NOME PLANNING COMMISSION
REGULAR MEETING AGENDA

TUESDAY, DECEMBER 07, 2021 at 6:00 / 7:00 PM
COUNCIL CHAMBERS IN CITY HALL

102 Division St. ▪ P.O. Box 281 . Nome, Alaska 99762 . Phone (907) 443-6663 . Fax (907) 443-5345

WORK SESSION 6:00 pm

A. Memo - Historic Preservation Commission - Historic Preservation Plan

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ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF MINUTES

A. November 3, 2021 Nome Planning Commission Minutes,

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HISTORIC PRESERVATION COMMISSION ACTIVITIES

COMMUNICATIONS

CITIZENS' COMMENTS

NEW BUSINESS

A. Local Planning Review for Seppala Drive Upgrades

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A. Zoning Map Amendment request of July 8, 2021

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A. City Planner's Report

Verbal

B. Building Inspector's Report

Verbal

C. Permit Summaries

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COMMISSIONERS' COMMENTS

SCHEDULE OF NEXT MEETING

A. The next meeting of the Nome Planning Commission is scheduled for January 4, 2022.

ADJOURNMENT

Eileen R. Bechtol
P.O. Box 3426
Homer, Alaska 99603

Phone (907) 399-1624
E-mail:
erbechtol@gmail.com

Bechtol Planning & Development

Memorandum

To: Nome Planning Commission (NPC)
Glenn Steckman, City Manager

From: Eileen R. Bechtol, City Planner

Date: December 7, 2021, Historic Preservation Commission (HPC) Worksession

Subject: Historic Preservation Plan – Phase II Future Revision

Attached are the comments provided by Austin Ahmasuk. Please read through the comments so that the HPC can discuss each of the items and include or not include in a future rewrite. The plan rewrite will take place over the next year. It seems appropriate to discuss Austin's comments in a timely manner.

The Historic Preservation Plan – Phase II, which is at the Council level, will not be affected by the future rewrite. The goal is to have the Council approve the State approved plan and the HPC will consider all of Austin's comments for a future update.

Also attached are the Historic Preservation Plan pages 1 through 12 which are referred to in Mr. Ahmasuk's review. I did not attach the entire plan.

If anyone wants a copy of the Historic Preservation Plan Phase II - via email, please let me know. When I get back to Nome, I will make hard copies for whomever wants one.

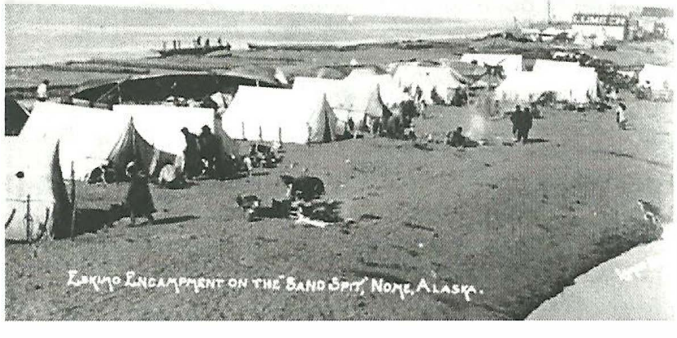
Also, if anyone wants a copy of the Phase I – Public Outreach document, please let me know,

Comments to Nome Historic Preservation plan dated June 16, 2021
Austin Ahmasuk

According to the National Historic Preservation Act. "Preservation planning is the rational, systematic process by which a community develops a vision, goals, and priorities for the preservation of its historic and cultural resources."

Under and upon the land of the Nome area are interred the bones, villages, homes, and sacred objects of the Inupiaq people. Their stories and those of their descendants cry out for a place within the modern context of **ANY** City of Nome document. We the Inupiaq people of this town know that choices have been made by city officials that have forged a path of destruction and we know that must be reconciled with a transformation of how history in Nome is documented. The historic preservation plan dated June 16, 2021 does not provide the context for the Alaska Native history that we as Native people know. The plan is in fact deficient in many respects because it does not depict the history of Nome from local perspective.

The history of Nome is a history of colonialism. The founding of Nome was based on the ideology of white supremacy, the widespread practice of land theft, disease epidemics, and assimilationist practices that decimated the Alaska Native population in many complex ways. Writing that history from a factual perspective requires rethinking the historic preservation plan in its entirety. The historic preservation plan narrative is deficient, not in its facts, dates, or details but rather in its essence. When I claim the foudning of the city of Nome has resulted in the destruction of Alaska Native people it is NOT an accusation but rather historical reality. Ignoring the essence of Nome's Alaska Native history becomes a permanent and lasting act that **MAY NEVER BE RECOVERED**, unless the plan is completely revised After all it took the destruction of an archeological site in 2005-2006 for the world to realize that Alaska Native people were the first inhabitants of "sanispik" aka sandspit.



Nome's Historic Preservation Plan could create a local sense of place to help build a sense of community identity, the greater than 50% Alaska Native population and its many customs, archeological resources, and history must be respected. Sadly, Nome's Historic preservation plan appears to pluck details from history books that may not reflect the community at large. Those history book facts only need to be mentioned if we want them mentioned.

I do NOT accept the historical context manufactured by the Nome Historic Preservation plan and I will provide details that may guide a plan revision

Overall Critiques

The plan must be approved because it will allow grants to be applied for.

Just because we have invested ourselves thoroughly in the plan as proposed does not mean that we should continue with that plan, without considering the future consequences it will have on Alaska Native history. We may achieve a sense of accomplishment by adopting the plan, but it is not enough to justify a plan that is WRONG.

The NHPA does not limit plans to structures only.

When we say the NHPA is limited to structures we are using authority to ignore Alaska Native history. The plan as drafted has steered conveniently away from Alaska Native history and put in place non-Native history which I go into later in this paper.

City officials have responsibly cited the relevant authority of the NHPA as it relates to the Historic Preservation Plan. However, there are other historical facts and context to describe that would improves Nome's plan and ensure it reflects the community.

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"Although their lifestyle was primarily nomadic there is evidence of at least seasonal settlements near present day Nome, one of which was an Inupiaq Eskimo settlement site at Cape Nome. The site is now a protected archaeological resource."

The term nomadic and seasonal is problematic because there are clearly habitations that portray and may prove habitual existence in specific locations all throughout the Nome flats. I am not convinced that nomadism was and/or is a facet of the Alaska Native way of life and I am convinced declaring seasonal settlements within the plan is not truthful. I am convinced we made noteworthy journeys but those journeys may have been wrongly characterized by historians as nomadic when they may not have been.

The Cape Nome site is outside the municipal boundaries of the city of Nome and is not owned by the city. Rather the site is owned by Native Allottees and/or Sitnasuak Native Corporation.

PAGE 12

"A relatively recent archaeological discovery indicates a more permanent Inupiat settlement was located at the mouth of the Snake River, which lies within the City of Nome boundaries. The settlement, known in Inupiat as Sitnasuak, was uncovered during construction work in 2005-2006 to improve navigation to the Nome harbor."

It may NOT be universally accepted that Sitnasuak is the only place name for the mouth of the Snake River there may be others.

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"Though Native herding continued it was much less in scale than originally envisioned."

Alaska Native reindeer herders have taken their own initiative as to what reindeer herding means, the above statement needs revision in order to reflect how Alaska Native reindeer husbandry has changed and is being managed by reindeer herders today.

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"A rapidly erupting pandemic. Repeated public reminders of safe hygiene practices. Travel limited. Indefinite quarantines. Schools closed for weeks on end. Governors begging the federal government for help. An insufficient rescue package from Congress. Passengers caught on ships. Orders to wear masks and instructions to make them. Businesses struggling. A rancorous partisan federal election. Dead bodies piling up (Gastineau Heritage News)." Thinking 2020/21 COVID-19 pandemic? Think again to the Spanish Flu pandemic of 1918.

The last sentence appears to be a fragment. However, the paragraph lists various events with no reference and without reference it may not be relevant to mention. The subsequent paragraph after the one above could provide additional detail into other pandemics that Alaska Native people endured.

PAGE 15-17, SERUM RUN

Alaska Native people are the original dogmushers of the Arctic and the contributions we made to that form of transportation must be better characterized.

PAGE 18 Alaska Native residents

There is NO mention of Nome Eskimo Community. **There is NO stronger point of criticism than the glaring lack of any mention of the tribe of Nome and their historic contributions to the community.** The decision by the planning commission to leave Nome Eskimo Community out of Nome's own historical narrative is glaring and would have a lasting consequence unless that is changed. Nome Eskimo Community members also have strong traditions that could be mentioned.

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"The Bering Land Bridge is recognized as the primary land access route for indigenous people from Siberia to Alaska."

That characterization is untrue and needs complete refinement. The Alaska Native people of Nome are mariners and while there may be identifiable timeframes for pedestrian travel across a prehistoric land bridge, the statement ignores the maritime transportation that existed for at least the past millennia and longer.

"Sometimes people embarked on journeys with unconventional transportation means simply for the challenge or to join the swarms of people seeking their 39 Item C. Interim Draft June 16, 2021 Historic Preservation Plan for Nome, Alaska Page 20 fortune. Such is the case of those

who ventured out on wheeled bicycles. In February 1900, Ed Jesson left Dawson arriving in Nome several weeks later. In March of that year Max Hirshberg did the same trek by bicycle. His chain broke east of Nome so he rigged up a sail for the last leg of the venture."

I am not convinced that the above anecdote has relevance for the community of Nome. There are other just as remarkable instances of travel that could be obtained from local stories from Alaska Native people.

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"Water access has been important to Nome throughout the years. Baidarkas (enclosed skinned kayaks) and Umiaqs (open skinned boats) were used by early inhabitants for basic transportation from one location to another and for hunting expeditions. The original vessels were made of wood and skins but have evolved to more modern materials of wood, aluminum, fiberglass, and high-tech composites. These single and multiple passenger vessels continue to provide transportation for recreation, hunting, and ceremonial activities."

Bairdarka is NOT the traditional term that is used for this region and should be deleted. The appropriate term is kayak.

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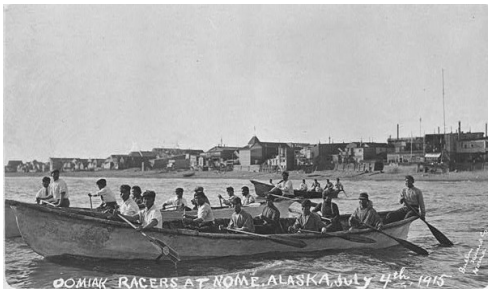
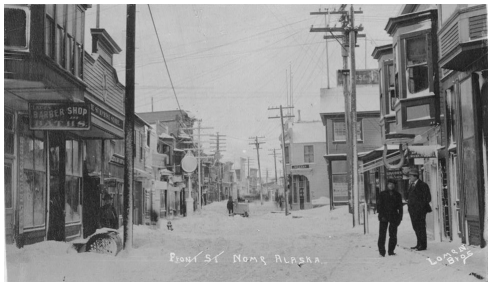
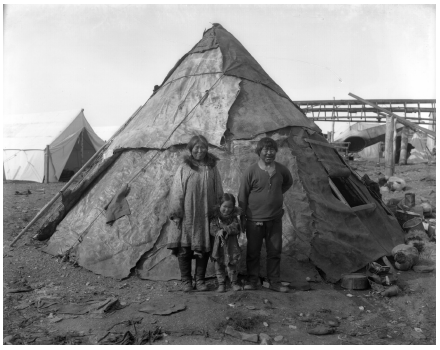
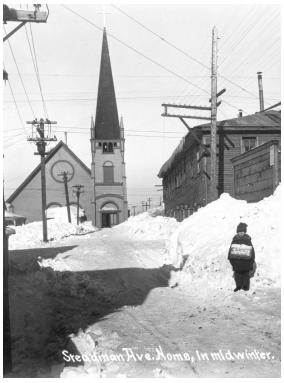
"Nome's port was and continues to be an important regional transshipment hub for many Western Alaska communities that rely on the port for movement of heating oil and gasoline, construction supplies, non-perishable food, gravel, and other cargo. The port is strategically positioned to serve national, state, regional, and local needs as it is poised to play an increasingly important role in a changing sea access to the Arctic"

The port of Nome's role in a thawing Arctic is not yet a historic resource because its future role has not yet been realized and it is only 15 years old in its present form. The Nome Historic Preservation Plan defines historic as a resource that is age 50 years or greater (page 4). The narrative inflates the port beyond any historic significance and needs to be deleted.









CITY OF NOME, ALASKA

HISTORIC PRESERVATION PLAN

Prepared by
Gary H. Gillette, Architect
For the
Nome Historic Preservation Commission

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The City of Nome was incorporated as an Alaskan first-class city in 1901 - one hundred and twenty years ago. Physical evidence uncovered in 2005 indicates an indigenous settlement within the city boundaries occurred at least two hundred years prior to Nome becoming a city. It is also known that indigenous people hunted, fished, and gathered in the surrounding areas since time immemorial.

People, events, stories, customs, and physical remains (sites, buildings, structures, objects) represent the history and legacy of Nome. History is important for understanding the community's past and guiding its future. It contributes to the community's unique personality and character thereby adding to the quality of life in this special location between the vast Bering Sea and the upland tundra of northwest Alaska.

Background

Preserving the history and physical remains of a community provides important links to the past. The City of Nome has taken steps toward historic preservation in past actions.

In 1975 the Nome Common Council adopted an ordinance that supported historic preservation. The ordinance set the first steps to be taken, including the identification of historic resources; designation of significant historic resources as historical landmarks; and maintenance of a catalogue of city landmarks.

The *Nome Comprehensive Plan 2020* was adopted in 2012 to help shape the character of the community and its quality of life. Its mission was to promote new development opportunities while maintaining and enhancing existing elements of the community that make Nome unique and define its heritage and identity. Within the Comprehensive Plan are goals, objectives, and strategies to promote and capitalize on Nome's unique history.

In 2018 the City of Nome became a Certified Local Government (CLG) as approved by the Alaska State Historic Preservation Officer. This designation made Nome eligible for certain historic preservation programs and for funding of preservation activities.

The City of Nome received a CLG grant in 2018 for Phase I of the development of an historic preservation plan. The grant was specifically to solicit public input for development of the historic preservation plan. A follow-up grant was awarded in 2019 to complete Phase II of the plan's development. The city contracted with Gary H. Gillette, Architect to perform the work.

Purpose

The purpose of the Nome Historic Preservation Plan is to guide efforts for identification, preservation, and protection of valuable historic and cultural resources of the Nome community. The plan is intended to educate the public of the value and importance of Nome's history and influence future development to be sensitive to historic and cultural resources.

The plan states a vision of a future for Nome that celebrates, preserves and shares its unique past. The plan establishes goals and objectives that the community has determined to be important for historic preservation. It defines implementing actions that will serve as a road map for future activities with an eye toward achieving the preservation goals.

Historic Preservation Plan Application

The City of Nome, Alaska is a recognized political entity with specific boundaries as set by the State of Alaska. This historic preservation plan along with its goals, objectives, and implementing actions applies to historic properties within the city boundaries and are enforceable by city ordinances and codes.

Some historical information contained in this plan reference historic events and properties that are outside the specific city boundaries thus are not subject to ordinances and codes established and enforced by the city. However, these historic events and properties mentioned in the plan may have had significant impacts on the history and culture of the city thus included for a better understanding of Nome's unique past.

The city is encouraged to engage with owners of historic properties outside the city boundaries for support and assistance in preserving these places that are significant to Nome's history.

Recommendations

The preservation plan identifies a number of recommendations that should be implemented to assure that Nome's past is clearly supported by the community and demonstrates a desire to protect important historic resources. These recommendations include the following:

- Adopt and Implement the Historic Preservation Plan
- Review and Update the Historic Preservation Ordinance (76-10-1)
- Update the Nome Comprehensive Plan
- Periodically Review and Update the Historic Preservation Plan

INTRODUCTION to HISTORIC PRESERVATION

In 1966 the National Historic Preservation Act was adopted by the United States Congress. The National Park Service (NPS) was charged with implementing the programs outlined in the act. NPS describes historic preservation as follows:

> "Historic preservation is a conversation with our past about our future. It provides us with opportunities to ask, "What is important in our history?" and "What parts of our past can we preserve for the future?" Through historic preservation, we look at history in different ways, ask different questions of the past, and learn new things about our history and ourselves. Historic preservation is an important way for us to transmit our understanding of the past to future generations."

> "Our nation's history has many facets, and historic preservation helps tell these stories. Sometimes historic preservation involves celebrating events, people, places, and ideas that we are proud of; other times it involves recognizing moments in our history that can be painful or uncomfortable to remember."

Historic preservation includes the process of identifying, preserving, and protecting sites, districts, buildings, structures, or objects which reflect elements of a community's cultural, social, economic, political, archaeological or architectural history. This history is important because it links to specific times, places and events that were significant milestones in the past. Revisiting preserved elements of a community's past provides a sense of place, and maintains continuity between the past and the present.

What is Historic?

The generally accepted threshold of establishing an historic resource is its age of 50 years or greater. The NPS evaluation criteria for listing a resource on the National Register of Historic Places is a good reference for use in the evaluation and determination of the significance of an historic property within the national, state, or local community.

Properties of historic significance possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or

2. That are associated with the lives of persons significant in our past; or

3. That 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 values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

4. That have yielded, or may be likely to yield, information important in prehistory or history.

Historic resources (districts, sites, buildings, structures, and objects) that meet one of the above criteria are considered significant in a community's history and worthy of preservation and are the focus of the Vision, Goals, and Objectives of the Nome Historic Preservation Plan.

Benefits of Historic Preservation

The history of a community contributes to its personality. Preserving this personality through its history, historic properties, and culture gives a community its unique character. Historic preservation provides a link to the roots of the community and its people. It adds to the quality of life making for a more livable community.

Historic preservation is beneficial to the community in many ways:

- Cultural - a community is richer for having the tangible presence of past eras and historic styles. It benefits from traditional languages, customs, rituals, events and other cultural activities.

- Economical - a community benefits from increased property values and tax revenues when historic buildings are protected and made the focal point of revitalization and when the community is attractive to visitors seeking heritage tourism opportunities.

- Social - a community benefits when citizens take pride in its history and culture through mutual concern for the protection of the historic building fabric, sites, and cultural customs and practices.

- Developmental - a community benefits from having a concerted and well-defined planning approach for the protection of historic buildings while accommodating healthy growth.

- Environmental - a community benefits when historic buildings are recycled (restored or rehabilitated) rather than demolished and disposed of in the community landfill.

- Educational - a community benefits through teaching local heritage and the understanding of the past and the resultant cultural respect by its citizens.

Importance of Historic Preservation Planning

Historic preservation efforts can be influenced by national, state, and local factors: social; political; economic; legal; and other influences. These influences can come from private enterprises and/or public agencies. Successful preservation planning recognizes these influences and establishes goals, objectives, standards, and incentives to resolve conflicts between various parties in reaching consensus within the community.

Historic preservation planning is important for the following reasons:

A. To clearly state goals of preservation in the community.

B. To inform developers in advance how the community wants to grow and what the community wants to protect.

C. To assure consistency between various government policies that affect the community's historic resources.

D. To educate and inform citizens about their heritage and its value to the community.

E. To create an agenda for preservation activities and a framework to protect historic resources.

F. To comprehensively address issues relating to tourism, zoning, traffic patterns, development patterns, and design that might adversely affect historic preservation goals.

G. To encourage economic development through the preservation of historic resources.

H. To strengthen the political understanding of and support for historic preservation policies.

Activities Affecting Historic Resources

- Tourism: Heritage tourism is a growing sector of the tourism industry. Increased use of a historic resource through tourism development may have detrimental impacts to the property. Care should be taken to control the level of use and impacts to assure the integrity of the property is maintained. The balance between preservation and sharing the resource is critical as protection may be dependent on the economic benefits that tourism brings.

- New Development: As communities grow, pressure arises for new and larger buildings to meet the needs of the overall community and its businesses and its residents. New development in and around historic buildings, districts, sites, and neighborhoods can dilute the overall historic character by compromising the scale and fabric of the area. Additions and remodeling of existing buildings can have a negative impact to the overall character of the district if they are not done in a sensitive manner.

  Developing and adopting local design guidelines for new development projects that might negatively impact historic resources is an important tool for preserving the overall character of historic properties. Guidelines need to allow new buildings to reflect their own time but should identify general characteristics that would enhance the historic neighborhood rather than detract from the established architectural character.

- Demolition: Often buildings are demolished to make way for new development. This practice may have major impacts to the character of historic buildings, districts, sites, and neighborhoods. In many cases demolition is not as cost effective as rehabilitation of existing buildings.

  Communities should investigate offering financial assistance for preservation activities through grants, low interest loans, and tax incentives that would encourage developers to consider renovation rather than demolition of historic properties. Typically, renovation of existing buildings provides economic benefits to the community through increased local labor and materials purchases. In remote communities such as Nome there may be a cost advantage to preserve materials and avoid the cost of shipping in new materials.

- Maintenance: Buildings in general, require periodic repair and maintenance. Neglecting maintenance needs of historic buildings may leadto their destruction over time. Maintenance that is delayed often results in being too costly to reverse in later years. Relatively simple tasks such as keeping roofing intact to not allow water intrusion and the inevitable rot that would occur will preserve buildings for the future. Protecting wood elements with paint or preservative treatment will prolong materials.

Unique Events Affecting Historic Resources in Nome

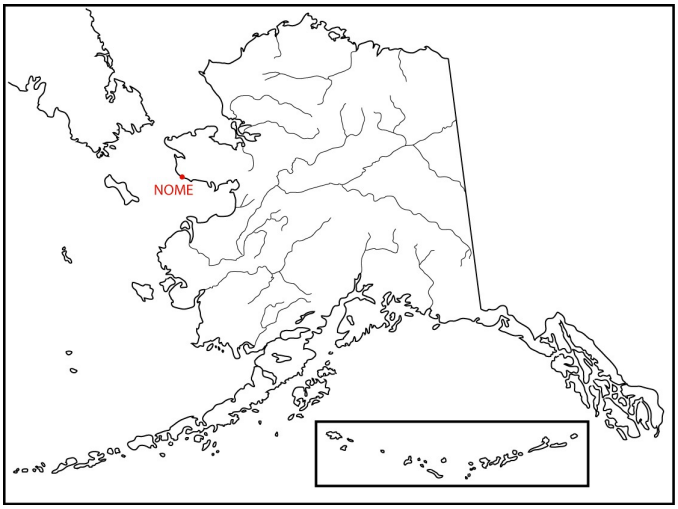
Sometimes unforeseen events can impact the history and historic resources of an area. Nome suffered fire and storm damage that erased much of the historic building fabric of the main downtown area. These events caused new design considerations for roadways and distances between buildings that are significantly different than the original construction practices. The new design standards significantly changed the character of the original community, especially in the downtown business areas.

Often, buildings that were spared by the fire or storm events were moved for reuse at other sites. In other cases, such as occurred with the closing of Marks Air Force Base, buildings were moved to recycle or reuse for other purposes. Moving an historic resource from its original location may reduce its historic integrity While this practice is not preferred in historic preservation efforts, it does serve to preserve important historic resources when other options are not available.

LOCATION and SETTING

Location

The City of Nome is located on the southwestern edge of the Seward Peninsula along the coast of Norton Sound of the Bering Sea. It is approximately 550 miles northwest of Anchorage and 102 miles south of the Arctic Circle.



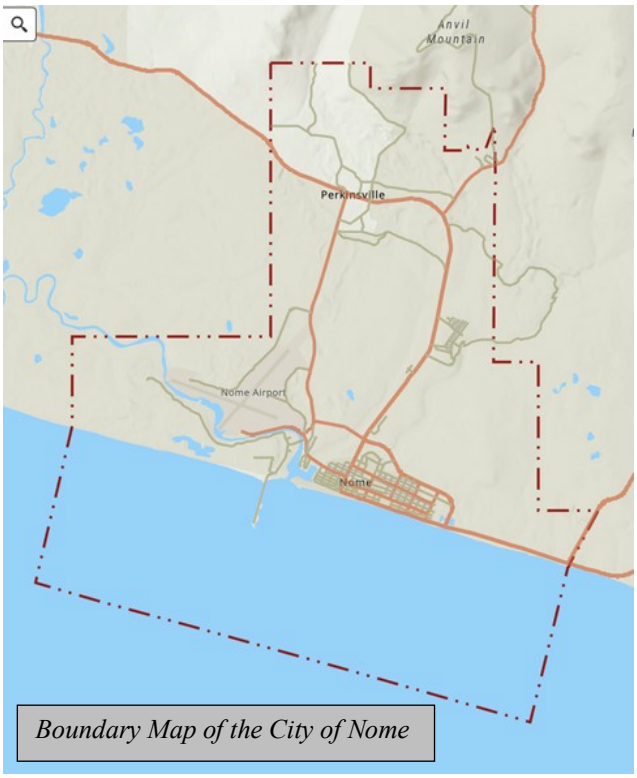
Nome is a regional hub of commerce, education, transportation, and tribal and federal government services for much of northwest Alaska.

Setting

The Seward Peninsula features rolling hills and flat lowlands cut by meandering streams and containing thousands of lakes and bogs. The area is in the transitional climate zone, receiving about 18 inches of rain and 56 inches of snowfall per year. Average temperatures range from -3 to +65 degrees Fahrenheit. The climate is influenced by both maritime and continental conditions. Maritime conditions dominate in the summer, while in the winter, conditions shift to a mostly continental climate. The area is known for numerous intense storms, particularly during the fall months. Storms usually arrive from the southwest, although intense storms can also come from the south and southeast.

City of Nome

The City of Nome became an Alaskan first-class city on April 9, 1901. The city has a total area of 21.6 square miles, of which 12.5 square miles is land and 9.1 square miles is water. The population of Nome has waned since the peak of early gold rush years. The 1900 census reported a population of 12,488. The 2010 census established the population at 3,598 and in 2018 the population was estimated to be 3,866.



Boundary Map of the City of Nome

Nome's local government is a Mayor / Manager administration. The executive power of the city is vested in the Mayor. The Mayor presides at meetings of the Common Council. Although the Mayor may take part in the discussion of a matter before the Common Council, the Mayor may not vote except in the case of a tie. The Mayor acts as ceremonial head of the City government, executes official documents on authorization of the Common Council, and is responsible for additional duties and powers prescribed by Alaska law.

The Mayor and Common Council employs a City Manager who serves as the Chief Administrative Officer for the City by providing management and policy direction as established by the Common Council. The City Manager is responsible for the overall supervision and coordination of City operations, which includes managing the multimillion-dollar annual budget for 13 departments, plus capital programs.

The city has a seven-member Planning Commission appointed by the Mayor. The Commission oversees the preparation and implementation of the Comprehensive Plan; land use regulations; coastal management program; platting regulations and serves as the Platting Board; considers and acts on variances and conditional uses; and other duties as prescribed by the Common Council.

The Common Council has adopted legislation that designates the Planning Commission as the official Historic Preservation Commission.

HISTORIC CONTEXT

Introduction

Nome has a rich heritage spanning from the earliest indigenous inhabitants to the modern-day community. A tool to understanding a community's history is to organize it into "historic contexts." An historic context is based on historic/cultural themes; geographical areas; and chronological periods.

Contexts describe the significant broad patterns of development in an area that may be represented by historic properties. As historic resources are identified they should be categorized within the historic contexts that relate to a community's history.

The State of Alaska's Historic Preservation Plan identifies themes and time periods that are useful in setting the appropriate contexts for Nome's historic resources.

Pre-History:

- First Inhabitants, Time Immemorial Prior to Contact (Mid 1700s).

Historic periods:

- Russian America, 1741-1867
- Early American Alaska, 1867-1897
- Gold Rush Era, 1897-1912
- Post Gold Rush, 1912-1939
- WWII and the Cold War Era, 1941-1959
- Statehood, Earthquake, and Oil Era, 1959 to present

Within these state-wide themes and time periods, historic contexts may be identified that are specific to Nome. Information about the occupancy and development of Nome provides a clearer picture of the overall history of the community. Some broad themes span various time periods. The following discussion identifies significant contexts that relate to historic resources identified in Nome.

First Inhabitants

- First Inhabitants, Time Immemorial Prior to Contact (Mid 1700s).

It is believed that the first people came to Alaska around 15,000 years ago across the Bering Land Bridge connecting with Siberian Russia. Ultimately these people migrated throughout northern Alaska and Canada. Although their lifestyle was primarily nomadic there is evidence of at least seasonal settlements near present-day Nome, one of which was an Inupiaq Eskimo settlement site at Cape Nome. The site is now a protected archaeological resource.

A relatively recent archaeological discovery indicates a more permanent Inupiat settlement was located at the mouth of the Snake River, which lies within the City of Nome boundaries. The settlement, known in Inupiat as Sitnasuak (NOM-00025), was uncovered during construction work in 2005-2006 to improve navigation to the Nome harbor. Two semi-subterranean houses and a trash midden dating back to 1700 were excavated and recovered tools, pottery, carvings, and animal bones. This discovery documents that indigenous people were in Nome prior to the Gold Rush.

Gold Seekers

- Early American Alaska, 1867-1897
- Gold Rush Era, 1897-1912

Since 1865, when gold was first discovered in the streams and coastal beaches of the Seward Peninsula, the area has been known for gold extraction. In 1898 gold was discovered about three miles north of present-day Nome along the banks of Anvil Creek. The discovery by the “Three Lucky Swedes” (Jafet Lindeberg, Eric Lindblom, and John Brynteson) set off one of the most famous gold rushes in American history.

Gold was also found in 1899 along the sandy beaches around the mouth of the Snake River that fed into the Bering Sea. With gold discoveries in the Nome area prospectors and suppliers arrived in droves. The spring of 1900 saw thousands of pioneers arriving from the ports of Seattle, Portland, and San Francisco setting off the great Alaska Gold Rush. Almost overnight this isolated area was transformed into a tent city of prospectors, gamblers, claim jumpers, saloonkeepers, lawyers, and prostitutes.

In short time, vessels arrived from southern ports with building materials and workers to craft a new community upland of the gold-laden beaches. The need for quickly erected buildings to serve the growing community meant there was no time to analyze the local climate and environmental conditions. The new residents brought with them the styles and forms of buildings they were accustomed to in their former communities. The lineup of buildings created narrow streets with wooden walkways.

Early photographs of Nome show bustling scenes with narrow streets, wooden walkways, and rows of buildings much like those erected in early mining towns of the western United States. Commercial businesses and government facilities were mainly located along Front Street (parallel to the beach) and Steadman Street (perpendicular to the beach). Most commercial buildings featured residential uses on the upper floors in the form of hotels, apartments, and rooms for prostitution. Family residences were located inland from the bustling scene of Front Street.

The only remaining commercial building of that early era is the Discovery Saloon (NOM-00042). It is located on Lomen Avenue at the west end of town along with a number of residential buildings from that era. Other historic resources include Alaska Gold Powerhouse, Anvil Creek Gold Discovery Site (NOM-00021) and Erik Lindbloom Placer Claim (NOM-00038).

Religious Influence

Religious influences through missions and churches occurred throughout Alaska's history including within and surrounding Nome. As additional research is undertaken it likely will be found that religious influences occurred during multiple theme and time periods. The most notable remaining church building in Nome, known at this time, is the Old St. Joseph's Church. Other buildings identified in past surveys include the Methodist Church (NOM-00035) and Methodist Rectory. Additional resources may exist and come to light in future historic building surveys as proposed by this preservation plan.

Old St. Joseph's Church

- Gold Rush Era, 1897-1912

As early as 1899 when Nome was a fledging gold rush tent city, some Catholic priests were organizing a small following. Two Jesuits, Fr. Louis Jadquet, a Belgian, and Fr. John Van der Pol, a Hollander, arrived in Nome in April 1901 to further a church presence. They officially established a church on July 4, 1901 and later on November 17, 1901 dedicated it to Saint Joseph. It became the westernmost Roman Catholic church in the United States.

The church building presented an impressive silhouette dominating the town skyline. It had a tall steeple with large cross lined with rows of electric lights. The cross could be seen for miles around and often served as a beacon for travelers during blizzards, a common occurrence along Alaska's coast.

In 1944 part of the bell tower and the spire were removed from the church for safety reasons. The building was sold in 1945 to the U.S. Smelting and Mining Company and converted to a warehouse. A second church building was constructed two blocks south of the old location. It was dedicated on Easter Sunday in 1946. This church was replaced in 1993, with a modern facility at the corner of Steadman and West King Place. This third and present Saint Joseph church was dedicated on March 19, 1994.

In 1995 the original church building was donated to the City of Nome by the U.S. Smelting and Mining Company. It was moved in 1996 to its current location. The setting of the church is within a city park known as Anvil City Square. The church has been restored to its original 1901 appearance, including the reconstruction of the bell tower and spire. The building now serves as community center.

The architectural style of the Old St. Joseph Church is Late 19th and 20th Century Revivals – Late Gothic Revival. It was listed on the National Register of Historic Places in 2000.

Reindeer Herders

- Post Gold Rush, 1912-1939

Nome's reindeer industry began with Dr. Sheldon Jackson, a pioneer missionary and educator. His plan was to develop reindeer herding as a viable industry for the local Natives. Jafet Lindeberg, one of the "Three Lucky Swedes" originally came to the Nome area as a reindeer herder.

The Lomen Company, founded by brothers Carl and Alfred Lomen, began developing a large-scale commercial reindeer enterprise in 1914. The peak reindeer years were from 1927 to 1930 when the Lomen Company and the Office of Indian Affairs, Reindeer Service, sold millions of pounds of reindeer meat throughout the United States. The reindeer market crashed as political and advertising endeavors of powerful cattlemen and sheep ranchers were able to thwart the vision of a great reindeer industry. The Lomen herding operations ceased after 1937 when passage of the Reindeer Act phased out white ownership of reindeer herds. Though Native herding continued it was much less in scale than originally envisioned.

There are some remaining sites, buildings, and structurers utilized during the reindeer breeding period. These include the Lomen Commercial Company Warehouse and BIA Building 402 or Reindeer House (NOM-00156).

Major Health Events

Nome suffered from global, national, and local health events over time. Two specific events, listed here, had tragic terminal results impacting many communities throughout the area. The global COVID/19 pandemic is sure to be identified as a significant historic health event in future community discussions.

Spanish Flu

- Post Gold Rush, 1912-1939

"A rapidly erupting pandemic. Repeated public reminders of safe hygiene practices. Travel limited. Indefinite quarantines. Schools closed for weeks on end. Governors begging the federal government for help. An insufficient rescue package from Congress. Passengers caught on ships. Orders to wear masks and

instructions to make them. Businesses struggling. A rancorous partisan federal election. Dead bodies piling up." (Quoted from Gastineau Heritage News). Thinking 2020/21 COVID-19 pandemic? Think again to the Spanish Flu pandemic of 1918.

The 1918 worldwide flu pandemic had significant impacts to Alaskan Natives including indigenous people in and around Nome. "By the time the 1918 flu virus burned out on the Seward Peninsula it had claimed some 750 lives, the majority of them Alaska Natives. Hundreds of children were left orphaned (The Nome Nugget)."

From the Sitnasuak Native Corporation website; "Sitnasuak Native Corporation (Sitnasuak), in partnership with community organizations, is glad to announce October 1, 2018 as the dedication date for the Sitnasuaŋmiut Quŋuwit.
This quŋuwit (Inupiaq for gravesite or cemetery) memorializes the indigenous people who are peacefully laid to rest at this site located in Nome, Alaska. The cemetery has been known as the "Sea View Cemetery" and "Eskimo Cemetery" in the past. During the 1918 global flu pandemic, at least 170 Sitnasuaŋmiut (People of Sitnasuaq) who perished in Nome were buried at this cemetery site in a mass grave. There are other mass grave sites throughout the Bering Strait Region that reflect the impact of the flu pandemic among our Alaska Native people."

Serum Run

- Post Gold Rush, 1912-1939

In the winter of 1924–1925, Curtis Welch was the only doctor in Nome. He, along with four nurses served the town and the surrounding communities. Several months earlier, Welch had placed an order for more diphtheria antitoxin after discovering that the hospital's entire batch had expired. However, thereplacement shipment did not arrive before the port was closed by ice for the winter, and more could not be shipped in to Nome until spring.
After treating an increasing number of cases of what was thought to be tonsillitis four children died. Since Welch had not been able to perform autopsy of the deceased, he became increasingly concerned about diphtheria as the cause of death.

By mid-January 1925, Welch officially diagnosed the first cases of diphtheria. Realizing that an epidemic was imminent, Welch called Mayor George Maynard to arrange an emergency town council meeting. The council immediately implemented a quarantine. The following day, on January 22, 1925,Welch sent radio telegrams to all other major towns in Alaska alerting them of public health risk and he also sent one to the U.S. Public Health Service in Washington, D.C. asking for assistance.

Despite the quarantine, there were over 20 confirmed cases of diphtheria and at least 50 more at risk by the end of January. Without antitoxin, it was expected that in the surrounding region's population of around 10,000 people would be severely impacted. Recalling the Spanish Flu pandemic of 1918, which wiped out about 50 percent of the native population of Nome, and 8 percent of the native population of Alaska, prompted quick action to get hold of diphtheria antitoxin

A proposal to set up a dogsled relay consisting of two fast team was developed. One team would start at Nenana and the other at Nome – meeting at Nulato to exchange the antitoxin. The Norwegian Leonhard Seppala was chosen for the 630-mile round trip from Nome to Nulato and back. A proposal to fly the serum into Nome from Fairbanks was nixed as no planes had previously flown that route in the harsh winter months.

In all there were 20 mushers and dog teams that completed the relay. The teams travelled day and night until they handed off the package to Seppala at Nulato. Together, the teams covered the 674 miles in 127 ½ hours, which was considered a world record. The run was made in extreme subzero temperatures with near-blizzard conditions and hurricane-force winds. The delivery of the serum fought off the feared epidemic. The death toll from diphtheria in Nome is officially listed as 5 to 7, but Welch later estimated there were probably at least 100 additional cases among the Native population in the area but outside the city. Forty-three new cases were diagnosed in 1926, but they were easily managed with a fresh supply of serum.
In 1973 Nome became the ending point of the 1,049-mile Iditarod Trail Sled Dog Race of which the latter part of its route was used in the serum run.

Military Presence

Since the United States acquired Alaska there has been some level of military presence to maintain law and order throughout the territory. As World War II

escalated, extensive military facilities were developed in Alaska. This military presence was also observed in Nome. Three specific events and facilities are identified here of which identifiable historic buildings and structures remain in Nome and the surrounding area.

World War II Build-Up

- WWII and the Cold War Era, 1941-1959

In 1940, rumors spread that the Russians were building an air and submarine base on Big Diomede Island just 150 miles northwest of Nome. The rumors proved untrue but they may have helped convince Congress to fund a military build-up in Alaska. Construction of an air base at Nome began in the summer of 1941. The military facilities were built on the spoils of gold dredging where the tailings provided firm foundations for buildings, roads, and landing strips. After the base was decommissioned in 1955 it became Nome's municipal airport. Many of the military buildings were made available for subsequent uses. Some of these buildings were moved to downtown Nome for use as storage, workshops, and other uses. A grouping of former military single family residential buildings was moved to Spokane Street in Nome and used as rental units.

U.S. Lend-Lease Program

- WWII and the Cold War Era, 1941-1959

In the decades following World War I, many Americans were wary of becoming involved in another costly international conflict. As conflicts began in Europe, isolationist members of Congress pushed through a series of laws limiting how the United States could respond including the supply of materials and weapons. President Franklin D. Roosevelt committed the United States to materially aiding the opponents of fascism, but, under existing U.S. law, allies had to pay for its arms purchases from the United Stateswith cash, popularly known as cash-and-carry.

By the summer of 1940, British prime minister, Winston Churchill was warning that his country could not pay cash for war materials much longer. The Lend-Lease Act of 1941 stated that the U.S. government could lend or lease, rather than sell, war supplies to any nation deemed "vital to the defense of the United States." Under this policy, the United States was able to

supply military aid to its foreign allies during World War II while still remaining officially neutral in the conflict. Most importantly, passage of the Lend-Lease Act enabled a struggling Great Britain to continue fighting against Germany virtually on its own until the United States entered World War II late in 1941.

By the end of 1941, the lend-lease policy was extended to include other U.S. allies, including the Soviet Union. Due to its strategic location, the City of Nome served a critical role in the Lend/Lease program. Approximately 8,000 aircraft flew through Nome to the Russian front.

The Alaska-Siberian supply route was shorter and less dangerous than sea routes. Aircraft was flown from Great Falls, Montana, through Whitehorse, Canada and into Fairbanks. There they were painted with a red soviet star and turned over to Russian pilots. The pilots would refuel and make repairs in Nome before completing their journey.

Remnants of a 1944-era WWII T-Hangar, representing the Lend/Lease history is located about three miles outside Nome on Teller Road. Some enthusiasts hope to restore the building and create an aviation museum so that this fascinating part of Nome's history can be preserved.

White Alice Communications System

- WWII and the Cold War Era, 1941-1959

Conceived in the 1950s to improve communications across Alaska the White Alice Communications System (WACS) was built by the U.S. Air Force beginning in 1955 and became operational in 1958. A series of giant antenna structures were built in several locations including Anvil Mountainoutside Nome. The construction brought some economic benefits to the area for a brief period. The large steel antenna structures of the WACS facility remain at the site. Although they are not within the boundaries of the City of Nome,the large structures present a striking landmark visible from Nome across the treeless tundra landscape.

Alberta Schenck and the Dream Theatre Incident 1944-1945

Alberta Schenck was born in Nome, Alaska, on June 1, 1928, to Albert Schenck, a white army veteran of World War I. Her mother was Mary Pushruk Schenck of native Inupiat heritage. She was born into an era when the indigenous peoples of Alaska were subjected to segregated practices that often left non-white children without an education for lack of facilities. Some segregated business establishments advertised that all their employees were white.

Alaska Dream Theatre incident

When Alberta was a high school girl in 1944, she had a part-time job ushering at the Alaska Dream Theatre in Nome, where part of her job was to make sure non-white patrons sat in their designated segregated area. She eventually registered a complaint with the theatre's manager and was fired. Alberta's response became an opinion article on March 3, 1944, in the *Nome Nugget* newspaper. She returned later with a white date, and the two of them sat in the "Whites Only" section. She and her army sergeant date refused to move when the manager demanded she move to the non-white section. The theater manager contacted the local police who arrested Schenck and placed her in jail for one night. Schenck's arrest rallied the local Inupiat community, who staged a protest at the theater until her release from jail the next day.

Anti-discrimination legislation

Indignant and determined not to be deterred, she wrote a letter to Alaska Governor Ernest Gruening and related the incident to him. The prior year, the Governor had seen his anti-discrimination bill be defeated in the Territorial Legislature. Her letter inspired the Governor to have the bill re-introduced in the Territorial Legislature, during which her experience was cited on the floor of the legislature. He answered her letter vowing that no one would again receive that kind of treatment in Alaska. The re-introduced bill passed both houses of the legislature and was signed into law as the Alaska Equal Rights Act of 1945 on February 16, 1945.

In 2011, Alberta Schenck Adams was inducted into the Alaska Women's Hall of Fame. ***Source:*** https://en.wikipedia.org/wiki/Alberta_Schenck_Adams

The Dream Theater burned down in the 1960s. The Historic Commission will pursue erecting a storyboard in Nome illustrating Ms. Schenek’s bravery.

King Island Residents Move to Nome

- Statehood, Earthquake, and Oil Era, 1959 to present

King Island is located approximately 90 miles from Nome in the Bering Straits. King Island was located and named by Captain James Cook in 1778. The island is considered to be one of the harshest environments in the world yet for thousands of years, a community of Inupiat people lived, survived, and thrived there. The village site on King Island which is located on the south side facing Russia, is called Ukivok (OO-Q-Vok). According to the State of Alaska Department of Community and Regional Affairs, in 1937 there were 190 residents, 45 houses, a Catholic church, and a school in the village.

In 1959, the Bureau of Indian Affairs decided to close the school on the island which ultimately led families to seek education opportunities on the mainland.

In the early 1960's, social and economic pressures and opportunities persuaded island residents to relocate to Nome. In Nome, King Islanders have maintained a distinct community identity. Former residents visited King Island in the spring and summer months to hunt walrus, pursue other subsistence activities, and maintain dwellings.

Although vacant most of the year, King Island is recognized as a distinct village corporation under the Alaska Native Claims Settlement Act (ANCSA), has an operative IRA Council, and conducts itself as a community organization based in Nome, Alaska. The King Island Native Corporation has 206 shareholders and owns several businesses.

Transportation

- First Inhabitants, Time Immemorial Prior to Contact, Mid 1700s.
- Russian America, 1741-1867
- Early American Alaska, 1867-1897
- Gold Rush Era, 1897-1912
- Post Gold Rush, 1912-1939
- WWII and the Cold War Era, 1941-1959
- Statehood, Earthquake, and Oil Era, 1959 to present

Transportation is a broad subject that spans all historic themes and time periods and which may include all movement from person powered to machine powered methods. The importance of this discussion is in understanding historic transportation trends and how transportation influenced the historic development of Nome. This understanding is important for relating identified historic resources to the overall history of Nome.

Access to and around Nome can be categorized into three basic routes: Land; Water; and Air. The following discusses the influence of transportation on the historic development of the city and connection to surrounding areas.

Land Access

The Bering Land Bridge is recognized as the primary land access route for indigenous people from Siberia to Alaska. The primary mode of transportation was pedestrian and may have been supplemented with dogs. People and dog pulled sleds were likely used to transport goods and belongings on the trek.
Sometimes people embarked on journeys with unconventional transportation means simply for the challenge or to join the swarms of people seeking their fortune. Such is the case of those who ventured out on wheeled bicycles. In February 1900, Ed Jesson left Dawson arriving in Nome several weeks later. In March of that year Max Hirshberg did the same trek by bicycle. His chain broke east of Nome so he rigged up a sail for the last leg of the venture.

Roads

Nome cannot be reached by road from Anchorage or other population centers of Alaska, but it is the hub for a regional network of roads that provide access to various villages, mines, and resource development sites eastward to Council, northwest to Teller, and north to Taylor. This road system is critical for connection and supplying needs of outlying communities. The main roads outside the city boundaries are maintained by the State of Alaska Department of Transportation and Public Facilities.

Railroads

Private rail lines were developed primarily to transport supplies and materials to area mining operations. In 1900 the Wild Goose Railroad was created by the Wild Goose Mining Company. Track was laid from Nome to the terminus at Anvil

City. The trains ran only from spring to November. In 1903 the Wild Goose Railroad was reorganized as the Nome Arctic Railway. In 1906 it was bought by The Seward Peninsula Railway and was ultimately acquired by the State of Alaska but it never resumed operations. In 1953 the railroad was reopened as The Curly Q Line which was outfitted for tourist operations but lasted only until 1955.

During the gold rush frenzy, the Western Alaska Construction Company was organized for the purpose of constructing the Council City & Solomon River Railroad (CC&SRR). The current Nome-Council Highway turns inland at the ghost town of Solomon, an old mining town where an abandoned railroad train known locally as the "Last Train to Nowhere" is located.
The engines of the CC&SRR were originally used in New York City on elevated lines in 1881. They were shipped to Alaska in 1903 to serve the miners along this line to Nome.

The remains of the railroad at Mile 31 of the Nome-Council Highway are comprised of three locomotives, two flat cars and a boiler. The site was listed as an historic district on the National Register of Historic Places in 2001.

Water Access

Water access has been important to Nome throughout the years. Baidarkas (enclosed skinned kayaks) and *Umiaqs* (open skinned boats) were used by early inhabitants for basic transportation from one location to another and for hunting expeditions. The original vessels were made of wood and skins but have evolved to more modern materials of wood, aluminum, fiberglass, and high-tech composites. These single and multiple passenger vessels continue to provide transportation for recreation, hunting, and ceremonial activities.

Once word got out about the gold discoveries, stampeders began arriving overland from the Klondike but the greatest number of prospectors arrived by steamships from Seattle, Portland, and San Francisco. The beaches of Nome did not offer deep water access so ships anchored offshore and people came ashore by small vessels. The water access allowed materials and supplies for the prospectors mining needs and for development of the new town.

The area at the mouth of the Snake River provided deeper water for the development of a port and harbor. Construction of Nome's original jetties began in 1919 and were complete by 1923. A seawall protecting Nome was constructed

in the early 1950s and a 3,000 ft. armor stone causeway was built in 1985. The Corps of Engineers continued improvements to the port in 2006 adding an approximately 3,000-foot-long breakwater east of the existing Causeway. During this project remains of two semi-subterranean houses and a trash midden dating back to 1700 were discovered as mentioned above.

Nome's port was and continues to be an important regional transshipment hub for many Western Alaska communities that rely on the port for movement of heating oil and gasoline, construction supplies, non-perishable food, gravel, and other cargo. The port is strategically positioned to serve national, state, regional, and local needs as it is poised to play an increasingly important role in a changing sea access to the Arctic.

Air Access

Air flights began in Nome as early as 1901 when Leonard, Prince of the Air, launched a balloon and drifted out to sea while performing trapeze acts. He parachuted to the sea where a boat was waiting to pluck him from the cold water. In 1905, Professor Nemo rose above Nome in a balloon as part of a May carnival. The first airplane built in Alaska was in 1911 by Professor Henry Peterson but after a number of attempts it never left the ground.

In August 1923 four Army biplanes, travelling cross country from New York City, circled Nome and landed at Fort Davis outside the city. In 1925 Noel Wein made the first commercial fight into Nome from Fairbanks. He later began Wein Alaska Airways in 1927 providing weekly flights to Fairbanks.

By 1939 Nome had five year-round commercial air operators (Wein Alaska Airlines, Mirow Air Service, Ferguson Airways, Northern Cross, Pacific Alaska Airways – a subsidiary of Pan American). Today Nome is primarily served by regular, scheduled jet service by Alaska Airlines.

The Nome Airport features a 6,000-foot main runway and a 5,576-foot crosswind runway. The airport occupies what was once Marks Air Force Base. There is also a small airstrip known as Nome City Field which offers a 1,950-foot-long gravel runway.
There are a number of historic buildings that remain in Nome that were connected to the history air access. These include a building used by Wein Alaska Airways and recycled buildings from Marks Air Force Base.

NOME PLANNING COMMISSION
REGULAR MEETING MINUTES
WEDNESDAY, NOVEMBER 03, 2021 at 7:00 PM
COUNCIL CHAMBERS IN CITY HALL

102 Division St. ▪ P.O. Box 281 . Nome, Alaska 99762 . Phone (907) 443-6663 . Fax (907) 443-5345

ROLL CALL

Members Present: Colleen Deighton; Ken Hughes; Mathew Michels; Sara Lizak; John Odden; Greg Smith; Carol Piscoya (arrived at 7:52)

Members Absent:

Also Present: Glenn Steckman, City Manager; Eileen Bechtol, City Planner (Microsoft Teams); Clifton McHenry, Building Inspector; Jeremy Jacobson, Acting Deputy City Clerk

In the audience: Julia Lerner, Nome Nugget; Bryant Hammond, City Clerk; Mark Johnson, City Council Member

APPROVAL OF AGENDA

A motion was made by C. Smith and seconded by C. Odden to approve the agenda.

At the roll call:

Aye: Hughes; Michels; Lizak; Odden; Smith; Deighton

Nay:

Abstain:

The motion **CARRIED.**

APPROVAL OF MINUTES

A. October 12, 2021 Nome Planning Commission Minutes,

A motion was made by C. Smith and seconded by C. Michels to approve the October 12th, 2021 minutes.

At the roll call:

Aye: Lizak; Odden; Smith; Deighton; Hughes; Michels

Nay:

Abstain:
The motion **CARRIED.**

HISTORIC PRESERVATION COMMISSION ACTIVITIES

A. Memo - Historic Preservation Plan 2021,

- Chairman Hughes opened by opining his concerns with the current Nome Historic Preservation Plan.
  City Planner Bechtol clarified for the commission the reason for the Historic Preservation Plan on the agenda that night. She noted the commission was to review Austin Ahmasuk's comments and make any amendments necessary before moving forward.
- C. Odden made inquiry to the grant parameters of the Historic Preservation Plan and if there were multiple grants currently being pursue.
- City Planner Bechtol stated there were no grants applied for yet with the Historic Preservation Plan. She detailed various options to highlight the King Island Tribe or "Dream Theater incident".
- C. Michels requested clarification, the Historic Preservation Plan is a living document, which City Planner Bechtol confirmed. He opined that the Planning Commission go through Mr. Ahmasuk's comments one by one, and incorporate what they can into the Historic Preservation Plan.
- C. Hughes opined the need for a work-session if Mr. Ahmasuk's comments were to be individually reviewed.
- C. Smith echoed Commissioner Michels suggestion to go over Mr. Ahmasuk's comments individually before proceeding.
- C. Hughes confirmed with the commission, a work session before the next meeting to review Mr. Ahmasuk's comments.

COMMUNICATIONS

No communications.

CITIZENS' COMMENTS

1. Mark Johnson (City Council member) at the podium as a citizen, opined a need for the Planning Commission to review Austim Ahmasuk's comments before moving forward with the Historic Preservation Plan. He denoted various existing local archival which he opined encompassed a lot of Mr. Ahmasuk's comments. He alluded to the Front St. memo on the agenda, advocating a revise of Front St. zoning code. Proposing the City's website be equip with a zoning manual for economic development.

NEW BUSINESS

A. Memo - Setbacks on Front St. and Bering St.,

- City Manager Steckman noted Front St. roadway proximity to buildings and sidewalks, advising Commission to assess Front St. setbacks and Bering street.
- C. Lizak pointed to City flood zone rating with relation to flood insurance.
- City Manager Steckman considered structures built to code and those not to code along Front street.

- C. Smith recollected zoning decisions made during their creation. Noting the detriments to building in the flood zone beyond economics.
- C. Lizak opined a practical approach to development within the Flood Zone.
- C. Michels acknowledged the various circumstances and suggested a work-session for January's meeting.

UNFINISHED BUSINESS

No unfinished business.

STAFF REPORTS

A. Permit Summaries,

No comments.

B. Planner's Report

No account given.

C. Building Inspector's Report

- Building Inspector McHenry noted recent licenses achieved and ongoing training. Various construction projects currently active around Nome. Noting right of way citations being sent out to citizens.

COMMISSIONERS' COMMENTS

1. C. Odden had no comments.
2. Smith had no comments.
3. Deighton had no comments regarding Planning Commission activities.
   C. Hughes had no comments.
4. Michels declared interest in the coming work sessions and thanked everyone attending.
5. C. Lizak thanked Mark Johnson for his remarks at the meeting. Reflected on Austin Ahmasuk's comments and the public's input, sharing gratitude toward City staff and anticipation towards the upcoming work sessions.
6. C. Piscoya (52:30ish) liked the idea of working with the City on the Front St. zoning and thanked Austin Ahmasuk for his remarks.

SCHEDULE OF NEXT MEETING

A. The next meeting of the Nome Planning Commission is a work session to review Austin Ahmasuk's comments regarding the Historic Preservation Plan, scheduled December 7, 2021.

The next Regular meeting of the Planning Commission is scheduled for December 7, 2021.

ADJOURNMENT

A motion was made by C. Smith and seconded by C. Michels to adjourn.

Hearing no objections, the Nome Planning Commission adjourned at 7:40 PM.

APPROVED and **SIGNED** this 7th day of December, 2021.

_____

KENNETH HUGHES III
Chair

ATTEST:

_____

JEREMY JACOBSON
Acting Deputy City Clerk

From: Johnston, Christopher F (DOT)
To: Bryant Hammond
Subject: Local Planning Review for Seppala Drive Upgrades
Date: Wednesday, November 24, 2021 9:22:49 AM
Attachments: 62003_Planning_Commission_Ltr 11.24.pdf
21y05m03d_Seppala Final DSR_Signed.pdf

Mr. Hammond,

Please see attached letter requesting local planning review for the upcoming Seppala Drive Upgrades project.

I will be on leave from the 29th through December 13th but would be available after that if the Planning Commission has questions or would like DOT&PF to present at a Planning Commission Meeting.

Christopher Johnston, P.E.
Engineering Manager | Northern Region Design | Alaska Department of Transportation & Public Facilities
2301 Peger Road, Fairbanks, AK 99709 | (907)451-2322 | chris.johnston@alaska.gov

THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Transportation and Public Facilities

NORTHERN REGION
Design & Engineering Services

2301 Peger Road
Fairbanks, AK 99709-5316
Main: 907-451-2273
TDD: 907-451-2363
dot.alaska.gov

November 24, 2021

Nome Planning Commission
P.O. Box 281
Nome, AK 99762

Re: Seppala Drive Upgrades
Z62003000 / 000S828

Dear Nome Planning Commission:

The enclosed plans are submitted for your review and comment, and for determination of compliance with local planning and zoning ordinances. Under AS 35.30.020, the Department of Transportation and Public Facilities (DOT&PF) must comply with local planning and zoning ordinances and other regulations in the same manner and to the same extent as other landowners. If you believe DOT&PF's construction of this project would result in a violation of planning, zoning, or other regulations generally applicable to landowners, please identify the portions of the project that would be in violation, and the specific planning, zoning, or other regulations that you believe would be violated.

Pursuant to AS 35.30.010, you have 90 days from delivery of the plans to provide comments on the project and to notify DOT&PF whether the project violates any planning, zoning, or other regulations. If comments are not received within this time frame, DOT&PF is authorized to proceed with the project.

Thank you for attention to this matter

Sincerely,

Christopher Johnston, P.E.
Engineering Manager

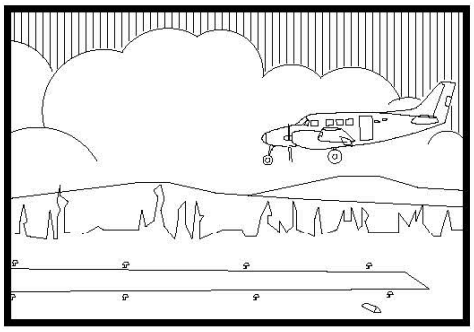
Enclosure
CFJ/las

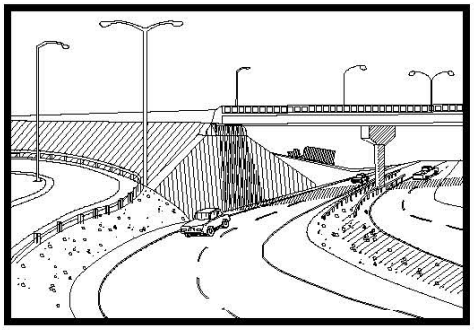
Copy to: Preconstruction\Projects

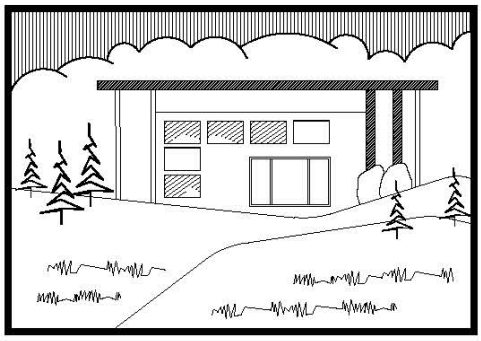
DESIGN STUDY REPORT

Seppala Drive Upgrades

Z620030000/000S828

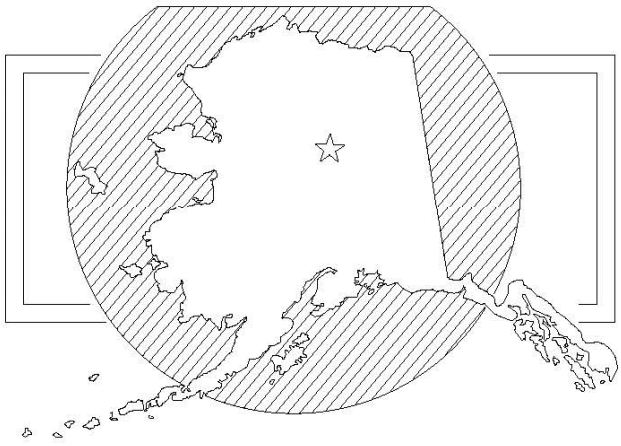






STATE OF ALASKA

Department of Transportation and Public Facilities



NORTHERN REGION

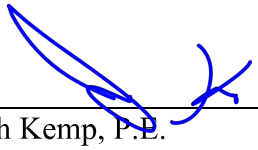
February 2021

DESIGN APPROVAL

SEPPALA DRIVE UPGRADES

PROJECT NO. Z620030000/000S828

Requested by:



5/7/2021

Joseph Kemp, P.E. — Date
Engineering Manager
Northern Region

Design Approval Granted:

5/11/2021

Sarah E. Schacher, P.E. — Date
Preconstruction Engineer
Northern Region

Distribution: DSR Distribution Memo Recipients

DESIGN STUDY REPORT
FOR

SEPPALA DRIVE UPGRADES

PROJECT NO. Z620030000/000S828

PREPARED BY: Anne M. Nelson, P.E.

ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION DESIGN AND ENGINEERING SERVICES
FEBRUARY 2021

SEPPALA DRIVE UPGRADES
PROJECT NO. Z620030000/000S828

Table of Contents

INTRODUCTION/HISTORY

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Highways Administration (FHWA), proposes to rehabilitate Seppala Drive from the Nome Airport to Bering Street (see Figure 1).

Seppala Drive, a two-lane paved road in Nome, Alaska, serves as the primary connection between the airport to the west and downtown Nome to the east. Jafet Road, which serves the industrial Port of Nome area, intersects Seppala Drive near the middle, as does Center Creek Road, the route that trucks hauling freight and gravel to the port use to bypass the city streets. The eastern third of Seppala Drive provides access to residential and commercial areas and ties into Bering Street, the major north-south corridor in the city center.

The project is needed to address poor pavement conditions, drainage issues, driving safety concerns, and lack of continuous pedestrian facilities. Erosion from high flow or storm surge events is degrading portions of the embankment along Seppala Drive from the bridge towards the airport. This could impact the road and pedestrian facilities in the future. Between Center Creek Road and Jafet Road, the steep grade of Seppala Drive and the close spacing of the intersections are cause for concern. Truck traffic accessing Port Road makes frequent use of the Center Creek and Jafet Road intersections, and slick or icy conditions can make this series of turns difficult to navigate. From Belmont Street to Bering Street, the road shoulders along Seppala Drive are badly deteriorated due to poor surface drainage, unstable soil conditions beneath the road and sidewalks, and settlement near some utility service laterals. Between F Street and Belmont Street, the north side of Seppala Drive has no shoulder. The Dry Creek crossing gets overtopped during high storm surge events, and the culverts are out of round and showing signs of damage to the pipe ends. Pedestrian routes along Seppala Drive do not meet current Americans with Disabilities Act (ADA) standards.

PROJECT DESCRIPTION

This project will rehabilitate Seppala Drive (approximately 1.5 miles) with pavement structure improvements, drainage improvements, intersection improvements, and ADA improvements.

The proposed project layout is shown on the Preliminary Plan and Profile Sheets (Appendix D).

Proposed upgrades include:

- Reconstruct and pave Seppala Drive from Airport Terminal Road to Bering Street, including select improvements to the subgrade.
- Replace and construct pedestrian improvements along Seppala Drive. Improvements include providing a shared use path from the airport to Prospect Place (one or more portions of this path may need to traverse a widened road shoulder due to space limitations); adding sidewalk on the south side of Seppala Drive from Prospect Place to F Street; and replacing sidewalk on both sides of Seppala Drive between F Street and Bering Street.
- Repair sinkhole near F Street.
- Widen the northern road shoulder between the curve west of Belmont Street and F Street.

- Replace existing 6-foot- and 7-foot-diameter Dry Creek culverts with a single 10-foot culvert and raise the height of Seppala Drive approximately 3.7 feet to prevent water flowing over the road surface during storm surges. The new culvert will be bigger and longer than the existing to accommodate the storm surge and the higher embankment, and a portion of Dry Creek will require realignment. Culvert inverts will be depressed to improve flow between the ocean and the tidal zone of Dry Creek.
- Raise profile grade from a few hundred feet west of Center Creek Road to Jafet Road to improve sight distance and turning movement.
- Raise profile grade 4 feet between Station 36+00 and Center Creek Road to prevent overtopping by storm surges. Raising the grade will also improve sight distances and turning movements at the Center Creek Road intersection.
- Replace guardrail along the Snake River. Widen Seppala Drive to the north in order to accommodate the pedestrian improvements and raised profile west of Center Creek Road.
- Add slope protection to the south along the Snake River between the old bridge location and Jafet Road.
- Replace damaged 36-inch-diameter culvert at Center Creek.
- Acquire right of way (ROW) as needed along the project corridor.
- Relocate or repair utilities impacted by the project.

DESIGN STANDARDS

The design of this project is based on:

- DOT&PF *Highway Preconstruction Manual*, 2013 (HPCM)
- DOT&PF *Alaska Flexible Pavement Design Manual*, 2004 (AFPD)
- DOT&PF *Alaska Traffic Manual,* 2016 with latest Interim Revisions
- AASHTO *A Policy on Geometric Design of Highways and Streets*, 2011
- AASHTO *Roadside Design Guide*, 2011
- AASHTO *Guide for the Development of Bicycle Facilities,* 2012
- U.S. Department of Transportation *ADA Standards for Transportation Facilities*, 2006

Refer to Appendix A for the project Design Criteria.

DESIGN EXCEPTIONS AND DESIGN WAIVERS

At this time, no design exceptions or waivers are anticipated for this project.

DESIGN ALTERNATIVES

Center Creek Intersection

The left-hand turn from Center Creek Road eastward onto Seppala Drive has been identified as a challenging maneuver due to the steep grade and the adverse crown on Seppala, which causes vehicles to drift to the outside of their turn and makes it difficult to accelerate up the hill. This movement is commonly used by loaded gravel trucks heading to the port and by local school buses. Two alternatives were considered for this intersection.

- ***Existing Layout:*** Maintain T intersection with Seppala Drive with a 4.3% slope on Seppala between the Center Creek and Jafet intersections.
  - Provides lower profile grade (1%) on Seppala at the intersection, but transitions to 4.3% grade shortly after.
  - Requires less change to the Center Creek Road profile leading into the intersection.

- ***Grade Raise:*** Raise the grade on both Seppala Drive and Center Creek Road at that intersection and flatten the slope climbing up to the Jafet Road intersection.
  - Lowers the Seppala Drive profile grade to 2.5% through the Center Creek intersection and continuing to the Jafet Road intersection.
  - Reduces the effect of adverse grade, because trucks will not be accelerating uphill while turning.
  - Improves sight distance between the two intersections.

PREFERRED DESIGN ALTERNATIVE

The grade raise at the Center Creek intersection was selected as the preferred alternative. This option both reduces the effect of adverse grade experienced by turning traffic and improves the sight distance between the Center Creek and Jafet Road intersections. These improvements are important for safety, as this turning movement is commonly used by trucks hauling freight and gravel and by school buses.

3R ANALYSIS

Not applicable. This is a reconstruction project.

TRAFFIC ANALYSIS

Detailed traffic analysis was not performed as part of this study. Seppala Drive has a functional classification of Minor Arterial. Traffic volumes are projected to increase at a rate of 0.89% per year. Traffic values are:

Seppala Drive	Base (2018)	Predicted (2035)	Predicted (2045)
ADT (2-Way)	2,300	2,670	2,920
DHV (12.5%)	--	330	360
ESALs (Design Lane) T=5.45%	--	271,212	473,115

The existing number of lanes and lack of turn lanes at the Center Creek and Jafet intersections was analyzed by Kittelson and Associates. No additional turn lanes or through lanes are required. See Appendix A for complete Design Designation and Appendix E for Turn Lane Evaluation.

Existing road shoulders vary in width from 6 to 4 feet from project start to Station 44+00 and from Station 58+00 to 67+00. Existing shoulders are 8 feet at all other locations. Shoulders will be increased to 8 feet wide along the entire project corridor.

Official crash data for 2013 through 2017 was analyzed. During that time, one crash was reported: a property damage incident occurred at 704 Seppala Drive when a driver backed into a parked car.

HORIZONTAL/VERTICAL ALIGNMENT

The proposed horizontal alignment generally follows the existing roadway. The horizontal curve between the Snake River and the airport will be shifted slightly north to accommodate the widened shoulder and guardrail along the river while limiting the fill into the Snake River from the slope protection.

The vertical profile of Seppala Drive will generally follow the existing pavement except where it will be raised above the storm surge elevation (see Drainage section). The profile will be raised to elevation 14.5 feet between Station 34+00 and the Center Creek intersection (Sta 45+83) and over the existing Dry Creek culvert. The grade raise should provide 1.5 feet of freeboard over the storm surge elevation to prevent overtopping of the roadway. The profile at the Center Creek intersection will reduce the sag curve and improve the left-hand turn movement from Center Creek Road onto Seppala Drive. This movement is often used by loaded trucks hauling freight to the port.

TYPICAL SECTION(S)

The proposed typical section for the rural area from the airport to Prospect Place on Seppala Drive (Sta 12+00 to 55+50) and for the airport loop (Sta 2+50 to 8+25) is a paved two-lane, two-way roadway with a shoulder/parking lane on both sides and separated shared-use path on one side:

The proposed typical section for the Dry Creek area from Prospect Place to F Street on Seppala Drive (Sta 55+50 to 66+50) is a paved two-lane, two-way roadway with a shoulder/parking lane on both sides and curb and gutter and concrete sidewalk on the right-hand side:

The proposed typical section for the urban area from F Street to Bering Street (Sta 66+50 to 81+60) on Seppala Drive is a paved two-lane, two-way roadway with a shoulder/parking lane, curb and gutter, and concrete sidewalk on both sides:

PAVEMENT DESIGN

Pavement design calculations were performed for a 25-year design life using the AFPD program and manual. The mechanistic method was utilized in the design of the structural pavement section.

The AFPD Manual design methodology is based on two primary traffic load indicators, the average annual daily traffic (AADT) and the equivalent single axle load (ESAL). The AADT and ESAL used were 2,920 and 473,115, respectively. Heavy vehicles consisted of 5.45% of the total traffic load.

The 3-inch-thick asphalt in the roadway will be underlain by 4 inches of base course, 8 inches of subbase, and 10 inches of selected material. The sidewalk will be underlain by 12 inches of subbase material.

PRELIMINARY BRIDGE LAYOUT

Not applicable.

RIGHT-OF-WAY REQUIREMENTS

Much of the project will be confined to the existing ROW. The following acquisitions will be necessary (see corresponding numbers on plan and profile sheets):

No.	Acquisition	Current Ownership
1	Acquisition on the inside of the curve at the east end of the airport (Sta 39+00) on the Snake River to capture the slope protection on the inside or the curve.	State of Alaska
2	A strip on the outside of the curve at the west end of the airport (Sta 39+00) to capture the existing roadway embankment and drainage. This is airport property.	State of Alaska
3	Small strips along McClain to fit the roadway and drainage. Existing ROW is 20 feet.	Private
4	Small triangle on the north side of Seppala across from Belmont Street to capture catch slope and drainage.	City of Nome
5	Acquisition to capture the existing Belmont Street embankment.	City of Nome
6	Acquisition to capture catch slope for the grade raise west of Dry Creek.	Bering Straits Native Corporation (BSNC)
7	A small area for the northern catch slope at the grade raise at Dry Creek.	
8	Land for the Dry Creek realignment and catch slope at the grade raise.	BSNC
9	Acquisition where the proposed sidewalk and catch slope fall outside the existing ROW near the SE quadrant of the F Street intersection.	
10	Acquisition where the proposed sidewalk and catch slope fall outside the existing ROW on the north side of Seppala between F Street and E Street.	Private
11	Strip of land to capture catch slope on the north side of Seppala between D Street and C Street.	Private (2 parcels) Kawerak, Inc. (1 parcel)
12	Strip of land to capture catch slope on the north side of Seppala between C Street and B Street.	Private (1 parcel) Nanuaq, Inc. (1 parcel)

Temporary Construction Permits will be obtained for driveway reconstruction.

MAINTENANCE CONSIDERATIONS

The primary maintenance concerns with the existing roadway are patching of deteriorated pavement and repairs necessitated by poor drainage. New curb and gutter, valley gutters across side streets, and swales along side streets will reestablish and improve the drainage system. Installing new pavement and rebuilding the upper portion of the pavement structure will provide a more durable repair of the surface than patching.

This project will reconstruct 4.66 lane miles of road and construct 0.53 lane miles of new shared use path. It will not change the total lane miles of Seppala Drive. Ongoing maintenance will be required to clean debris from the flow lines of gutters and culverts.

MATERIAL SOURCES

All materials will be contractor-furnished. There are enough local commercial or private sources to provide the quantity and quality of aggregate required for the project. The asphalt materials and plant will be imported to Nome if a plant is not located in town when the project is constructed.

UTILITY RELOCATION & COORDINATION

Existing utilities along the Seppala Drive corridor include buried water and sewer and overhead electric and communication lines. Water and sewer extend from the airport to the old Snake River bridge location at Sta 35+00 and from Prospect Place to Bering Street. Depths of water lines are assumed to be 4 to 5 feet, and the sewer line is assumed to be between 5 and 8 feet deep, based on limited as-built and utility permit information in the area. Depths of water and sewer services are unknown.

A force main was installed on top of the existing large diameter culverts at Dry Creek. The force main extends from the lift station located at the south end of Belmont Street to a manhole located at the E Street/ Seppala intersection. On the as-builts, the distance between the existing culvert crown and the bottom of the force main is unclear. Dry Creek crosses a sag in the force main profile between high points at Belmont and E Street, so slightly raising the force main will not change the operational risks. The force main will need to be relocated to accommodate the larger-diameter culvert; a temporary bypass will be utilized during construction. A 2012 project installed a bore water line outside the culverts at the Dry Creek crossing, so water line relocation will not be necessary.

ACCESS CONTROL FEATURES

There are no controlled-access facilities within the project limits. All access control is common access control with driveways onto the roadway. This project will not change the access control.

PEDESTRIAN/BICYCLE (ADA) PROVISIONS

The project will improve the existing sidewalks from F Street (Sta 68+00) to the intersection with Bering Street by widening the sidewalk from 4 feet to 5 feet. The existing pedestrian route from the airport to F Street is via the narrow road shoulder. The proposed pedestrian route will be by sidewalk, 10-foot separated shared-use path, and 8-foot widened shoulder. From the airport to Prospect Place, pedestrians will utilize a separated path along the south side of Seppala Drive. The path will merge into an 8-foot widened shoulder at the curve along the Snake River (Sta 35+50 to 44+60), where not enough ROW is available to accommodate a shared use path. Pedestrians will also use the road shoulder at the Jafet Road intersection, partly because the horizontal geometry involving the river and the bridge does not accommodate a shared use path

and partly because it is safer for pedestrians to cross the intersection at the location of the stop bar for vehicles. East of Jafet Road, a shared use path will tie into a 5-foot sidewalk on the south side of the road from Prospect Place to F Street. A 5-foot concrete sidewalk will be available on both the north and south sides of Seppala Drive from F Street to Bering Street.

The pedestrian route design will meet the criteria of the Americans with Disabilities Act, utilizing a maximum cross slope of 1.5% for sidewalks and paths and not exceeding 2% at crosswalks. Profile grades will not exceed 5% except at curb ramps.

SAFETY IMPROVEMENTS

Safety will be improved with the construction of shared use path, sidewalk, and widened shoulders. These will allow pedestrians to move off the narrow shoulders and reduce risk of a pedestrian collision.

The grade raise at Dry Creek and west of Center Creek should prevent future overtopping of the road during storm surges.

The profile changes east of the Center Creek intersection will improve sight distance and reduce the profile grade for turning traffic. This intersection is heavily traveled by trucks loaded with freight or gravel turning left from Center Creek Road to Seppala Drive and then right onto Jafet Road bound for the Port of Nome.

INTELLIGENT TRANSPORTATION SYSTEM FEATURES

Not applicable. There are no intelligent transportation system features within the project limits.

DRAINAGE

Existing drainage along Seppala Drive is via surface flow to culverts that discharge to the Snake River and Norton Sound. From the airport to F Street, water from the road surface flows to drainage swales. Discharge from the north flows into the Snake River through cross culverts along the corridor. The 36-inch cross culvert at Center Creek is aged and out of round and will be replaced with this project.

From F Street to Bering Street, water from the road surface flows into gutters. From the high point at Sta 79+00 (C Street), water flows east to Bering Street and south to Norton Sound or west to Dry Creek and into the Nome harbor. The existing curb and gutter has settled in many places, resulting in drainage issues that include water ponding along the curb line.

The existing 6-foot- and 7-foot-diameter Dry Creek culverts will be replaced with one 10-foot-diameter culvert to accommodate fish passage and storm surge. A 10-foot-diameter culvert can be embedded deep enough to facilitate fish passage while still providing sufficient conveyance of the 100-year storm event. During scoping for this project, the U.S. Fish and Wildlife Service (USFWS) and Alaska Department of Fish and Game (ADF&G) asked to be consulted for input during culvert design in the hope of restoring tidal influence to the Dry Creek and Bourbon

Creek drainages, which discharge through the culverts under Seppala Drive into the small boat harbor and Norton Sound. The existing culverts are perched and too narrow to allow the free exchange of sea water that historicaly influenced the Dry and Burbon Creek wetlands. The restricted exchange of seawater may have changed the lower reaches of the creeks from a brackish ecosystem to a freshwater ecosystem. Preliminary engineering has identified that a single 10-foot culvert will satisfy engineering requirements for conveyance of the design flood and improve tidal influence. Coordination with ADF&G and USFWS will likely result in further design requirements related to the placement of substrate within the embedded culvert as well as refinement of embedment depths and culvert slope/inlet elevations.

A hydrologic and hydraulic (H&H) report was prepared to evaluate the hydrologic characteristics of the Snake River, conduct a hydraulic analysis to determine the flood elevation, and design the erosion protection for the Snake River from Station 34+60 to 46+50. The selected erosion control design is a riprap slope protection section that matches the section used on the Snake River Bridge project. The proposed slope protection will extend from the riprap placed at the old Snake River bridge site (Sta 34+60) down the Snake River to tie into the riprap placed at the new Snake River bridge (Sta 46+50).

The study determined the design flood elevation for a 100-year event to be approximately 13 feet, including effects from storm surge. A design flood elevation of 14.5 feet is used for the roadwalk and riprap design to account for half the height of a 3-foot wave on top of the storm-induced water level. Two sections of the existing road are below this elevation and will be raised to prevent overtopping during storm surges. Grade raises will occur from Station 34+00 to the Center Creek intersection (Sta 45+83) and at the Dry Creek culverts from Station 60+40 to 68+30.

The grade raise at the Dry Creek culverts will expand the embankment's footprint. Part of the Dry Creek channel runs along the north toe of the embankment and will be impacted by this larger footprint. The Dry Creek channel will be realigned to run along the new embankment toe, and slope protection will be placed on the embankment.

SOIL CONDITIONS

The city of Nome is located in a subarctic climate on the coastal lowlands of the Seward Peninsula Physiographic Province, which is generally underlain by relatively warm (ground temperatures near and above 31°F) continuous and discontinuous permafrost. Where construction, mining activity, and development have disturbed the ground surface, permafrost degradation has occurred. Nome experiences 3,900 freezing degree days and 2,300 thawing degree days.

Airport Terminal to Dry Creek (STA 11+00 to 64+00)

- ***Fill:*** 0–2.5 to 15.5 feet bgs – poorly graded Sand, Silty Sand, to Silty Gravel
- ***Subsurface:*** Poorly graded Sand, Silty Sand, Silty Gravel, to Sandy Silt. Schist bedrock was noted in historic boreholes below 27.5 feet bgs.
- ***Permafrost:*** Permafrost was not observed in the upper 21.5 feet; therefore, it is either deeper than 21.5 feet (extent of borehole exploration) or nonexistent.

- ***Groundwater:*** Groundwater was observed at depths between 11 and 14 feet bgs while drilling. Groundwater is expected to be at shallower depths during summer months with peaks during periods of increased precipitation.

Dry Creek to West C Street (STA 64+00 to 77+50)

- ***Fill:*** 0 to 8 feet bgs – Silty Sand and Gravel
- ***Subsurface:*** Poorly graded Sand and Gravel, Silty Sand, and Gravel
- ***Organic Subgrade:*** 6 to 8 feet bgs – Very soft peat and organic silt deposits were observed in boreholes G19-BH-02, G19-BH-03, and G19-BH-06, likely at the base of the original road excavation and embankment. This area also contains silt layers observed in boreholes G19-BH-05 and G19-BH-06 at depths of 27 and 10.5 feet bgs, respectively.
- ***Permafrost:*** Approximately 30 feet bgs in a well graded sand with silt
- ***Groundwater:*** Groundwater was observed between 7 and 21 feet bgs while drilling, but it is expected to be higher during the spring or fall at periods of thaw or increased precipitation.

West C Street to Bering Street (STA 77+50 to 81+35)

- ***Fill:*** 0 to 8.5 feet below ground surface (bgs) – Silty Sand and Gravel
- ***Fine Grained Subgrade:*** 8.5 to 13 feet bgs – Silt, Clayey Silt, Silty Sand, and poorly graded Sand
- ***Subsurface:*** 13 feet bgs to bottom of explorations
- ***Permafrost:*** Permafrost was not observed in the upper 16.5 feet; therefore, it is either deeper than 16.5 feet (extent of borehole exploration) or nonexistent.
- ***Groundwater:*** No groundwater was observed during drilling.

The sinkhole located near F street was formed due to thawing of unstable peat with sand and silt. Based on boreholes performed at the sinkhole location, the permafrost thaw has extended through the peat layer into thaw stable silty sand. Significant additional settlement is that anticipated at this location.

EROSION AND SEDIMENT CONTROL

The project's Erosion and Sentiment Control Plan (ESCP) will include recommended permanent and temporary Best Management Practices (BMPs) that may be used during construction. A Storm Water Pollution Prevention Plan (SWPPP) must be developed by the contractor in order to obtain coverage under the Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP). This SWPPP will detail the BMPs the contractor will use to prevent sediment-laden stormwater runoff from leaving the project area and entering Norton Sound.

ENVIRONMENTAL COMMITMENTS

ADF&G stipulates that work in Dry Creek may occur only from May through July and work involving the Snake River may only occur between April/May and July. Fish habitat permits must be obtained from ADF&G. DOT&PF will coordinate with ADF&G through the permitting process. ADF&G supports the opportunity to replace the Dry Creek culverts and establish tidal exchange with the Dry Creek and Bourbon Creek wetlands.

USFWS recommends implementing current BMPs to minimize the introduction and proliferation of invasive species.

There are four active contaminated sites along the project corridor. Two sites are located at the airport (Evergreen Helicopters and Mark Air Hangers), one site at the Crowley Tank Farm on F Street and one site at the east side of the Harbor.

WORK ZONE TRAFFIC CONTROL

This project is significant for traffic control as defined in Section 1400.2 of the Highway Preconstruction Manual. The contractor will develop a Traffic Control Plan during construction.

Seppala Drive from the airport to Center Creek Road is a dead end with no detour route. This stretch of road serves the airport terminal, and access must be maintained during construction.

Jafet Road is the only access to the port area, which serves many commercial uses (including the City jetty, water treatment plant, power plant, and post office) and one residence. Access through this intersection and across the Snake River Bridge must be maintained during construction.

Center Creek Road, Little Creek Road, and Bering Street can provide detour access from the airport to downtown Nome during replacement of the Dry Creek culvert and road closures. Downtown Nome itself is laid out on a grid system. From F Street to Bering Street, the contractor may consider closing portions of the road and detouring traffic to the adjacent streets.

VALUE ENGINEERING

Value engineering is not required for this project.

COST ESTIMATE

The estimated costs for this project are as follows:

Design	$737,754.31
Utilities	$1,000,000
Right of Way	$300,000
Construction (Includes 15% Engineering)	$12,897,356.92
Total Cost of Project	$14,935,111.23

APPENDIX A

DESIGN CRITERIA
AND
DESIGN DESIGNATION

ALASKA DOT&PF PRECONSTRUCTION MANUAL
Chapter 11 - Design
PROJECT DESIGN CRITERIA

Project Name:	SEPPALA DRIVE UPGRADES			
☑ New Construction/Reconstruction	☐ 3R ☐ PM ☐ Other:			
Project Number:	Z620030000/000S828		☐ NHS	☑ Non NHS
Functional Classification:	Current: Minor Arterial			
Design Year:	2045	**Present ADT:**	2300	
Design Year ADT:	2920	**Mid Design Period ADT:**	2670	
DHV:	360	**Directional Split:**	40-60	
Percent Trucks:	5.45%	**Equivalent Axle Loading:**	473,115	
Pavement Design Year:	2045	**Design Vehicle:**	WB-67	
Terrain:	Level	**Number of Roadways:**	1	
Design Speed:	30			
Width of Traveled Way:	(2) 11' lanes - 22'			
Width of Shoulders:	Outside:	8'	Inside: None	N/A
Cross Slope:	2%			
Superelevation Rate:	6%			
Minimum Radius of Curvature:	275			
Min. K-Value for Vert. Curves:	Sag:	37	Crest:	19
Maximum Allowable Grade:	5%			
Minimum Allowable Grade:	0.3%			
Stopping Sight Distance:	200ft			
Lateral Offset to Obstruction:	12'			
Vertical Clearance:	16'-6"			
Bridge Width:	N/A			
Bridge Structural Capacity:	N/A			
Passing Sight Distance:	1470'			
Surface Treatment:	**T/W: Asphalt Concrete**		**Shoulders: Asphalt Concrete**	
Side Slope Ratios:	**Foreslopes: C&G w/ Sidewalks or 4:1**		**Backslopes: N/A**	
Degree of Access Control:	**Driveway Permit Process**			
Median Treatment:	N/A			
Illumination:	Dis-Continuous			
Curb Usage and Type:	Standard C&G			
Bicycle Provisions:	Shared Roadway, Widened Shoulders, Separated Path			
Pedestrian Provisions:	Sidewalk, Widened Shoulders, Separated Path			
Misc. Criteria:				

Proposed - Designer/Consultant: Anne Nelson, PDC Engineers **Date:**

Endorsed - Engineering Manager: **Date:** 5/10/2021

Approved - Preconstruction Engineer: **Date:** 5/11/2021

Shaded criteria are commonly referred to as the *FWHA 13 controlling criteria*. For NHS routes only, these criteria must meet the minimums established in the Green Book (*AASHTO A Policy on Geometric Design of Highways and Streets*). For all other routes, these criteria must meet the minimums established in the *Alaska Highway Preconstruction Manual*. Otherwise a Design Exception must be approved.

Design Criteria marked with a " # " do not meet minimums and must have a Design Exception(s) and/or Design Waiver(s) approved. See the Design Study Report for Design Exception/Design Waiver approval(s) and approved design criteria values.

MEMORANDUM

State of Alaska

Department of Transportation & Public Facilities

TO: Sarah E. Schacher, P.E.,
Preconstruction Engineer
Northern Region

DATE: December 16, 2019

FILE NO: I:\Traffic Data\Design\2019\SeppalaDr_Z62003

TELEPHONE NO: 451-5150

FROM: Scott Vockeroth
Traffic Data Manager
Fairbanks Field Office

SUBJECT: Seppala Drive Upgrades
Z620030000/000S828
Design Designation Request

Please approve the attached design designation by signing the endorsement below which enables your staff to proceed.

The AADT on Seppala Dr changed drastically with the construction of the Snake River Bridge and Jafet Rd that provide a new access point to the port area. Our most recent data collection in 2017 reflects the decrease in the AADT values west of the bridge. There are two traffic links along the project scope, the highest AADT value was used for this Design Designation.

Contact our office if you have any questions.

12/17/2019

Sarah E. Schacher, P.E., Preconstruction Engineer — Date

cc: Joe Kemp, P.E., Engineering Manager, Northern Region

Attachment

DESIGN DESIGNATION

Northern Region Planning

Traffic Data & Forecasting

ROUTE NAME: Seppala Dr
STATE ROUTE NO: 168100
CDS MILEAGE: 0.000-1.3217
FUNCTIONAL CLASS: Minor Arterial
URBAN/RURAL: Rural

	YEAR	AADT	%	
AADT	2018 2035 2045	2300 2670 2920		
DHV	2035 2045		12.50	330 360
D				40-60
T			**5.45** 4.50 0.75 0.20	**Total** Class 5 Class 6 Class 9
ESAL'S (Design Lane)	To Be Provided by Design			

Item A.

Submitted Data Request Type: Design Designations Request (Northern)	
Latest Status Update:	**Data Request Record has been assigned to an email address.**
Assigned to the following e-mail address:	**jill.sullivan@alaska.gov; scott.vockeroth@alaska.gov**
Record Creation:	**December 04, 2019 10:19:10 AM**
Routed to assigned e-mail address:	**December 04, 2019 11:26:15 AM**
Request Resolution:	**Resolution Pending**

Requestor

First Name: *	Joe	Last Name: *	Kemp
Email: *	joseph.kemp@alaska.gov		
Additional Email Contacts:			+
Date Needed: (AKST)	12 / 20 / 2019 12/17/19		

Project Information

Project Name: *	Seppala Road Upgrades
Project Engineer(s): *	Joe Kemp +
State Project Number: *	Z620030000
Federal Project Number: *	000S828
Route ID: *	168100
Milepoint (To/From): *	Entire Length
Construction Year: *	2024

Please select the type of project. *

- (•) Reconstruction
- ( ) Rehabilitation
- ( ) New Construction
- ( ) Other (please describe) Reconstruction

Project Notes:

Please select the project's region to view the Data Fields that are available to request. *

- ( ) Central
- (•) Northern
- ( ) Southcoast

Data Fields Requested: (please pick at least one) *

- [ ] Present AADT
- [ ] Design Year AADT (Please specify Year): 2024 2045
- [ ] Mid-Design Year AADT (Please specify Year): 2035
- [ ] Design Hourly Volume (DHV)
- [ ] Directional Split (D)
- [ ] Percent Trucks
- [ ] Road Functional Classification
- [ ] Intersection Turning Movements (Please specify Locations)

Please specify any other requested data fields not listed above:

Traffic Data Request Form

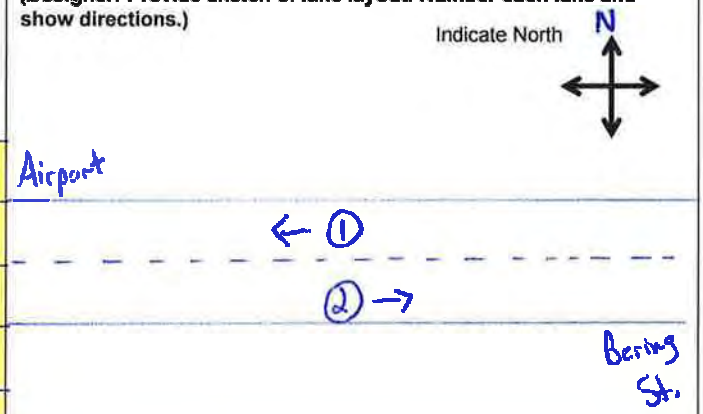
TDR Form-1-10/20/03

Alaska Department of Transportation & Public Facilities

Requested By: Joe Kemp	**Design Project Number:** Z620030000	**Date Requested:** 12/4/19
Base Year: 2018 **Base Year Total AADT:** 2300 **AADT Growth Rate** **Forward (%/yr):** 0.89 **End Year:** 2045 **Back Cast (%/yr):** **Begin Year:**	**Common Route Name:** Seppala Dr **Functional Class:** **Urban/Rural** Minor Arteri **Historic M.P. Interval:**	**CDS Route Name:** 168100, 9141029X000 **CDS M.P. Interval:** 0-1.3217

Truck Category	Load Factor (ESALs per Truck)	% of Total AADT in Truck Category
2-axle		
3-axle	See	
4-axle	attached	
5-axle		
≥ 6-axle		

Lane Configuration Sketch:
(Designer: Provide sketch of lane layout. Number each lane and show directions.)



Percent of Base Year Total AADT for Each Numbered Lane in Configuration Sketch:		
Lane # 1	%	40
Lane # 2	%	60
Lane #	%	
Lane #	%	
Lane #	%	
Lane #	%	

Comments:

Data Provided By:	Provider's Signature:	Date Provided:
Scott Vockeroth		12/13/19

Figure 6-1. Traffic Data Request (TDR) Form

Report	Route Log
CDS Route	SEPPALA DRIVE (168100)
From Milepoint	0
To Milepoint	1.3217
Filter	
	FacilityType: INTERCHANGE RAMP;NON-INVENTORY;WYE;SECONDARY FERRY ACCESS;ROUNDABOUT;PRIMARY FERRY ACCESS; NON-INTERCHANGE RAMP;MAINLINE;CONNECTOR

Milepoint	Attribute	Side	Feature CDS	Description	Viewer
0	Intersection	B	168500	BERING STREET	
0	Traffic Link	-	-	Start AL001034	
0	Functional Class	-	-	Start MINOR ARTERIAL	
0	FHWA Urban Area	-	-	Start RURAL AREA (RURAL)	
0.0436	Traffic Station	-	-	30956000	
0.2656	Intersection	R	-	WEST F-STREET	
0.6078	Intersection	L	168116	JAFET ROAD	
0.6662	Traffic Link	-	-	AL001034 -> AL001035	
0.6662	Intersection	R	168200	CENTER CREEK ROAD	
0.6981	Traffic Station	-	-	30958000	
1.3217	Traffic Link	-	-	End AL001035	
1.3217	Functional Class	-	-	End MINOR ARTERIAL	
1.3217	FHWA Urban Area	-	-	End RURAL AREA (RURAL)	

Computations and Historical Data

Project: Seppala Rd Upgrades

Historical AADTs

Link	Start CDS	Start Feature	End CDS	End Feature	Year 1980	1981	1982	1983	1984	1985
1	0.000	Bering St	0.666	Center Creek Rd						
2	0.666	Center Creek Rd	1.322	End Feature						

Link	1986	1987	1988	1989	1990	1991	1992	Year 1993	1994	1995	1996	1997	1998	1999	2000
1														2732	
2														2388	

Link	2001	2002	2003	2004	2005	2006	2007	Year 2008	2009	2010	2011	2012	2013	2014	2015
1								2650			2599			2606	2614
2								2976			2846			2191	2198

Link	Year 2016	2017	2018
1	2685	2287	2288
2	2258	1214	1214

Growth Rate 0.89% Continuous counter traffic trends

Growth Factors

Year	Factor
2035	1.162
2045	1.269

Future AADT

Year	AADT
2018	2300
2035	2670
2045	2920

D Factor (30) 40-60

K-Factor (30) 12.50% Obtained from Continous Count at Nome-Teller Hwy North of Little Creek Rd

Design Hourly Volume (DHV)

2035	330
2045	360

Class Data

Station ID	Station Description	MP	Year	Percent by Class 4	5	6	8	9	10	13	Total Truck %
37032021	Seppala Dr West Of Center Creek	0.696	2017	0.00	4.50	0.75	0.00	0.20	0.00	0.00	5.45
		Load Factor		1.00	0.50	0.85	1.20	1.55	2.24	2.24	
		Number of Axles		2/3	2	3	4	5	6	7+	

APPENDIX B

ENVIRONMENTAL DOCUMENT
(only include the signature page of the FONSI or ROD)

VI. Environmental Documentation Approval

	N/A	YES	NO
2. The project meets the criteria of one of the following DOT&PF Programmatic Approvals authorized in the Nov. 13, 2017 "Chief Engineer Directive – Programmatic Categorical Exclusions".		☐	☒

- *If yes, select the appropriate Programmatic Approval below, and the CE documentation form may be approved by the Regional Environmental Manager.*
- *If no, the CE documentation form must be approved by a NEPA Program Manager.*

a. Programmatic Approval 1 ☐

b. Programmatic Approval 2 ☐

c. Programmatic Approval 3 ☐

VII. Environmental Documentation Approval Signatures

Prepared by: _____ Date: 3.11.19

[Signature] Environmental Impact Analyst

Melissa Jensen

[Print Name] Environmental Impact Analyst

Reviewed by: _____ Date: 3/11/2019

[Signature] Engineering Manager

Christopher Johnston

[Print Name] Engineering Manager

Programmatic CE

Approved by: _____ Date: _____

[Signature] Regional Environmental Manager

_____

[Print Name] Regional Environmental Manager

Non-Programmatic CE

Approval Recommended by: Brett D Nelson Date: 3-11-19

[Signature] Regional Environmental Manager

Brett Nelson

VII. Environmental Documentation Approval Signatures

[Print Name] Regional Environmental Manager

Approved by: _____ Date: 03/11/19

[Signature] NEPA Program Manager

Melissa Goldstein

[Print Name] NEPA Program Manager

APPENDIX C

PAVEMENT DESIGN

Project: Seppala Drive Proj No.: GAI# 1780790							New Construction by:A 3/6/202				ett M
AADT = 2,900	Past Loadings	Future Loadings						X/Y Load Locations (in): Load = 4500 (lbs) Tire Pressure = 110 (psi)		0 0	13.5 0
10% Spring 40% Summer 10% Fall 40% Winter ---------- Total:	---------	47312 189,246 47312 189,246 -------- 473,115							X/Y Evaluation Points (in):	6.75 0	0 0
Layer	Critical Z Coordinate	Asphalt Properties	Season	Modulus (ksi)	Poisson's Ratio	Tensile Critical Micro Strain	Critical Compressive Stress (psi)	Million Cycles to Failure		Future Damage %	Total Damage %
3(in) Asphalt_Concrete	2.99	4% Air 5.5% Asph 148 pcf	Spring	755	0.3	243		1.35		3.49	3.49%
			Summer	510	0.3	259		1.54		12.32	12.32%
			Fall	510	0.3	259		1.54		3.08	3.08%
			Winter	1,500	0.3	105		11.93		1.59	1.59%
								Total Damage:		**20.48**	**20.48**
4(in) Agg_Base_P200<6%	3.01		Spring	45	0.35		33.00	1.08		4.36	4.36%
			Summer	50	0.35		41.60	0.72		26.33	26.33%
			Fall	50	0.35		41.60	0.72		6.58	6.58%
			Winter	100	0.35		36.40	10.64		1.78	1.78%
								Total Damage:		**39.05**	**39.05**
18(in) Select_A_P200<6%	7.01		Spring	25	0.4		16.50	1.53		3.09	3.09%
			Summer	35	0.4		19.30	2.75		6.89	6.89%
			Fall	35	0.4		19.30	2.75		1.72	1.72%
			Winter	90	0.4		18.50	68.55		0.28	0.28%
								Total Damage:		**11.98**	**11.98**
S-Infinite Subgrade_P200>30%	25.01		Spring	45	0.45		5.25	434.44		0.01	0.01%
			Summer	10	0.45		2.78	16.52		1.15	1.15%
			Fall	10	0.45		2.78	16.52		0.29	0.29%
			Winter	10	0.45		1.64	92.29		0.21	0.21%
								Total Damage:		**1.65**	**1.65**

Based on BH-05, BH-08 – Asphalt, sand, gravel, sand, gravel, sand

LOCATION	THAW N	FREZ N	MAAT	THAW °F DAY	FREZ °F DAY	THAW DAYS	FREZ DAYS
NOME	1.70	1.00	28	2870	4980	165	200

		1	2	3	4	5	6
THAWED	FROZEN % MOIS.	0.0	6.0	2.5	5.0	8.0	6.0
	FROZEN DENS.	138.0	110.0	130.0	130.0	130.0	110.0
	LATENT HEAT	0	950	468	936	1498	950
	FROZEN HEAT CAP	28.00	22.00	23.73	25.35	27.30	22.00
	FROZEN COND.	0.86	0.82	0.84	1.36	2.00	0.82
	THAWED % MOIS.	0.0	6.0	2.5	5.0	8.0	6.0
	THAWED DENS.	138.0	110.0	130.0	130.0	130.0	110.0
	THAWED HEAT CAP	28.00	25.30	25.35	28.60	32.50	25.30
	THAWED COND.	0.86	0.99	1.13	1.48	1.72	0.99
	INITIAL THICK	0.58	0.75	0.83	4.00	6.00	12.00
	AMOUNT THAWED	0.58	0.75	0.83	4.00	6.00	2.09
	CONSOLIDATION	----	----	----	----	----	----
	FINAL THICK	0.58	0.75	0.83	4.00	6.00	12.00
FROZEN	LATENT HEAT	0	950	468	936	1498	950
	FROZEN DENS.	138.0	110.0	130.0	130.0	130.0	110.0
	FROZEN HEAT CAP	28.00	22.00	23.73	25.35	27.30	22.00
	FROZEN COND.	0.86	0.82	0.84	1.36	2.00	0.82
	INITIAL THICK	0.58	0.75	0.83	4.00	6.00	12.00
	AMOUNT FROZEN	0.58	0.75	0.83	4.00	6.00	1.73

ESTIMATED THAW=14.25 FREEZE=13.89 PRINT LOCATION SOIL QUIT

Based on BH-07, BH-10, BH-09 – Asphalt, sand, gravel, gravel, sand

LOCATION	THAW N	FREZ N	MAAT	THAW °F DAY	FREZ °F DAY	THAW DAYS	FREZ DAYS
NOME	1.70	1.00	28	2870	4980	165	200

		1	2	3	4	5
THAWED	FROZEN % MOIS.	0.0	6.0	2.5	2.5	6.0
	FROZEN DENS.	138.0	110.0	130.0	130.0	110.0
	LATENT HEAT	0	950	468	468	950
	FROZEN HEAT CAP	28.00	22.00	23.73	23.73	22.00
	FROZEN COND.	0.86	0.82	0.84	0.84	0.82
	THAWED % MOIS.	0.0	6.0	2.5	2.5	6.0
	THAWED DENS.	138.0	110.0	130.0	130.0	110.0
	THAWED HEAT CAP	28.00	25.30	25.35	25.35	25.30
	THAWED COND.	0.86	0.99	1.13	1.13	0.99
	INITIAL THICK	0.58	0.75	0.83	4.50	10.00
	AMOUNT THAWED	0.58	0.75	0.83	4.50	8.03
	CONSOLIDATION	----	----	----	----	----
	FINAL THICK	0.58	0.75	0.83	4.50	10.00
FROZEN	LATENT HEAT	0	950	468	468	950
	FROZEN DENS.	138.0	110.0	130.0	130.0	110.0
	FROZEN HEAT CAP	28.00	22.00	23.73	23.73	22.00
	FROZEN COND.	0.86	0.82	0.84	0.84	0.82
	INITIAL THICK	0.58	0.75	0.83	4.50	10.00
	AMOUNT FROZEN	0.58	0.75	0.83	4.50	6.70

ESTIMATED THAW=14.69 FREEZE=13.36 PRINT LOCATION SOIL QUIT

Based on Boreholes BH-03, BH-02 – asphalt, sand, gravel, gravel, silt, sand, silt

LOCATION	THAW N	FREZ N	MAAT	THAW °F DAY	FREZ °F DAY	THAW DAYS	FREZ DAYS
NOME	1.70	1.00	28	2870	4980	165	200

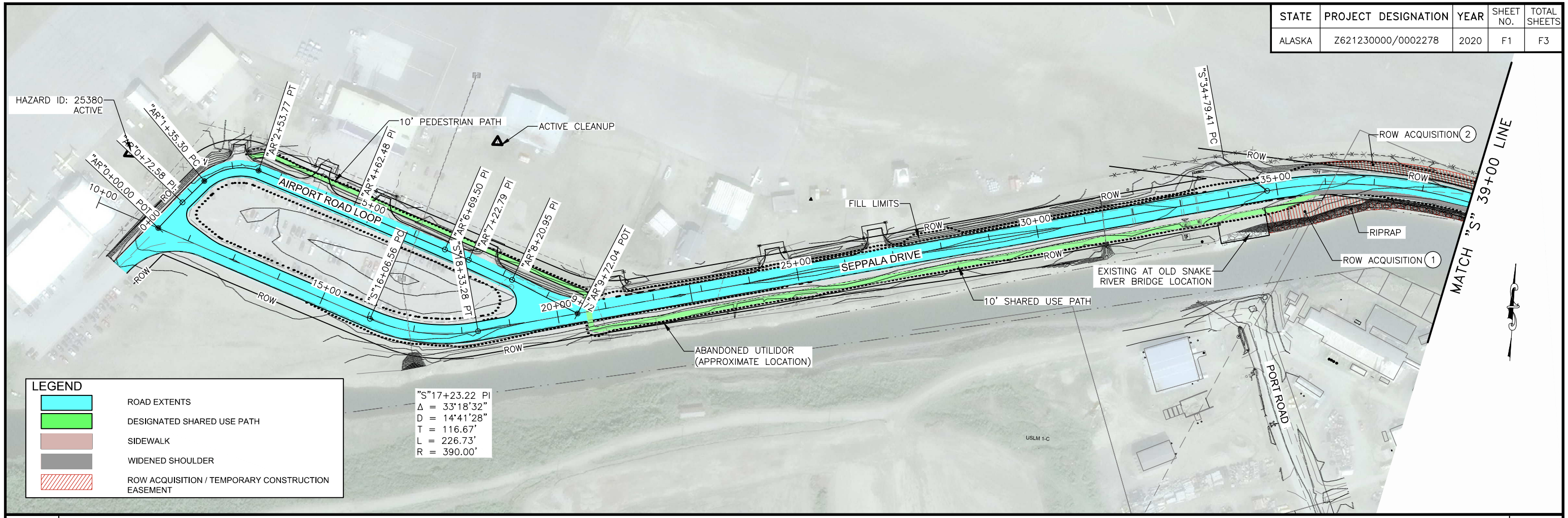
		1	2	3	4	5	6	7
THAWED	FROZEN % MOIS.	0.0	6.0	2.5	2.5	10.0	6.0	10.0
	FROZEN DENS.	138.0	110.0	130.0	130.0	90.0	110.0	90.0
	LATENT HEAT	0	950	468	468	1296	950	1296
	FROZEN HEAT CAP	28.00	22.00	23.73	23.73	19.80	22.00	19.80
	FROZEN COND.	0.86	0.82	0.84	0.84	0.45	0.82	0.45
	THAWED % MOIS.	0.0	6.0	2.5	2.5	10.0	6.0	10.0
	THAWED DENS.	138.0	110.0	130.0	130.0	90.0	110.0	90.0
	THAWED HEAT CAP	28.00	25.30	25.35	25.35	24.30	25.30	24.30
	THAWED COND.	0.86	0.99	1.13	1.13	0.46	0.99	0.46
	INITIAL THICK	0.58	0.75	0.83	4.00	4.00	12.00	5.00
	AMOUNT THAWED	0.58	0.75	0.83	4.00	4.00	2.02	0.00
	CONSOLIDATION	----	----	----	----	----	----	----
	FINAL THICK	0.58	0.75	0.83	4.00	4.00	12.00	5.00
FROZEN	LATENT HEAT	0	950	468	468	1296	950	1296
	FROZEN DENS.	138.0	110.0	130.0	130.0	90.0	110.0	90.0
	FROZEN HEAT CAP	28.00	22.00	23.73	23.73	19.80	22.00	19.80
	FROZEN COND.	0.86	0.82	0.84	0.84	0.45	0.82	0.45
	INITIAL THICK	0.58	0.75	0.83	4.00	4.00	12.00	5.00
	AMOUNT FROZEN	0.58	0.75	0.83	4.00	4.00	1.25	0.00

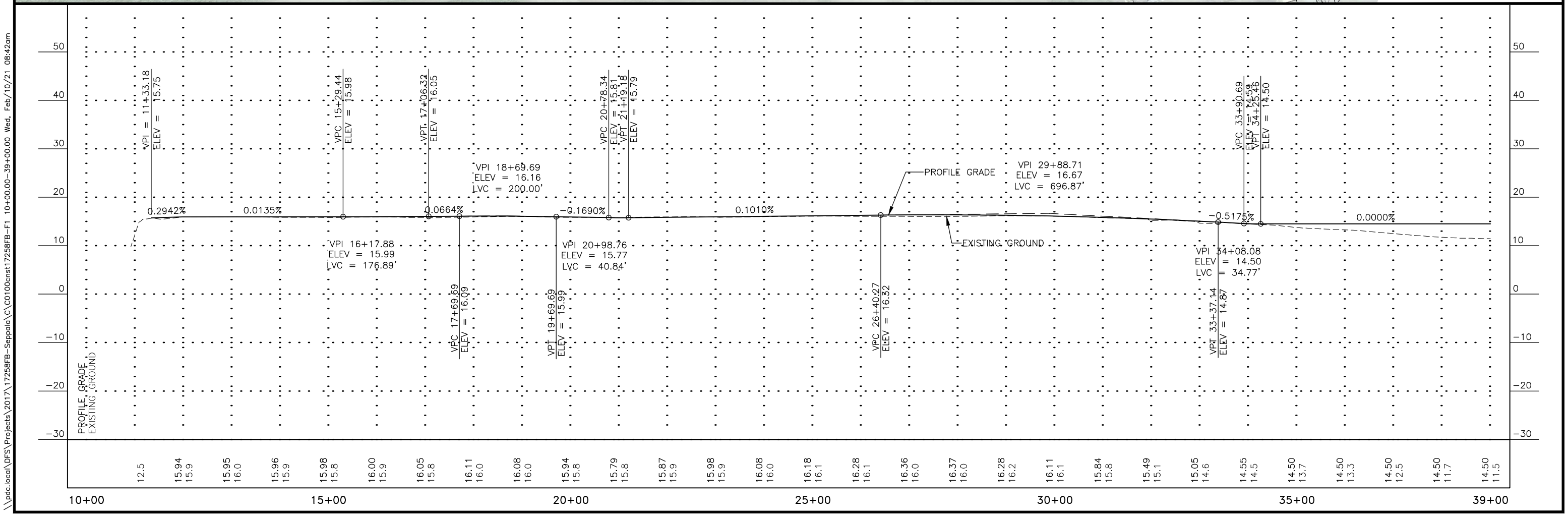
ESTIMATED THAW=12.18 FREEZE=11.41 PRINT LOCATION SOIL QUIT

APPENDIX D

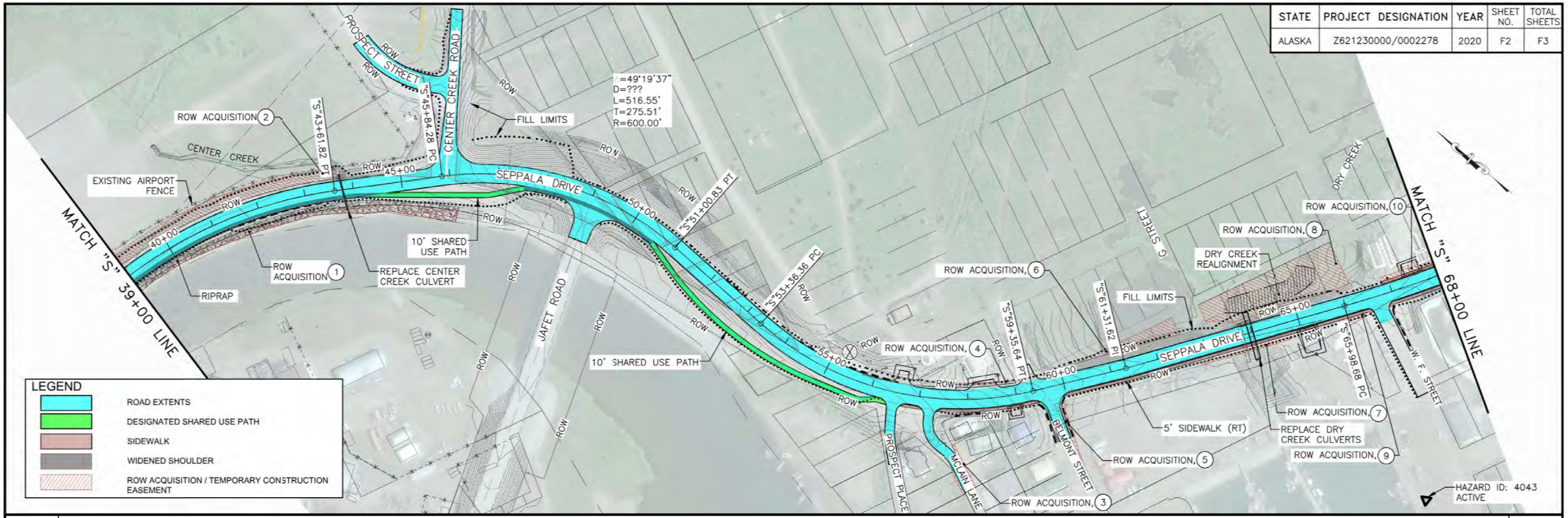
PRELIMINARY PLAN AND PROFILE SHEETS

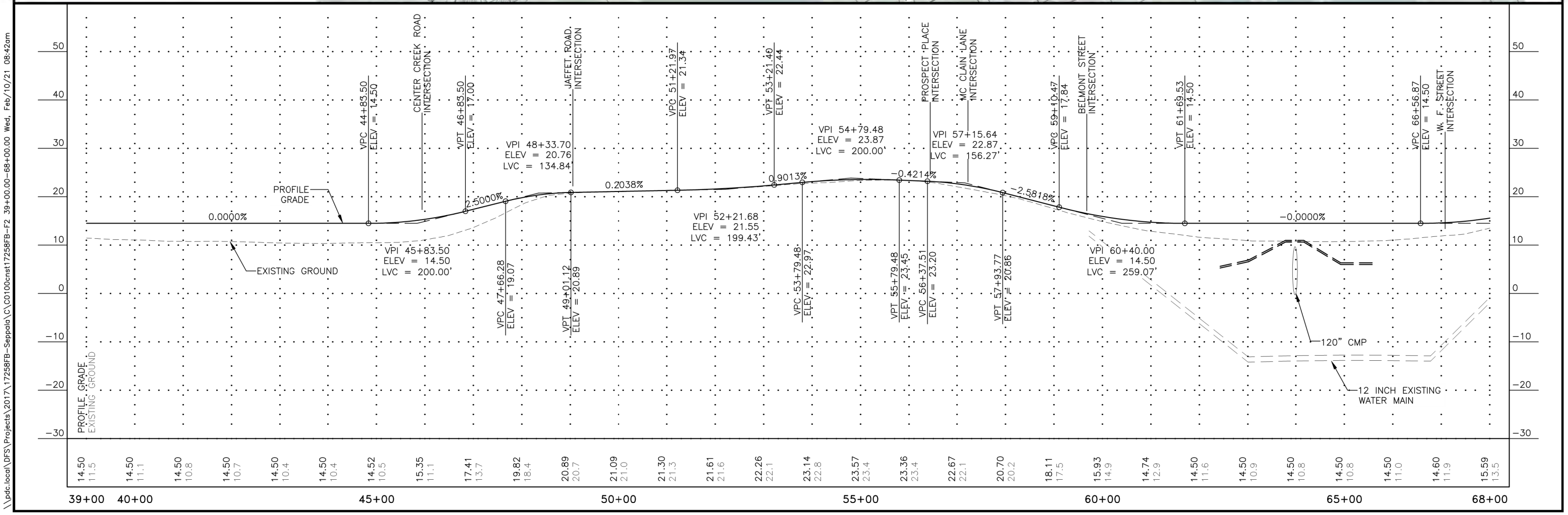
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z621230000/0002278	2020	F1	F3



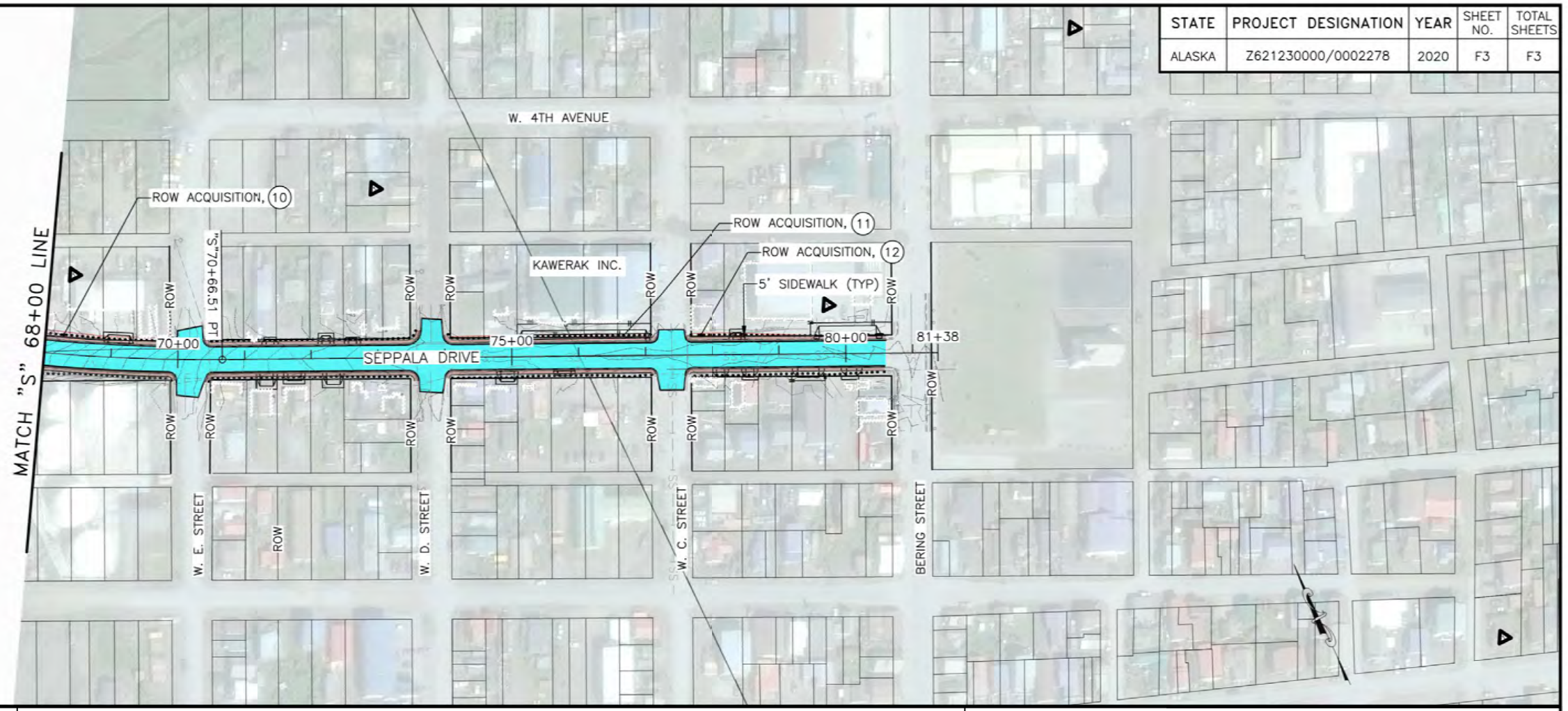


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z621230000/0002278	2020	F2	F3



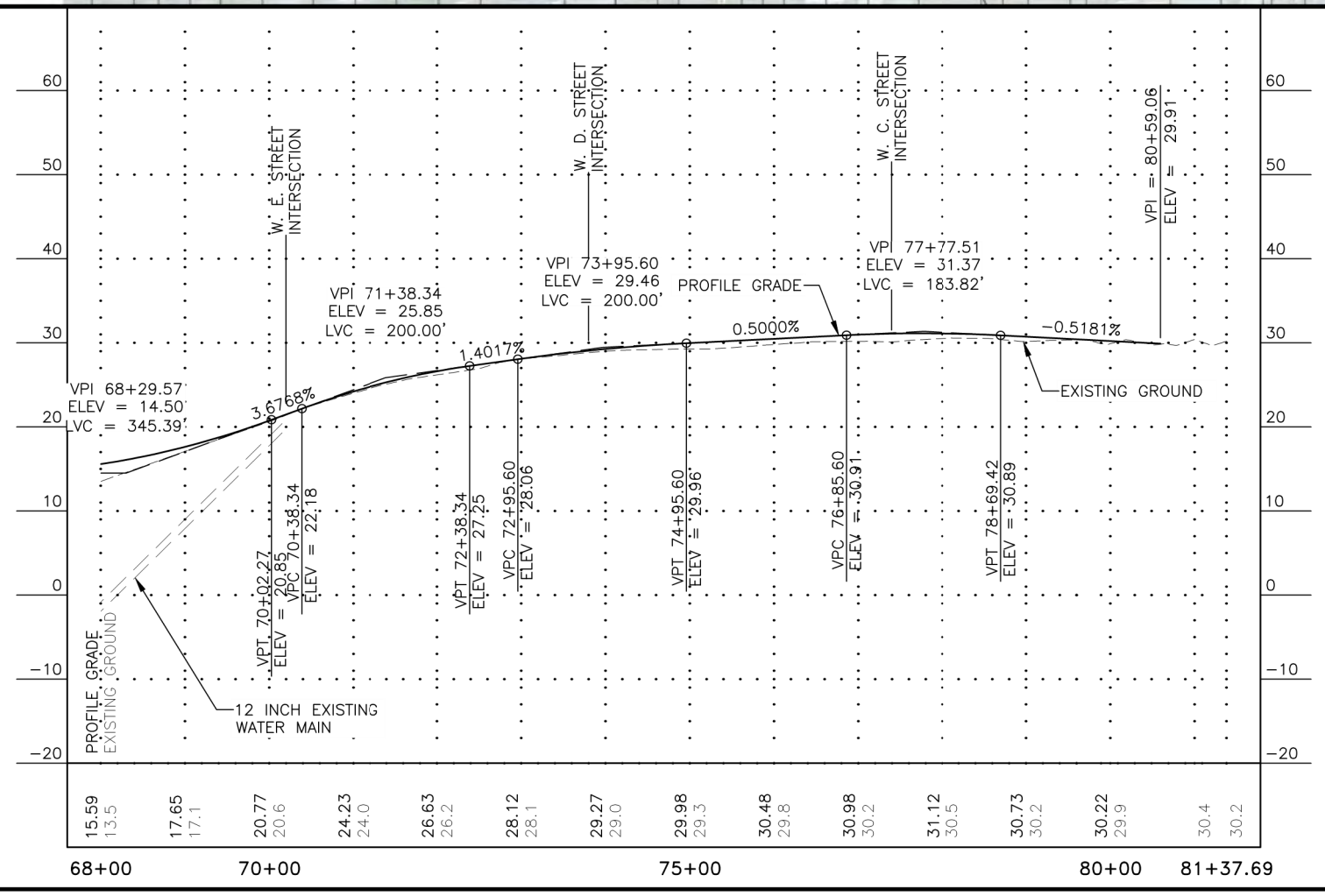


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	Z621230000/0002278	2020	F3	F3



LEGEND

- ROAD EXTENTS
- DESIGNATED SHARED USE PATH
- SIDEWALK
- WIDENED SHOULDER
- ROW ACQUISITION / TEMPORARY CONSTRUCTION EASEMENT



APPENDIX E

TURN LANE EVALUATION

KITTELSON & ASSOCIATES
1600 A STREET, SUITE 105
ANCHORAGE, AK 99501
P 907.646.7995

MEMORANDUM

Date: March 19, 2020 Project #: 21556

To: Keith Hanneman, PE
PDC Engineers

From: Andrew Ooms, PE, PTOE, RSP

Project: Seppala Drive Upgrades

Subject: Jaffet Road/Center Creek Road Turn Lanes

The Seppala Drive Upgrades project is providing separated path, ADA, drainage, and pavement preservation improvements for Seppala Drive between Bering Street and the airport. The project team has investigated safety improvements along the corridor, specifically turn lanes at the offset intersections of Seppala Drive with Jaffet Road and Center Creek Road as shown in Exhibit 1. This memorandum documents traffic data collected by DOT&PF along Seppala Drive and evaluates the need for turn lanes at this location.

TRAFFIC DATA

Per data collected by DOT&PF for the design designation, Seppala Drive has a 2018 average annual daily traffic (AADT) volume of 2,300 vehicles per day. Long-term growth is forecast at 0.89 percent annually, though traffic volumes are down 10 to 15 percent since the 2008 peak east of Center Creek Road. Traffic volumes west of Center Creek Road decreased approximately 50 percent with the construction of the Jaffet Road bridge. Truck percentages are 5.45 percent.

Hourly counts collected by DOT&PF in August 2017 at the offset intersections of Seppala Drive with Jaffet Road and Center Creek Road indicate that the weekday peak hour is 12:00 to 1:00 p.m. with a total entering volume of 372 vehicles. During the 12-hour count, 39 pedestrians were observed traversing the intersection, primarily to or from the east.

Seppala Drive is posted at 25 mph, though speed data collected by DOT&PF in August 2017 indicated that 77 percent of observed vehicles were exceeding that limit. The 85th percentile speed was approximately 35 mph.

Crash data supplied by DOT&PF included no reported crashes in the area of the offset intersections between 2010 and 2014.

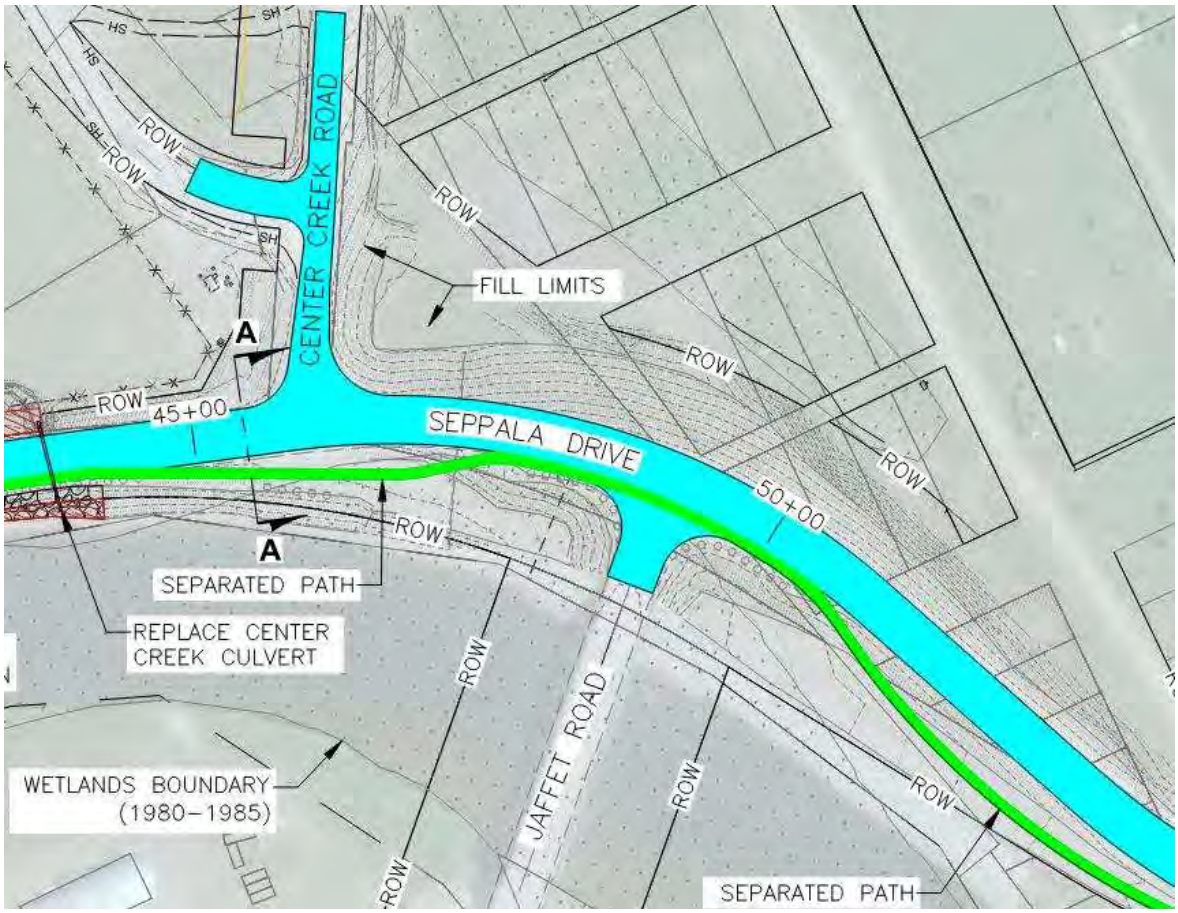


Exhibit 1 Seppala Drive Path and Pavement Limits

Looking East From Center Creek Road towards Jaffett Road

TURN LANE EVALUATION

Intersection turn lanes provide deceleration and queueing space for vehicles waiting for a gap in traffic and/or pedestrians to make a turning maneuver. Key evaluation factors for turn lanes at the offset intersections of Seppala Drive with Jaffet Road and Center Creek Road are turning volumes, conflicting vehicle volumes (for left turn lanes), travel speeds, and crash history.

Unique to the offset intersections in the travel maneuver to connect Jaffet Road with Center Creek Road as this movement is common for trucks, which require larger gaps in traffic. The offset position of the roadways leads to this movement being a left turn off the stop-controlled side street and a right turn off Seppala Drive.

Peak hour intersection volumes in 2017 show 66 vehicles on the Center Creek Road approach and 75 on the Jaffet Road approach. Given the low conflicting volumes on Seppala Drive (115 vehicles) these approaches will experience minimal delay (less than 12 seconds/vehicle), therefore side street turn lanes will be of minimal value.

Peak hour left turns are 21 southbound lefts and 45 northbound lefts with fewer than 100 opposing through and right turns. This indicates a conflicting vehicle every 36 seconds, resulting in few turning vehicles experiencing a conflicting vehicle and nominal delay when that occurs.

Given the minimal vehicle conflicts and delay, the absence of a crash history at this location, and the relatively low travel speeds, turn lanes are not recommended at the offset intersections. The benefits would be small compared to the increased construction and maintenance costs, particularly as an alignment of Center Creek Road and Jaffet Road is planned, making any improvement at the intersection temporary.

APPENDIX F

HYDROLOGIC AND HYDRAULIC REPORT

DRAFT

Hydrologic and Hydraulic Report

Snake River Riprap Design

At Seppala Drive Nome

Prepared for:

PDC Engineers
1028 Aurora Drive
Fairbanks, AK 99709

And the

Alaska Department of Transportation
and Public Facilities
Northern Region
Fairbanks, AK 99709

Prepared by:

Hydraulic Mapping and Modeling
1091 West Chena Hills Drive
Fairbanks, AK 99709

December 2020

Table of Contents

Table of Figures

Project Location and Description

The Alaska Department of Transportation and Public Facilities (ADOT&PF) wishes to make improvements to Seppala Drive in Nome (Figure 1). Planned improvements include street resurfacing and sidewalk, curb, and gutter replacement.

Erosion is occurring at a bank on a curved section of the Snake River adjacent to Seppala Drive, upstream from the new Snake River Bridge. This ongoing erosion may affect the long-term stability of Seppala Drive, and should be addressed.

This report includes an analysis of the hydrologic characteristics of the Snake River, and a hydraulic analysis of the preferred design for embankment erosion protection.

Hydrology

A comprehensive overview of the Snake River watershed and hydrology at Nome is described in USKH (2009). That overview is summarized here. The Snake River is located on the coastal plain adjacent to Norton Sound. Surface water is abundant throughout the area, and shallow groundwater is available in limited quantities. Numerous small streams and rivers traverse the coastal plain. Near Nome, the two largest rivers are Snake River and Nome River. The Snake River flows from northeast to southwest, and passes close to the southern boundary of both Nome Airport runways. It enters Norton Sound through the Nome Harbor, just to the west of the central section of Nome. The Nome River flows from north to southwest and enters Norton Sound about 3 miles southeast of the city.

The Snake River channel is tidally influenced. On the rising (flood) tide, flow comes up the Snake River and flows up the channel adjacent to the runway. Following high tide, the ebb tide flows out the tidal channel to Norton Sound.

The U.S. Geological Survey (USGS) operates a stream gage on the Snake River (USGS 15621000 Snake River near Nome, Alaska). The gage operated from September 1, 1965 through September 30, 1991, and was recently restarted in August 2020. The gage is located upriver of the Snake River Bridge, and has a smaller drainage area than the project site.

A review of the Snake River hydrograph for the streamgage operational period indicates that the annual peak flow generally occurs during the spring breakup. However, late summer precipitation events can occasionally result in peak flows higher than the spring breakup flows.

The flood frequency analysis described in the USKH report utilized USGS regression equations to estimate flood recurrence interval magnitudes (Curran et al, 2003). The 1% Annual Exceedance Probability (AEP) flow (100-year peak flow) was estimated at 5,400 cfs; the 0.2% AEP (500-year) peak flow was estimated at 6,600 cfs.

A flood frequency analysis was conducted by FEMA for the 1983 City of Nome Flood Insurance Study (FIS). The analysis utilized 10 years of data from the USGS 15621000 gage, adjusted for

Figure 1. Project site map, with new Snake River cross-sections and location of proposed bank riprap design.

the difference in drainage areas between the gage and the study reach. The 1% AEP peak flow was estimated at 6,000 cfs; the 0.2% AEP peak flow was estimated at 8,400 cfs.

Hydraulic Analysis-Riverine

As part of the previous analysis for the design of the new Snake River Bridge, hydraulic modeling was conducted using the HECRAS computer program (USKH, 2009). Three conditions were modeled; the existing pre-construction conditions at the replacement bridge site, and bridge replacement Options 1 and 2 as shown on preliminary bridge plans provided by DOT&PF. River geometry and cross-section data were obtained from the October 2008 PDC survey provided by DOT&PF. No hydraulic calibration data were available for the modeling effort.

For this study, a new HEC-RAS analysis of the project site was conducted using updated cross-sections. PDC surveyors surveyed 13 river cross-sections in October 2020, upstream and downstream of the new bridge. Surveyed cross sections were aligned perpendicular to overbank flow and to channel flow. The cross-sections were developed in Civil3D and formatted for use to create the HEC-RAS Snake River geometric model. Each cross-section was assigned a river station, using units of feet, with River Station RS 00 assigned to the most downstream cross-section. The most upstream cross-section, located 1767 feet upstream of the new Snake River Bridge, is assigned RS 2472.5.

Other geometric and hydraulic data, such as the bridge geometry and hydraulic roughness factors, were taken from the 2009 USKH model.

Results from the new HEC-RAS analysis for the 100-year and 500-year peak flows are found in Appendix 1. Because the 100-year flood water surface elevation at the site is governed by coastal flooding rather than flood flows, channel hydraulic analysis efforts were concentrated on developing estimates of hydraulic parameters necessary for scour computations and riprap sizing.

Bank Erosion Analysis

A large tension crack has developed between the Seppala Drive pavement and the left (north) bank of the Snake River. See Figure 2. The crack is located along the section of road near the Center Creek drainage culvert, upstream of the new Snake River Bridge. The presence of tension cracks often indicate potential bank stability issues.

Several possible causes of bank failure were assessed to determine if corrective measures were needed to address the tension crack. Three possible causes of bank failure were considered: hydraulic failures, geotechnical failures, and a combination of hydraulic and geotechnical failures.

Figure 2. Tension crack at top of Snake River bank, upstream of new bridge. PDC Engineers photo.

Hydraulic Failure - Particle Erosion

Local scouring and bank erosion at the outer bank in bendways occurs when flowing water exerts a tractive force that exceeds the critical shear stress for the streambank material. Scour of the bed and bank toe increases the bank's height and slope angle, decreasing its stability with respect to mass failure under gravity. Subsequent bank retreat and the development of tension cracks behind the bank then takes place primarily by mass failures of over-heightened and over-steepened banks. Hydraulic failure is generally characterized by a lack of vegetation, high boundary velocities, and no mass soil wasting at the toe of the slope.

Quantitative slope stability analysis can be applied to streambanks to determine their stability and define the most critical mechanism of failure. However, such analysis requires detailed site investigations and laboratory tests on intact samples of soil. These data were not available.

To assess the potential for hydraulic failures at the project site, surveyed cross-sections and hydraulic analysis were used. Upstream of the new bridge in the reach where the tension crack is located, three cross-sections from the 2020 survey; Xsec 1427.4, 1258.2, and 1075.1, are co-located with 3 cross-sections from the 2009 USKH survey: Xsec 1525, 1335, and 1105. The co-located sections are actually between 6 and 40 feet apart, but considered close enough to compare approximate bank and thalweg locations for estimations of lateral channel movement. We compared these cross-sections to estimate changes in top width, toe width, and thalweg elevation. See Figure 1 for cross-section locations, and Figure 3 below.

Cross-sections 1427.4 and 1258.2 indicate that channel widening has occurred between 2009 and 2020. Top widths have increased by 8-9 feet, and bottom widths have increased by 5-10 feet. Cross-section positions indicate that the right bank is showing the most change; typical channel behavior would suggest that banks on the outside bend (left banks here) would be subject to the most erosion. Note that the lowest elevation of the channel changed only slightly, or actually increased, between 2009 and 2020.

At Cross-section 1075.1, top and bottom widths actually decreased over time. This is likely due to some type of bank work that added riprap or other material to the inside (right) bank.

A review of all the surveyed cross-sections for both 2020 and 2009 shows that starting about the channel thalweg is located on the left side of the channel, This is normal behavior along a channel bend, where faster flowing water on the outside bend erodes bank sediments and deposits this and other sediments downstream. Some erosion on this non-cohesive bank is to be expected over time.

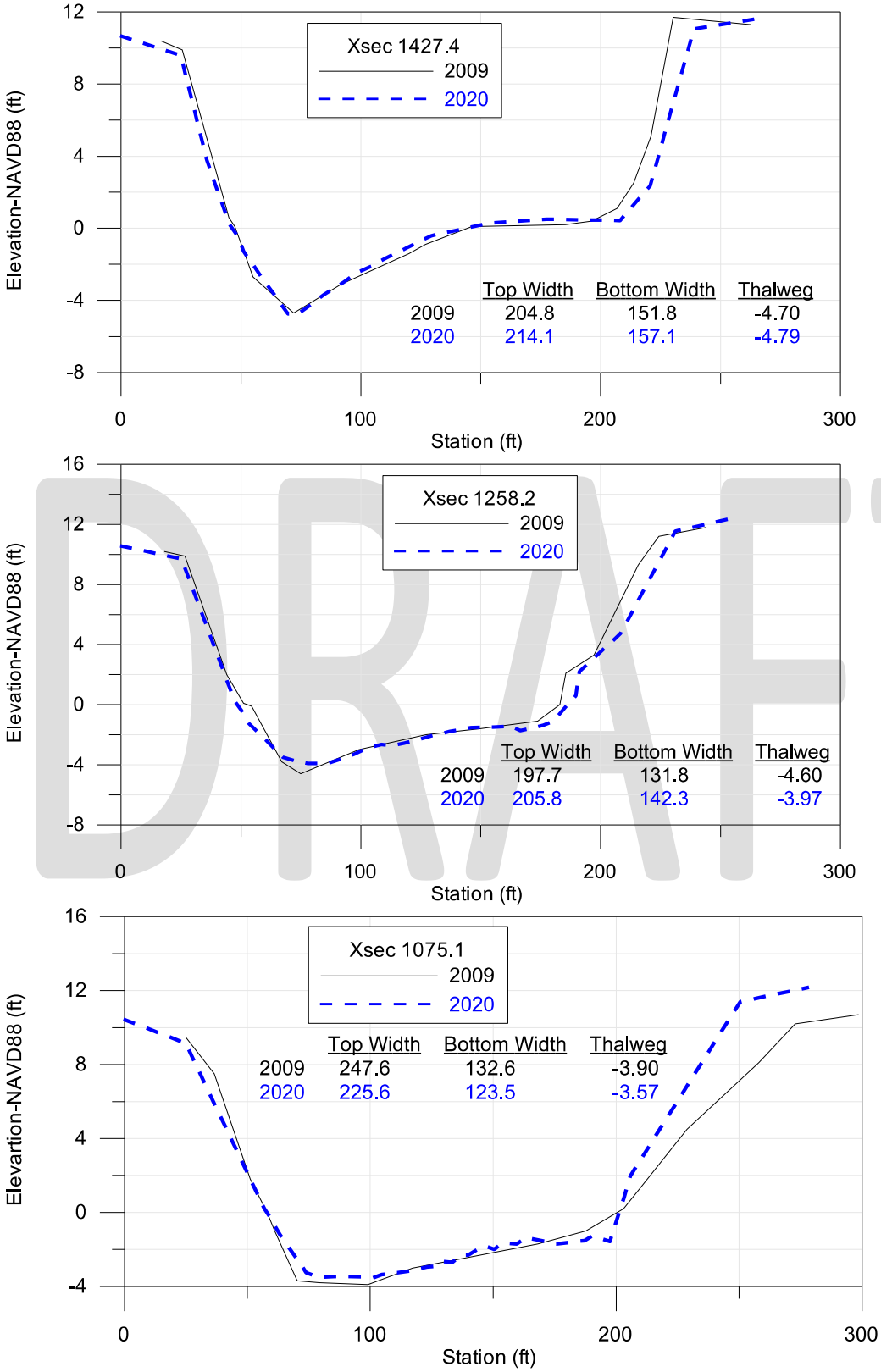


Figure 3. Surveyed cross-sections in the bend upstream of the Snake River Bridge.

Hydraulic Failure - Wave Erosion

Waves have the ability to generate tremendous forces and cause considerable damage when they are riding on top of storm surge. The energy contained in waves can erode banks and damage roads and bridges. Storm surge contributes greatly to this erosion damage by allowing the waves to attack the banks at higher elevations than normal. The combination of storm surge and waves can cause overtopping and overwash on some low elevation roads.

The Snake River mouth was relocated in 2005, creating a longer fetch for wind-generated waves traveling upriver. Storm waves caused erosion of the bank of the Snake River along Seppala Drive in the vicinity of the new bridge site, in 2005, 2006, and 2007. Class II riprap revetment installed to repair the bank erosion and prevent future wave damage was completed in August 2008, prior to the new bridge construction.

The potential for wave erosion in the vicinity of the new Snake River Bridge was analyzed in the 2009 H&H report (USKH, 2009). Wave analysis utilized a model (SWAN) to predict wave growth and transformation from the seaward side of the two Nome Port breakwaters up to the proposed bridge site. The upstream and downstream limits of the required wave erosion protection armor were determined by the geometry of the breakwaters, width of the harbor opening, channel bathymetry, and straight-line travel of waves up the narrow channel. Based on a maximum wave height of 12 feet at the breakwater entrance and a design surge level of 13 feet, the wave height at the bridge was estimated to be 1.4 feet. A conservative wave height of 3.0 feet was selected for erosion design purposes.

Based on the results of the modeling and analysis, a Wave Protection gradation for armor riprap was developed, and Wave Protection riprap was designed to protect the west and east bridge abutments. For the east bank, the design also included Wave Protection riprap for a distance of 150 feet upstream and downstream from the bridge centerline, installed between elevations 6 ft and 16 ft.

Upstream of the straight-line fetch that terminates at the bridge location, overall wave energy is likely significantly reduced as the upriver channel bends to the west. However, some waves may reflect off the banks and persist upstream of the wave protection armor, with wave heights that are expected to be less than 1.4 feet. Wave erosion may be responsible for some bank erosion and tension cracks upstream of the new bridge, but other factors likely play a larger role.

Geo-technical Failure - Pore-Water Pressure

Positive pore-water pressure can develop in a streambank when river stage drops much more quickly than the water table following a high-water condition. Positive pore-water pressure can lead directly to streambank erosion and instability. In addition to increasing the weight of the bank, pore-water pressure reduces the effective friction (normal stress) between soil particles, thereby weakening the soil and allowing particles to be dislodged. With the reduction of matric suction and the sudden loss of the confining pressure of the river during the flow recession, positive pore-water pressure can trigger mass failure in banks.

Bank erosion from positive pore water pressure is commonly attributed to areas with shallow water tables and non-cohesive bank materials such as gravels and sand. As mentioned, typical conditions for the development of pore-water pressure are a rapid decline in high river stage. Steep flood recession limbs, and banks that experience large daily tidal ranges are prone to positive pore-water pressure development.

The mean difference between high and low tidal levels at Nome is typically not large. For example, the Nome tide station 9468756 reports the Mean Higher-High Water (MHHW) elevation is 1.53 ft, and the Mean Lower-Low Water (MLLW) elevation is 0.00 ft. The variation in tide levels occurs approximately every 6 hours. Such a small change in stage is unlikely to trigger significant erosion due to positive pore-water pressure conditions.

However, storm surge can cause significant changes in the water level at Nome in addition to the tides. Storm surge is an increase in water level along the coast in response to the storm winds and pressures. The Norton Sound region is especially susceptible to large variations in water level, due to its west-facing opening and shallow average depth.

Large storm surges in Nome occur regularly. The largest storm surges occur in autumn and are associated with high tides and strong southwest winds. Extremely high tides will push up the Snake River channel and saturate the banks. Once the low-pressure system leaves the region and winds die down, the water level retreats quickly. Large storms push water levels over the Snake River bank, and even smaller storms will result in extremely high water.

The large increase and subsequent rapid decrease in water elevations as a very large low-pressure storm system moves through the Nome area result in very high positive pore-water pressures in the channel banks, and are likely responsible for the tension cracks and failed cohesive bank material. Once the bank soil strength is reduced by positive pore-water pressure, material fails and falls away from the bank face. Hydraulic forces exerted by flowing water on in situ bank-toe material and failed cohesive material at the bank toe are often sufficient to entrain materials at relatively frequent flows and to maintain steep lower-bank profiles.

Geo-technical Failure - Thermal Degradation

Melting permafrost and bank erosion have been attributed to changing thermal conditions in various locations around Alaska. Reports documenting the effects of coastal shore erosion from warming or melting permafrost, and thermokarsting (thawing process associated with disturbance of the surface thermal regime in areas of ice-rich permafrost) are readily available. Researchers have noted thermally induced erosion of areas with high ground ice content, including hillslopes and river channels (Rowland et al., 2010). Permafrost degradation has been repeatedly documented in developed areas where the original tundra landscape was modified by mining and construction activity which induced thawing and disturbed the original permafrost balance. This includes possible dredge tailings near the mouth of the Snake River that were derived from the Snake River alluvium (Golder Associates, Inc, 2020).

Comparisons of geotechnical explorations conducted in 1980, 2004, and 2019 indicate that permafrost has continued to degrade in the Nome area. Along Seppala Drive, the thaw front has progressed deeper into relatively thaw-stable beach sand and gravel in the past 15 years. The recent geotechnical analysis indicates that though previous settlement along Seppala Drive may have been due, in part, to the thawing of previously frozen ice-rich soils, future thaw-related differential settlements are unlikely due to the now deeper permafrost. However, seasonal frost related movements reflected at the roadway surface should be expected to continue due primarily to the fines content and elevated frost susceptibility of the roadway prism fill material (Golder Associates, Inc., 2020).

Bank Erosion Analysis Summary

The tension crack that has formed along Seppala Drive and associated bank erosion is likely due to one or more of the following causes: positive pore-water pressure following storm events, hydraulic shear stress, and (less likely) wave erosion and thermal degradation. The depth of the crack is unknown. Cross-section surveys taken nine years apart do not indicate excessive bank erosion to date. However, the tension crack is indicative of a slip-plane failure, potentially leading to additional bank erosion. Corrective measures to address the tension crack and reduce or eliminate future bank erosion are recommended.

Riprap Design

Bank erosion and channel scour countermeasures were designed for this project. Values for the average depth of flow and average velocity at the 100-year flood were developed from the HEC-RAS analysis. Methods in HEC-23 (FHWA, 2009) were used to size the rock riprap for the bank erosion and scour protection. See Appendix 2.

The HEC-23 analysis indicates that Class I riprap will protect against bank erosion from a 1% annual exceedance probability flood. However, Class II riprap is recommended, based on the following factors:

- Class II riprap has been used in the past to repair damage done to the Snake River bank by waves.
- River ice on the lower Snake River channel may pluck or push smaller rock off the revetment downstream (or upstream).
- The Snake River channel is tidal at this location, and subject to flows in 2 directions.
- For the 2009 bridge design project, wave heights were modeled only up to the bridge location. Upstream of the bridge, wave heights are likely smaller than those predicted at the bridge, due to the limited fetch, narrow channel, and sharp bend. However, some waves may persist upstream of the bridge with enough energy to cause bank erosion.

- Seppala Drive is the primary access route to the main terminal of the Nome Airport. Life safety considerations indicate that a conservative (heavier) riprap gradation is used to protect the airport access road.

Based on these analyses, it is recommended that the Snake River bank be protected using Class II riprap. Class II riprap has a W_{50} of 200 lbs. Using Hudson's Equation, the upper design wave height for an embankment protected with a 200 lb W_{50} riprap gradation is 2.8 feet (FHWA, 2008).

The recommended blanket thickness is the diameter of the D_{100} (recommended) or two times the D_{50}. A 50% increase in riprap thickness is required to account for uncertainties with underwater placement. The riprap slope should not exceed 2.0H:1V.

A filter should be placed between the riprap and the underlying soil. A properly designed filter will provide rapid transfer of water through the material while holding soil particles and is strong enough to survive the construction process without puncturing by the overlying rocks. To match the filter designed for the 2009 Snake River Bridge erosion protection project, we recommend that a composite filter, consisting of a 1.5-foot-thick granular layer on top of a geotextile be utilized. The granular layer should have a median weight no smaller than one-tenth that of the armor layer stones. An Erosion Control Class I geotextile should be used.

Though the riprap and filter should extend below the anticipated scour depth, a launch apron can be incorporated on the left (north) side of the channel to eliminate the need to excavate a scour trench in the active channel. The launch apron must have sufficient riprap available to be launched into the scour hole as it develops. See Scour Estimation below and Appendix 4.

Scour Estimation

At the toe of banks on the outside of bends, scour depths generally increase after construction of riprap bank revetments. This type of scour is attributed to intensified stresses acting at the bank toe, and is in reaction to the increased resistance to bank erosion from the riprap. The Maynord Bend Scour Equation uses an empirical relationship for estimating toe scour at the outside of bends protected by armored revetments (USDA, 2008).

The estimated scour depth for the Snake River bend is 4.5 feet. See Appendix 3.

Design Flood Elevation

Erosion protection design requires a design flood elevation. The design flood has a recurrence interval of 100 years, also referred to as having a 1-percent annual exceedance probability (AEP). Two types of flooding may occur in the Nome area; runoff from precipitation events and coastal storm surges. Analyses of both types of floods were conducted to determine the type and water surface elevation of the governing 100-year flood.

The USKH report notes that there is no documentation of rainfall runoff-induced flooding of the relocated portion of the lower Snake River between the western end of the airport and the river mouth (USKH, 2009). This is attributed to the hydraulic capacity of the relocated channel reach, which is well in excess of flow rates associated with extremely low frequency peak flow events. HEC-RAS modeling confirms that large magnitude flows (0.5% AEP) do not result in bank overtopping, even at typical daily high tide levels. Therefore, the design flood elevation will be controlled by coastal storm surge.

Some work on analysis and modeling of storm surges in Alaska has occurred. A statistical model was developed from the Alaska storm surge climatology developed by Wise et al. (1981). Regression analysis was used to correlate surge height with various parameters. For the Nome area (Coastal Sector 8), the 50-year surge height is 11.4 feet above mean high water (MHW); the 100-year surge height is 13 feet above mean high water (MHW).

The U.S. Army Corps of Engineers conducted a storm-induced water level prediction study for the western coast of Alaska (Chapman et al, 2009). The study developed frequency-of-occurrence relationships of storm-generated water levels for 17 selected communities along Kotzebue and Norton Sounds, the Bering Sea, and Bristol Bay. The stage-frequency modeling analysis for Nome is found in Table 4. Stage units are feet mean lower-low water (ft MLLW).

Frequency of Occurrence

Return Period (years)	5	10	15	20	25	50	100
Surge Level (ft MLLW)	5.79	7.07	7.82	8.35	8.68	9.66	10.51
Std. Deviation (ft)	0.46	0.46	0.59	0.75	0.75	0.98	1.25

The USKH H&H report (2009), after reviewing a number of sources (USACE, 1983 FEMA study; 1981 Wise et al.,) estimated the 100-year storm surge at 13 feet (datum MLLW). The report also noted that a wave height should be superimposed on the storm surge to produce the final design water level. Following wave analysis and modeling, the report recommended that the 100-year design high water level for the project to be 14.5 feet (storm surge plus half the height of a 3-foot wave). For riprap design at the bridged, the report added 1.5 feet for wave runup and freeboard, setting the riprap design height at 16.0 feet.

Wave height and wave runup are expected to be smaller in magnitude upstream of the Snake River Bridge than the predicted downstream values. For bank riprap design upstream of the Snake River Bridge, it is recommended that a design height of 14.5 feet is used.

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Appendix 1-2020 HEC-RAS Results for Snake River at Seppala Drive

River Sta	Q Total	Min Ch El	W.S. Elev	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
	(cfs)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
0	5400	-6.44	0	0.44	0.004715	5.33	1013.74	457.17	0.63
	6600	-6.44	0.26	0.79	0.004973	5.82	1133.72	465.74	0.66
193.4	5400	-5.16	0.75	1.24	0.003543	5.62	960.34	322.37	0.57
	6600	-5.16	1.07	1.67	0.003995	6.19	1066.14	339.05	0.62
389.6	5400	-4.56	1.36	1.96	0.003457	6.19	874.09	251.86	0.58
	6600	-4.56	1.74	2.47	0.003769	6.82	971.21	264.62	0.62
641.7	5400	-5.08	2.92	2.86	0.001695	5.93	973.28	238.78	0.44
	6600	-5.08	3.46	3.45	0.001803	6.5	1086.7	240.71	0.46
705	Bridge								
782.5	5400	-6.85	3.29	3.72	0.001243	5.41	1070.36	246.57	0.38
	6600	-6.85	3.85	4.36	0.001345	5.96	1188.96	247.83	0.4
1075.1	5400	-3.57	3.58	4.15	0.001765	6.08	895.85	168.88	0.45
	6600	-3.57	4.13	4.84	0.001925	6.75	990.24	173.47	0.48
1258.2	5400	-3.97	3.9	4.46	0.001602	6.02	908	164.37	0.43
	6600	-3.97	4.48	5.17	0.001746	6.68	1005.54	169.69	0.46
1427.4	5400	-4.79	4.24	4.75	0.001761	5.73	948.55	189.88	0.44
	6600	-4.79	4.88	5.48	0.001778	6.23	1070.87	192.42	0.45
1650.2	5400	-4.51	4.56	5.11	0.001419	6.03	928.39	160.1	0.41
	6600	-4.51	5.2	5.87	0.001536	6.67	1031.46	164.19	0.44
1768.2	5400	-3.65	4.71	5.28	0.00132	6.06	902.06	138.73	0.4
	6600	-3.65	5.35	6.05	0.001467	6.77	991.21	141.03	0.43
2006.1	5400	-3.97	4.92	5.71	0.001762	7.13	768.03	113.98	0.46
	6600	-3.97	5.56	6.54	0.001979	7.99	841.55	116.52	0.5
2256.5	5400	-4.1	5.51	6.08	0.001151	6.1	900.9	124.21	0.38
	6600	-4.1	6.25	6.96	0.001262	6.78	994.55	126.44	0.41
2472.5	5400	-4.83	5.7	6.39	0.001463	6.69	808.28	107.58	0.43
	6600	-4.83	6.45	7.31	0.001598	7.44	889.88	109.48	0.45

Appendix 2 - Riprap Calculation For Left Bank of Snake River At Seppala Drive Upstream of New Bridge

From Federal Highway Administration, 2009. Bridge scour and stream instability countermeasures: experience, selection, and design guidance-third edition. Hydraulic Engineering Circular No. 23. September 2009, Publication No. FHWA-NHI-09-111.

$$d_{30} = y(S_f C_S C_V C_T)\left[\frac{(V_{des})}{\sqrt{K_1(S_g - 1)gy}}\right]^{2.5}$$

Local depth of flow, y =	7.9 ft	from HEC-RAS
Safety factor S_f =	1.2	HEC-23 Guidance DG4.5
Stability coefficient C_S =	0.30	angular rock –HEC-23
Velocity distribution coefficient, C_V =	1.163	HEC-23 Guidance DG4.4
Blanket thickness coefficient, C_T =	1.0	HEC-23 Guidance DG4.4
Characteristic velocity for design, V_{des} =	8.6 ft/sec	HEC-23 Guidance DG4.4 & HEC-RAS
Average Channel Velocity, V_{avg} =	6.02 ft/sec	from HEC-RAS
Side slope correction factor, K_1 =	0.87	HEC-23 Guidance DG4.4
Bank Angle, θ	26.6 degrees	design
Centerline radius of curvature of channel bend, R_c =	650 ft	from plan view drawing
Water surface width upstream channel bend, W =	114 ft	from HEC-RAS
Specific gravity of riprap, S_g =	2.65	typical
Acceleration due to gravity, g =	32.2 ft/sec^2	

Particle size for which 30% is finer by weight, d_{30} =	0.45 ft	
Particle size for which 50% is finer by weight, d_{50} =	0.54 ft	HEC-23, d_{50} = 1.2 d_{30}
Particle weight for which 50% is finer, W_{50} =	22 lb	HEC-23, density = 165 lb/ft^3

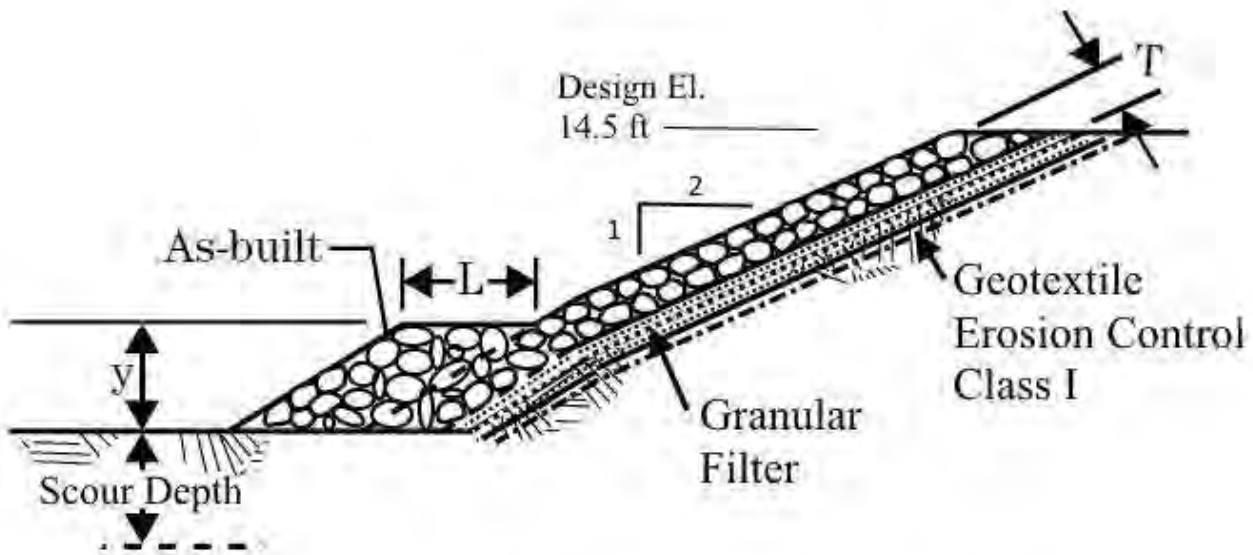
Appendix 3 - Scour Calculation For Left Bank Riprap Installation, Snake River At Seppala Drive Upstream of New Bridge

From U.S. Department of Agriculture (USDA), 2008. National Engineering Handbook, Scour Calculations. August 2007, Technical Supplement 14-B.

$$\frac{y_{max}}{y_c} = FS\left[1.8 - 0.051\left(\frac{Rc}{W_i}\right) + 0.0084\left(\frac{W_i}{y_c}\right)\right]$$

Mean water depth in upstream crossing, y_c =	6.5 ft	from HEC-RAS
Safety factor FS =	1.05	Supplement 14-B guidance
Centerline radius of curvature of channel bend, R_c =	650 ft	from plan view drawing
Water surface width upstream channel bend, W_i =	164 ft	from HEC-RAS
Maximum water depth in bend, y_{max} =	12.35 ft	
Existing Depth at riprap bend, $y_{existing}$ =	7.87 ft	from HEC-RAS
Scour at riprap bend, below thalweg, $scour_{bt}$ =	4.5 ft	y_{max} - $y_{existing}$

Appendix 4 – Self-Launch Riprap Toe



For slope = 1V:2H and estimated scour depth = 4.5 ft,
volume for self-launch toe is:

$V_{stone} = 15.1\ T$

$T = 2 \times d_{50}$ or $1 \times d_{100}$

From: Bryant Hammond
To: "Bill Potter"
Cc: Jeremy Jacobson; Kristine Kienberger; "Eileen Bechtol"
Subject: RE: Zoning Map Amendment
Date: Friday, August 27, 2021 2:18:00 PM

Hi Bill,

Any progress on completing the application? We're approaching the September Planning Commission Meeting and thought I'd check in.

Bryant

From: Bryant Hammond
Sent: Wednesday, August 18, 2021 3:30 PM
To: 'Bill Potter' <bpotter1954@yahoo.com>
Cc: Jeremy Jacobson <JJacobson@nomealaska.org>; Kristine Kienberger <KKienberger@nomealaska.org>; Eileen Bechtol <erbechtol@gmail.com>
Subject: Zoning Map Amendment

Hi Bill,

As you know, on August 3, 2021 the Planning Commission indicated they are amenable to beginning the zoning map amendment process. As you also probably know, the process in a lengthy one due to the approvals needed by the Planning Commission and the Common Council and the public hearing and notice requirements. To begin, the Clerk's Office will need a complete application submitted by you. To date, we have received the attached. Please see step 2 below for the additional application requirements. One through four can be handled by a surveyor. Either George Krier or Eric Tweet will be up to that task. Number five would be best completed by you. A simple narrative format with A – G as headings will suffice. I believe I've sent you a link to the comprehensive plan before. Please let me know if you need it again or can't find it on our website. The Planning Commission already seems amenable to the change. Strongly linking your request to the comprehensive plan will strengthen your case for when it goes before the Common Council.

When the complete application is submitted to the Clerk's Office, we can route it for staff review and present it to the Planning Commission and move forward with the public hearing in step 5. It would be great to get this squared away prior to the next building season.

Let me know if you have any questions,

Bryant

18.170.030 Zoning map amendment application process.

(a) Step 1: Optional Pre-Application Conference. The applicant may attend a pre-application conference with a representative from the city. The purpose of the meeting is to discuss the

zoning map amendment, submittal requirements and review process.

(b) Step 2: Zoning Map Amendment Application Submittal. The applicant shall submit one copy of the complete zoning map amendment application package to the city clerk and shall request that the application be reviewed by the planning commission and common council.

(1) Completed zoning application form, zoning map amendment form, application fee, and fee agreement.

(2) A legal description for all property to be considered for inclusion in a different zoning district.

(3) Current proof of ownership in a form acceptable to the city.

(4) A zoning amendment map of the area included in the proposed change, twenty-four inches high by thirty-six inches wide, with the following information:

(A) North arrow, scale (one inch equals one hundred feet or one inch equals two hundred feet), and date of preparation.

(B) The subdivision or block and lot name of the area included in the proposed amendment at the top of each sheet.

(C) Legal description of area included in the proposed amendment (entire area and individual zoning districts). In unsubdivided property, zoning boundaries shall be determined by a metes and bounds description.

(D) Location and boundaries, including dimensions, of the property(ies) included in the proposed amendment. Note: Zoning boundaries are to be the centerlines of physical streets, roads, highways, alleys, railroad rights-of-way, and channelized waterways, or such lines extended.

(E) The acreage or square footage of the property included in the proposed amendment.

(F) All existing zoning in the proposed redesignated area.

(G) Zoning and existing zoning on all lands adjacent to the proposed redesignated area.

(H) The location and dimensions for all existing public rights-of-way, including streets, and centerlines of watercourses within and adjacent to the property included in the proposed amendment.

(I) The names of all adjoining subdivisions with lines of abutting lots, and departing property lines of adjoining properties not subdivided.

(J) Certificate blocks for surveyor, planning commission, common council, city clerk and recorder.

(K) A digitized copy of the zoning amendment map shall be provided.

(5) A written statement describing the proposal and addressing the following points:

(A) Need for the proposed redesignation;

(B) Present and future impacts on the existing adjacent zoning districts, uses, and physical character of the surrounding area;

(C) Impact of the proposed zoning on area accesses and traffic patterns;

(D) Availability of utilities for any potential development;

(E) Present and future impacts on public facilities and services, including, but not limited to, fire, police, water, sanitation, roadways, parks, schools, and transit;

(F) The relationship between the proposal and the comprehensive plan; and

(G) Public benefits arising from the proposal.

(c) Step 3: Zoning Amendment Application Certification of Completion. Within a reasonable period of time, staff shall either certify the application is complete and in compliance with all submittal requirements or reject it as incomplete and notify the applicant of any deficiencies. The applicant shall then correct any deficiencies in the application package, if necessary, and submit the required number of copies of the corrected application (as specified in the zoning map amendment form) to the city clerk. The original application and all documents requiring a signature shall be signed in blue ink.

(d) Step 4: Final Staff Review and Report to Planning Commission. Staff shall complete a final review of the resubmitted materials and prepare a report to the planning commission explaining how the application is or is not consistent with the criteria for amendments to the official zoning map.

(e) Step 5: Set Zoning Amendment Public Hearing and Complete Public Notification Process. The city clerk shall send notice of public hearing to the applicant, all property owners of record within three hundred feet of the property in question, all mineral interest owners of record for the property, and to the appropriate referral agencies no less than thirty days before the initial planning commission public hearing. The city clerk shall also publish notice in a newspaper of general circulation. For zoning map amendments, the city clerk shall prepare a public hearing notification sign to be posted on the property by the applicant. The hearing may be held no less than thirty days from the date of property posting and newspaper publication. If the zoning amendment request is accompanying another application that is scheduled for public hearings before the planning commission and common council, one public hearing may be held on both applications.

(f) Step 6: Planning Commission Public Hearing and Action on the Zoning Amendment. The planning commission shall hold a public hearing to review the zoning amendment based on the criteria for amendments to the official zoning map. The commission shall then make a recommendation to the common council to approve, conditionally approve, or deny the zoning map amendment application.

(g) Step 7: Finalize Zoning Amendment Based on Planning Commission Comments. The applicant shall revise the zoning amendment application based on planning commission's comments and submit it to the city clerk.

(h) Step 8: Notify Parties of Interest. Not less than thirty days before the date scheduled for the initial common council public hearing, staff shall notify surrounding property owners within three hundred feet, mineral interest owners of record, and other interested parties. The notice shall include the time and place of the public hearing, the nature of the hearing, the location of the subject property, and the applicant's name.

(i) Step 9: Set Common Council Public Hearing and Complete Public Notification Process. The common council shall schedule a public hearing for the purpose of taking action on the zoning map amendment. The city clerk shall publish notice in a newspaper of general circulation. The hearing may be held no less than thirty days from the date of advertising.

(j) Step 10: Common Council Public Hearing and Action on the Zoning Amendment. The common council shall, after receiving the report and recommendations from the planning commission, hold a public hearing and act upon the proposed amendment. Following the required hearing, the common council shall consider the comments and evidence presented at the hearing and evaluate the application in accordance with the criteria listed below and approve, approve with conditions, or deny the application, in whole or in part.

(k) Step 11: Post-Approval Actions.

(1) Upon approval of an amendment to the official zoning map by the common council, the city clerk shall cause an appropriate revision of the official zoning map to be prepared for recording with the recorder. In the event an interested party initiated the zoning amendment, the petitioner shall pay the city's cost for the preparation of the revision to the official zoning map.

(2) The applicant initiating the official zoning map amendment shall have thirty days after approval of the amendment by the common council to submit to the city clerk two original drawings of the approved zoning amendment map for recording, along with the recording fees and all other costs billed by the city for the zoning amendment.

(3) The zoning amendment map shall be prepared by a licensed surveyor or engineer. Inaccurate, incomplete or poorly drawn plans shall be rejected. In addition, the petitioner shall submit one eleven-inch by seventeen-inch hard copy and electronic copy of the zoning amendment map.

(4) Within thirty days of receipt of the zoning amendment map, the city clerk shall review the documents for compliance with the common council's approval, obtain the city officials' signatures and submit the approved zoning amendment map and the ordinance amending the official zoning map to the recorder's office for recordation. (Ord. O-08-09-01 § 2 (part), 2008)

(907) 443-6663

www.nomealaska.org
Nome Code of Ordinances available at:
https://www.codepublishing.com/AK/Nome/

Building/Remodel Permit Summary

Updated 1

NAME	ADDRESS	MONTH	PERMIT #	ISSUE DATE	BUILDING PERMIT		REMODEL PERMIT		TOTAL
					VALUE	FEE	VALUE	FEE	TOTAL
		JANUARY							
Tri-M Terry Michels	606 East I		21-01R	1/27/2021			$30,000.00	$441.75	$441.75
		FEBRUARY							
Greg Smith	604 W 2nd		21-02R	2/24/2021			$6,750.00	$135.05	$135.05
Robert J Kauer	206 W Tobuk		21-03R	2/26/2021			$10,000.00	$181.25	$181.25
		MARCH							
AK Wireless Network	1200 Satellite Dr		21-01B/05R	3/17/2021	$200,000.00	$1,553.75			$1,553.75
AK Wireless Network	311 West 3rd		21-02B/06R	3/17/2021	$200,000.00	$1,553.75			$1,553.75
Hai Nguyen	502 E 3rd		21-07R	3/30/2021			$5,000.00	$111.25	$111.25
		APRIL							
Lucas Stotts	1009 E Tobuk		21-03B	4/6/2021	$5,000.00	$111.25			$111.25
David Olson	504 Bering		21-08R	4/9/2021			$5,000.00	$111.25	$111.25
Pomeranz Construction	500 E 6th		21-09R	4/9/2021			$28,000.00	$421.55	$421.55
AK Wireless Network	400 E 4th		21-10R	4/27/2021			$25,000.00	$391.25	$391.25
Tongass Engineering	Lot 5 Port Rd		21-04B	4/28/2021	$200,000.00	$1,553.75			$1,553.75
David Barron	702 Ivan Johnson		21-11R	4/29/2021			$6,000.00	$125.25	$125.25
		MAY							
Outsider's Const. Inc.	306 Greg Kruschek		21-05B	5/10/2021	$12,500.00	$216.25			
Outsider's Const. Inc.	306 Greg Kruschek		21-06B	5/10/2021	$12,500.00	$216.25			
Outsider's Const. Inc.	306 Greg Kruschek		21-07B	5/10/2021	$12,500.00	$216.25			
Nelson Jacob Kenick	1104 E 4th Ave		21-12R	5/10/2021			$30,000.00	$441.75	$441.75
Cheryl Thompson	110 E King Pl		21-13R	5/13/2021			$2,000.00	$69.25	$69.25
Tommy Stasenko	704 Gaslamp Rd.		21-14R	5/17/2021			$8,000.00	$153.25	$153.25

Romano DiBenedetto	605 Lomen St		21-15R	5/17/2021			$10,000.00	$181.25	$181.25
John Garrison	111 East 4th Ave		21-16R	5/17/2021			$4,400.00	$102.85	$102.85
Bible Baptist Church	103 E 1st St.		21-17R	5/21/2021			$2,000.00	$69.25	$69.25
Gregory Smith	605 W 2nd Ave		21-18R	5/26/2021			$1,000.00	$38.25	$38.25
NAME	**ADDRESS**	**MONTH**	**PERMIT #**	**ISSUE DATE**	**BUILDING PERMIT**		**REMODEL PERMIT**		**TOTAL**
					VALUE	**FEE**	**VALUE**	**FEE**	**TOTAL**
		JUNE							
Ryan Martinson	617 Lomen Ave.		2018-06B EXT	6/2/2021	$10,000.00	$181.25			$181.25
Ryan Martinson	613 Lomen Ave.		2021-19R	6/2/2021			$30,000.00	$441.75	$441.75
Judy Martinson	607 Steadman St.		21-11B	6/7/2021	$6,600.00	$194.50			$194.50
Judy Martinson	608 Steadman St.		21-20R	6/7/2021			$2,000.00	$69.25	$69.25
Mark Smith	405 East N St.	ISSUED WRONG #	21-12B	6/8/2021			$3,000.00	$83.25	$83.25
David Harbour	907 E 5th Ave		21-13B	6/10/2021	$3,600.00	$91.65			$91.65
Joe Miller	West 4th Dist.		21-14B	6/17/2021	$23,070.72	$363.25			$363.25
Patrick Meyer	212 W. King Pl		21-21R	6/8/2021			$20,000.00	$321.25	$321.25
Truong Phan	804 E Front St		21-22R	6/8/2021			$7,000.00	$139.25	$139.25
Truong Phan	802 e Front St		21-23R	6/8/2021			$4,000.00	$97.25	$97.25
NEC	503 Jackboot St.		21-24R	6/11/2021			$100,000.00	$993.75	$993.75
Rose Fosdick	500 W 4th		21-25R	6/11/2021			$5,000.00	$111.25	$111.25
Leora Kenick	601 I St.		21-26R	6/23/2021			$2,000.00	$69.25	$69.25
Chris Rudoplh	304 Bering St.		21-27R	6/28/2021			$10,000.00	$181.25	$181.25
Clifton McHenry	409 E 4th		2019-33R-EXT	6/29/2021			$24,000.00	$377.25	$377.25
K & S LEASING	208 Belmont		21-28R				$6,500.00	$132.25	$132.25
James Hansen	Icy View		2018-19B-EXT	6/29/2021			$15,000.00	$251.25	$251.25
		JULY							
Keith Reddaway	703 Out of the Way		2021-29R	7/2/2021			$4,000.00	$97.25	$97.25
Rural Cap	206 Round the Clock		2021-30R	7/2/2021			$15,000.00	$251.25	$251.25
Chris Schuneman	Tundra Line Subdv		2021-31R	7/2/2021			$6,678.00	$133.65	$133.65

Building/Remodel Permit Summary

Updated

NAME	ADDRESS	MONTH	PERMIT #	ISSUE DATE	BUILDING PERMIT		REMODEL PERMIT		TOTAL
					VALUE	FEE	VALUE	FEE	TOTAL
Rural Cap	202 Iris Ave		21-32R				$10,000.00	$181.25	$181.25
Rural Cap	206 W King Pl		21-33R				$10,000.00	$181.25	$181.25
Rural Cap	202 W C St.		21-34R				$10,000.00	$181.25	$181.25
Ralph Ray	408 E 5th		21-35R				$6,150.00	$125.25	$125.25
Drake Construction	706 E 4th		21-15B		$1,004,484.00	$5,621.35			$5,621.35
Patrick Dewane	103 E Kings Pl		21-16B		$206,960.00	$1,587.35			$1,587.35
Curt Faus Corporation	415 Bering St.		21-36R				$200,000.00	$1,553.75	$1,553.75
Nathan Nagurak	301 Bering St.		21-37R				$30,000.00	$441.75	$441.75
Ralph Ray	405 e 5TH		21-38R				$960.00	$37.53	$37.53
F&W Construction Inc.	National Guard Hangar		21-39R				$1,100,000.00	$5,923.75	$5,923.75
	AUGUST								
Dana Sherman	1002 E. 4th Ave		21-43R				$12,000.00	$209.25	$209.25
Michael Tucker	902 E. 4th Ave		2019-30R-EXT				$8,208.00	$156.05	$156.05
Calvin Schaeffer	1109 E 6th Ave		2019-06B-EXT		$96,000.00	$805.35			$805.35
Gregory Smith	606 E. 6th Ave		2021-18B		$8,000.00	$153.25			$153.25
Patrick Krier	312 W 1st Ave		2021-43R				$12,000.00	$209.25	$209.25
Melissa Ford	207 Prospesct Pl		21-44R				$50,000.00	$643.75	$643.75
Jeff Darling	339 Lester Bench Rd		21-17B		$138,917.38	$1,211.59			$1,211.59
	SEPTEMBER								
Mathew Michels	405 E. K St.		21-45R				$20,000.00	$321.25	$321.25
Adam Lust	609 Seppala Dr		21-46R				$13,000.00	$223.25	$223.25
Walter Lee Compton	607 E. F St		21-47R				$5,000.00	$111.25	$111.25
Erik Noet/BSRHA	208 E. 5th Ave		21-48R				$30,000.00	$441.75	$441.75
Nugget Publishing	222 Front St		21-49R				$5,000.00	$111.25	$111.25
Jamie L. Horton	203 Division St		21-50R				$8,000.00	$153.25	$153.25

Building/Remodel Permit Summary

Updated 1

NAME	ADDRESS	MONTH	PERMIT #	ISSUE DATE	BUILDING PERMIT		REMODEL PERMIT		TOTAL
					VALUE	FEE	VALUE	FEE	TOTAL
Wink Winkelmann	Nathan Loop		2014-05B-EXT		$75,083.01	$818.75			$818.75
Chris Duc	700 E. 4th Ave		21-51R				$4,998.00	$111.25	$111.25
TelAlaska	204 W. 1st Ave		21-19B			$1,547.85			$1,547.85
	OCTOBER								
The Grass Station LLC	223 Front St		21-52R				$5,000.00	$111.25	$111.25
James West III	503 Spokane St		21-53R				$7,200.00	$23.50	$23.50
Robby Thrun	707 Gaslamp Rd		21-54R				$4,500.00	$76.25	$76.25
Loretta Bullard	403 E. M St		21-55R				$16,995.00	$125.25	$125.25
Andrew Harrelson	504 Spinning Rock Rd		21-56R				$3,843.80	$97.25	$97.25
Homer "Willy" Hoogendor	707 E. 6th Ave		2016-46R-EXT				$61,056.00	$213.62	$213.62
Gudlief Organization, LLC	303 West E. St		21-57R				$7,000.00	$139.25	$139.25
NOVEMBER									
Kaylee Gifford	111 W. 3rd Ave		21-58R				$2,600.00	$188.00	$188.00
	DECEMBER								
TOTAL: 92					**$2,215,215.11**	**$17,997.39**	**$2,013,438.80**	**$17,960.70**	**$35,309.34**

2021 Miscellaneous Permits

Name	Address	Issue Date	Mech/Elec	Demo	Variance	Fill/Exc	Move	Cond U	Flood	Fees
Name	Address	Issue Date	Mech/Elec	Demo	Variance	Fill/Exc	Move	Cond U	Flood	Fees
Charles Reader	Prospect St	5/12/2021					21-01M			$25.00
Charles Reader	502 Fireweed	6/16/2021					21-02M			$25.00
Roger Thompson	Out of City limits	7/27/2021					21-03M			$25.00
Blake Bogart	Out of City limits	8/2/2021					21-04M			$25.00
Shane Smithhisler	1002 Nome Teller Hwy	8/11/2021					21-05M			$25.00
Lucas Stotts	1009 E 5th Ave	9/20/2021					21-06M			$25.00
Wesley Devore	Port	10/8/2021					21-08M			$25.00
GCI	East F & Tobuk	2/2/2021				21-01F/1E				$50.00
AK Wireless Network	311 W 3rd	3/26/2021				21-02F/2E				$25.00
AK Wireless Network	1200 Satellite Dr	4/7/2021				21-03F/3E				$25.00
Tongass Engineering	Lot 5 Port Rd	4/28/2021				21-04F				$25.00
Lucas Stotts	1009 E 5th Ave	5/19/2021				21-05F				$25.00
Alaska Gold Co.	W 6th Ave &	6/2/2021				21-06F				$25.00
Meghan Topkok	305 W C St.	5/27/2021				21-07F				$25.00
Nanuaq LLC	303 E 4th Ave &	9/30/2021				21-09E				$25.00
Nick Klescewski	609 E 4th	6/3/2021				21-09F				$25.00
Larry Neff	116 King Pl	10/7/2021				21-10E				$25.00
Nathan Nagaruk	lots 5, 6 Block 46	6/4/2021				21-10F				$25.00
Drake Construction	706 E 4th Ave	6/11/2021				21-11F				$25.00
Matt Peterson dba	Along L st. across	6/9/2021				21-12F/12E				$25.00
South Paw Services	605 E K St.	10/20/2021				21-13E				$25.00
City of Nome	Rec Center	6/9/2021				21-13F				$25.00
Rose Fosdick	500 W 4th	6/11/2021				21-14F				$25.00
Chris Schuneman	Ctr Creek Rd	6/10/2021				21-15F				$25.00
David Harbour	907 E 5th	6/11/2021				21-16F				$25.00
NEC	503 Jackboot	6/16/2021				21-17F				$25.00
Port of Nome	Submarine Beach	6/11/2021				21-18F				$25.00
Port of Nome	Thornbush Sub	6/11/2021				21-18F				
Bering Straits Native Co	East Beach	6/9/2021				21-19F				$25.00

2021 Miscellaneous Permits

BSNC	Lot 7 East Beach	6/9/2021				21-19F				$25.00
ACDG	1470 Seppala Dr.	5/19/2021				21-20F/5E				$25.00
Nathan Nagaruk	508 Nathan Barron	6/25/2021				21-21F				$25.00
Patrick Dewane	103 East King	6/23/2021				21-22F				$25.00
Leora/Ben Labinski	601 E I St A&B	7/23/2021				21-23F				$25.00
BSRHA	603/605 E 5th Ave	7/2/2021				21-24F				$25.00
Thomas Sparks	703 Steadman	7/2/2021				21-26F				$25.00
Tom Sparks	1202 E 6th	7/2/2021				21-27F				$25.00
City of Nome	Snow Repository	7/15/2021				21-28F				$0.00
Joe Miller	Block96 L9,10,11	7/19/2021				21-29F				$25.00
Alaska Gold Co./BSNC	B125 L6,7,8,10,11,12	8/25/2021				21-30F				$25.00
Jerome & Rhonda West	215 King Pl & 403 Division St	7/23/2021				21-31F				$25.00
Mary David	403 Round the Clock	7/27/2021				21-32F				$25.00
Geraldine Hoogendorn	305 E 4th Ave	7/28/2021				21-33F				$25.00
Mikel Henry/Bill Martin	405 E Tobuk & 404 E 4th Ave	7/27/2021				21-34F				$25.00
Kendra Nichols-Takak	704 E 1st Ave	8/2/2021				21-35F				$25.00
Roy Ashenfelter	1100 E 4th Ave	7/27/2021				21-36F				$25.00
Lawrence Eggart	602 E 5th Ave	7/28/2021				21-37F				$25.00
Shane Smithhisler	1602 Nome-Teller Hwy	8/2/2021				21-38F				$25.00
Robert Piscoya	204 Fore & Aft Dr	8/2/2021				21-39F				$25.00
TelAlaska	103 K ST.	8/2/2021				21-40F/4E				$25.00
Shane Smithhisler	Sunshine Subd. Lot 1, 4	8/2/2021				21-41F				$50.00
Chris Duc	700 E 4th Ave	8/11/2021				21-42F				$25.00

2021 Miscellaneous Permits

Stephanie Nielson	905 E 4th Ave	8/9/2021				21-43F				$25.00
Howard & Jessica Farley	803 E 4th Ave	9/10/2021				21-44F				$25.00
ANTHC/Nic Cropper	200 Musk Oxen	8/10/2021				21-45F				$25.00
Diane Adams	706 Gas Lamp	8/20/2021				21-46F				$25.00
Emma Pate	206W. 3rd Ave	8/23/2021				21-48F				$25.00
Doug & Robin Johnson	21st Centruy Subd Block 6 Lot 2	8/25/2021				21-49F				$25.00
Thomas Sparks	Block 11, Lot 113	8/25/2021				21-51F/6E				$25.00
Mikel Henry	405 E Tobuk & 404 E 4th Ave	9/8/2021				21-52F/7E				$25.00
Rafal Lizak	102 Moore Way	9/8/2021				21-53F				$25.00
Brian Beckermann	21st Centruy Subd Block 6 Lot 6	9/14/2021				21-54F				$25.00
Charles Cross	309 Musk Oxen Way	9/20/2021				21-55F				$25.00
Gudlief/Jason Evans	303 W E St.	10/1/2021				21-56F				$25.00
Emma Pate	208 W 3rd Ave	10/4/2021				21-59F				$25.00
Mark Hayward	1010 E 5th Ave	10/4/2021				21-60F				$25.00
David Ojanen	212 E 4th Ave	10/21/2021		21-09D						$0.00
Keith Conger	212 W 3rd Ave	10/15/2021	21-15ME							$125.25
Keith Conger	307 Carsten Way	10/15/2021	21-14ME							$76.25
Keith Conger	500 Spinning Rock Rd	10/15/2021	21-13ME							$153.25
Romano Di Benedetoo	605 Lomen Ave	10/7/2021	21-11ME							$41.80
Mason Evans	223 W Front St	9/30/2021							21-08A	$0.00
Kevin Fimon	B65A Lot 8A	9/7/2021		21-08D						$390.00
Melissa Ford	207 Prospect Pl	8/12/2021							21-07A	$0.00
Greg Smith	306 W 2nd Ave	7/19/2021	21-09ME							$75.00
Norman Stiles	208 Belmont	6/29/2021							21-06A	$0.00
Jessica Saclamana	100 W 5th Ave	6/24/2021		21-07D						$0.00
Dylan Sackett	310 W 2nd Ave	6/23/2021	21-08ME							$75.00

2021 Miscellaneous Permits

United Methodist Church	507 W 3rd Ave	6/21/2021		21-05D						$0.00
Cheryl Thompson	603 A Seppala/308 B West	6/16/2021		21-04D						$0.00
Michael & Grace Minix	burnt house	6/11/2021		21-03D						$750.00
James Hansen	1/4 mi Osborn Rd	6/7/2021	21-07ME							$75.00
Ralph Ray	406 E 5th Ave	6/4/2021	21-06ME							$75.00
Steve Todd	209 Bering St	5/24/2021	21-04ME							$75.00
Bryant Hammond	414 Lomen	5/14/2021	21-03ME							$75.00
NSHC	BIA Building	5/13/2021	21-02ME							$75.00
Patrick Dewane	103 E King Pl	5/11/2021			2021-01V					$200.00
Bering Air	1470 Seppala	4/29/2021							21-05A	$0.00
Bering Air	1470 Seppala	4/28/2021		21-02D						$25.00
AK DOT	Steadman	4/22/2021							21-02A	$25.00
Tongass Engineering	Lot 5 Port Rd	4/15/2021							21-03A	$25.00
AK Wireless Network	1200 Satellite Dr	3/26/2021							21-01A	$0.00
Clark Pearson	206 W 3rd	3/2/2021			21-01V					$200.00
John Bockman	204 McLain	1/20/2021		21-01D						by load
Arctic Broadcasting	408 W D	1/19/2021	21-01ME							$75.00
Total: 91										**$2,150.00**

2021 Miscellaneous Permits

2021 Miscellaneous Permits

