assessing the integrity and significance of residential and commercial districts, it is important to assess the context of the alterations to the property, this is especially true with commercial districts, where more recent alterations are sometimes viewed as outside

[564] "Wallace J. Wellenstein's Obituary," St. Cloud Times.
[565] Hoagland, *Buildings of Alaska,* 99.

of the period of significance or not contributing to the district, yet many of these alterations reflect the then current design trends and are an important part of the story of the evolution of the individual resource or the district.

Other resources were made with fragile or short-lived materials meaning in-kind replacement materials were or are no longer readily available or even manufactured. For example, for many curtain wall structures, the original framing, glass, and gasketing elements are no longer available or do not meet current building codes. Replacing original materials with contemporary ones can result in dramatic changes; for example, the reflective quality of the glass can vary greatly and if the building was significant for its technological innovation but all the original materials have been replaced, how might that impact the integrity?

And finally, Alaska experienced a significant period of growth during the period. The sheer volume of resources present coupled with the abundance of new materials, changes to existing building types, and the emergence of new ones presents a wide array of resource types and styles.

Other structures, like Quonset huts, were often built as short-term temporary shelter. Many of these changes can be overlooked, considered as changes that alter the integrity of the older property, however, many of these alterations, additions or changes could be considered significant in their own right.

# 6.0 RECOMMENDATIONS FOR FUTURE RESEARCH-LOOKING AHEAD

While this document is comprehensive, it is by no means exhaustive. In preparing the document, the following recommendations for future research were identified and are grouped according to categories. They include but are not limited to:

## Earthquake

- Identification and inventory of buildings and context statement for resources reconstructed after the 1964 earthquake as well as how quake impacted land-use planning.

## Centennial

- Over eighty federally funded projects were undertaken in communities throughout the state. Many resources from the period are now reaching the age or will soon reach the age for National Register eligibility. They are currently vulnerable to updates and changes and insensitive alterations or demolition. Inventory of resources, survey, evaluation and recommendations for inclusion on the National Register or local designation.

## Population

- History of the African-American migration to and presence in the state. Identification of resources, especially in Anchorage and Fairbanks, where larger communities were located.
- History of post-World War II Asian migration to the state, specifically the Filipino and Korean communities and identification of resources associated with Japanese migration, internment and return.

## Transportation

- Further research on the history of airport construction in Alaska.
- Further research on the history of harbor construction and port construction in Alaska.

## Residential

- Further study on multi-family dwellings built under Section 608 and Alaska Housing legislation to determine whether NR eligible.
- Further research on HUD funded housing projects.
- Study on architect designed residences in Alaska.

## Architects/Architecture

- Further research on individual architects.
- Compiling additional historic images of work completed by prominent architects.
- Identification of additional work by prominent architects (some have few buildings to their names).
- Lists of educational materials and publications prepared over the years by those architects who helped to advance northern climate design or specific use design (such as educational institutes, etc.).
- Additional research on architects more prolific after 1968 (See Appendix D).
- Provide information pertaining to architects who practiced in Alaska to repositories searching for information (i.e. Documentation and Conservation of the Modernist Movement, Western Washington chapter has been looking for information on several architects who worked in Alaska).
- Complete National Register nominations for buildings listed in the SHPO/OHA IBS Portal as eligible for inclusion (i.e. Mendenhall Glacier Visitor Center).
- Further research, evaluation and recommendation for towers in Alaska designed by Earl W. Morrison (Anchorage, Juneau, Sitka, Ketchikan).
- The Atwood Center Building (Edward Durrell Stone architect) is currently listed under Criteria A for association it's with the ANCSA convention; it should be re-evaluated for its architectural significance.
- Research into developers and builders responsible for shaping Alaska's built environment.
- Develop a historic context for designs inspired by indigenous cultures of Alaska that post-date 1968 (i.e. Barrow Hospital and Barrow Police Station).

## Themes for Additional Study

- Landscape architecture, http://www.akasla.org/chapter-info/history
- Trans Alaska Pipeline
- Alaska Native Claims Settlement Act

## Evaluation Considerations/Guidelines

- Develop comprehensive guidelines and survey manuals to assist with the survey, evaluation and documentation of these resources.

## Local Designation and National Register Listing

- Identify which communities allow for local designation of more recent resources. Establish priorities for NR Listing or local designation.

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# Appendix A: Alaska Historic Buildings Style Guide

*Alaska Office of History and Archaeology 2016*

# SECTION 7: ALASKA ARCHITECTURAL STYLE GUIDE

This Alaska Architectural Style Guide is an introduction to architectural styles commonly found in Alaska. In the years since the first Russian outposts were established in Alaska, buildings have been constructed in a wide variety of architectural styles. From the simple vernacular log structures of the late 18th century, to the steel and glass curtain-wall buildings of the 20th Century, the architecture of Alaska is as diverse as its many geographical regions.

The architectural styles on the following pages are presented according to the period or movement with which they are traditionally associated. Dates are provided for the years when the style was most popular in the United States, although examples of each style could pre- or post-date the dates given. In addition to a short history of each style, a list of primary and secondary stylistic features associated with each style, as well as National Register considerations are provided. These considerations will provide guidance when evaluating a building for National Register eligibility under Criterion C. Under this criterion, properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent significant and distinguishable entity whose components may lack individual distinction (district).

The considerations provide in the following pages are meant to assist, but not dictate a specific outcome. It is also important to note that a number of the styles found on the following pages became popular less than 50 years ago. When properties are being evaluated for the National Register and they are less than 50 years old they must meet Criteria Consideration G which requires that properties be of exceptional importance. For more information on applying Criteria Consideration G see the *National Register Bulletin: Guidelines for Evaluating and Nomination Properties that Have Achieved Significance within the Past Fifty Years.*

When conducting a survey, use this style guide as a tool for identifying and evaluating architectural styles. It is not a comprehensive list of all styles and types of buildings. For a more detailed description of architectural styles and the history of neighborhood development in the United States, see *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture,* revised edition 2013, by Virginia Savage McAlester. Not all buildings in Alaska and elsewhere have a style. It is acceptable to say they have no style or are vernacular.

The conversation about architectural styles, especially recent past architectural styles, will evolve as more surveys are conducted and more research completed. The current classification system should be reexamined every five years and evaluation considerations should be revisited after additional study is conducted.

## RUSSIAN COLONIAL (1784-1867)

The least represented type of colonial architecture in the United States is Russian Colonial. Russian settlement started in North America in the late 1700s. As settlements developed in the Aleutians, Kodiak Island and the southern coast of Alaska, the Russian Colonial esthetic developed. At first a quick adaption to the land, Russian Colonial architecture soon evolved to incorporate the traditional vernacular building techniques used in Russia. The only locations in the United States where this style of architecture is found are Alaska and California. Today, only four Russian Colonial buildings survive in North America: the Russian Bishop's House (Sitka, AK), Building 29 (Sitka, AK), Rotchev House (Fort Ross, CA), and the Russian American Magazin (Kodiak, AK). Features and concepts of this style are evident in the Russian Orthodox churches that post-date the Russian Colonial era.

### *Stylistic Features:*

- Horizontal interlocking log construction
- Rectangular or polygonal plan
- Community setting on a promontory at head of a bay or mouth of a river

### *Evaluation Considerations:*

All Russian Colonial era buildings in Alaska have been identified and listed in the National Register of Historic Places and designated as National Historic Landmarks.

Russian American Magazin, Kodiak

Building 29, Sitka

## LATE VICTORIAN ERA

The term Victorian refers collectively to several architectural styles that were popular during the middle and late 19th century. The styles often included interpretations and eclectic revivals of historic styles mixed with the introduction of Middle East and Asian influences. The term Victorian represents the British and French custom of naming architectural styles for a reigning monarch. It follows Georgian and Regency architecture and was succeeded by Edwardian architecture.

## ITALIANATE (1850-1985)

The Italianate style dominated American houses constructed between 1850 and 1880 and was particularly common in expanding towns and cities of the Midwest and West. Italianate homes first appeared in the United States in the 1830s in advice books about modern life, morality, and architecture. Andrew Jackson Downing popularized the style in the 1840s and 1850s in his pattern books. The style was adapted to urban environments in commercial districts and residential townhouses. The style was popular until the 1873 financial panic; however, the style was used in Alaska after that date.

### *Primary Stylistic Features:*

- Two to three stories tall
- Tall narrow windows
- Bracketed cornices
- Aligned first and second story windows
- Low pitched pyramidal, hip, flat or gable roof
- Wide overhanging eaves

### *Secondary Stylistic Features:*

- Arched windows
- Grouped windows
- Porches, full or partial width

McKinnon Apartments, Juneau

Bon Marche Building, Ketchikan

- Porches, Full or partial width
- Cupola
- Quoins
- Elaborate window crowns/hoods, cornice, porch, and doorway designs

### *Evaluation Considerations:*

Italianate buildings in Alaska will likely be found individually. Some will be located in mixed-style commercial districts. To be individually eligible, Italianates should exhibit a majority of the primary features as well as some secondary features. If an Italianate building is located in a potential mixed-style historic district, it should exhibit a majority of the primary stylistic features. Italianate buildings are rare in Alaska. Although many false front buildings have Italianate features, these buildings will not be individually eligible for their Italianate architecture since the elements are merely applied, rather than integrated into the building design.

## QUEEN ANNE (1880-1920)

The Queen Anne style epitomizes the Victorian era. Although the style developed in England, it was quickly adopted in the United States with an American flair. Queen Anne was the dominant style of domestic building from about 1880 until 1900, with decreasing popularity through the first two decades of the 20th century. The style spread throughout the country by pattern books and mail-order house plans.

The expanding network of railroads expedited the process by making pre-cut architectural details readily available throughout the nation. Although Queen Anne buildings have a variety of forms and styles, they are easily identifiable. Many examples found in Alaska are not high style examples and can be considered Folk Victorian.

Residential Building, Juneau

### *Primary Stylistic Features:*

- Asymmetrical
- Steeply pitched roof
- Hipped roof with lower cross gables
- Patterned shingles
- Dominant porches
- Decorative spindlework

Residential Building, Nome

### *Secondary Stylistic Features:*

- Finials
- Towers
- Gable end and roof top ornamentation
- Projecting bay windows
- Porch columns

### *Evaluation Considerations:*

Queen Anne style buildings are found in residential areas throughout Alaska.

Small Queen Anne districts may be present, but are extremely rare. Queen Anne homes may be located in a mixed-style residential district. To be eligible

as a contributing property in a district, a Queen Anne must be asymmetrical, have a hipped roof with lower cross gables, and a steeply pitched roof. Furthermore, the building should exhibit some primary and some secondary features. To be eligible individually, a Queen Anne must have a majority of the primary stylistic features and a number of secondary features. Some of the decorative features, such as spindlework, patterned shingles, towers, finials, bay windows or porch columns, should be incorporated in the design.

## Late 19th and Early 20th Century Revivals

Unlike the free stylistic mixtures that dominated the preceding Victorian Era, building designs of this era were intended to be more exact versions of earlier architectural styles and traditions, inspired by elements of various European styles. The larger size, scale and arrangement of details set the buildings of the Colonial Revival and Neoclassical Revival apart from the original forms that inspired them. The Spanish Revival and Tudor Revival styles also looked back to the buildings of America's colonial beginnings for inspiration.

## Colonial Revival (1880-1955)

Colonial Revival was the dominant style for domestic building throughout the United States during the first half of the twentieth century. Colonial Revival refers to the rebirth of interest in the early English and Dutch houses of the Atlantic Seaboard. The Philadelphia Centennial of 1876 is credited with reawakening an interest in our colonial architectural heritage. The Georgian (1700-1780s) and Federal (1780-1820) styles form the backbone of the Revival, with secondary influences from Postmedieval English (1600-1700) and Dutch Colonial (1625-1840). At the turn of the century, it became fashionable to closely match particular types of Colonial architecture, especially Georgian. Homes were proportioned and detailed in an attempt to replicate their colonial predecessors; however, pure copies of colonial houses are far less common than are eclectic mixtures.

Mayflower School, Douglas

### *Primary Stylistic Features:*

- Accentuated front door
- Symmetrical façade
- Multi-pane double hung wood windows
- Paired or triple windows
- Columned porch or portico
- Side gable, gambrel or hip roof
- Dormers

Houk House, Sheldon Jackson College, Sitka

### *Secondary Stylistic Features:*

- Fanlights and sidelights
- Pedimented door, windows, and dormers
- Pilasters
- Dentils and modillions

### *Evaluation Considerations:*

In most situations, Colonial Revival buildings will be eligible individually or as a component of a mixed-style residential district. To be eligible, Colonial Revival buildings should retain their massing and scale and a number of the primary and secondary stylistic features should be present.

## NEOCLASSICAL REVIVAL (1900-1950)

Neoclassical Revival was a principal style throughout the early 20th century, although not as prevalent as the Colonial Revival. Chicago's Columbian Exposition in 1893 popularized the style. Many of the state pavilions at the Exposition featured Neoclassical Revival buildings that were small in scale and residential in feel. These heavily photographed buildings helped promote the style. There were two distinct waves of the style. One in the early part of the century that used hip roofs and elaborate columns, the second during the 1930s to 1950s, which employed side gabled roofs and simple columns.

### *Primary Stylistic Features:*

- Full height porch with classical columns (usually Ionic or Corinthian)
- Symmetrical
- Boxed eaves with moderate overhang
- Dentils or modillions
- Decorative door surrounds
- Centrally located door with balanced windows
- Mixture of classical elements incorporated in design

Alaska Governor's Mansion, Juneau

### *Secondary Stylistic Features:*

- Balustrades
- Broken pediment at entrance or above windows
- Wide frieze
- Pilasters


Masonic Temple, Fairbanks

### *Evaluation Considerations:*

Neoclassical Revival style buildings are most often eligible for listing as individual buildings or components of mixed-style historic districts. This style is often found in residential, financial, and public buildings. To be individually eligible, Neoclassical Revival buildings must be symmetrical and exhibit a mixture of classical elements. Additional primary and secondary features must also be present for the building to be individually eligible.

## TUDOR REVIVAL (1890-1940)

Tudor Revival is loosely based on late Medieval English buildings from the 15th century and influenced by the American Eclectic movement. The style also embraced the modern Craftsman ideas and incorporated these components into the buildings. Early 20th century subdivisions embraced this style and promulgated it throughout the United States. In Tudor Revival buildings the house plan could rule the design rather than it being dictated by symmetry, allowing rooms to be oriented in any direction and windows to be placed where needed. The style quickly faded in the 1930s, but became popular again during the 1970s and is sometimes referred to as the Tudor Re-Revival.

### *Primary Stylistic Features:*

- Steeply pitched roof
- Dominant cross gable
- Decorative half-timbering
- Tall narrow windows, often in groups
- Prominently placed massive chimneys
- Arched doorway
- Multiple materials such as stucco, brick, or wood

### *Secondary Stylistic Features:*

- Simulated thatch roofs
- Parapeted gables
- Cast stone trim
- Overlapping gables
- End porches

### *Evaluation Considerations:*

Tudor Revival style buildings are rare in Alaska. To be eligible individually or as a component of a district, they should have, at a minimum, a steeply pitched roof, tall narrow windows, and multiple materials. Other characteristics should be present to emphasis the character of the style. This style was used in residential and institutional buildings in Alaska.

Folta House, Juneau

Allen Auditorium, Sheldon Jackson College, Sitka

## MISSION/SPANISH REVIVAL (1890-1940)

Mission and Spanish Revival are common styles found primarily in the southwestern United States and Florida. In many ways, this style was a response to the Colonial Revivals found in other parts of the country. Prior to 1920, the homes were based on simple early Spanish missions. The 1915-1916 Panama-California Exposition in San Diego popularized the Spanish Revival style. The elaborately designed buildings on display at the Exposition showed details found throughout Latin America and Spain. The style quickly spread from the publicity associated with the Exposition. While landmark buildings are rarely found outside of the Southwest and Florida, vernacular examples can be found in suburban developments throughout the country.

### *Primary Stylistic Features:*

- Low pitched roof with little or no eave overhang
- Red tile roof covering
- Prominent arch above door or windows
- Asymmetrical façade
- Stucco wall surface

### *Secondary Stylistic Features:*

- Carved doors
- Spiral columns or pilasters
- Tile work
- Decorative window grills
- Arcaded walkways

Pioneers' Home, Sitka

### *Evaluation Considerations:*

The Mission/Spanish Revival style is rare in Alaska. This style will likely be encountered with individual buildings and may exist within a mixed-style historic district. To be eligible, a Mission/Spanish Revival building should have a tile low pitched roof and stucco. Other primary and secondary features should be present.

## Early 20th Century American Movements

The early 20th century saw the transition of familiar architectural styles into a new modern era of building. There were changes in construction techniques, especially the development of skyscraper technology, and new designs which created houses that fit visually into their environment. The Bungalow or Craftsman style, inspired by the English Arts and Crafts movement, developed at the turn of the 20th century and became widespread throughout the country. Known for their heavy-columned front porches, front facing gables, and overhanging eaves, often have exposed rafters and other decorative wood trim. The styles of this period set the stage for even greater change in architectural theory and practice in the years to follow as designs moved away from traditional inspirations to modern styles.

## Bungalow/Craftsman (1905-1940)

The Craftsman style originated in California in the early 20th century. Charles Sumner Greene and Henry Mather Greene promoted the style and are credited as the inspiration behind the style. Asian wood construction, the English Arts and Crafts movement, and interest in traditional manual arts culminated in this detailed building style. The designs of Greene and Greene were highlighted in many magazines such as *Western Architect*, *Ladies Home Journal*, *Architectural Record*, and *House Beautiful* as well as numerous pattern books. This was the dominant style for smaller houses built throughout the country from 1900 until the 1930s. More vernacular types of the Craftsman style are often referred to as "bungalows."

Norman R. Walker House, Ketchikan

### *Primary Stylistic Features:*

- Low pitched gable or hip roof
- Wide unenclosed eave overhangs
- One to one and one-half stories tall
- Exposed rafters
- Full or partial front porch with columns

### *Secondary Stylistic Features:*

- Knee braces or exposed roof beams
- Battered/tapered square columns
- Open floor plans
- Front door entry to living space

Residential Building, Downtown Anchorage

### *Evaluation Considerations:*

Bungalows will most often be found in historic districts comprised of other bungalows or mixed-styles. To be contributing in a district, bungalows should exhibit a majority of their primary stylistic features. Individually eligible bungalows are rare and should embody all the primary stylistic features and most secondary features. A relatively high level of integrity should be present to list individual bungalows.

## RUSTIC (1916-1960)

Rustic style buildings employ traditional building techniques and natural materials. The style was widely used during the Great Depression and popularized by federal land managing agencies and the Civilian Conservation Corps (CCC). This style is commonly found in rural areas of the country. When executed effectively, Rustic style buildings are sensitive to their natural surroundings. Key concepts embodied in the style include subordination, non-intrusiveness and a reflection on the past. Rustic style buildings strongly influenced the public perception of what type of building should be located in the country's parks and outdoor environments.

Rock House, Denali National Park and Preserve

### *Primary Stylistic Features:*

- Log or stone construction
- Horizontal orientation
- Low pitched roof

### *Secondary Stylistic Features:*

- Battered walls
- Wide overhanging eaves
- Small paned windows
- Constructed of locally available materials
- Minimal ornamentation
- Stone foundation

Skater's Cabin, Mendenhall, Juneau

### *Evaluation Considerations:*

Rustic style architecture is most often found in a park-like setting or rural communities. Districts will be rare, but may be found in parks. Most often Rustic style buildings will be found and evaluated for individual significance. To be eligible individually, Rustic style building should have all the primary stylistic features and possess a high degree of integrity.

## Modern Movement

The styles of the Modern Movement began in Europe and spread to the United States in the 1920s. Embracing a sleek, sharp-edged appearance with distinctive decorative details, the Art Deco style presented an exotic new look for buildings. The smooth wall surface of the Art Deco style was carried over into the development of the more streamlined, less ornamented Art Moderne style. The International style, with its starkly unornamented appearance of rectangular shapes, punctuated with bands of windows, announced a new view of the style and purpose of architecture. With new shapes and forms utilizing the new construction technologies of the time, the International style was portrayed as a new kind of architecture designed solely to meet the needs of the common people in the Machine Age. In the period between the two world wars, European architects embraced this concept and designed not just commercial buildings, but houses in this bold, new form. In that same timeframe in the United States, American architects continued to design houses in traditional style, while experimenting with new modern forms for skyscrapers and commercial buildings. As Europe sunk into chaos just before WWII, many prominent architects immigrated to the United States, bringing their new architectural concepts with them. In 1932 the first modern architectures exhibit in America was held at the Museum of Modern Art in New York City, which brought these new concepts in architecture to the forefront of modern design.

## Art Deco (1930-1950)

Eliel Saarinen introduced the style in 1922, when he entered the Chicago Tribune Tower Design Contest and came in second. His design was widely publicized and the style quickly became desired. Art Deco style gained its name from the Paris' Exposition des Arts Decoratifs et Industriels Modernes in 1925. The Machine Age inspired the geometric patterns and curves found in this style. Art Deco did not simply stay in the realm of architecture. Jewelry, appliances and furniture also incorporated Art Deco concepts in their design. Art Deco is more of a decorative application in the architecture than a stylistic ideology. The style is widely used in commercial buildings, but rarely found in residential architecture. Other commonly applied names to the style include Zigzag Modern, Cinema Style, Depression Modern, or Jazz Modern.

### *Primary Stylistic Features:*

- Vertical emphasis
- Rooflines are stepped or flat
- Concrete is a common material used in construction to achieve smooth white surfaces. However, polychromatic examples exist with painted concrete
- A minimum of one of the following decorative elements: zigzags, chevrons, sunburst, fluting, banding or other references to the Machine Age

### *Secondary Stylistic Features:*

- Projections are often incorporated into the roof design

Holy Family Cathedral, Anchorage

- Glass brick and tile are used to decorate the building
- Windows are often large with metal sashes
- Additional decorative features that are distinctly non-Western

### *Evaluation Considerations:*

Art Deco buildings are not found in clusters in Alaska. Art Deco buildings can contribute to the significance of a district, but most often will be considered for individual eligibility. To be eligible, an Art Deco building must have all the primary characteristics and at least one of the secondary features.

## ART MODERNE (1930-1955)

Art Moderne is closely related to Art Deco, but the emphasis is on horizontal plane. The Machine Age is still present in decorative reference with an emphasis on the designs found in automobiles, planes, trains and ships. The horizontal lines of Art Moderne were also incorporated into the design of the machines in which they found reference. Zoom and speed are embodied in the design of Art Moderne buildings. This style was more prominent in residential architecture than Art Deco and many examples resemble the contemporaneous International Style, in which decorative details are reduced to the bare minimum. Streamline Modern is another term used for this style.

### *Primary Stylistic Features:*

- Horizontal massing
- Flat roofs with ledge (coping) at roof line
- Asymmetrical façade
- Smooth concrete or stucco exterior finish
- Speed bands or other horizontal emphasis

### *Secondary Stylistic Features:*

- Curved building corners
- Metal sash windows, sometimes found in ribbons to accentuate the horizontal
- Corner windows
- Glass brick
- Rounded porthole windows
- Cantilevered awnings (sometimes curved)


Masonic Temple, Ketchikan

Residential Building, South Addition, Anchorage

### *Evaluation Considerations:*

Art Moderne is a rare building type in Alaska. Clusters of this building type do not exist. Most Art Moderne buildings will be eligible individually. In order to be eligible, Art Moderne buildings must exhibit all the primary characteristics and some of the secondary characteristics. Art Modernes can contribute to the eligibility of a district that has a variety of architectural styles.

# CURTAIN WALL (1945-1975)

Curtain Wall was a dominant building style for commercial buildings in Alaska and was widespread in the 1950s and 1960s. In many cases the exterior curtain wall was a prefabricated system used to hang windows and exterior sheathing. The sheathing varied significantly from porcelain enamel panels, exposed aggregate, or stone veneers. Curtain Wall buildings are often found in commercial, institutional, educational, and government buildings of a variety of sizes. Oftentimes, stylistic components will be incorporated into period buildings. The style evolved into the popular Corporate Modern style buildings of the 1980s.

### *Primary Stylistic Features:*

- Simple geometric forms, often rectangular
- Curtain wall
- Rectangular massing
- Metal skeleton that expresses the building's structure
- Flat roof
- Prominent use of glass
- Lack of contexualism

### *Secondary Stylistic Features:*

- Spacious interiors that create a sense of openness
- Asymmetrical composition
- Lack of ornamentation
- Colored ceramic glass panels

First Federal Savings Building, Anchorage

### *Evaluation Considerations:*

To be considered individually eligible, a Curtain Wall building must exhibit the metal skeleton that expresses the building's structure, flat roof, and prominent use of glass as well as other primary and secondary stylistic features.

Furthermore, the building should exhibit some unique design elements that separate it from other examples in the area. Curtain Wall buildings may also be eligible as parts of a mixed style historic district. To contribute to a district, Curtain Wall buildings should exhibit the metal skeleton that expresses the building's structure and retain a majority of its original building materials.

City Hall, Seward

## BRUTALISM (1950-1970)

Brutalism was intended as a utopian style, but this relationship was not cemented due to the urban decay that immediately followed the style's popularity. The name of the style comes from the French term, ***béton brut***, for rough concrete. Le Corbusier, one of the pioneers of modern architecture, often used the term to describe his choice of material. Concrete is the predominant choice of material in this style, but Brutalism also incorporate glass, wood, brick, and stone. According to architecture critic Reyner Banham, Brutalism exhibits three main qualities including exhibition of structure, transparency of space typology, and honesty of materials. Famous examples of this style include the J. Edgar Hoover FBI building in Washington, D.C. and Boston City Hall.

### *Primary Stylistic Features:*

- Exposed concrete
- Disproportionately arranged
- Heavy, blocky appearance to highlight the sculptural aspects of concrete
- Evidence of functionality in the exterior form whether it is human function or building function
- Window and doors appear as voids in the massive concrete

HASCO Building, Anchorage

### *Secondary Stylistic Features:*

- Abstract in nature
- Hammered concrete to give a distressed look
- Waffle slabs
- Intentional avoidance of traditional materials
- Repetitive patterns

Gruening Building, University of Alaska Fairbanks

### *Evaluation Considerations:*

Examples of Brutalist style buildings, although rare in Alaska, can be found individually throughout the state. These buildings should embody a majority of the primary stylistic features and at least one secondary feature. Modifications to the form and materials could render them not eligible. Materials, workmanship, and design are extremely important when assessing eligibility. Preservation of the surrounding site may be an important consideration since many landscapes are incorporated into the design of Brutalist buildings.

## NEW FORMALISM (1965-1980)

New Formalism emerged in direct opposition to the modernist ideas. Sometimes referred to as Palladianism, New Formalism incorporates exaggerated classical elements to achieve modern monumentality. Buildings of this style use the massing and forms found in classical architecture such as arches, colonnades, classical columns, and entablatures in a modern method. The style used current technology to take representations of the past to a new extreme. Universities, banks, and libraries often used this design. This style is rarely found in small scale or residential architecture.

### *Primary Stylistic Features:*

- Singular volume of space
- Symmetrical plan
- Smooth wall surfaces
- Heavy projecting roof slab
- Stylized full height columnar supports
- Repeating arches or rounded openings
- Evident construction techniques
- Classical elements interpreted in a modern way

### *Secondary Stylistic Features:*

- Separation from natural environment by placing building on a podium
- Hierarchical spatial relationship
- Placed on axis
- Concrete and glass are materials of choice. High quality stones and steel are also used
- Building set behind a plaza or fountain
- Large screens of perforated concrete, metal grilles or cast stone


Atwood Center, Alaska Pacific University, Anchorage

Wells Fargo Bank Building, 5th Avenue, Anchorage

### *Evaluation Considerations:*

Examples of New Formalist architecture are relatively rare in Alaska. In most situations, these buildings will be individually eligible for listing in the National Register. To be eligible, New Formalist buildings must exhibit a singular volume of space, symmetrical plan, classical elements interpreted in a modern way and some secondary features.

Modification to the symmetry or spatial volume will render a New Formalist building not eligible. The surrounding landscape must also be considered when nominating a New Formalist building, since site planning was often incorporated into the building design.

## Structural Expressionism (1970-Present)

Structural Expressionism, also known as High Tech Modernism, is a branch of modernism in which buildings display their structural elements inside and out. The larger design features are liberated by the possibilities of engineering. Like Brutalism, Structural Expressionist buildings reveal their structure on the outside of the building as well as on the inside. Structural Expressionist buildings incorporate the ideals of interchangeable prefabricated parts, flexibility in design and economy of construction. The main concept behind this design is the use of structural components to dictate the aesthetic of the building. Oftentimes, structural elements are exposed and employ innovative approaches to structural stability. Engineering created new possibilities in building design.

### *Primary Stylistic Features:*

- Exposed or visible structural elements inside and out
- Emphasis on the industrial materials
- Functional building components are exposed

### *Secondary Stylistic Features:*

- Adaptable interior spaces
- Detached frames
- Exposed trusswork
- Extensive use of glass and metal
- Highly complex shapes

Aviation Building, Anchorage

### *Evaluation Considerations:*

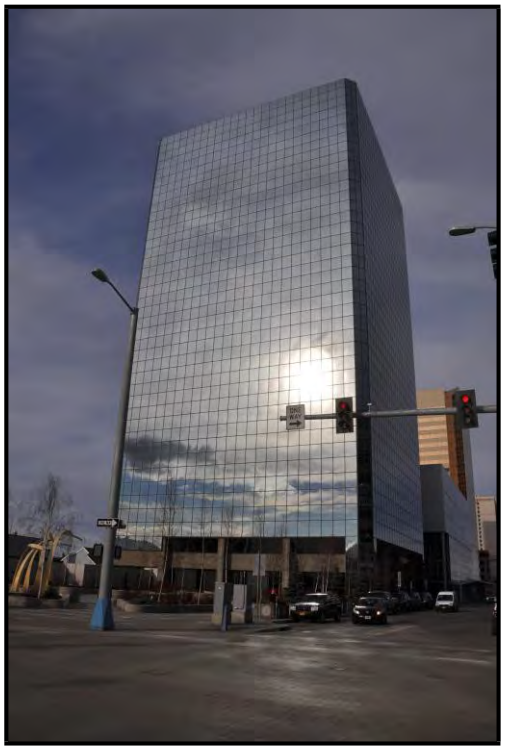
Structural Expressionist buildings will be considered for their individual eligibility. To be considered eligible, Structural Expressionist buildings should retain all the primary stylistic features and some of the secondary features that exemplify the materials, design, workmanship, and association. This recent past resource should retain a high level of integrity and be an important expression of the style.

## CORPORATE MODERN (1950-PRESENT)

Taking its cues from the ideals of Architect Mies van der Roe, Corporate Modern or Slick Skins took hold in the 1950s with seamless exterior glass sheathing. The improvements in window technology making this style possible included larger panes, increased strength and the ability to make glass thinner to create curves. Window assemblies needed smaller clips to place windows and create the smooth surface. It is sometimes difficult to discern the number of floors in a Corporate Modern building except when dark and lights are visible. Like much modern architecture, the intent of the Corporate Modern style is the desire is to express the structure in its outward appearance.

### *Primary Stylistic Features:*

- Tinted or mirrored glass
- Wet and reflective in nature surfaces
- Smooth sculptural surfaces
- Overall rectangular volumes



Atwood Building, Anchorage

### *Secondary Stylistic Features:*

- Horizontal window bands
- Articulated ground floor, often on pilotis
- Concrete or exposed aggregate surface
- Later examples are more sculptural with curved corners
- Multi-story examples are prevalent
- Indistinguishable division of floors
- Building setback on plaza

### *Evaluation Considerations:*

Corporate Modern Style buildings are found throughout Alaska and are located predominantly in business and commercial centers. Corporate Modern buildings will most likely be eligible individually, or as a contributing property in a historic district if they exhibit a majority of the primary features and some secondary features. The Corporate Modern Style usually takes two forms. The first form is smaller in height, more horizontally orientated, and more likely to be found in a suburban setting. The second form is vertically orientated and found more often in an urban setting.

## POSTMODERNISM (1960S-PRESENT)

Postmodernism is a rejection of the Modern Movement. This style rejects the purity of form and purity of function in favor of the wide usage of materials and references. Postmodernism brought back classical detailing in a whimsical way. This school of architecture was developed by Robert Venturi, Michael Graves, Charles Moore, and Robert A.M. Stern. They believed it was important to absorb and reformulate traditional architectural components instead of continuing to construct "glass boxes void of heritage." While playing homage to the past, many buildings within this stylistic movement feature playful designs and ironic combinations. Various architectural elements could be selected and then exaggerated, manipulated, and even distorted.

### *Primary Stylistic Features:*

- Prominent entrances
- Traditional and Modern construction techniques incorporated
- Polychromatic paints or materials
- Multiple geometric forms
- References to historic or vernacular architecture

### *Secondary Stylistic Features:*

- Lunette windows
- Arches with keystones incorporated in the design, often in an exaggerated manner
- Pediments
- Reference to adjacent buildings

Alaska Center for the Performing Arts, Anchorage

### *Evaluation Considerations:*

Postmodern buildings are found individually throughout Alaska. To be eligible, Postmodern buildings must embody nearly all the primary features and some secondary features. Design, workmanship, materials, and setting are extremely important aspects of integrity and should be retained. Postmodern buildings should make reference to historic or vernacular aspects of architecture. Landscaping should also be considered when evaluating these buildings.

## DECONSTRUCTIVISM (1980-PRESENT)

Deconstructivism is a style that embraces the individuality of unrelated parts, combining them form a building. Each building exhibits a bit of chaos and still refrains from utter confusion. The style is artistic in nature with no sensible logic presented. Disassembly of building components and reassembly in a new way is inherent in this style. In residential architecture the house is generally divided into separate volumes that are visually distinct from the each other.

### *Primary Stylistic Features:*

- Unrelated forms
- Abstract in nature
- Smooth exterior surfaces
- Contrast of shapes and forms
- Large expanses of a single material (glass, metals, stones, etc.)

Residential Buildings, Anchorage

***Secondary Stylistic Features:***

- Window frames often hidden in the walls
- Simple metal frame doors
- Exposed materials

Residential Building, South Addition, Anchorage

***Evaluation Considerations:*** Deconstructivist buildings are rare in Alaska and should be considered individually eligible. These buildings must exhibit a majority of the primary features and some secondary features. Integrity of design, materials, and workmanship are extremely important when evaluating this building style. Setting is less important but still relevant in the assessment.

## NEO-EXPRESSIONISM (1955-PRESENT)

Neo-Expressionism is loosely based on the German Expressionist movement of the early 20th century. Neo-Expressionism, a rejection of the modern ideals, is sculpture-like and theatrical in appearance. This style of architecture never dominated the American architectural scene, but is most commonly found in religious and public buildings from the period. Strict geometric shapes are rejected and sculpted forms emerge. Innovation of building materials such as concrete, plastics, and laminates are often incorporated in the design to achieve artistic forms.

### *Primary Stylistic Features:*

- Sculptural forms
- Non-traditional structural elements
- Distortion of form to evoke emotion
- Organic design
- Experimental materials
- Unconventional roof designs


ANSEP Building, University of Alaska Anchorage

### *Secondary Stylistic Features:*

- Irregularly shaped windows
- Same materials used inside and out
- Roofs as continuation of walls
- Use of topography as design element
- Use of cantilever
- Laminated wood
- Asymmetrical

### *Evaluation Considerations:*

Neo-expressionist buildings will most often be considered for eligibility as an individual resource. To be eligible, Neo-expressionist buildings should be sculptural, evoke emotions, and have an unconventional roof design. The setting and area landscaping are often critical components of this architectural style. It is necessary to document the concepts and ideas that were used in the design.

## Mid to Late 20th Century

The primary influence on residential architecture of the mid-century was the American banking system. The practices of the Federal Housing Administration's (FHA) mortgage insurance program effectively regulated the kind of modern home that could be built in the typical neighborhoods of the mid-century. Houses built from the early 1940s through the mid-1960s are often called Bankers Modern because of this and include Minimal Traditional, Ranch, and Split level houses. By the mid-1960s, home finance was no longer an issue and larger homes with more architectural flair could be constructed. In recent decades the design of dramatic and varied modern houses has had little effect upon the typical American home which has mostly returned to historic architectural roots for inspiration.

## Minimal Traditional (1940-1960)

The Minimal Traditional house was a small house that could be financed with FHA-insured loans. These houses were constructed quickly, in order to accommodate the millions relocating to work in World War II production plants. Following the war, neighborhoods of these homes expanded rapidly, due in part to the GI Bill, which entitled every returning serviceman the opportunity to purchase a home. The style reached its peak in popularity in the 1940s through the widespread distribution of house plans and pattern books. It was of paramount importance to design the most efficient floor plans since every extra square foot added to the cost, and a higher home cost made it harder to qualify for an FHA loan. This also meant that the homes had minimal decorative elements as these elements would also increase the cost of the home. The postwar prosperity of the 1950's led to the replacement of the smaller Minimal Traditional with the modern Ranch.

### *Primary Stylistic Features:*

- Compact in size, typically one story in height
- Moderately pitched gable or hip roofs with minimal overhangs, if any
- Simplified details to reflect modernity

### *Secondary Stylistic Features:*

- Side gable buildings may have an intersecting gable to shelter the main entrance
- Clad in narrow horizontal wood siding, wood shingles, asbestos shingles, or aluminum
- Windows are typically wood and modest. In some cases, one large picture window is incorporated on the street facing elevation
- Multi-lite windows are common in the style before the World War II
- Simple floor plan
- Traditional building materials (wood and brick) used in cladding to emphasize the street facing elevation on later forms

### *Evaluation Considerations:*

In most cases, the Minimal Traditional house will be significant as a component of a historic district. Minimal Traditional homes may be found in Alaska as early components of tract developments. In many cases, newer developments grew around these homes. Do to their prevalent nature and minimal

architectural details Minimal Traditional houses will rarely be found individually eligible, to be eligible individually the building must embody all the primary features, and a majority of the secondary features, be associated with a prominent builder or developer, and be a rare architectural type in the locality. In a district, Minimal Traditional buildings must embody all the primary features and a majority of the secondary features.

Minimal Traditional homes were intended to be flexible in design. In a district, small additions should not render a building non-contributing. Additions must maintain the small building feel embodied in the style. The addition must be carefully considered to ensure that the building is still able to convey its significance. Additionally, each building must maintain enough primary and secondary features to maintain eligibility.

Residential Building, Fairview, Anchorage

Residential Building, Downtown, Anchorage

## TRANSITIONAL RANCH (1945-1955)

The Transitional Ranch, also called Minimal Ranch, Cottage Ranch, or Ranchette is an interim style between the Minimal Traditional style and Modern Ranch. Transitional Ranches brought home ownership to the masses following the war. They generally share the compact floor plan and spatial organization of the Minimal Traditional; however, their external appearance displays the one-story, horizontal massing of the Ranch form, a shallow roof pitch, overhanging eaves, use of picture windows or corner windows and wall cladding that differs on the lower half of the house. They are generally found in large subdivisions with slight design variations and were often financed through federal housing initiatives. Transitional Ranches generally lack the broader overhanging eaves and many of the elaborations that became common as the house sizes increase into what we know as a Modern Ranch.

### *Primary Stylistic Features:*

- Asymmetrical façade
- Moderate to low pitched side gabled roof
- Minimal ornamentation
- Horizontal massing
- Single story
- Compact size

### *Secondary Stylistic Features:*

- Carports or garages (attached or detached)
- Composition shingle roof
- Horizontal wood siding or asbestos siding
- Picture, double-hung, corner, and casement windows

Residential Building, Airport Heights, Anchorage

Residential Building, South Addition, Anchorage

### *Evaluation Considerations:*

Transitional Ranches are abundant in Alaska due to the rapid growth after World War II and the mass production of this housing type during that period. Transitional Ranch districts will usually follow subdivision lines and Transitional Ranches should be the prevalent, if not the only, housing type in the district. Transitional Ranches were designed for additions, so sympathetic additions should not negate eligibility. Transitional Ranches will rarely be significant individually. In those rare circumstances, they should embody all the primary features and all the secondary features. They must retain a high level of integrity and be associated with a prominent builder, developer or designer.

## Modern Ranch (1955-1975)

The Modern Ranch made its way to Alaska during the late 1950s and early 1960s. The popularity of the house type waned during the 1970s. The Modern Ranch typified suburban development in the western United States. The roots of the style are grounded in California and embody the ideals of the Prairie style in a vernacular form. The father of the style is Clifford May. He began constructing these rambling homes in the 1930s, dedicating ample lawn space and creating a horizontal orientation. There are numerous modern ranch subtypes (post and beam, chalet, storybook, western, etc.) that warrant further consideration and creation of their own evaluation considerations.

### *Primary Stylistic Features:*

- One story
- Low horizontal massing
- Low pitched roof
- Overhanging boxed eaves
- Wide street façade
- Combination of siding materials, including accent veneer
- Attached garage
- Hip, side gable, or gable-on-hip roof

Residential Building, South Addition, Anchorage

### *Secondary Stylistic Features:*

- L-shaped or U-shaped plan
- Extended massive roof beams
- Wide masonry chimney
- Weeping mortar
- Large wood or aluminum frame windows
- Clerestory, picture windows, corner windows, or bands of windows
- Brick and stone veneers
- Recessed front entrance
- Flower boxes

Residential Building, South Addition, Anchorage

### *Evaluation Considerations:*

Modern Ranch buildings are located in neighborhoods throughout Alaska. In most situations, Modern Ranch buildings will be eligible as contributing features in a historic district. Districts will usually follow subdivision lines. Overall, the district and contributing features should retain design, materials, setting, and location. The Modern Ranch must be one story with low horizontal massing, embody a majority of the primary features and some secondary features. Small additions or appropriately placed additions do not negate eligibility.

To be individually eligible, a Modern Ranch must be one story with low horizontal massing, must exhibit all primary characteristics, and must have a majority of the secondary features. Individual properties should retain sufficient materials, design, workmanship, association, and feeling to covey significance. Additionally, individual Modern Ranches must be associated with a prominent architect, builder or developer for listing.

## Styled Ranch (1955-1985)

While the standard Ranch house may have incorporated one or more common historic elements Styled Ranch houses have a more complete and unified set of stylistic details that spell out a distinct style. Styled Ranches were built throughout the modern Ranch era but became common during the 1970s and dominated new home construction in the 1980s. Each of these variations have the same features found on the Eclectic version of each style but are adapted to wide, low, one-story form of a Ranch.

**Spanish Ranch-** Generally clad in stucco or buff-colored brick with a tiled roof. Use of rounded or parabolic arches for windows, entries, or porches. Decorative features may include exposed roof rafters, window grills or balconettes, and inward-slanting chimneys or wing walls.

**Colonial Revival Ranch-** Often symmetrical or include a symmetrical central block with a side gable or hipped roof. Commonly the central block is clad in one material, usually brick or wood siding, with attached wings possibly clad in a secondary material. Front doors are usually enhanced with a Colonial Revival door surround or entry porch.

**Neoclassical Ranch-** Characterized by a one story porch supported by Classical columns. The porch may be present only at the entry or extend the full width of the house. Generally, there is a symmetrical main block. Traditional multi-pane windows are typical and roof dormers may be present.

**French Ranch-** Generally the central block is topped by a high-pitched hipped roof. One or more segmented arches is present on doors, windows, or dormers. Windows are usually tall and narrow and may have shutters. Walls are generally clad with brick veneer.

**Tudor Ranch-** Half-timbering as a stylistic element is almost always present, and merely attached to the exterior as ornamentation. Other stylistic elements that may be present include casement windows (which may have diamond-shaped panes) and decorative garage doors. The roof form is generally gabled or cross-gabled.

**Storybook Ranch-** Popular during the 1950s and early 60s, they resemble Swiss chalets with added deep scalloped vergeboard, diamond-shaped window panes, and window boxes.

Storybook Ranch, College Village, Anchorage

## CONTEMPORARY (1940-1970)

The Contemporary style has its roots solidly in the modern movement, specifically the International style. It was the style most favored by American architects from 1945-65. The Contemporary style is more concerned with the spaces inside the house and the way in which each space relates to the outdoors. Entry facades typically reveal little of the house itself. The design is created from the inside out, with the focus not on details visible as one approaches the house but rather on the functionality of the interior space and the integration of outdoor views.

### *Primary Stylistic Features:*

- Low pitched gable roof, sometimes flat
- Asymmetrical
- Widely overhanging eaves
- Roof beams commonly exposed
- Wide fascia
- Use of natural materials (wood, stone, brick or occasionally concrete block)

Residential Building, South Addition, Anchorage

### *Secondary Stylistic Features:*

- Broad expanses of interrupted wall surface typically on primary facade
- Entrances are recessed, obscured or hidden
- Windows situated near the roof line or located in gable ends
- Massive concrete block or stone chimneys
- Integration of outdoor views
- Decorative screening fences
- Repetitive ornamental element integrated into masonry walls

Residential Building, South Addition, Anchorage

### *Evaluation Considerations:*

Contemporaries will likely be components of a historic district. To be a contributing component they must embody nearly all the primary characteristics and some secondary features. In some cases, Contemporaries can be found as components in larger mixed style subdivisions. Higher style architect-designed contemporaries may be individually eligible if they have a majority of the primary and secondary stylistic features.

## SPLIT LEVEL (1950-1975)

The split level is the name of a new and distinctive *form* of house rather than a style. The split level form is found in different styles- primarily Ranch, Styled Ranch, and Contemporary. Split levels rose in popularity during the 1950s. The form of the split level allowed for distinct separation of space. They provided practical ways to incorporate a location for two new family possessions, the car and the TV. The garage was located in the lower level on one wing. The other wing of the lower level contained the lively area of the home, usually a TV or game room. The upper floors contained living space and kitchens. Bedrooms were often situated in one wing separate from the living areas. The form could be bi-level or tri-level.

### *Primary Form Features:*

- Horizontal massing
- Two or three stories
- Entry split between levels or on the middle level
- Prominent garage incorporated into the design

### *Secondary Stylistic Features:*

- Accompanying style (Ranch, Styled Ranch, or Contemporary)

Bi-level Contemporary- Residential Building, College Village, Anchorage

### *Evaluation Considerations:*

Split Levels are abundant in Alaska. Split Level districts will usually follow subdivision lines. To contribute to a district, a Split Level should retain a majority of the primary features. Additions must be sympathetic to the overall size, scale and massing of the original building. The accompanying style (Ranch, Styled Ranch, or Contemporary) should also be provided when describing a Split Level and the building should also be evaluated using that style's evaluation considerations.

Tri-level Contemporary- Residential Building, South Addition, Anchorage

Split Levels will rarely be significant individually. In those rare circumstances, the Split Level should embody all primary features and all secondary features. It must retain a high level of integrity for its accompanying style and be associated with a prominent builder, developer, or designer. Additions and converted garages will render a split level not eligible for individual listing.

# DINGBAT (1960-1980)

Francis Ventre coined the term, but the rationale for the use of the term in unknown. It is often considered that the name is derived from the stylistically-applied naming on the exterior of the buildings. Dingbats were a prevalent building style for Californian apartment buildings, but also found their place in Alaska.

Early forms of this building style used Le Corbusier's pilotis concept and placed the apartment buildings on beams to maximize space. Taking this form, residences can use the space under the building for parking. Other names associated with this style include Shoebox and Dumb-box.

### *Primary Stylistic Features:*

- Applied period naming devices
- Multi-story rectangular buildings
- Flat roof
- Exterior walkways and stairs
- Individual entrances to living spaces
- Uniformity of building materials


Hillgate Apartments, Midtown, Anchorage

### *Secondary Stylistic Features:*

- Clad in brick, concrete, stone, T1-11 or wood
- Pierced brick work
- Exposed aggregate
- Mablecrete
- Parking below the building
- Pilotis

### *Evaluation Considerations:*

Dingbats are rarely found in groups in Alaska. To be individually eligible Dingbats must maintain a majority of the primary characteristics. All eligible Dingbats must have their period naming sign. Additionally, Dingbats must retain most secondary characteristics to maintain eligibility for their architecture. Integrity of design, materials and workmanship are extremely important when evaluating Dingbats.


Hillgate Apartments, Midtown, Anchorage

## A-Frames (1950s-1970s)

A-Frames became extremely popular throughout the United States, especially in areas where outdoor recreation was developing. For the most part, A-Frames are simple buildings with small square footage. A- Frame kits were widely distributed throughout the country. Lofts are common in the interior living space for a grand room. Residential use of the style was more common than commercial or governmental use, however, some national chain stores used the style to distinguish their buildings from others, and religious organizations often incorporated the A-Frame style in their design. As the style matured, buildings incorporated other roofs in addition to gables.

### *Primary Stylistic Features:*

- Prominent steeply pitched roof with eaves that reach or nearly reach grade
- Interior lofts

### *Secondary Stylistic Features:*

- Windows dominate the main elevation
- Porches and decks
- Wood siding
- Open floor plan
- Great room
- Deep set eaves

Residential Building, South Addition, Anchorage

### *Evaluation Considerations:*

To be eligible, individually or as part of a district, an A-Frame must maintain its distinctive roof. A-Frames can be found throughout Alaska. For A-Frames to be individually eligible both primary stylistic features must be present and a majority of secondary features must exist. A-Frames may be found in mixed style districts. To contribute to the district, A-Frames must embody both primary stylistic features and most secondary stylistic features. A small number of A-Frames have gambrel-roofs or are double standard A- Frames (two A-Frames laced perpendicular to each other), so evaluators should consider these rarer subtype when assessing eligibility. Materials, design, workmanship, setting and feeling are important aspects of integrity when nominating A-Frames.

Residential Building, South Addition, Anchorage

## GEODESIC DOMES (1965-1980)

Although domes had existed for some time, Buckminster Fuller popularized them through lectures demonstrating the effectiveness and resourcefulness of the building style. In 1954, Fuller patented the dome. A famous example of a spherical geodesic Dome is the Spaceship Earth exhibit at Walt Disney World, Florida. Most Geodesic Domes are hemispherical, or half the sphere. Many domes were sold in kits and assembled by the property owners. They could be assembled in a couple of days by constructing the wall units, attaching them together and finishing the interior spaces. The triangular shaped panels meant load bearing walls were not necessary. Most domes average 30 feet in diameter. In Alaska most geodesic domes are residential.

### *Primary Stylistic Features:*

- Dome shape
- Clad in wood shingles or three tab asphalt shingles
- Windows and skylights found in a variety of shapes (triangular, square, rectangular or round)
- Space frames

### *Secondary Stylistic Features:*

- Flat roofed wings
- Segmented dormers
- Wood porches
- Clad in wood, stone veneer, plastic or

Residential Building, Nome

### *Evaluation Considerations:*

Due to the do-it-yourself nature of residential Geodesic Domes, they are often found in isolation. Domes may be contributing features in a mixed style district. To be eligible in a district the shape must be intact with one other primary stylistic feature. Additions that overwhelm the dome will result in the building being not eligible. Geodesic Domes were used for recreation, military, residential, and civic buildings. When they retain their domed shape and exhibit a majority of the primary characteristics and at least two secondary features, they may be considered individually eligible.

## QUONSET HUT (1941-1960)

Quonset Huts are an easily identified architectural form. Engineers at Quonset Point Naval Air Station in Rhode Island designed the building type in 1941. Other companies quickly developed their own versions, including the Pacific, Emkay, Armco, and Jamesway Huts. After World War II, numerous surplus Army huts were used by the general public as commercial and residential buildings.

### *Primary Stylistic Features:*

- Barrel shape
- Curved steel ribs
- Corrugated metal

### *Secondary Stylistic Features:*

- False fronts.
- Tongue and groove plywood floors
- Shed dormers

### *Evaluation Considerations:*

Quonset Huts will only be eligible as components to a Quonset Hut historic district or mixed-style district. To be eligible, Quonset Huts must have all the primary stylistic features and retain a high degree of integrity.

Residential Building, Government Hill, Anchorage

## NEO-MANSARD (1970-1985)

The Neo-Mansard style, also referred to as the Mansard, is a reinterpretation of the Second Empire style popular during the 1880s. Gas stations used the Mansard style to soften their previous modernist concrete buildings. McDonald's also popularized the style with the creation of their eat-in restaurants featuring a mansard roof. A variety of building types exhibit the Neo-Mansard style including apartment buildings, single family residences, condominiums, gas stations, restaurants and commercial buildings. Older buildings are sometimes modernized by adding mansard roofs to their facades. Many Neo-Mansards have since been covered with newer façade treatments.

### *Primary Stylistic Features:*

- Mansard roof (dual-pitched hipped roof)
- Two or more stories
- Windows and/or porches inserted in the roofs
- Flat roofs
- Aluminum sliders and aluminum doors

Multi-family Building, South Addition, Anchorage

### *Secondary Stylistic Features:*

- Segmented or arched dormers.
- Parapets used to disguise mechanical equipment
- Recessed entries
- Primary roofing material is asphalt shingles, but can be tile or wood
- Dominate garages

Residential Building, Geneva Woods, Anchorage

### *Evaluation Considerations:*

Neo-Mansard buildings are scattered throughout Alaska. They often take form in multi-family housing, commercial buildings, townhouses, and single family homes. Neo-Mansard style buildings will rarely be eligible individually. To be individually eligible, Neo-Mansards must exhibit a mansard roof and a majority of the other primary features. Additionally, they must contain a majority of the secondary features, and be associated with a prominent builder, developer or architect. Neo-Mansard may be part of a mixed style district. To be eligible as part of a district, Neo- Mansards must embody the distinctive roof as well as two primary and two secondary features.

## SHED (1970-1985)

The Shed Style was used in residential and commercial buildings in the early 1970s. The Shed Style has the modern movement's smooth finishes and postmodernism's multiple massing. Much of the construction took place during the energy crisis so some employed the use of solar panels and south facing clerestories. The style was often used for vacation homes, schools, apartment complexes and condominiums. Popularity declined as people demanded homes with less maintenance, because the wood exteriors of Shed Style homes required significant maintenance.

### *Primary Stylistic Features:*

- Overall asymmetrical with strong lines
- Mixed massing
- Busy roofline
- One to two stories
- Intersecting gable and/or shed roofs
- Seamless roof and wall intersection
- Asymmetrical placement of windows
- Recessed or obscured door

Residential Building, Nome

### *Secondary Stylistic Features:*

- Long and geometric windows
- Clerestory windows
- Wood wall cladding (vertical, diagonal, horizontal, or shingles)
- Large interior volumes of space
- Blank wall surfaces

### *Evaluation Considerations:*

Shed Style buildings will be found individually and in mixed style districts. To be eligible as a contributing building in a district, the Shed must maintain a distinctive roofline and asymmetry. Additions can be sympathetically applied to this style while maintaining its distinctive characteristics especially in historic districts. Setting and location are extremely important for the district overall. High style Sheds can be individually eligible when they have a majority of the primary stylistic features and at least three secondary stylistic features. Integrity of design, workmanship and materials are important. Additions to shed style buildings will make them not eligible individually.

Residential Building, South Addition, Anchorage

## New Traditional (1970s-Present)

New Traditional architecture is a rejection of modernism and a renewed interest in historical styles first inspired by the U.S. Bicentennial celebrations in 1976. The style is widespread in newer developments. Homes are commonly based on styles popular in the early 20th century- Colonial Revival, Tudor, Neoclassical, French, Italian Renaissance, Spanish, Craftsman, and Prairie, as well as Romantic and Victorian-era styles. New Traditional, though inspired by historic styles, commonly exhibit a lack of understanding of the design principles behind those earlier styles. Porches may be improperly scaled, few or no windows placed on side elevations, use of modern materials that mimic historic materials (i.e. vinyl or hardy-plank in place of wood), and a misinterpretation of classical details such as columns too skinny, too few or poorly spaced. High quality New Traditional homes should be difficult to distinguish from earlier construction; generally, the location and size of the house and garage provide clues to more recent construction.

### *Primary Stylistic Features:*

- Two or more stories
- Imitated historic styles
- Multiple roof lines
- Brick or stone veneer
- Modern materials that mimic historic materials (i.e. vinyl or hardy-plank)
- Large footprint
- Applied decorative features

### *Secondary Stylistic Features:*

- Unfinished attics
- Vinyl windows
- Mixed synthetic materials
- Multi-car garage

Prairie influenced, Residential Building, South Addition, Anchorage

Shingle influenced, Residential Building, South Addition, Anchorage

### *Evaluation Considerations:*

New Traditional buildings are found in residential developments. Most often they will be found in developments with other similar resources, but on occasion are found as new infill construction in older neighborhoods. New Traditionals are rarely eligible as individual resources. Design, workmanship, materials, location, association, and setting are extremely important aspects of integrity.

## Appendix B: Architects Table

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Ackley, Douglas W.<br>1923-2014 | Douglas Ackley Architecture<br>Alaska Architectural and Engineering Co<br>Sands and Ackley<br>Ackley and Associates<br>Ackley Jensen | Seattle<br>Fairbanks<br>Juneau<br>Juneau<br>Juneau | 1955-1956<br>1956-1968<br>1968-1974<br>1974-1979<br>1979-1985 | Joy Elementary School 1960 (under Lee S. Linck), Alaska State Jail, Delta Junction High School, Ketchikan General Hospital, Sitka Court and Office Building, Petersburg Post Office and Federal Building, Sealaska Plaza and Juneau Airport (Juneau), Hydaberg School, Ketchikan Community College, Ryan Jr. High School and Zion Lutheran Church (Fairbanks), Regional High School Gym (Nome), UAS Library, Sacred Heart Catherdral, Fairbanks 1966 (Part of design team) | Obituary[i]<br>Firm Profile[ii]<br>AIA 1970[iii]<br>PCAD[iv]<br>Fairbanks Daily News Miner[v] | Joy Elementary - notable work in FAI, had wrinkled metal roof, round<br><br>AIA Chapter President in 1970 |
| Akimoto, Jackson<br>1923-2007 | | Seattle<br>Anchorage | x<br>1950s-1980s | Bartlett High School (Anchorage) | Obituary[vi] | co-owner of JR Heritage Construction |
| Alley, Ralph Martin, Jr.<br>1935-Present | Ralph M Alley<br>Alley Architectural Group | Anchorage<br>Anchorage | 1968-<br>at least 1973-75 | Robert B Atwood Residence, apartment building for LW Hines, Wonder Park elementary School (All Anchorage); Matanuska-Susitna Community College plan | AIA 1970[vii] | consultant to Donald J Coolidge<br>There is a Ralph M Alley Architects in Temecula, CA; Linked In account says interior design and space planning, residential planning |
| Bell, Thomas and Upjohn, Hobart | Bell and Upjohn | New York City | 1940s | Saint Matthew's Episcopal Church, Fairbanks 1948 | Hoagland[viii] | |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Bourne, Thomas B. | Thomas Bourne and Associates, Inc. | International | 1951-mid1970s | Cordova Public School Glover Building, Anchorage. Known internationally for airports - Fairbanks Airport Terminal (1951) | AIA 1962[ix] Firm Profile[x] | AIA lists offices in Hawaii, Washington, DC, Okinawa, Thailand, Taiwan, Cambodia, and Tokyo; Foreign Business Corporation |
| Bowles, Andrew Donald 1917-1994 | Quick and Maguolo<br>Super, Hummel, Hummel and Jones<br>Andrew Bowles Architecture<br>Senior Architect USACE Alaska | Idaho?<br>Idaho?<br><br>Boise, Idaho<br>Anchorage | 1946-1947<br>1950-1952<br><br>1952-1966<br>1966- 1982 | Snettisham Hydroelectric Power Project (Juneau)<br>Kenai Peninsula Flood Control (1961)<br>fallout shelter blower, patent no. 199, 052, 66 | AIA, 1956[xi]<br>AIA 1962[xii],<br>AIA 1970[xiii]<br>Obituary[xiv] | Licensed in Idaho and Alaska, AIA Idaho Chapter Member, USACE 1942-43.<br>The Snettisham Hydroelectric Power Project near Juneau – placing power house in solid rock and adjacent to the mountain to protect the aesthetics – won national honors |
| Bridges, Jim L. 1930-? | Devlin and Bridges<br>Jenkins and Bridges | Odessa, TX<br>Anchorage | 1967-1969<br>1970-at least 1976 | Served as on Alaska Historic Sites Committee (precursor to SHPO), appointed by Governor Egan | AIA, 1970[xv] | Moved to Alaska 1970<br>1974 Chairman of AIA Anchorage Section<br>Also licensed in Texas |
| Bunnell, Arthur Moe | | Anchorage | 1965-at least 71 | Kenai Municipal Airport, Main Armory Building at DMVA Alcantra, Wasilla | AIA Historical Directory[xvi]<br>City of Kenai[xvii] | AIA Member 1966-67 |
| Cannon, Kenneth D. 1929-1988 | Alaska Road Commission<br>CCWJ (Crittenden, Cassetta, Wirum and Jacobs)<br>CCWC (Crittenden, Cassetta, Wirum and Cannon)<br>CCC (Crittenden, Cassetta and Cannon)<br>CCC/HOK (Crittenden, Cassetta and Cannon/Hellmuth-Obata-Kassabaum) | Anchorage<br>Anchorage<br><br>Anchorage<br><br>Anchorage<br><br>Anchorage | 1946-1960<br>1962<br><br>1962-1970<br><br>1970-1989<br><br>1970-1982 | Sheraton Anchorage Hotel, Project Manager; William A. Egan Civic and Convention Center (83); Atlantic Richfield Basecamp Expansion at Prudhoe Bay; Alyeska Pipeline Permanent Housing Project; McLaughlin Youth Center Cottages, | AIA 1970[xviii]<br>OHA Files[xix] | Principal and President of CCC<br>AIA Alaska Chapter President |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Moore and Bartlett Halls, 1966 and 1970, UAF | | |
| Cassetta, Lucien Anthony<br>1919-1994 | Mithun and Nesland<br><br>Mallis and Dehart Assoc<br>Johnston Campanella Architects<br>Edwin Crittenden, Architects & Associates (Partner)<br>CCWJ (Crittenden, Cassetta, Wirum and Jacobs)<br>CCWC (Crittenden, Cassetta, Wirum and Cannon)<br>CCC (Crittenden, Cassetta and Cannon)<br>Cassetta Krochina (1982--88)<br>Studio 21 | Bellevue, WA<br><br>Seattle<br>Seattle<br><br>Anchorage<br><br>Anchorage<br><br>Anchorage<br>Anchorage<br><br>Anchorage<br>Albuquerque, NM | 1955<br><br>1956<br>1956-1957<br><br>1958-1962<br><br>1962<br><br>1962-1970<br>1970-1982<br><br>1982-1988<br>1988-1994 | Anchorage Natural Gas Building (69), Bristol Bay High School (69), McLaughlin Youth Center (67), Air Traffic Control Center, Anchorage (67), Orah D Clark Junior High School, Anchorage (58), 1st Federal Savings and Loan Association, Spenard (60), Consortium Library at UAA (73) | AIA, 1962[xx]<br>AIA 1970[xxi]<br>OHA Files | Born in San Francisco Bay area (Oakland), attended University of Washington; Weather forecaster for US Army in WWII; AIA Alaska Chapter President 1966, Vice President 1965 |
| Cochran, Victor E<br>1906-1978 | Jaccobberger and Smith<br>Cochran and Zeller<br>Government Architectural Dept., Bonneville Power Administration<br>Tourlelott and Hummel<br>Victor E Cochran, architect<br>US Army Corps of Engineers, architect<br>Robert Thompson Architect<br>Federal Aviation Agency<br>US Army Corps of Engineers, architect | Portland<br>Portland<br>Portland<br><br><br>Boise, ID<br>Portland<br>Portland<br><br>Portland<br>Anchorage<br>Anchorage | 1929-1930<br>1931-1938<br>1938-1941<br><br><br>1954-1955<br>1945-1956<br>1958-1959<br><br>1959-1960<br>1960-1962<br>1962- 1966? | Bonneville Dam facilities in Oregon, airports terminal and housing facilities in Alaska | OHA Files<br>AIA 1956[xxii]<br>AIA Architects Questionnaire 1946[xxiii]<br>AIA Membership[xxiv] | US Navy (WWI) US Coast Guard (WWII); Born in Billings, MT; Trained as structural and mechanical engineer, architecture school at U of O and OSU in Oregon |
| Coolidge, Donald James<br>1922-2003 | Crittenden and CCC<br>Coolidge and Mayo<br>DJ Coolidge<br>CCC (Crittenden, Cassetta and Cannon) | Anchorage<br>Anchorage<br>Anchorage<br>Anchorage | 1952-<br>1965-1966<br>1966-1977<br>1966-1977 teaming | City of Anchorage Water Utility Headquarters (1966), Albert S Kaloa Jr Memorial Buildings (1966), Mackay Office | AIA, 1970[xxv]<br>Consortium[xxvi] | Engineer, USACE 1943-1945; AIA 1964 Alaska Chapter Secretary; Born Lewiston, ID moved to Alaska in 1949; left Alaska to go to school in |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Building (1969), Wonder Park Elementary Building | | 1950-1952 to become an architect; AK State Council on the Arts 1975, retired 1977 |
| Cotting, Roger Bruce<br>1931-? | Roger B Cotting<br>Gray, Rogers, Cotting<br>Roger B Cotting | Fairbanks<br>Fairbanks<br>Fairbanks | 1959-1965<br>1965-1969<br>1969-at least 1970 | North Pole School (1966), First All Electric Home in Fairbanks "Purcell Home" (1965), Alaska 67 Alaskaland/Pioneer Park Design, Aurora Building, Moose Creek School, Medical Dental Arts Building, North Pole Library, adaptive additions to numerous historic buildings, Burgess Office Building (69), Nerland Office Building (70), Adak Hospital (70) | AIA, 1970[xxvii] | Partner in company that owned Chena Hot Springs (1970s and 1980s); Gary was an engineer, Rogers a Land surveyor; Alaskaland/Pioneer Park was a chief investor, putting up $60,000 (equivalent of $400,000 today) for design and preliminary work |
| Crittenden, Edwin Butler<br>1916 - 2015 | US Coast Guard, Architect<br>Roy C Wilson, Architect<br>Alaska Housing Authority, Technical Director<br>Edwin B. Crittenden, Architect<br>Edwin B. Crittenden and Associates<br>CCWJ (Crittenden, Cassetta, Wirum and Jacobs)<br>CCWC (Crittenden, Cassetta, Wirum and Cannon)<br>CCC (Crittenden, Cassetta and Cannon)<br>CCC/HOK (Crittenden, Cassetta and Cannon/Hellmuth-Obata-Kassabaum)<br>Crittenden Krochina | California?<br>Santa Paula, CA<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage | 1942-1946<br>1946-1948<br>1949-1951<br>1951-1955<br>1955-1958<br>1958-1962<br>1962-1970<br>1970-1989<br>1970-1982<br>1978? | Hotel Captain Cook First Tower, St Mary's Episcopal Church (ANC), Prudhoe Bay Main Camp, Anchorage Old Federal Building Court House Addition (1958), Hillcrest Presbyterian, Shiloh Baptist, unknown Catholic chapel in Spenard, unknown Lutheran church in Spenard, addition to Calvary Baptist, First Methodist (1955), Austin House (Sheldon Jackson Campus, Sitka), Egan Convention Center and Conoco Phillips tower in | AIA, 1962[xxviii]<br>AIA 1970[xxix]<br>Hoagland[xxx]<br>DOE[xxxi]<br>Interview[xxxii]<br>Obituary[xxxiii] | Father of arctic architecture in Alaska, known globally for cold weather design and has co-authored educational materials for architectural students; often called "the father" or "dean" of Alaska architecture, first Alaska AIA Fellow 1975; The Edwin Butler Crittenden, FAIA Award for Excellence in Northern Design is given annually in his name. Helped establish the AIA Alaska Chapter, president twice. |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | ANC, Anchorage Visitor Information Center Cabin (1954), UAF President's House 1958, Bartlett High School and Central Middle School of Science (Anchorage), The University District (UAA Master plan, Providence Hospital, McLaughlin Youth Center Campuses), Sitka U.S. Post Office modifications with Robert Fehlberg, Conoco Phillips Tower and Egan Convention Center (Anchorage) | | Technical Director of the Alaska Housing Authority. Crittenden, Cassetta, Cannon/Hellmuth, Obata and Kassabaum, Inc. completed the Base-line Studies of the Physical and Manmade Environment in The Beaufort Sea Region for oil and gas exploration 1977 |
| Elliott, Edward Proctor<br>1916-? | Walter Bogner, Architect<br>Eero Saarinen and Associates<br><br>Elliot and Dworski<br>Knorr Elliot and Associates, Architects<br>Lackey Knorr Elliott<br>Graham Knorr Elliott<br>Lane Knorr Elliott<br>Lane-Knorr-Plunkett | Michigan<br>Bloomfield Hills, MI<br>Birmingham, MI<br>San Francisco<br><br>San Francisco<br>Anchorage<br>Anchorage<br>Anchorage | pre-1952<br>1945-1952<br><br>1952-1958<br>1957-1976<br><br>1958 team<br>1970-1983<br>?<br>1970-1984? | UAA College of Arts and Sciences (1974)<br>UAF Gruening Building 1973 (Graham Knorr Elliot) | OHA Files<br>Hoagland[xxxiv]<br>PCAD[xxxv] | Attended Cranbrook Academy of Art in Michigan, worked with Eero Saarineni |
| Ensign, Melverne Coats | Arizona State University College of Architecture, instructor | Arizona<br>Alaska | 1950-1963<br>1963-? | Haines Presbyterian Church (69) - destroyed<br>Navajo Dept. prefab neighborhood, Prescott, AZ (53-54) | OHA Files | |
| Fehlberg, Robert<br>1926-present | CTA Architects, Engineers, Planners<br>Robert Fehlberg Architects<br>R.Fehlberg Architects | Billings, MT; ID, WY<br>Sitka, AK<br>San Francisco | 1958-1987<br><br>1992-2007<br>2007-present | Sitka Post Office modifications, Wolf Point High School, MSU Life Sciences Building, Missoula Community Hospital, Fortlin Education Center at | Crittenden Obituary[xxxvi]<br>AIA 1970[xxxvii]<br>Linked In[xxxviii]<br>AIA Network[xxxix] | Worked with Edwin Crittenden on the modification of the Sitka Post Office (NRHP) to accom. city court; Current AIA directory says contact is now |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Rocky MT College Billings | | Robert Fehlberg Architects in Pleasanton, CA; AIA Fellow, East Bay Chapter; 1974 AIA NW Region Director |
| Field, Gerald Castle<br>1919-? | Gerald C Field Architect | Seattle, WA | 1919-at least 1950s | Government Hill Housing Development, 682 units in multi-family dwellings, Anchorage (49-51) | OHA Files<br>AIA Historical Directory[xl]<br>PCAD[xli] | worked in AK under the Alaska Pacific Development Corp (Seattle)<br>AIA Member 1918-1924<br>art deco designs in Seattle |
| Filler, George | US Department of the Interior<br>Alaska Dept. of Public Works, State Architect<br>George Fuller Architect | Juneau<br>Anchorage<br><br>Anchorage/WA | 1956-1959<br>1959-1968<br><br>1968-1979 | Housing developments and adaptive reuse in Juneau, 1970s-1980s | AIA 1970[xlii]<br>Legal[xliii] | AIA Member 1962, Moved to Alaska in 1956, Part of a failed venture partnership to purchase the 20th Century Gross Building (Movie Theater) in Juneau, employed Wayne Jensen, 2016 president of Jensen, Yorba and Lott, Inc. |
| Forrest, John Stevens<br>1937-1991 | Linn A Forrest | Juneau | 1952- ~1970 | Glacier Observatory/Mendenhall Glacier Visitor Center, Juneau (62), Fairbanks Pioneers' Home, Auk Bay Elementary School and Centennial Museum (Juneau, 67), Blatchy Junior High School and Swimming Pool, Sitka (67) | AIA 1970[xliv]<br>AIA Historical Directory[xlv] | Son of Linn Forrest; Designed the now demolished Alaska State Museum (Centennial Museum) in Juneau |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Forrest, Linn Argile , Sr. 1905-1987 | F Mason White<br>Hugh Thompson<br>Roi L Morn<br>Whitehouse, Stanton & Church<br>US War Department, Bonneville Power Administration<br>US Forest Service, architect (Regions 6 and 10)<br>Alaska Public Works Commission/Civilian Conservation Corps<br>Linn A Forrest | Portland<br>Bend, OR<br>Portland<br>Portland<br>Portland<br>Portland and AK<br>Juneau<br>Juneau | 1926-1927<br>1927-1928<br>1929<br>1929-1931<br>1932-1934<br>1934-1952<br>1937-1939<br>1952-1987 | Juneau-Douglas High School (60), University of Alaska Phys Education Building (62) and Geophysical Institute (68), Petersburg Elementary School (68), Sitka Branch of First National Bank (70), Mendenhall Glacier Visitors' Center - Determined NRHP Eligible (62), Wrangell, Chief Shakes Community House (39-40); Chief Son-i-hat House (38-39); Totem Bight Community House (40) Saxman, Tribal House; UAF Patty Gymnasium (63), Timberline Lodge, Mount Hood, Oregon - NRHP (38), Bonneville Dam, Oregon (34), Kake Elementary School (52), Chapel by the Lake, Auke Bay, Juneau 1958 (with Harold Foss) | AIA 1956[xlvi]<br>AIA 1970[xlvii]<br>Hoagland[xlviii]<br>Firm[xlix]<br>DOE[l]<br>NPS[li] | Forest Service Architect noted for contributions to SE Alaska landscape; passionate about Native Alaskan culture and built environment; Author of "The Wolf and the Raven" and "Tale of an Alaskan Whale;" AIA Alaska Chapter President 1955, 1970 Board of Directors, awarded the first Ion Lewis Traveling Fellowship in 1931 |
| Foss, Harold Byron 'Hal' 1910-1988 | HB Foss Company<br>Foss Malcolm<br>Foss, Malcolm and Olsen<br>Foss Olsen<br>Foss Olsen Sands | Juneau<br>Juneau<br>Juneau<br>Juneau<br>Juneau | 1935-1945<br>1945-1949<br>1949-1951<br>1951-1956<br>1956-1958 | Juneau Memorial Library (1950, Now Juneau Douglas City Museum), Juneau City Hall (50-51), Terminal at Juneau International Airport (48-49 and 56-57), Bethel Hospital, Bethel Armory (56-57), Alaska State Office Building, Juneau (52), UAF Eielson Memorial Building upper | AIA 1956[lii]<br>Firm[liii]<br>Wiki[liv] | Signed William Manley and Francis Mayer's 1949 AIA Application; Credited as having established the oldest architecture firm in Alaska |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | levels (1940), Petersburg Hospital (54), Mt Edgecumbe Hospital, Sitka (47-48), UAF Constitution Hall, 1956 (Hoagland, 225), UAF Brooks Building 1952 (Hoagland, 225) Chapel by the Lake, Auk Bay, Juneau 1958 (with Linn Forrest), Buckner Building (53) and Hodge (now Begich Towers) Building (54-56), Whittier, Cathedral Arms Apartments in Sitka (50) with Earl W Morrison | | |
| Fritsch, Margaret Goodin 1899-1993 | Morris H Whitehouse<br>Horace W Castor<br>Georgina Pope Yeatman<br>Jamieson Parker<br>Margaret G Fritsch<br>Harland Nelson and Associates<br><br>Juneau/Douglas | Portland<br>Philadelphia<br>Unknown<br>Portland<br>Portland<br>Lake Oswego, OR<br>Juneau | 1925-1929<br>1929<br>1930-31<br>1932-1935<br>1935-1956<br>1956-1957<br><br>1957-1969 | Juneau City Plan (57-59) Vancouver Washington Urban Renewal (60) Pullman Washington City Plan (60-61) | AIA, 1962[lv]<br>AIA 1970[lvi]<br>Wiki[lvii]<br>Encyclopedia[lviii] | AIA Member 1936, Oregon Chapter; 1970 member Alaska chapter, Moved to Juneau in 1957 as a planner for Juneau-Douglas; City Planning emphasis; First female grad at UofO School of Architecture (23) and first female to receive a license in architecture in Oregon (26) |
| Fullingim, Earl Peyton 1926-2014 | Earl Fullingham, Architect<br>Anchorage School District, Director of Architecture<br>University of Alaska, Regional Architect<br>Municipal Building Board<br>Governor's Committee on Employment of Persons with Disabilities<br>Alaska Housing Finance | Minneapolis<br>Anchorage<br><br>Anchorage<br><br>Anchorage<br>Anchorage<br><br><br>Anchorage | 1949-1964<br>1972-1975<br><br>1977-1981<br><br>1972-1984<br>1977-1981<br><br><br>1987-1995 | Architect for restoration work after the 1964 Alaska Earthquake. He was a member of the President's Committee on Employment of Persons with Disability and a member of the International Code Council. He wrote, | AIA 1970[lix]<br>Archives[lx][lxi] | 1974 AIA Alaska (on letterhead in Mayer's AIA file)<br><br>1964 Earl and his family moved to Anchorage; Moved to Port Angeles, WA in 2004<br><br>Buried at the Fort |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
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| | Corporation, Weatherization Policy Advisory Council | | | illustrated and published two books on accessibility to buildings and facilities for persons with disabilities, one of which is used on the website of the Alaska Division of Vocational Rehabilitation and the Washington Disability and Business Technical Assistance Center (*Checklist for Accessibility, 1992)* | | Richardson National Cemetery |
| Geron, Harry Rufus<br>1922-2008 | Texas Highway Department<br>O'Neil Ford<br>Unknown<br>Unknown<br>CCWC | Texas<br>Texas<br>Tacoma, WA<br>Fairbanks<br>Anchorage | N/A<br>x-1951<br>~1955?<br>1963-1967<br>1967-~ 1970 | instructor in building construction at the Anchorage community college; Practiced for 40 years in Alaska, both Anchorage and Fairbanks | AIA 1970[lxii]<br>Obit[lxiii] | USAF Captain 1942-1946, flew 23 missions over the European Theater as a navigator in the Army Air Corps during World War II. president of the Alaska Flyfishers Club, AIA Chapter President, ardent collector of sportsmans gear/tackle; Moved to San Antonio 1997 |
| Graham, Jennings Heber "Jinks"<br>1924-2001 | GA Pehrson<br>George C Ritter<br>Stationed at Ladd Field (Korean War)<br>Alaska Architects and Engineering Co<br>Gray, Rogers, Graham and Associates/Gray, Rogers, Graham and Osbourne<br>Olsen and Sands (partner)<br>Private Practice | Spokane, WA<br>Spokane, WA<br>Fairbanks<br><br>Fairbanks<br><br>Fairbanks<br><br><br>Juneau<br>Ketchikan | 1947<br>1947-1950,<br>1953-56<br><br>1951-1953<br><br>1956<br>1957-1960<br><br>1960-1964<br>1964-? | Fairbanks Super Market, Bowling Alley (59), Fairbanks Elementary School (60), Wasilla Elementary School (61), Armory Building, Bethel (61), Mens Dormitory, UAF (61), Ketchikan Bank Building (61), Ketchikan Centennial Building (67), State Court and Office Building, Juneau, Site plan for | AIA, 1962[lxiv]<br>Obit[lxv] | Alaska Historical Commission member; Ketchikan's First Architect |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | University of Alaska Southeast | | |
| Graham, John H., Jr. (known as Jack)<br>1908-1991 | Graham Company (with Sr.)<br>Graham Company - Branch Office called Graham and Painter<br>John Graham (Jr.) and Company<br>Merged with DLR Group | Seattle<br>New York, D, Seattle, Shanghai<br>Seattle<br>Seattle | 1937-1946<br>1937-1942<br>1946-1986<br>1986 | Alaska State Office Building, Juneau (1972) with CCC/HOK, Edgewater Park (1939) in Seattle, Northgate Shopping Center in Seattle (1950), Westin Towers Seattle (1969, 1982), Lloyd Center, Portland (60), 44-story Wells Fargo Building in San Francisco (1966), Seattle Space Needle (1962) with Victor Steinbrueck | AIA 1970[lxvi]<br>DOCOMOMO [lxvii]<br>PCAD[lxviii] | Founded in 1900 by John Sr., By 1949, the firm employed thirty-two draftsmen, designers, structural, mechanical and electrical engineers. Registered in Alaska, and 19 other states, NCARB cert., Avid yachtsman |
| Gray, Rogers, Graham and Associates<br>1957-1960 | Gray, Rogers and Cotting<br>Gray, Rogers, Myers and Morgan | Fairbanks<br>Fairbanks | 1965-1969<br>1970 | See individual architects of Cotting, Graham | AIA 1970[lxix] | |
| Groves, George Wesley | George W Groves Architect | Seattle, WA | 1953?- | design of the Revilla Theater in Ketchikan (54) | OHA Files<br>AIA 1956[lxx]<br>AIA, 1962[lxxi] | |
| Hansen, Gary Valentine<br>1935-? | Gary Hansen<br>Danadjieva Hansen Architects, Inc. | Anchorage<br>Tiburon, CA | 1965-1980<br>1980 -2008? | Voyager Hotel, Anchorage 5th Ave (66), Owen Meals Residence, Valdez (66), Soldotna Elementary School Multi-purpose Building (68), William H Seward School, Seward (69), Master Planning for the University of Alaska, UC | AIA 1970[lxxii]<br>Firm[lxxiii] | Practiced in Alaska and California; registered in Alaska, California, U.K. and British Columbia British Citizen, Known for concrete works, energy conservation, sustainability, Author of *It: The Architecture of Existence, Vol. 1-4,* 2008 |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Davis Medical Center, Sacramento | | |
| Heilmuth, Obata and Kassabaum, Inc., | HOK | St Louis, San Francisco, New York, DC, Dallas | 1955-present | St Louis Abbey (62), Eagan Civic and Convention Center Anchorage (With CCC), BP Building (82-85), US Federal Courthouse (with John Graham and CCC, 76-79, Anchorage), Major airports and skycrapers in most major international cities | AIA 1970[lxxiv]<br>Hoagland[lxxv]<br>Firm[lxxvi] | Teaming partner with CCC beginning in 1968/69, international offices including LA, Hong Kong, Tampa, London, Dubai, Tokyo, Chicago, Ottowa, Toronto, Beijing, Shanghai, Mumbai, Seattle, Philadelphia |
| Hightower, Harley H. | Chief State Review Architect for all medical facilities<br>Lane+Knorr Architects and Planners<br>Harley H Hightower Architect, FAIA | Anchorage<br>Anchorage<br>Anchorge | 1960s?<br>1980s<br>x-2014 | primary works were above the Arctic Circle and in Antarctica | OHA Files<br>Resume[lxxvii] | AIA member 1975, 2007 Fellow; Helped establish and taught in the Northern Design Program and the Architectural and Engineering Technology Program (UAA)" |
| Jacobs, Arthur Roland 1926-2000 | US Army Corps of Engineers<br>Crittenden, Cassetta, Wirum and Jacobs<br>Jacobs and Husbey Engineering<br>ABKJ (mergers with Jacobs and Husbey Engineers) | Anchorage<br>Anchorage<br>Anchorage and Seattle<br>Anchorage and Seattle | 1951<br>~1954-1962<br>1962-1970?<br>1970-1988 | Prudhoe Bay ARCO Operations Center (1977 as ABKJ), high rises in Anchorage in 1980s (Petersen Tower), SeaTac Airport Expansion, Alaska Native Heritage Center, Alyeska Prince Resort, ANC Airport FAA Tower, Sullivan Arena | PCAD[lxxviii]<br>Obit[lxxix]<br>Firm[lxxx] | Principal Engineer who designed many of the buildings that survived the 1964 earthquake, "Hardhat Art" was one of a few engineers allowed back into Alaska post-quake to survey damage; buried at Fort Richardson |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Jenkins, Morris Troy<br>1923-2000 | Broome, Selig and Oringdulph<br>Manley and Mayer<br>Jenkins and Bridges Architects<br>Inlet Architects | Oregon<br>Anchorage<br>Anchorage<br>Anchorage | 1959-1965<br>1965-1970<br>1970-~1976<br>1978? | N/A | AIA 1970[lxxxi]<br>Obit[lxxxii] | 1974 VP of AIA Alaska<br>WWII 11th Airborne "Angels" Drop Member<br>Died in Troutdale, OR |
| Johnson, William Arlid<br>1906-1989 | Heath, Cove and Bell<br>J. Braeaseman<br>William Arlid Johnson and Assoc.<br>William Arlid Johnson and Assoc. | Tacoma, WA<br>Tacoma, WA<br>Everett, WA<br><br>Alaska | 1924-1926<br>1928-1938<br>1938-1975<br><br>1976-1989 | Schools in Anchorage, Sitka, Ketchikan High School, Palmer, Kodiak and others, Mendenhall School (Juneau), Anchorage Pioneers' Home remodel, Sitka Elementary (Lincoln Street School?) and High School, Palmer High School, Wrangell High School Addition, Kodiak Elementary and High School | AIA 1956[lxxxiii]<br>AIA, 1962[lxxxiv]<br>OHA Files | Author of numerous journal articles<br>"Economies in the Planning and Construction of Schools" 1948, 1950<br>"Advantages of Square Classrooms" 1949 |
| Jorgensen, Vetle W.<br>1933-? | Alaska State Housing Authority Architect | Fairbanks?<br>Denmark/Seattle | 1968 | Rammed Earth House 1968, Kotzebue | Hoagland[lxxxv] | AIA Member 1971; AK License expired 1993, Current address is Nairobi, Kenya; still in practice as of 2014 in Kenya |
| Kahn, Albert<br>1869-1942 | Mason and Rice<br>Nettleson and Trowbridge<br>Kahn and Associates<br>(continued after Kahn's death) | Detroit, MI<br>Detroit, MI<br>Detroit, MI | 1884-1889<br>1892-1902<br>1902-1942 | Composite Buildings at Dutch Harbor Naval Operating Base/Fort Mears and Amaknak, Military prefab buildings | Hoagland[lxxxvi]<br>AIA Historical Directory[lxxxvii]<br>Biography[lxxxviii] | AIA Fellow 1918;<br>Pioneer of industrial design, including nearly 500 factories in Russia and training thousands of Soviet architects, his firm produced 19% of all architect-designed industrial building in the US; plants for Chevrolet, Fisher Body, Ford Motor, and the Wright Aeronautical Corp (Now General Electric Aircraft Engines) |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Kantz, Ralph Clayton, Jr. 1916-1986 | Schmidt, McVay and Peddie<br>County of Santa Barbara, Planner<br>Brewer and Kantz Architects<br>Robert Kaestner, AIA<br>Clayton Kantz<br>Phillio Engineering and Architectural Services<br>University of California, Office of the President, Physical Planning and Construction<br>Parsons Company | Unknown<br>Santa Barbara, CA<br>Owosso, MI<br>Visalia, CA<br>Redding, CA<br>Fairbanks<br>Berkeley, CA<br>Pasadena, CA | 1946<br>1947<br>1946-1947<br>1948-1949<br>1950-1961<br>1962-1963<br>1963-70s<br>1980s | NASA Tracking Station, Clear Creek, Alaska (63) AKA Clear Station | AIA 1956[lxxxix]<br>AIA 1962[xc],<br>AIA 1970[xci] | Registered in Alaska, California, Michigan, Washington, Attended Cranbrook Academy in Michigan, engineer in charge of all buidlings, Klammath Falls, Oregon Naval Air Station (blimps) 1943-44 |
| Keithahn, Richard "Dick" Edward 1933-? | US Coast Guard, Chief of Structural Section<br>RE Keithahn, Architect | Juneau<br>Lopez Island, WA | 1970-1987<br>1987-1999 (retired) | Kul Kah Han Native Plant Garden, Chimacum, WA (2013) | AIA 1970[xcii]<br>License[xciii]<br>Newspaper[xciv] | Born in Ketchikan, graduated WSU in 1956 in Architectural Engineering; Licensed in Alaska 1957-1997, Licensed in Canada, Currently lives in Port Ludlow, WA |
| Ketola, Andrew 1931-1997 | CCWJ<br>Manley and Mayer<br>Wallace Weinstein<br>John Graham Company<br>Design Group<br>USKH<br>Bezek, Durst, Seiser (est 1981)<br>Krochina Architects | Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage | 1965<br>1966<br>late 1960s<br>1970s<br>1980s<br>1980s<br>1981-?<br>1990s-1994 | N/A | OHA Files | Moved to Anchorage in 1965 |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Kirk, Paul Hayden 1914-1995 | Floyd Naramore, A.M. Young, B. Dudley Stuart, and Henry Bittman<br>Chiarelli & Kirk<br>Paul Hayden Kirk & Associates<br>Kirk, Wallace, McKinley and Associates | Seattle<br>Seattle<br><br>Seattle<br>Seattle<br>Seattle | N/A<br>1944-1950<br><br>1950-1957<br>1957-1960<br>1960-1979 | Anchorage Museum of Art and History (original 1966-1968), Pike Place Market plan and rehab (1969, with John Morse) | Hoagland[xcv]<br>DOCOMOMO [xcvi] | AIA Fellow 1959 |
| Kirk, Wallace, McKinley and Associates | Kirk, Wallace, McKinley and Associates | Seattle | 1960-1979 | Anchorage Museum of Art and History (original 1966-1968) with Schultz/Maynard, Pike Place Market plan and rehab (1969, with John Morse) | Hoagland[xcvii] | John Morse (Glacier Bay) worked for Wallace and McKinley iteration |
| Knorr, Donald Robert 1922-2004 | Eero Saarinen and Associates<br><br>Skidmore, Owings and Merrill<br>Don Knorr and Associates<br>Knorr Elliot and Associates, Architects<br>Lackey Knorr Elliott<br>Graham Knorr Elliott<br>Lane Knorr Elliott<br>Lane-Knorr-Plunkett<br>Don Knorr and Associates | Bloomfield Hills, MI<br><br>San Francisco<br>San Francisco<br>San Francisco<br><br>San Francisco<br>Anchorage<br>Anchorage<br>Anchorage<br>San Francisco | 1945-1949<br><br>1949-1951<br>1951-1957<br>1957-1976<br><br>1958 team<br>1970-1983<br>1970-~ 1984<br>1979-~1983<br>1983 | Supervision of student housing construction UAF (63 Lackey Knorr, Elliot), University of Alaska, Fairbanks Master Plan (with Lawrence Lackey 1965), UAF Gruening Building 1973 (Graham Knorr Elliot) | OHA Files<br>AIA 1970[xcviii]<br>Hoagland[xcix]<br>PCAD[c]<br>Clark and Belloli[ci] | Attended Cranbrook Academy of Art in Michigan, worked with Eero Saarineni |
| Kozlovski, Joseph | N/A | Juneau | N/A | N/A | AIA 1970[cii] | AIA Portland Chapter Member, 1964 |
| Lackey, Lawrence 1914-1995 | Lawrence Lackey, AIA<br>Lackey Knorr Elliott | San Francisco<br>San Francisco | 1959-?<br>1958 teaming | UAF master plan with D. Knorr | AIA 1970[ciii]<br>PCAD[civ] | |
| Lautner, John 1911-1994 | Taliesin Fellows East and West<br><br>Lautner Associates | Wisconsin and Arizona<br>Los Angeles, CA | 1933-1938<br><br>1938-1994 | The Willis Harpel House No. 2 (Anchorage, 1966), Leonard Malin residence (the Chemosphere in L.A.), Sheats-Goldstein residence (L.A.), Garcia Residence (L.A.) Marbrisa (concrete moat, Acapulco, Mexico) | Foundation[cv]<br>Modernist[cvi]<br>History[cvii] | Father of "Googie" - Frank Lloyd Wright's Taliesin Fellowship at East (Spring Green) along with his wife, worked under Frank Lloyd Wright for six years; genius of concrete molding;. "It is |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
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| | | | | | | the ability to blur the line between home and habitat that make John Lautner's designs so incredible." |
| Lawson, Raymond Anson 1928-1994 | Skidmore, Owings and Merrill Unknown | Texas Anchorage, Valdez, Kodiak | 1960s 1964-? | Stephens Park Apartments (3200 Latouche St, Anchorage); Horizon West Apartments (Lst and 6th Ave, Anchorage); Stephan Building (733 W 4th Ave, Anchorage) One Main Place, Dallas (NRHP; for Skidmore, Owings and Merrill) | OHA Files | AIA Member 1971-74; Came to Alaska to rebuild after the 1964 earthquake |
| Linck, Lee Stanley 1919-1978 | US Smelting, Refining and Mining Company<br>US Army Corps of Engineers, Ladd Field<br>Alaska Architectural and Engineering Company | Fairbanks<br>Fairbanks<br>Fairbanks | 1940-1942<br>1942-1944<br>1945-1971 | Fairbanks, LF Joy Elementary School, 1960, with Douglas Ackley; Nordale Elementary (53) and Nerland Commercial Building (Fairbanks), Juneau Jail and Juvenille Detention Center, Fort Yukon High School, Chena Elementary School at Ft. Wainwright, Duckering Building (UAF), Creamer's Dairy Processing Plant, Royal Crown Bottling Plant, Eielson AFB Locomotive Roundhouse, Fairbanks Medical and Surgical Clinic, AIrports in Nondalton, Shaktoolik, Nenana, Fairbanks, and Harding Lake | Hoagland[cviii] OHA Files | Fairbanks local engineer, created innovative cold climate construction techniques using prefabricated materials and doing site testing for weatherization. His firm was the launch point for many Alaskan architects who went on to establish their own firms. Airports, schools, churches, hospitals, residential housing, recreational structures, industrial areas, government and military facilities |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Lunsford, Thomas Wesley 1932-? | CCWR (Crittenden, Cassetta, Wirum and Cannon)<br>Thomas W Lunsford Architectural Services | Anchorage<br><br>Nevada | 1969-~1970 | N/A | AIA 1970[cix] | US Navy 1951-55, From Oklahoma City, Licensed in Alaska from 1970-2015, lives in Las Vegas, NV |
| Maier, Frank G. 1932 - 1990 | Sands and Ackney<br><br>Frank Maier Architects | Juneau (born and raised!)<br><br>Juneau | 1965-1991 (Licensed)<br><br>1985? | AWARE Shelter (Juneau) | AIA 1970[cx]<br>Hoagland[cxi] | Joined AIA in 1970 , 1974 Secretary-Treasurer of AIA Alaska, Died in a fishing accident; The Juneau Marathon was renamed the Frank Maier Marathon in 1992; he was an avid runner |
| Malcolm, MacKay 1885-1951 | Foss Malcolm<br>Foss Malcolm Olsen | Juneau<br>Juneau | 1945-1949<br>1949-1951 | Juneau Public Library (1945; now the Juneau Douglas City Museum) | OHA Files<br>Firm[cxii] | AIA member 1949-death |
| Manley, William Arnold 1903-1979 | David C. Lange<br>L. Solberg<br>N. Lester Troast<br>Manley and Troast Architects<br>William A. Manley (Manley and Troast)<br>Manley and Mayer<br>William A. Manley | Moscow, ID<br>Wenatchee, WA<br>Juneau<br>Juneau<br>Anchorage<br><br>Anchorage<br>Washington | 1927-1928<br>1928-1931<br>1931-1933<br>1933-1937<br>1937-1947<br><br>1947-1972<br>1972-1976 | Howard Romig House (Anchorage; by Manley and Troast, first architecturally designed house in town, now the Copper Whale Inn at 5th and L), Loussac Sogn Building (Anchorage, kept his offices there too) Alaska Railroad Depot., Fairbanks Main School, Inlet Tower, Mt McKinley Bldg, Anchorage West High School, Grant Hall and Gould Hall at APU, Anchorage Intl Airport North Terminal, Bartlett High School (Anchorage) Sand Point School , Valdez School, Z. J Loussac Library (original), Ursa Major and Ursa | AIA 1956[cxiii]<br>AIA 1962[cxiv],<br>AIA 1970[cxv]<br>AIA Membership[cxvi]<br>Hoagland[cxvii] | Wiki has good list of buildings, Born in Washington, went to Douglas High School (Juneau), did **not** receive his degree after four years at UI Moscow, Linn Forrest (Alaska Territorial Board of Engineers) signed his 1949 AIA Record of Registration |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Minor Elementary Schools (Anchorage), Block 13 FHA Army Housing (1940) Denali School, Bunnell Building at UAF, Elemer E. Rasmuson Library (Fairbanks), Seward City Hall | | |
| Mayer, Francis Bernardo 1914-1985 | Heath Gove and Bell Architects<br>Sutton Whitney and Dugan<br>Joseph Wohleb<br>Lytle and Shorett Architects<br>Seims Drake Puget Sound Company<br>US Army Corps of Engineers<br>Civil Aeronautics Administration (CAA)<br>William A. Manley<br>Manley and Mayer | Tacoma<br>Washington<br>Olympia<br>Seattle<br>Sitka<br><br>Anchorage<br>Anchorage<br><br>Anchorage<br>Anchorage | 1932-1936<br>1937<br>1938<br>1939<br>1940-1941<br><br>1941-1944<br>1944-1946<br><br>1946-1947<br>1947-1972 | Original J.Z. Loussac Library, Homer High School, East ANC High School ('61), Inlet Tower, Mt McKinley Bldg, Anchorage High School, Grant HAll at APU, Anchorage INtl AIrport North Terminal, Bartlett High School (Anchorage), Sand Point School , Valdez School, Z. J Loussac Library (original), Denali School, Bunnell Building at UAF, Elemer E. Rasmuson Library (Fairbanks), Seward City Hall | AIA 1956[cxviii]<br>AIA 1962[cxix],<br>AIA 1970[cxx]<br>AIA Membership[cxxi] | Originally from Tacoma Appears to have joined in WWII effort: USACE and then CAA Mechanical Engineer , Linn Forrest (Alaska Territorial Board of Engineers) signed his 1949 AIA Record of Registration, Moved to Australia after retiring |
| Maynard, Kenneth Douglas 1913-? | Morross & Graff<br>Pearse Aneck-Hahn & Bristol<br>Pearse Aneck-Hahn & Bristol<br>Worked in teaming with Manley & Mayer<br>Crittenden Cassetta Wirum & Jacobs<br>Schultz & Maynard<br>Kenneth Maynard Associates<br>Maynard and Wirum<br>Maynard NBBJ (partnership of Maynard and Partch with Brady and Johnson of Seattle) | South Africa<br>Johannesburg<br>Anchorage<br><br><br>Anchorage<br><br>Anchorage<br>Anchorage<br>Anchorage | 1950-1957<br>1957-1960<br>1960-1962<br>1960-1961<br><br>1962-1965<br><br>1965-1968<br>1968-1974<br>1975-1978 | Anchorage Museum of History and Art (Schultz/Maynard), Museum West Addition (Maynard and Associates), Hotel Captain Cook Second Tower, 1970s, Helen S Whaley Center at APU 1972 (Maynard and Wirum), Cook Inlet Building (Maynard NBBJ, 1979), Museum Seventh | AIA 1970[cxxii]<br>OHA Files<br>Hoagland[cxxiii]<br>Obit[cxxiv]<br>Consortium[cxxv] | Part of every Anchorage Museum construction/expansion effort, Fellow: American Institute of Architects, president Alaska chapter 1969, Instrumental in post-earthquake damage assessments |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
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| | Maynard & Partch<br>Principal at USKH, Incorporated | <br>Anchorage<br>Anchorage | 1978-1996<br>1996-? | Ave Addition (Maynard and Partch 1984) | | |
| McCool, John E. | McCool McDonald<br>McCool (unnamed firm)<br>McCool, Carlson, Green (MCG) | Seattle<br>Juneau<br>Anchorage | ?<br>John: c.1965<br>MCG: 1970s | Sitka Centennial Bldg. oversight (67), Kenai Peninsula works, L Street Towers (inlet Towers) and McKay (Mt McKinley) Building post-earthquake work | OHA Files<br>Firm[cxxvi] | Came to AK to oversee Sitka Centennial Bldg. Construction<br>AIA member beginning 1976 |
| McDonald, Donald N. Sr. 1906-1964 | City of Seattle<br>McDonald Stimson<br>McDonald Architecture (?) | Seattle<br>Seattle<br>Seattle | 1927-1929<br>1930-1935<br>1938-1964 | Hotel Baranof, Juneau (39), Anchorage, Inlet Towers and McKinley Apartment Building in association with Earl Morrison (1951-1952) Registered Architect and Francis B. Mayer was the local architect. | DOCOMOMO [cxxvii] | Stimson also formed a partnership with Earl Morrison ;Designed buildings in Hawaii also |
| McEntire, Merle Rodney 1921-1996 | Foss, Malcolm, Olsen<br>Alaska Architectural and Engineering Company<br>McEntire and White<br>McEntire, White, Pendergrast and Jellison<br>McEntire-Pendergast Architecture<br>State of Alaska, Regional Review | Juneau<br>Fairbanks<br><br>Fairbanks<br>Fairbanks<br><br>Anchorage<br><br>Anchorage | 1951<br>1953<br><br>1957-1959<br>1959-1981<br><br>1981-1989 | 1966 Holy Family Church alterations for cathedral status (McEntire and Pendergast), Buildings A-E at UAA (1970), Kenai Peninsula Borough Building, Kenai Elementary School, Anchor Point, Tustumena, and Sterling school sites multi-purpose buildings, | AIA 1956[cxxviii]<br>OHA Files<br>Hoagland[cxxix] | 1952-1997 licensed, Territorial Board of Engineers and Examiners, Board of Examiners and Public Appeals, Territorial and Municipality of Anchorage Building Board, US Army, buried at Fort Richardson National Cemetery |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Oversaw Yang's Cordova Bldg. construction, (Anchorage) | | |
| McInnis, Francis Joseph Jr. "Frank" 1913-2004 | Wright and Wright<br>Edward G. Rosella<br>City of Detroit<br>Elmendorf AFB, AK Air Command<br>Construction Supervisor, US Air Command HQ | Detroit<br>Detroit<br>Detroit<br>Anchorage<br><br>Colorado Springs, CO | 1945-1946<br>1946-1947<br>1945-1951<br>1951-1955<br><br>1955-1962 | built family housing facilities at over 100 radar stations throughout the US (AIA 62) | AIA 1956[cxxx]<br>AIA, 1962[cxxxi]<br>Obit[cxxxii] | Michigan AIA Chapter 1950-1960, Lived in Anchorage, Orlando, Colorado Springs, San Francisco, Ramstein Air Base in Germany; Issaquah, WA |
| Mills, Edgar L. 1921-1967 | Heath, Gove and Bell<br>Rueger and Rueger<br>Lea, Pearsons and Richards<br>Jensen and Mills<br>EL Mills and Associates Architects (became GW Norris and Assoc in 1967, after death) | Tacoma, WA<br>Tacoma, WA<br>Tacoma, WA<br>Tacoma, WA<br>Seattle, WA | 1940-1941<br>1941-1944<br>1944-1949<br>1949-1962?<br>1962-1967? | Fairbanks Medical Complex, 4th Ave (1965-67), Radio Communications Building (1952); Holy Cross Catholic Church (1957); Apex Cleaners (1950) - all Tacoma; the Harrison Pistol Range (1953) for the Tacoma Police Department; Puyallup City Hall (1953) | OHA Files<br>AIA Historical Directory[cxxxiii]<br>DOCOMOMO [cxxxiv] | |
| Morgan, Charles, Rice, Jr., 1931-? | Gray, Rogers, Myers and Morgan | Fairbanks | 1969 | University Apartments, UAF (1970) | AIA 1970[cxxxv]<br>OHA Files | N/A |
| Morrison, Earl Wilson 1888-1955 | Morrison and Stimson<br>Morrison and Stimson/McDonald Stimson, Seattle Branch | Spokane, WA<br>Seattle | 1911-1926<br>1920-1954 | Anchorage, Inlet Towers and McKinley Apartment Building in association with Donald McDonald (1951-1952), Mendenhall Apartments, Juneau (50-52) with HB Foss, Ferris | Hoagland[cxxxvi]<br>AIA Membership [cxxxvii]<br>PCAD[cxxxviii]<br>Ketchikan[cxxxix]<br>Inlet Towers[cxl] | AIA Member 1923-1926; DOE for Inlet Towers says Morrison and McDonald on building plans with McDonald listed as an associate, One of the foremost |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Court, Ketchikan (50), Cathedral Apartments, Sitka (50) with HB Foss, Wingren Court (Marine View, 53) and Austin Tower (54 Tongass Tower) in Ketchikan (53), Edward and Ellen Cannon House (Spokane, NRHP listed) | | apartment designers in Seattle |
| Morse, John Moore<br>1911-2000 | Markus and Nocka Architects<br>Passive Defense Project<br>Kastner and Hibben Architects<br>C.B. Ross Company<br>George W Stoddard<br>Boeing Aircraft Company<br>Chiarelli and Kirk Architects<br>Bassetti and Morse<br>John M. Morse and Associates<br>Kirk, Wallace, McKinley and Associates | Boston<br>Boston<br>Washington, D.C.<br>Washington, D.C.<br>Seattle, WA<br>Seattle, WA<br>Seattle, WA<br>Seattle, WA<br>Seattle, WA<br>Seattle, WA | 1939-1940<br>1940-1941<br>1941<br>1941-1942<br>1942<br>1943-1945<br>1945<br>1947-1962<br>1962-2000<br>1969 proj team | Glacier Bay Lodge (66), Sitka National Historical Park (63-64, 68); With Frederick Bassetti: McChord AFB Housing, Union Washington Elementary School, Lynwood Shopping Center, Lynnwood Post Office, PUD Admin Building (Kennewick), Mercer Island Elementary School, Washington Corrections Center, Garfield Swimming Pool | AIA 1956[cxli]<br>AIA 1962[cxlii],<br>AIA 1970[cxliii]<br>AIA Historical Directory[cxliv]<br>DOCOMOMO [cxlv]<br>NPS[cxlvi] | AIA Member 1947-2000, 1968 fellow, Worked as an architect/engineer for Navy, Boeing, some NPS Mission 66 works, Teamed with Kirk, Wallace, and McKinley on Pike Place Market |
| Myers, Gerald D.<br>1929-? | Gray, Rogers, Myers and Morgan | Fairbanks | 1969 | Communication Satellite Corp, Talkeetna<br>Garden Apartments, UAF | AIA 1970[cxlvii] | 1970 member of Fairbanks Historic Preservation Commission |
| Neimi, Donald<br>1936-1986 | US Coast Guard, draftsman<br>S Linn A. Forrest Architects (Now MRV) | Juneau<br>Juneau | 1959<br>1960s-1986 | Fairbanks Pioneer Home Addition, Haines Learning Center, Juneau-Douglas High School Renovation, Auke Bay Fire Station (78) | OHA Files | Born and raised in Juneau, attended University of Washington and California Polytechnic Institute San Diego |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Olsen, Bjarne Carl<br>1913-2012 | B Dudley Stuart<br>HB Foss<br>Naramore, Bain, Brady and Johanson<br>Olsen Ridley and Olson<br>Olsen and Olson<br>Foss, Malcolm and Olsen<br>Foss Olsen<br>Foss Olsen Sands<br>Olsen Sands | Seattle<br>Juneau<br>Seattle<br><br>Seattle<br>Seattle<br>Juneau<br>Juneau<br>Juneau<br>Juneau | 1938-1939<br>1939-1941<br>1941-1945<br><br>1945<br>1946<br>1949-1951<br>1951-1956<br>1956-1958<br>1958-1968 | Alaska Office Building (Juneau), Bethel Hospital, Hodge Building (Begich Towers, Whittier), Juneau Municipal Airport Terminal Building, Dillingham High School, University of Alaska Bio-Sciences Building, Rehabilitation of the Mental Health Facility, Valdez (60), Bartlett Hospital, U of A labs for study of Musk Oxen, and the Alaska State Building. | AIA 1956[cxlviii]<br>AIA, 1962[cxlix]<br>Firm[cl]<br>Obit[cli] | Valdez Museum Historical Archive 2011.001.0204<br>Bjarne served as Vice President and Director of Alaska Ellis Airlines." |
| Olsen, George M.<br>1922-1994 | FAA<br>USACE<br>Public Health Services | Anchorage | 1961-? | Employed by FAA, Corps of Engineers and Public Health Services as an architect, involved in construction of personnel quarters, water and sewage treatment plans and hospital services in many rural areas(obit) | OHA Files | Built personal residence at Upper Fire Lake, Eagle River |
| Osborne, Edward Youmans<br>1930-? | Gray Rogers and Osborne<br>Py-Vavra Architects/Engineers | Wisconsin ?<br>Wauwatosa, WI | 1957-1965<br>1965-at least 1970 | Barnett Elementary School, UAF Faculty Housing and Married Student Housing (With Lackey, Knorr and Elliot | AIA 1970[clii]<br>License[cliii] | Licensed to practice in 1957, AIA member 1961, licensed to practice in AK and WI, Member of the Centennial Committee, 1964 AIA Alaska Chapter Secretary, born in Fairbanks |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Peck, Raymond Holmes<br>1917-1998 | Raymond H Peck<br>Peck and O'Brien<br>Peck and Detlie | Seattle, WA<br>Seattle, WA<br>Seattle, WA | 1943-at least 1963<br>1952<br>late 1950s | Polaris Hotel, Fairbanks (52) NRHP eligible 2008, The Polynesia Restaurant, Pier 51, Seattle (61), Dick's Burger Drive-Ins. Seattle (mid-50s) | DOCOMOMO[cliv]<br>PCAD[clv] | AIA Honor Award in 1962 |
| Pendergast, Myron "Mike" J.<br>1920-2003 | Pendergrast Architecture<br>McEntire and Pendergast | Kirkland, WA<br>Anchorage | 1954-1958<br>1958-1980 | Kenai Peninsula Borough Building, Kenai Elementary School, Anchor Point, Tustumena, and Sterling school sites multi-purpose buildings, Oversaw Yang's Cordova Bldg. construction, 1966 Holy Family Church alterations for cathedral status (Anchorage) | AIA 1970[clvi]<br>OHA Files<br>Obit[clvii] | UW School of Architecture, Seattle; Navy Seabee 1943-45, 1980 moved to Colorado, Arizona 1986, New Rockford, ND 1994, member Turtle Mountain Band, Chippewa |
| Peters, Richard Walter<br>1930-? | Detroit Steel Production Co.<br>Palmquist and Wright<br>Henry J. Abrams<br>Eero Saarinen and Assoc<br><br>Yamasaki and Assoc<br>Richard W Peters<br><br>Wyller, Killewich, Peters, Van Doren, Hazard Architects and Engineers | Detroit, MI<br>Detroit, MI<br>Detroit, MI<br>Bloomfield Hills, MI<br>Troy, MI<br>Juneau<br><br>Juneau | 1951-1954<br>1954-1955<br>1954-1957<br>1957-1961<br><br>1961-1964<br>1966-1970<br><br>1970 | Resurrection Lutheran Church 1967, Evergreen, WA; Bowl Recreation Facility 1969 Juneau | AIA 1970[clviii] | AIA 1959 member, worked with Saarinen (famous for chairs with Eames, St Louis Arch), AIA Member 1961-1972 Detroit Chapter |
| Peterson, Robert Henry<br>1924-? | Lindsey and Lindsey<br>AC Martin and Associates<br>Robert H Peterson Architect<br>Robert H Peterson and Associates | California<br>California<br>Pasadena, CA<br>Pasadena, CA | 1954<br>?<br>1960-1963<br>1963-at least 1966 | Sears Roebuck Shopping Center (65), Second unnamed shopping center in ANC (possibly 5th Ave Mall, built 1968) | OHA Files<br>AIA, 1962[clix] | USAF 1943-1946 |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Piper, Kenneth M.<br>1922-1989 | John Graham Architects<br>USKH Architects and Engineers<br>T.S. Bettis Associates | Anchorage/WA<br>Anchorage<br>Anchorage | 1956-1978<br>1978-1985<br>1985-1989 | Fairbanks, Woodriver Elementary School<br>Fairbanks, Tanana Junior Senior High (1975)<br>Chugiak, Gruening Junior High school | OHA Files | |
| Porreca, Augustine Antonio<br>1898-1992 | Pennsylvania Railroad Company<br>Augustine A Porreca<br>Augustine A Porreca | Philadelphia<br><br>Seattle<br>Philadelphia | 1918<br><br>c, 1955<br>c. 1960 | Fourth Avenue Theater 1947 (Lathrop Building), KENI Radio Building 1948 (Anchorage), Holy Family Cathedral 1952 (Anchorage) | Hoagland[clx]<br>SAH[clxi]<br>PCAD[clxii]<br>Scholarship[clxiii] | Fourth Ave Theater was Developed by Captain AE Lathrop |
| Priteca, B. Marcus<br>1889-1971 | Private Practice? | Seattle<br>Los Angeles<br>Seattle | 1911-1922<br>1922-1929<br>1929-1960 | Fourth Avenue Theater (the Lathrop Building), Lacey Street Theater 1939 (Fairbanks), Washoe Theater, Anaconda, MT 1939 (NRHP?), Chevra Bikur Cholim Synagogue #2, Seward Park, Seattle 1964, Evergreen State Theater 1948-1950 Olympia | OHA Files<br>Hoagland[clxiv]<br>PCAD[clxv]<br>Fresno[clxvi] | prominent theater architect working with Alexander Pantages (theater chain owner); designed many of the 1920s theaters in Seattle and California, Seattle synagogues |
| Roff, Dale M.<br>1931-? | N/A | Juneau | N/A | N/A | License[clxvii] | Licensed in 1957 by American society of Architects and Engineers, Never registered with AIA, Juneau Douglas High School Class of 1947 |
| Russett, Jasper P.<br>D. 1964 | N/A | Anchorage | N/A | N/A | AIA 1970[clxviii] | AIA Member 1922<br>Lived in Iowa, Texas, Alaska |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Sands, Edward Elmer<br>1910-1996 | FA Naramore<br>Naramore and Brady<br>Siems Drake<br>UASCE<br>Decker and Christenson<br>Alaska Architectural and Engineering Company<br>Foss Olsen Sands<br>Olsen Sands<br>Sands Ackley | Seattle<br>Seattle<br>Puget Sound<br>Seattle<br>Seattle<br><br>Fairbanks<br>Juneau<br>Juneau<br>Juneau | 1934-1940<br>1940<br>1940-1943<br>1943-1945<br>1945-1955<br><br>1955-1956<br>1956-1958<br>1958-1968<br>1968-1974 | Juneau Municipal Airport Terminal, Dillingham High School, University of Alaska Bio-Sciences Building (Fairbanks), Delta Junction High School, Ketchikan General Hospital, Sitka Court and Office Building, Petersburg Post Office and Federal Building | AIA 1970[clxix]<br>AIA Historical Directory[clxx]<br>Firm[clxxi]<br>PCAD[clxxii] | AIA Membership begins in 1948 |
| Schultz, Lawrance Theodore "Ted"<br>1926-2015 | Schultz/Maynard | Anchorage | 1965-1968 | Original Anchorage Art and History Museum (Schultz/Maynard) | Obit[clxxiii]<br>Hoagland[clxxiv] | Charter member of the Santa Cruz Surfing Club Graduated CalPoly, San Luis Obispo 1954, BS in architecture; moved to Alaska in 1957, Alyeska Ski Patrol and pilot. Retired 1982 and moved to Oregon |
| Smith, Donald Clement<br>1921-2000 | Chief Architect HUD | Anchorage | 1965-1992 | Buildings and Bridges | OHA Files<br>Obit[clxxv] | WWII US Coast Guard, Japan; In association with Manley and Mayer |
| Stetson, Donald Warren<br>1924-2002 | DW Stetson<br>Philleo Engineering and Architectural Services (10 yrs, chief arch) | Fairbanks<br>Fairbanks | 1961-1966<br>1966-1976 | Civic Center at Alaskaland, DOT complexes in Anchorage and Fairbanks | AIA 1970[clxxvi]<br>OHA Files<br>Obit[clxxvii] | Licensed in AK, OR, WA, AIA Alaska Chapter secretary 1968, Private First Class US Air Force WWII |
| Stevens, Joyce, Smith<br>1927-? | N/A<br>Fort Ord, Post Engineer | Fairbanks<br>Carmel, CA | 1957?-1962 | Joyce Stevens Monterey Pine Forest Preserve | AIA 1970[clxxviii]<br>AIA, 1962[clxxix]<br>License[clxxx]<br>Honors[clxxxi] | Licensed in 1957 by American Society of Architects and Engineers, Worked in Alaska and California, 1970 AIA Monterey Bay, CA |
| Stone, Edward Durell<br>1902-1978 | Strickland, Blodgett & Law<br>Schultze & Weaver<br>Hood, Godley & Fouilhoux and | Boston, MA<br>New York<br>New York | 1922-1928<br>1929 | Anchorage, Atwood Center (Campus Center) 1963-1966, Waldorf- | Hoagland[clxxxii]<br>AIA 1970[clxxxiii]<br>Foundation[clxxxiv] | internationally known Licensed in 26 states and Washington DC, |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | Reinhardt & Hoffmeister<br>Edward Durell Stone and Assoc worked with Manley and Mayer | Various, New York City | 1929-1933<br>1933-1974 | Astoria, New York, ABC Television Bldg. (NY), Good Housekeeping Magazine House of the Fifties Model Home (1952), Philadelphia Museum (1954), Dallas Downtown Redevelopment (1958), JFK Center for the Performing Arts (DC 1959), Radio City Music Hall | NRHP[clxxxv] | Instructor and author, Projects in Pakistan, New Delhi, Jamaica, Saudi Arabia |
| Taylor, Maynard, Loren, Jr.<br>1917-1992 | US Army Corps of Engineers<br>Maynard Taylor, Architect | Anchorage<br>Anchorage | 1941-1948?<br>1948-1979 | Hillside Apartments on 16th Ave between G & H Streets in Anchorage (destroyed by 64 quake) | Wiki[clxxxvi] | Mayor of Anchorage 51-55, Taught at the Alaska Community College |
| Taylor, Ralph F.<br>1902-1968 | Philleo Architects and Engineers | Fairbanks | 1960-1967 | Fairbanks Municipal Center and other government buildings, including the Distant Early Warning radar and telescopic facilities | UAF[clxxxvii] | Graduate of Harvard University School of Architecture and Columbia University Graduate School; In 1960 Taylor was asked to come to Fairbanks, Alaska, to join the Philleo Engineering firm for a limited period of time to "lend a credible New York City area" architectural influence to the firm. his services were enlisted to survey the damage from the 1964 earthquake |
| Thompson, Edwin Bradford | Richard P. Fox<br>Alfred H. Croonquist<br>Maloney, Herrington, Freez and Lund<br>Natl Bank of Commerce | Newark, Delaware<br>Seattle | 1964-1969<br>1969<br>1969-1971 | First National Bank of Alaska, Anchorage Branch (Project Architect for Graham and Co. 1971), Juneau Medical | OHA Files | Architectural Productions Manager for Alaska Operations under Graham and Co., Register Architect |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | John Graham and Company<br>Alaska Architectural and Engineering Company | Seattle<br>Seattle<br>Fairbanks | 1971-1972<br>1972-1974<br>1974-? | Surgical Clinic and Juneau RCA Switch Center (Graham and Co.) | | working for AK Architectural and Engineering Co., Renssalaer Polytechnic Inst. 1951, University of Virginia 1959-1964 |
| Troast, N. Lester 1899-1958 | Sheldon Jackson College, instructor<br>N. Lester Troast<br>Manley and Troast Architects | Sitka<br><br>Sitka/Juneau<br>Juneau | 1925?-1930<br><br>1930-1933<br>1933-1946 | Sage Memorial Building (29) and St. Peter's Episcopal Church Alterations (Sitka, both NRHP); Mayflower School in Douglas (33-34); AK Electric Light and Power Building, Juneau (36, NRHP); Decker Building, Juneau (35, NRHP); Bunkhouse at the Independence Mines (38, with Manley, NRHP); Howard Romig House, Anchorage (41) by Manley and Troast, first architecturally designed house in town, now the Copper Whale Inn at 5th and L), UAF Eielson Building (34), Daly House, Ketchikan (37) | Hoagland[clxxxviii]<br>Wiki[clxxxix] | The first professional architect to work in Alaska. He worked first in Sitka then in Juneau where he associated with Manley who went on to open his own office. 1920s was an instructor at Sheldon Jackson School, Mid-1940s moved to New Jersey |
| Underwood, Gilbert Stanley 1890-1960 | National Park Service as private architect | LA, California<br>Washington, D.C. | 1923<br>1947-1949 | Federal Building (Anchorage), Timberline Lodge (Mt Hood), Ahwahnee, Lodge in Yosemite, Bryce Canyon Lodge, the Grand Canyon Lodge, and Zion Lodge; San Francisco Mint, Los Angeles Federal Building, US State Department Complex Building #1 | NPS[cxc]<br>GSA[cxci] | NPS architect specializing in rustic lodges that set the tone for Mission 66, federal supervisory architect in D.C., Working within the national parks, Underwood's greatest triumph was in defining the rustic style as envisioned by Stephen Mather. His work |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | (D.C.), consolidation of the Old Faithful Lodge | | contributed to the development of Park Service architectural design in standards for the 1930s Works Project Association (WPA) projects, "Gilbert Stanley Underwood represents the National Park Service's exceptional alliance with a private architect for developing park visitor facilities. |
| Wellenstein, Wallace John 1921-2012 | Unknown<br>CCWJ (Crittenden, Cassetta, Wirum, Jacobs)<br>WJ Wellenstein Architectural Consultants | Anchorage<br>Anchorage<br>Anchorage and MN | 1949-1962<br>1960-1962<br>1962-1983 | Northern Lights Elementary School, Muldoon Elementary School (Anchorage), Glenallen High School, UAA Building F (1972), First Arctic Valley Ski Lodge | AIA 1970[cxcii]<br>Hoagland[cxciii]<br>Obit[cxciv] | AIA Alaska Chapter President 1965; his film collection is archived at UAF, Wally was involved in the creation of the Denali Ski Patrol; the first volunteer ski patrol in the Anchorage area. In 1971, Wally was the recipient of the National Register of Prominent Americans honorary award certificate and inclusion in the register for 1972-73. |
| Westbrook, L.E.., Jr., | N/A | Anchorage | N/A | N/A | AIA 1970[cxcv] | |
| White, Fred Wayne 1924-? | Fred F Wilson, Architect<br>Smith, Carroll and Johanson Architects<br>Jay Robinson, Jr Architect<br>Brandt Gessel Architect<br>McEntire and White<br>McEntire, White, Pendergrast and Jellison Architects<br>F Wayne White Architect | Bozeman, MT<br>Seattle, WA<br><br>Pasco, WA<br>Walla Walla, WA<br>Fairbanks<br>Fairbanks<br><br>Fairbanks | 1948-1949<br>1950<br><br>1951-1954<br>1954-1957<br>1957-1959<br>1959<br><br>1959-~1966 | School Addition First Methodist Church, Fairbanks (65-66)<br>Seventh Day Adventist Church (Corner of Slater and Bentley drives, Fairbanks, 1960) | AIA, 1962[cxcvi] | AIA Member 1959-1969 |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Williams, David Reichard 1890-1962 | Federal Govt Architect, various agencies | Texas | 1933-1950 | Matanuska Colony Home Designs, Created the definitive Texas ranch style home with vaulted ceilings | Hoagland[cxcvii] Real Estate[cxcviii] Biography[cxcix] | the only work he did in AK was 1935 colony farms, 1960 AIA Fellow |
| Wirum, Carl Harold 1927-? | Edwin Crittenden<br>Crittenden, Wirum , Cassetta, Jacobs<br>Crittenden, Cassetta, Wirum, and Cannon<br>Maynard and Wirum<br>Wirum NBBJ<br>Harold Wirum and Associates | Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage<br>Anchorage | 1954?<br>1958-1962<br>1962-1970<br>1972<br>1977<br>early 1980s | Wendler Junior High School, Sears Roebuck Building, Air Route Control Center Anchorage, Union Oil Bldg. (Anchorage), *All with iterations of Crittenden et al., Hotel Captain Cook Second Tower, 1970s, Helen S Whaley Center at APU 1972 (As Maynard and Wirum), CIRI Building 1977 (As NBBJ), George M. Sullivan Arena (1980, Harold Wirum Assoc) | AIA 1970[cc] Hoagland[cci] | Worked with Crittenden on State Capital relocation plan 1969 |
| Yahn, Wilbert H. 1911-2001 | National Plans Service<br>US Govt, Marine Engineering Department<br>US Navy, architect<br>unknown architectural firms<br>Ketchikan Pulp Company, architect<br>WH Yahn Architect | Chicago, IL<br>Portland, OR<br>Portland, OR<br>Portland, OR<br>Ketchikan, AK<br>Portland, OR | 1930s<br>1942-1946<br>1946-1949<br>1949-1951<br>1951-1956<br>1956-1976 | Naval Housing in Astoria, OR (46-49)<br>Ward Cove Pulp Mill Admin Building (1954)<br>Tongass View Housing Addition, Ketchikan (53)<br>numerous churches in Oregon | AIA, 1962[ccii] AIA 1970[cciii] DOE[cciv] | moved to Bainbridge, WA in 1996,= Pulp Mill Amin Bldg. considered eligible under A and C |
| Yang, Edith 1918-2012 | Cleo Jenkins<br>Oregon State University Physical Plant<br>Independent Practice | Corvallis, Oregon<br>Corvallis, Oregon<br>Corvallis, Oregon | 1950-1954<br>1979-1991<br>1954-2000 | Nahoney Medical Office and Apartments and the Cordova Building, Anchorage, Chi Phi Fraternity in Corvallis, OR | Biography[ccv] AIA 1970[ccvi] | First minority woman architect to be licensed in Oregon |
| Zuendel, Charles, Sherman 1927-2003 | Alaska Architectural and Engineering Co<br>Gray Rogers Myers and Morgan | Fairbanks<br>Fairbanks<br>Fairbanks | 1965-1971<br>1971-1973<br>1973-1978 | Fairbanks, University of Alaska Duckering Building, 1964 with Lee S. Linck; Moore, Bartlett | AIA 1970[ccvii] Obit[ccviii] | |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | Ellerbe Alaska<br>GDM and Associates | Fairbanks | 1978 | and Skarland Halls<br>(Skarland, 1966) | | |

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# Appendix C: Developers/Construction Companies

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Alaska Architectural and Engineering Company<br><br>1945-1978 | staff -<br>Lee S. Linck, engineer<br>(partners JF Potter and FH Mapleton; Linck bought them out in 1949)<br>George Crosman, Edwin S. Thompson, Doug Ackley (architects) | Fairbanks | 1945-1978 | Fairbanks: Joy Elementary and Chena Elementary, Fairbanks (60 with Doug Ackley); First National Bank of Alaska, Anchorage Branch (1971, Project Architects Edwin S. Thompson and Bradford); University of Alaska, Fairbanks, Duckering Building, (64 with Lee S. Link) and Moore, Bartlett and Skarland Halls (Skarland, 1964); Lathrop High School Auditorium and Addition, Fairbanks (64 with Doug Ackley); Nerland Store and Office Building, Bus terminal, Nerland Commercial Building, Lavery Commercial Building, J.C. Penny Company Building, Elks Building, Methodist Church and Educational Unit with Parsonage, Episcopal Mission office and Apartment Building, Fairbanks Pioneer Home, Large housing complexes and urban renewal efforts. Eielson AFB: Locomotive roundhouse, Boiler Plant Addition, Pennell Elementary and High School, Ben Eielson High School, Taylor Junior High School, Ladd AFB: Rehabilitation of Hangars #2, #3, #6, Cold Room Test Facility, McKinley Elementary, Aurora Elementary, Birch Elementary. Other: Juneau Jail and Juvenile Detention Home, Fort Yukon High School, Northway School, Nenana School and Apartments, Delta Junction Elementary and High Schools | History[i]<br>OHA File | The firm is a completely integrated organization of architects and engineers equipped to render all types of architectural and engineering services---planning, design, cost estimates, supervision, inspection, reports, and surveys. Capable of completing planning, design, and construction of commercial, institutional, educational, religious, industrial, and public project, roads, airports, military facilities, utilities, power plants, and related facilities., Known for innovative cold climate construction and approaches as well as accurate budgeting. Worked with Crittenden in Anchorage in the mid-1950s. |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Brady Construction Company<br><br>1949-at least 1954 | Brady Swalling Construction Company (with Al Swalling)<br>1200 L Street Corporation (with Al Swalling and JH Clawson)<br>Coffey House Corporation (with Al Swalling and JH Clawson)<br>Brady Construction Company | Anchorage<br><br>Anchorage<br><br>Anchorage<br>Anchorage (Spenard),<br><br><br><br>Valdez | 1949-1952<br><br>1950-1954<br><br>1950-1954<br><br><br><br>1949-? | Built two 130+ unit housing developments in Anchorage<br>McKinley Tower Apartments (1952)<br>The Inlet Towers Apartments (1951-1952)<br>three unnamed elementary schools in Anchorage | Naske[ii]<br>Tax Court[iii] | Coffey House Corp and L Street Corp were specifically created for acquiring FHA loans to construct apartment houses on sites which the corporations had acquired in Anchorage, Alaska. Each received an FHA loan in a substantial amount and entered into a contract with Brady Swalling Construction for the erection of two, 14-story apartment buildings (Mount McKinley and Inlet Towers) |
| Burgess Construction Company, Ltd.<br><br>1948-at least 1972 | Burgess Construction Co.<br>Joint venture with Reed and Martin, Inc.<br>Burgess Houston Construction<br>Burgess Intercontinental, Inc.<br>Burgess Overseas Sales Corporation<br>Burgess Interstate | Astoria, OR<br><br>Fairbanks<br>Fairbanks<br>Fairbanks<br><br>Fairbanks<br><br>Fairbanks | 1948-1951<br><br>1951-<br>1951-?<br>1969-1970s<br><br>1969-1972<br><br>1972-? | LF Joy Elementary, Fairbanks (60), Fairbanks Bus Depot (52)<br>Haul Road<br>Deadhorse Air Strip<br>TAPS work<br>Soldier Creek Dam, Utah | OHA Files<br>Jukebox[iv] | "From its first days on the Alaska construction scene, Burgess Construction Company played a vital role in many building projects."<br>Bid on the TAPS construction |
| Hickel Construction Company<br>Walter Joseph Hickel, owner (1919-2010)<br><br>1947-2012 | Hickel Investment Company | Anchorage | 1947-2012 | Hotel Captain Cook (65), post-earthquake towers in Anchorage, Northern Lights Shopping Center (60-61, Alaska's First shopping center, affiliated with Safeway, first escalator, Spenard), First motel in Alaska: Traveler's Inn Anchorage (53), Travelers Inn Fairbanks (55), hundreds of homes as well as shopping centers, motels, rental units and residential areas | Wiki[v]<br>Manual[vi]<br>Governor[vii]<br>Obit[viii]<br>NY Times[ix]<br>Institute[x] | Became successful building small groups of houses on the outskirts of town/FHA low-interest loans, then shopping centers and high-rises; turned his company into a multimillion-dollar firm.<br>Active in the statehood movement; Hickel sought to improve relations with Alaskan Natives in seeking resolutions on Native land claims<br>Secretary of the U.S. Department of the |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Wally Hickel served as 2nd and 8th governor of Alaska | | Interior under President Richard Nixon in 1969-1970 (ousted because he opposed Nixon's approach to Vietnam) Slowed construction of the TAPS line and pushed for conservation of environment while developing natural resources; Dalton Highway nick-named the Hickel Highway since he pushed for its construction |
| Pete Zamarello<br><br>1930s-2014 | Olympic Inc. | Anchorage | 1965-? | Anchorage: Muldoon Mall, Lake Otis and Tudor Mall, Bonface Plaza, Olympic Plaza, Muldoon Z Plaza, International Z Plaza, Patricia Subdivision (71-73)<br>Wasilla: Cottonwood Creek Mall | ADN[xi] | King of Strip malls, Created many strip malls and trailer parks in southcentral AK |
| Karl Alvin Bachner<br><br>1927-1989 | Bachner Northwest (with William G Jones and Edgar Billimek) | Anchorage | ~1950-at least mid-1980s | Portage Glacier Visitors Center, Eagle River Correctional Institution, Sitka Centennial Building, Schools and Office Buildings | | Began to develop real estate in the 1970s<br>Born in Fairbanks, there is a real estate company now called Bachner Companies that restore historic buildings and rents them out- including the Nerland Building (AK Architectal and Engineering Co design), the McKinley Bldg (old Carrs store, designed by Jennings Heber "Jinks" Graham?) |
| Captain Austin E Lathrop<br><br>1865-1950 | California-Alaska Mining and Development Company<br>Alaska Transfer Company, Cordova<br>Alaska Transfer Company, Anchorage<br>Lathrop Company, | Washington<br><br>Cordova<br><br>Anchorage<br><br>Fairbanks | 1902<br><br>1907<br><br>1915<br><br>1927-1950 | Empress Movie Theater, Cordova (1911), Empress Anchorage (1916), Empress Fairbanks (27, first concrete building constructed in Fairbanks), Lacey Street Theater, Fairbanks (36-40, designed by Priteca), Fourth Avenue Theater, Anchorage (47, designed by Priteca), KFAR Radio /Lathrop Building, Fairbanks (39), KENI Radio Building, Anchorage (48, designed by Porecca), Suntrana Coal | NRHP[xii]<br>Biography [xiii]<br>Wiki[xiv]<br>News[xv] | Business entrepreneur with an entertainment empire of theaters, radios, newspapers, owner of the Fairbanks Daily News Miner. "Alaska's first home-grown millionaire;" By developing the coalmines in Healy, he helped bring Fairbanks back to life. In 1948, when the university was badly in need of funding, Lathrop helped secure $200,000 in interest-free loans from private businesses. Fairbanks Lathrop |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| | | | | Plant, Healy River Coal Corporation bunkers (32) | | High School named after him (55), Lathrop Residence Hall at UAF (62) |
| Design Alaska<br><br>1957-present | Bob Gray and Les Rogers<br>Design Alaska<br>Design Alaska / Ellerbe Alaska<br>Design Alaska | Fairbanks<br><br>Fairbanks, Anchorage<br><br>Anchorage | 1957-1973<br><br>1973-1988<br><br>1988-present | Fairbanks: Alaskaland (site and landscape design and Pioneer Museum), Barnette School, Gladys Morris Dress Shop, relocation of the steamship Nenana, Fairbanks Federal Building, Butrovich Building at UAF, Duckering Building addition, UAF, Big Dipper Ice Arena | History[xvi] | Founders began AK work with Alaska Architectural and Engineering Company then established their own firm; company was purchased by Ellerbe Assoc in 1973 but retained the name; in 1983 employees purchased the firm from Ellerbe. |
| Peter Kiewit and Company<br><br>1884-present | Kiewit Brothers<br>Peter Kiewit and Company<br>Peter Kiewit Sons' Company<br><br>Kiewit (logo still has PKS) | Omaha, NB<br>Omaha, NB<br><br>Omaha, NB<br><br>Sherdian, WY<br>North America | 1884-1904<br>1904-1931<br><br>1931-present | Ladd AFB Power House and Ft Richardson Power House Addition (48), Ft Richardson Utilities work (49), Heating Plant at Ladd Field (49), ANS Hospital, Anchorage (49), Fairbanks Memorial Hospital (68-72),1930s Interstates 90 and 93, WWII military bases from Washington to Alaska, coal mine in Wyoming supplied Hanford in WA and coal was used in first A-Bombs, Thule Greenland AFB BMEWS and DEW Line, Minute Man Missle Bases, ND (1960s), Decker Coal Mine, MT (71) and Black Butte Coal Mine, Gillette, WY (79) | History[xvii]<br>News[xviii]<br>News2[xix]<br>News3[xx]<br>Firm[xxi] | In AK since WWII as a defense contractor; regularly teams with Morris Knudsen (DEW Line, 2nd Tacoma Narrows Bridge); master of roads and dams; offices in major cities in nearly all states and Australia |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Ellerbe and Associates<br><br>1973-1983 | Ellerbe and Company/Ellerbe Architects, Inc.<br>Ellerbe Alaska | Bloomington, MN<br><br>Fairbanks<br>Anchorage | 1914-1988<br><br>1973-1988 | Fairbanks Federal Building (1977)<br>Butrovich Building, Big Dipper Ice Arena, Duckering Building Addition at UAF (85), UAF Patty Gymnasium Addition 1970 as Ellerbe AK | OHA Files<br>Hoagland [xxii]<br>Archives [xxiii] | 1973 purchased Design Alaska, changed name to incorp. into the Ellerbe portfolio<br>Minnesota-based corporation; Ellerbe-Beckett 1988-2009; AECOM Ellerbe-Beckett 2009-present |
| Stock Construction Company<br><br>1938 - 1960s | RH Stock and Co.<br><br>Roland Henry "Dick" Stock (1889-1976) | Anchorage | 1938-1960s | Afognak Road System (29)<br>First paved streets in Anchorage on 4th Ave (38)<br>Block 13 FHA Army Housing (1940)<br>Roads and Bridges in southeast and the Kenai | DOE[xxiv]<br>Biography [xxv] | In 1948 Stock organized the Alaska Chapter of the Associated General Contractors of America and served two years as the organization's first president |
| Zachariah J. Loussac | | Anchorage | | First Loussac Library, Loussac Sogn Building | Building [xxvi]<br>Hoagland [xxvii] | Russian Immigrant, funded numerous civic enterprises including a library (Current Anchorage library bears his name); ran a successful drugstore in Anchorage and ultimately had a huge impact on the city's cultural soul. He opened the Loussac Library and started a foundation to promote education and the arts in this growing city. This 1946 building was originally an office on the ground floor with residential space above, and today houses all commercial space." Philanthropist, served two terms as Anchorage mayor beginning in 1947 |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Harold B Foss<br><br>1935-present | HB Foss Company<br>Foss Malcolm<br>Foss, Malcolm and Olsen<br>Foss Olsen<br>Foss Olsen Sands<br>Olsen Sands<br>Sands Ackley<br>Ackley and Associates<br>Ackley Jensen<br>Jensen Douglas<br>Jensen, Yorba and Lott | Juneau | 1935-1945<br>1945-1949<br>1949-1951<br>1951-1956<br>1956-1958<br>1958-1968<br>1968-1974<br>1974-1979<br>1979-1985<br>1985-1996<br>1996-present | Juneau Memorial Library (1950, Now Juneau Douglas City Museum), Juneau City Hall (50-51), Terminal at Juneau International Airport (48-49 and 56-57), Bethel Hospital, Bethel Armory (56-57), Alaska State Office Building, Juneau (52), UAF Eielson Memorial Building upper levels (1940), Petersburg Hospital (54), Mt Edgecumbe Hospital, Sitka (47-48), UAF Constitution Hall, 1956, UAF Brooks Building 1952, Chapel by the Lake, Auk Bay, Juneau 1958 (with Linn Forrest), Buckner Building (53) and Hodge (now Begich Towers) Building (54-56), Whittier, Cathedral Arms Apartments in Sitka (50) with Earl W Morrison; Juneau Municipal Airport Terminal, Dillingham High School, University of Alaska Bio-Sciences Building (Fairbanks), Delta Junction High School, Ketchikan General Hospital, Sitka Court and Office Building, Petersburg Post Office and Federal Building, Seaalaska Plaza and Juneau Airport (Juneau), Hydaberg School, Ketchikan Community College, Ryan Jr. High School and Zion Lutheran Church (Fairbanks), Regional High School Gym (Nome), UAS Library, Sacred Heart Cathedral, Fairbanks 1966 (Part of design team) | Firm[xxviii] | |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Philleo Architects and Engineers/Engineer- Edgar S. Philleo<br><br>1946- at least 1972 | Philleo Engineers<br><br>Architects- Ralph Taylor, John E "Jack" Haley | Fairbanks | 1946-1948<br>1948- | CAA International Airport (Fairbanks?) (49-50), Dixon Apartments, Fairbanks (49), The Polaris and Northward Buildings, Fairbanks (52), Fairbanks City Hall and Municipal Center (61), Queens Court Apartments (60), Girdwood School and Willow School (61), Distant Early Warning radar and telescopic facilities (early 60s), Valdez Hotel (64) unbuilt, City of Nome Water and Sewer System (64-65), Fairbanks Comprehensive Plan, Sewage Facilities and Solid Waste (72) | News4[xxix] | |
| Al Swalling | Swalling Construction Company<br>Brady and Swalling<br>1200 L Street Corporation (with Ted Brady and JH Clawson)<br>Coffey House Corporation (with Al Brady and JH Clawson) | Anchorage<br><br>Anchorage<br>Anchorage<br><br>Anchorage | 1947-present<br><br>1949-1952<br>1950<br><br>1950 | Turnagain Arms Apartments (49-50), 1948 KENI Radio Building (48), McKinley Tower Apartments (1952), The Inlet Towers Apartments (1951-1952), St. George School, St. George, AK (55) | DOE[xxx]<br>NRHP[xxxi]<br>St. George [xxxii]<br>TAX Court[xxxiii] | Coffey House Corp and L Street Corp were specifically created for acquiring FHA loans to construct apartment houses on sites which the corporations had acquired in Anchorage, Alaska. Each received an FHA loan in a substantial amount and entered into a contract with Brady Swalling Construction for the erection of two, 14-story apartment buildings (Mount McKinley and Inlet Towers). Hired Francis Mayer repeatedly; 1943 Swalling was an engineer at the Port of Whittier for US Army. 1965 Hard Hat award from Assoc. General Contractors of Alaska; 1988 Alaskan of the Year.<br><br>Company still operational under F. Michael Swalling, specializes in concrete construction and pile driving |
| Fairview Development Corporation | | Fairbanks | 1950s | Weeks Field Subdivision, Fairbanks (50) | News5 [xxxiv] | |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Batchelder and Hazen | | Fairbanks | 1940s-1950s | Yukon Engineering Office, Fairbanks (49), UAF Faculty Cottages (48) | News6[xxxv] | |
| Selid Construction Company | | | | Eielson AFB Outdoor Utilities (49) | News[xxxvi] | |
| Lewis Construction Company | | Seattle, WA | | UAF Geophysical Institute Building (48) | News6 [xxxvii] | |
| Morrison Knudsen<br><br>1912-Present | | Boise, ID Global | 1912-Present | Fairbanks Municipal Airport (49), Alaska Rail Road Bank Widening at Turn Again Arm (48), Ft. Richardson Power Plant Addition and Outdoor Utilities (48), Whittier Bulk Fuel Storage Tanks, Wharf, Pipeline (49), ANS Hospital, Anchorage (49), TAPS, DEW Line Facilities, Hoover Dam (35) | News[xxxviii] News3 [xxxix] News6[xl] | world-wide civil engineer and construction company, in AK since at least 1942 (had an office campus at Merril Field); constructors of Naval bases, ports, rail lines, hydroelectric facilities/power plants, oil and gas facilities, pipelines; In AK since WWII as a defense contractor; regularly teams with Kiewit (DEW Line, 2nd Tacoma Narrows Bridge) |
| William A Smith Company | | Kansas | | Alaska Rail Road Rail Replacements (48-49) | News6[xli] | |
| Reed Martin Company | | Fairbanks | 1940s-1950s | McKinley Manor (50, Fairbanks), Runway lighting at Eielson AFB and Ladd AFB Power House (48) | News6[xlii] | |
| Fred Wager Company | | Auburn, WA | | Eielson AFB Utility work (48) | News[xliii] | |
| William Hufelsen | | Anchorage | | Ft Richardson Telephone Building (49) | News[xliv] | |
| S Birch and Sons Company | | Greatfalls, MT and Seattle, WA | | Eielson AFB Barracks and Supply Storage Building (49) | News[xlv] | |
| Slater Construction Company | Slater and Jacobson | Fairbanks | | Ladd AFB Heated vehicle storage building (49)<br>Big Delta Family Quarters (49) | News[xlvi] News2[xlvii] | |

| Developer | Other names | Location | Years | Notable Works | Source (s) | Comments |
|---|---|---|---|---|---|---|
| Henrik Valle Company | | Seattle | | Whittier Utilities | News[xlviii] | |
| Max Kuney Company | | | | Alaska Rail Road Expansion, Peters Creek to Indian (49) | News7[xlix] | |
| Lytle and Green | | | | Alaska Rail Road Expansion, Seward to Portage (49) | News7[l] | |
| MP Munter | | | | Alaska Road Commission, Quartz Creek to Portage Road Expansion and installation of 15 bridges (49) | News7[li] | |
| B & M Construction | | Oklahoma City, Oklahoma | | Ladd AFB Outdoor Utilities (48-49) | News[lii] | |
| Gothberry Construction Company | | Anchorage | | Ft Richardson 12 Family Quarters (49) | News2[liii] | |
| JC Boesplug Constrcution Company | | Seattle | | ANS Hospital, Anchorage (49) | News2[liv] News3[lv] | |
| Strands Construction Company | | Fairbanks | | | Ad[lvi] | 1949 begins advertising the Fairbanks Daily News Miner |
| Gaasland Construction Company | | Fairbanks | | 61 housing units on South Cushman St, Fairbanks (49, billed as a large apartment project) | News8[lvii] | the FHA lessees were Taylor, Leigh, and Meyers |
| Williams Equipment Company | | Fairbanks | | City Roads Improvements, Fairbanks (49) | News2[lviii] | |
| SS Mullins Construction Company | | Fairbanks | 1950s | The Polaris Building (52) | Marlow 2008 | |

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[xvii] Cole, 2002
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[xli] "Railroad in Call for Bids on New Rail." Fairbanks Daily News Miner, Wednesday, April 6, 1949. Vol. XXVII, No. 80, Page 1.
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[liii] "Nearby Jobs Total Nearly $10 Million." Fairbanks Daily News Miner, Monday, April 18, 1949. Vol. XXVII, No. 90, Page 1.
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# Appendix D: Architects, Post-Period of Significance

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source(s) | Comments |
|---|---|---|---|---|---|---|
| Arachuete, Helena | Lautner Associates-Helena Arahuette Architect | California | 1971-present | Private residence in Chugach Mountains/East Anchorage Hillside | http://www.lautnerassociates.com/html/about.html | worked with John Lautner; website notes she completed a private residence in the Chugach Mtns |
| Brown, Daphne<br><br>1948-2011 | Crittenden Cassetta and Cannon Architects and Planners, Kumin Associates, Inc. | Anchorage | 1975-2010 | Anchorage Museum Expansion project manager | https://en.wikipedia.org/wiki/Daphne_Brown | worked with Crittenden at CCC, Alaska Womens Hall of Fame, Kumin Award from AIA |
| Carlson, Michael | McCool Carlson Green (MCG) | Anchorage | | Ted Stevens Intl New Terminal, Alaska Airlines Center at UAA, Alaska/Yukon Border Station | OHA, http://mcgalaska.com | |
| Green, Douglas | McCool Carlson Green (MCG) | Anchorage | 1970s-Present | Anchorage's Latter-Day Saints temple, Mountain View Library, Anchorage Planet Walk | OHA, http://mcgalaska.com | |
| Hyer, Terry | Terry Hyer Architecture (1973-1981)<br>ECI/Hyer (1981 - | Wasilla, Anchorage | 1973-Present | Loussac Library, Eagle River Valley School, Alaska Rail Road Terminal Restoration, Orthodox Churches restoration, South Anchorage High School, Alaska Native Medical Center, Homer Library | OHA | |
| Jensen, Wayne Keith | Ackley and Assoc<br>Ackley Jensen<br>Jensen Douglas<br>Jensen, Yorba, Lott | Juneau<br>Juneau<br>Juneau<br>Juneau | 1977-1979<br>1979-1985<br>1985-1996 | Juneau Centennial Hall (JV with John Graham, 79)<br>Gastineau Salmon Hatchery, Juneau (89) | OHA<br><br>Jensen, Yorba, Lott http://www.jenseyorbalott.com/about/history.htm | AIA Member 1976<br><br>Firm manifested from HB Foss' firm |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source(s) | Comments |
|---|---|---|---|---|---|---|
| | | | 1996-present | William A Egan Library at UAS (90) | | |
| Kumin, Johnathan Phillip<br><br>d. 2005 | Kumin Associates, Inc. | Anchorage | 1977-2005 | Benny Benson School (ANC), PI for Anchorage Museum Expansion Work in Alaska, Antarctica, and Russia | OHA, AIA name look-up | AIA member 1976, The Kumin Award is AIA Alaska's highest honor; Co-author with McCool on "Building technology; the building envelope and building openings" |
| Lane, Roland Howard<br><br>d ~2005? | Lane+Knorr Architects and Planners | Anchorage | 1986-present | Student Center Complex, University of Alaska, Anchorage, Alaska Gruening Building, University of Alaska, Fairbanks, Alaska | OHA http://www.wonderlane.com/rlane/resume.htm Hoagland 99 | AIA member 1962-67 and 1971 Nows lives in Renton, WA |
| Livingston, Thomas W. | Livingston Sloan. Inc. | Anchorage | 1975-Present | Seward Sealife Center, UAA Health Sciences Bldg, Museum of the Aleutians | OHA, AIA name look-up | co-founder of Livingston Sloan. Inc. AIA member 1977, Fellow 1997 |
| Minch, Robert Allen | Linn Forrest Architecture<br>Minch Ritter Forrest<br>Minch Ritter Voelckers<br>MRV Architects | Juneau | 1973<br>1983<br>1989<br>2005 | | OHA, AIA name look-up | AIA membership 1977<br>Not in AIA 52, 65, 70<br>Worked under Linn Forrest |
| Plunkett, Michael E. | Lane, Korr & Plunkett | Juneau Anchorage | 1970- at least 1976 | 1975 AHTNA Hotel in Glennallen | OHA, AIA name look-up http://www.consortiumlibrary.org/times_project/AHTNA%20DEVELOPMENT%20TO%20BUILD%20+%2010-5-75.pdf | AIA 1974 |
| Ritter | Minch Ritter Forrest | Juneau | 1983<br>1989 | | OHA | |

| Architect Name | Firm Name(s) | Location | Years | Notable Works | Source(s) | Comments |
|---|---|---|---|---|---|---|
| | Minch Ritter Voelckers MRV Architects | | 2005-Present | | | |
| Slone, Don | Livingston Sloan. Inc. | Anchorage | 1975-Present | Seward Sealife Center, UAA Health Sciences Bldg, Museum of the Aleutians | OHA | co-founder of Livingston Sloan. Inc. |
| Voelckers, Paul | Minch Ritter Forrest Minch Ritter Voelckers MRV Architects | Juneau | 1981 1989 2005-Present | | OHA | |