Mayor John K. Handeland

City Manager

Deputy City Clerk Brad Soske



Nome Planning Commission Kenneth Hughes III, Chair John Odden Gregory Smith Carol Piscoya Melissa Ford Adam Lust Rhonda West

NOME PLANNING COMMISSION REGULAR MEETING AGENDA TUESDAY, DECEMBER 03, 2024 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

APPROVAL OF AGENDA

APPROVAL OF MINUTES

A. November 12, 2024 Planning Commission Meeting Minutes,

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HISTORIC PRESERVATION COMMISSION ACTIVITIES

COMMUNICATIONS

A. Nome Center Creek Road Rehabilitation Update,

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NEW BUSINESS

A. Discussion presented by Commissioner Ford re: A Complaint with Commercial Zoning Uses,

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UNFINISHED BUSINESS

A. Planning Memo RE: Downtown Zoning Progress & Crew Camp Ordinance Progress,

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STAFF REPORTS

A. City Manager Report,

VERBAL

<u>B.</u> Building Inspector Report,

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COMMISSIONERS' COMMENTS

SCHEDULE OF NEXT MEETING

ADJOURNMENT

Mayor John K. Handeland

Interim City Manager Brooks Chandler

Deputy City Clerk Brad Soske



Nome Planning Commissid Kenneth Hughes III, Chan John Odden Gregory Smith Carol Piscoya Melissa Ford Adam Lust

Rhonda West

NOME PLANNING COMMISSION REGULAR MEETING AGENDA

TUESDAY, NOVEMBER 12, 2024 at 7:00 PM RICHARD FOSTER ROOM IN RICHARD FOSTER BUILDING

P.O. Box 281 · Nome, Alaska 99762 · Phone (907) 443-6663 · Fax (907) 443-5345

ROLL CALL at 7:05PM

Members Present:	C.Hughes; C.Piscoya; C.Smith; C.Lust; C.Ford		
Members Absent:	C.West; C.Odden		
Also Present:	Brad Soske, Deputy City Clerk; Dan Grimmer, City Clerk; Brooks Chandler, City Interim Manager; Cliff McHenry, Building Inspector		

APPROVAL OF AGENDA

A motion was made by C.Smith and seconded by C.Ford to approve the agenda as presented with the addition of Building Inspector report and City Manager's Status of Hazard Mitigation Plan.

At the Roll Call: Aye: C.Hughes, C.Piscoya, C.Smith, C.Lust, C.Ford Nay: Abstain: The motion **CARRIED**

APPROVAL OF MINUTES

A. November 12, 2024 Nome Planning Commission Meeting Minutes

A motion was made by C.Smith and seconded by C.Piscoya to approve the agenda as presented.

At the Roll Call: Aye: C.Hughes, C.Piscoya, C.Smith, C.Lust, C.Ford Nay: Abstain: The motion **CARRIED**

HISTORIC PRESERVATION COMMISSION ACTIVITIES

- A. Grant cycle open apply for another grant to finish what we started.
- B. Signage for the East end. Swanberg dredge is owned by the city. Have Erin get involved.
- C. Arch would not qualify for grant.

COMMUNICATIONS

A. Port of Nome Strategic Development Flyer

Comments and notes are FYI

B. Port Projects Status Report

Brooks talks about Local Emergency Planning Commission(LEPC). 2017 planning commission was updated and would make more sense to have a planning commissioner and should also include someone on the team from LEPC. Maybe someone from the Fire Department, Hospital.

How do we minimize flooding for the buildings? Asking the community to come up with a team.

The key component is in this email - team members should have knowledge of natural hazards that continually cause damage.

C.Piscoya would like to nominate her employee, Kevin, to be on the team.

C. Status of Hazard Mitigation Plan; Re Memo from City Manager

Brooks introduces himself and talks about how involved the planning commission should be and is suggesting to make a team, which would make more sense.

Dan Grimmer mentions that the city has two people who know about flood plain. The City of Nome has a flood plain coordinator, Angie Nguyen. Cliff would like to add that on our website there is a very extensive explanation of flood plain requirements.

CITIZENS' COMMENTS

NEW BUSINESS

A. November 12, 2024 Planning Memo Re; Planning Commission Training,

Dan Grimmer mentions trainings are yearly ongoing and are required of the planning committee team. The CLG should look for an upcoming training for Historical Preservation Commission. Findings of fact, what are they, why are they important. The findings of facts can be made by anyone in the municipality.

B. November, 7 2024 Abatement Report from the Building Inspector,

Cliff McHenry, the building inspector report: Has 508 Steadman been knocked down, the owner is a major violator of building materials being dumped on the property with nails and all. The owner wants to clean it up and sell it on the market. Council looking through photos provided for the properties mentioned in meeting minutes. Mr. Sackett has been very charming but hasn't taken any action. Terry the mother says they're supposed to come to Nome to fix the property up. Nome building code says if building is secure it can sit like that for years. Joe Jones' place is secure but vacant.

Cliff says one of the structures ready to move in someone. He is making progress. Walk through with the city upgrades and they're impressed. Working with Cole and making rounds around town; have been looking for violators and putting a list of people sending a letter the

right of way. In the near future the building inspector will be allowed to give citations to individuals violating the laws. So many of the houses can be renovated to have people living in them. Thanked City Clerk and Deputy City Clerk for picking up the slack while he was out on his recent medical.

A motion was made by C.Piscoya and C.Ford to adopt the abatement list to give to the council to look at.

Discussions about the motion, removing property off the abatement list and keeping others on due to being a nuisance or danger to the community.

The planning commission to remove #1, #3 and #7.

A motion has been made by C.Smith and seconded by C.Piscoya to remove #1, #3 and #7 from the abatement list from the amended list.

At the Roll Call: Aye: C.Hughes, C.Piscoya, C.Smith, C.Lust, C.Ford Nay: Abstain:

The motion **CARRIED**

A motion to approve the amended abatement list with the removal of the three properties.

At the Roll Call: Aye: C.Hughes, C.Piscoya, C.Smith, C.Lust, C.Ford Nay: Abstain:

The motion CARRIED

UNFINISHED BUSINESS

A. Nome City Planner Update: Planning commission looking over the information provided on page 99. Dan Grimmer mentions the first reading was passed and onto the second reading. Any structure needs a building code.

STAFF REPORTS

COMMISSIONERS' COMMENTS

- A. C.Lust thanks everyone for being here. No other comments to add.
- B. C.Smith says it's good to have Cliff back and to have Brooks here as well. Everyone is doing a great job.
- C. C.Piscoya thank you for working on the mitigation plan and should be renewed when supposed to be. Glad we are doing the abatement list. Hoping no more training.
- D. C.Ford thanks Cliff and welcomes Brooks. We have to respect the process that others have private property.
- E. C.Hughes thanks everyone for coming.

SCHEDULE OF NEXT MEETING

December 3rd, 2024 is the next scheduled meeting. Back at city hall.

ADJOURNMENT

A motion was made by C.Smith and seconded by C.Piscoya to adjourn the meeting at 9:01PM.

At the Roll Call: Aye: C.Hughes, C.Piscoya, C.Smith, C.Lust, C.Ford Nay: Abstain:

The motion **CARRIED**

Dan Grimmer

From: Sent:	McKinney, Holly Jean (DOT) <holly.mckinney@alaska.gov> Monday_November 25, 2024 8:29 AM</holly.mckinney@alaska.gov>
To:	Cole Cushman: Erin Reinders
Cc:	Blees, John; Dan Grimmer; Johnston, Christopher F (DOT); Martin, Kerri L (DOT); Jensen,
	Melissa L (DOT); Jansen, Amelia M (DOT)
Subject:	RE: External Email Nome Center Creek Road Rehabilitation

Hi Cole,

Thank you so much for bringing this to our attention! I passed along the information to the Project Manager, Christopher Johnston, and he indicated that we will be adjusting our plans and moving the project area (APE) to the north to avoid the AA1 cemetery polygon. We will also develop a monitoring and inadvertent discovery plan specific to this project. A Secretary of the Interior- qualified archaeologist will be present to monitor all ground disturbing activities in the area of the cemetery. We will be sending you and the rest of the consulting parties an updated findings letter that addresses these changes, so you will have another opportunity to look over our plans.

Please don't hesitate to reach out if you have additional questions and/or concerns.

Sincerely, Holly McKinney



Holly McKinney, PhD Cultural Resources Program Manager (FHWA) Archaeologist (PQI) DOT&PF Statewide Environmental Office 5800 Tudor Road / Anchorage, AK 99507 Office (907)451-2227 Fax (907)451-5126 In-Office Schedule: Monday-Friday 7:00AM-3:00PM

From: Cole Cushman <CCushman@nomealaska.org> Sent: Friday, November 22, 2024 2:49 PM To: McKinney, Holly Jean (DOT) <holly.mckinney@alaska.gov>; Erin Reinders <erin@akml.org> Cc: Blees, John <jblees@bristol-companies.com>; Dan Grimmer <DGrimmer@nomealaska.org> Subject: Nome Center Creek Road Rehabilitation

You don't often get email from ccushman@nomealaska.org. Learn why this is important

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Everyone,

From the maps showing the potential areas of effect, there may be a problem in the cemetery area. Attached is the litem A. draft report of a ground penetrating radar survey done in 2018. If you look at Appendix A, Figure 6, you can see the area of concern

Thanks Cole

Department of Transportation and Public Facilities



NORTHERN REGION Design and Engineering Services

2301 Peger Road Fairbanks, AK 99709-5316 Main: 907-451-2200 TTY: 711 or 1-800-770-8973 dot.alaska.gov

In Reply Refer To:

Nome Center Creek Road Rehabilitation: **2nd UPDATE** State/Federal Project Numbers: NFHWY00397/0135003 No Historic Properties Adversely Affected

October 31, 2024

Erin Reinders Planning Commissioner City of Nome Planning Commission PO Box 281 102 Division St. Nome, AK 77962

Dear Ms. Reinders:

The Alaska Department of Transportation and Public Facilities (DOT&PF) has assumed the responsibilities of the Federal Highway Administration (FHWA) under 23 U.S.C. 327, and is proposing to rehabilitate Center Creek Road in Nome, Alaska. The proposed project area is legally described in Table 1 and shown on Figures 1-2.

Table 1. Project location

Township	Range	Section(s)	USGS Quad Map1:63,360	Meridian
011S	034W	11, 14, 23, 26	Nome C-1	Kateel River

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by DOT&PF pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated April 13, 2023, and executed by FHWA and DOT&PF.

Consultation for this project is being conducted in accordance with the 2017 First Amended Programmatic Agreement... for the Federal-Aid Highway Program in Alaska. The DOT&PF, acting as a Federal agency, finds no adverse effect on historic properties by the proposed project

pursuant to 36 CFR 800.5(b), implementing regulations of Section 106 of the National Historic Preservation Act. This submission provides documentation in support of this finding, as required at 36 CFR 800.11(e).

Background

On March 25, 2021, a findings letter was submitted by the DOT&PF Northern Region PQI to the SHPO office to satisfy National Historic Preservation Act requirements for cultural resource review with a finding of no historic properties adversely affected for the Nome Center Creek Road Rehabilitation Project. The SHPO concurred with that finding on April 6, 2021.

An update was then released on June 30, 2021 that extended the DOT&PF right-of-way (ROW) along Center Creek Road in several locations where ROW acquisition was occurring to accommodate culvert extensions, which required an expansion of the project Area of Potential Effects (APE). That update presented a finding of no historic properties adversely affected. The SHPO concurred with that finding on July 12, 2021.

Changes to the project description since the June 30, 2021 update findings letter are limited to the expansion of the APE to accommodate the relocation of buried utilities at the south end of the project area.

Changes to the Project Description

- Expansion of the APE at the south end of the project area (see Figures 1-3 in pink).
- Relocation of buried utilities (runway 10-28 approach lights, buried conduit, and cables) at the south end of the project (see Figure 3, in yellow hashed lines).

Area of Potential Effect (APE)

The updated APE (see Figures 1-3, shown in pink) is extended from that presented in the July 12, 2021 findings letter to accommodate the replacement of the runway approach lights and associated conduit and cables (see Figure 3, shown in yellow hash marks).

Identification Efforts

A search of the Office of History and Archaeology's (OHA) Alaska Heritage Resources Survey Portal (AHRSPortal) database on October 30,2024 indicated that there are no (0) AHRS sites within the expanded APE (see Figures 1-3).

One AHRS polygon, NOM-00176 (Nome Cemetery), is located approximately 200 feet to the south of the nearest portion of the expanded APE. The Nome Cemetery is situated on a naturally vegetated unfenced parcel that contains hundreds of wood and stone grave markers. The cemetery is the main cemetery for the community of Nome and has been in use since about 1900 (Mobley and Mobley 2010). The cemetery was determined not eligible for listing on the National Register of Historic Places (NRHP). The SHPO concurred with that determination on 3/22/2012.

Additional Identification Efforts

A search of the Alaska Department of Natural Resources Division of Mining, Lands and Water Revised Statute (RS) 2477 database of public rights-of-way did not show any associated resources within the Project APE.

A review of the DOT&PF Northern Region Cultural Resources Library revealed that the expanded APE has undergone multiple cultural resource reconnaissance surveys (Carlson et al., 2011; Mobley and Mobley, 2010; Meinhardt et al., 2018). Archival photographs (1962) of that area revealed that most of Center Creek Road and Cemetery Road have been previously dredged for gold prior to World War II. Mobley and Mobley (2010, Pp. 25) suggest that the area is heavily disturbed and devoid of obvious cultural features. The DOT&PF Statewide Cultural Resource Manager-Archaeologist (PQI) believes that the previously completed cultural resources reconnaissance surveys are adequate, and no additional survey is necessary for this 2nd project update.

Finding of Effect

Expanding the APE to accommodate the replacement of the runway approach lights and associated buried conduit and cables has not altered the overall finding of effect for the Nome Center Creek Road Rehabilitation project, no new cultural resource sites were identified within the expanded APE. The DOT&PF seeks concurrence from the Alaska SHPO with a finding of **no historic properties adversely affected** for the project presented in this 2nd Update.

Consultation Efforts

In addition to the Alaska SHPO, the DOT&PF is sending this 2nd update to: Bering Straits Native Corporation; City of Nome; City of Nome Planning Commission; King Island Native Corporation; King Island Native Community; Nome Eskimo Community; Nome Museum and Library Commission; and Sitnasuak Native Corporation.

Please direct any comments to me at the address above, by telephone at 907-451-2227, or by email at <u>holly.mckinney@alaska.gov</u>. Your timely response will greatly assist us in incorporating your concerns into project development. For that purpose, we respectfully request that you respond within thirty days of your receipt of this correspondence.

Sincerely,

y J. McKonny

Holly J. McKinney Cultural Resource Manager (FHWA) -Archaeologist (PQI)

Enclosures: Figures 1-2: Location, Vicinity, and APE Map.

Item A.

Figure 3. APE Map-Zoomed in.

References:

2011 Carlson, E.S. et al.: Cultural Resources Survey of Nome Airport Runway Safety Area Expansion, Nome, Alaska. Report prepared by Northern Land Use Research for DOT&PF project number Z614160000.

2018 Meinhardt, R.L., A. Ramirez, J. Lambin, and M. Daniels: 2017 Historic Structures Survey (HSSR) for the Nome Seppala Drive Rehabilitation Project, Located in Nome, Alaska. Report prepared by True North Sustainable Development Solutions, LLC for DOT&PF Project number Z620030000.

2010 Mobley C.M. and C.O. Mobley: Nome Snake River Bridge Replacement. Report prepared by Mobley and Associates for DOT&PF Project number Z767450000.

CC w/ enclosures:

Amelia Jansen, DOT&PF Northern Region, Environmental Impact Analyst Melissa Jensen, DOT&PF Northern Region, Environmental Impact Analyst Christopher Johnson, P.E., DOT&PF Northern Region, Project Manager Katrina LeMieux, DOT&PF, Statewide NEPA Manager Kerri Martin, DOT &PF Northern Region, Regional Environmental Manager







Logic Geophysics & Analytics LLC Draft Report For Ground-Penetrating-Radar Surveys of the Nome Cemetery, Nome, Alaska

Date:	<u>30 July 2018</u>	
Subject:	Ground-Penetrating-Radar Surveys for the City of Nome at the Nome	
	Cemetery, Nome, Alaska: Draft Report	
To:	Ms Dawn Ubelaker, Cemetery Manager, City of Nome	
From:	Dr. Esther Babcock, Logic Geophysics & Analytics LLC	
Appendices:	A: Figures; B: Anomaly Locations and Depths	

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1. Executive Summary

Logic Geophysics & Analytics LLC (Logic Geophysics) is pleased to submit this draft report to the City of Nome (the "City") concerning ground-penetrating-radar (GPR) surveys at the City's cemetery. The project objective was to collect data at 6 Areas of Concern (AOCs), then process and interpret the data to identify location and estimated depth of unmarked burial sites. This report includes explanations of the geophysical methods, survey design, data processing and interpretation, results, and associated uncertainty. Results include figures (Appendix A) highlighting the data anomalies interpreted as burials as well as interpreted locations and depths (Appendix B).

Data collection occurred between June 30 and July 18, 2018. Logic Geophysics collected GPR data at 5 of the 6 AOCs totaling approximately 5.1 acres in total. (The City removed one AOC from the scope of work.) We used both a wheeled cart and a sled for data collection, depending on site conditions. During data collection, the GPR system tied Global Navigation Satellite System (GNSS) data directly to the incoming geophysical data for real-world positioning of the surveyed lines and detected anomalies.

Subsequent data processing produced both cross-section data profiles and depth slices. Interpretation of data anomalies provided locations (in latitude-longitude format) and depths for 403 burial sites (Appendix B). The entire project was completed safely and below budget. We appreciate the opportunity to provide these services to the City for management of this important societal and cultural resource.

2. Objectives

The objectives for this project were as follows:

- Collect ground-penetrating-radar (GPR) data over 6 identified Areas of Concern (AOCs) (Figure 1):
 - a. AOC 1: Base Area (Masonic Section), 1.05 acres;
 - b. Additive Alternative (AA) #1, approximately 2.5 acres;
 - c. AA #2, approximately 1 acre;
 - d. AA #3, approximately 0.3 acres;
 - e. AA #4, approximately 0.25 acres; and
 - f. AA #5, approximately 0.4 acres.

2) Identify location and estimated depth of data anomalies indicative of burial sites. Note that the City subsequently removed AA#5 from the scope of work at Logic Geophysics' suggestion due to the unsuitability of the site for achieving the survey objectives there.

3. Deliverables

Project deliverables include the following items:

- 1) Raw and processed geophysical data, if requested;
- 2) Copies of all field and daily notes, if requested;
- Draft report (this document) with a description of the methods employed, containing quality maps of data anomalies interpreted as grave locations and Excel tables including both the interpreted depth and the real-world coordinates for each; and
- 4) A final report to include any amendments to the Draft Report requested by the City of Nome.

In the Work Plan, Logic Geophysics also proposed delivering geo-referenced (KMZ) maps of the collected grid, or depth slices. However, due to site conditions, the data quality was not sufficient for such maps to be useful to the city. (Note that we still provide example maps of interpreted grave anomalies in accordance with deliverable #3 above.) Instead, we are providing KMZ files containing the coordinates of interpreted burial locations. While on-site, we provided the Cemetery Manager with a tutorial on the use of these files.

4. Methods

As per the project specification, Logic Geophysics used GPR to image the subsurface at the AOCs, collecting data in a grid pattern comprised of individual parallel and perpendicular linear transects, called GPR "profiles," within the grid. Although time intensive and therefore expensive, the grid method is the established best-practice for archaeological surveys such as this one.

4.1 Overview of the method

A GPR transmitter emits electromagnetic (EM) energy (the "signal") into the subsurface at a specified central frequency. If conductivity is low, this signal travels as a wave. Where subsurface lithology changes, often so do electrical properties. Those changes in electrical properties can cause part of the propagating signal to reflect back to the surface. A co-located GPR receiver on the surface measures the reflected signal, which the system digitizes and records for later processing and subsequent interpretation.

GPR is often implemented for archaeological and cemetery surveys because the contrast between soil and manmade objects, such as caskets or other materials often interred with bodies,

provides amenable targets for the GPR system. Under the right conditions, bones themselves offer sufficient contrast from the background signal to identify burial locations. Experienced practitioners can also identify data patterns indicative of trenches or excavations, which can sometimes reveal grave locations where bodies may have been interred without caskets.

GPR methods are not infallible, especially for grave detection, as the targets (burials) sometimes do not have enough contrast from the background soil properties to produce a interpretable reflection event. However, GPR is widely acknowledged as the most reliable tool for burial detection and is frequently implemented throughout the world for cemetery and other archaeological surveys.

4.2 Equipment used

Logic Geophysics employed Sensors & Software's pulseEKKOPro GPR imaging system using 500-MHz antennas mounted on a wheeled cart or a sled with a GNSS receiver affixed above the midpoint of the instrument (Figure 2). The pulseEKKOPro is the industry-leading GPR imaging solution. Research and practical experience have shown that use of higher frequency antennas (from 500 MHz to 1,000 MHz) in conjunction with the grid approach is the most reliable technique for grave location.

The 500-MHz antennas provided imaging down to about 6 feet below ground surface. The data logger, or Digital Video Logger (DVL), recorded the received signals for later processing and also displayed them during data collection for real-time quality control of incoming data (Figure 3).

4.3 Survey Design

Table 1 provides GPR data parameters during collection. In accordance with the Work Plan and project specifications, grid-line spacing was 1-foot. The sample spacing along each line was 1.8 inches, offering enhanced resolution above the initial project specification.

Parameter	Setting	
Grid size	Variable	
Survey type	Reflection (common offset)	
Antenna polarization	Broadside	
Antenna orientation	Perpendicular	
Central frequency	500 MHz	
Acquisition setting	Odometer	
Line spacing	1 foot	
Along-line measurement (trace) spacing	1.8 inches	
Time window	45 ns (~6 feet)	
First break offset	10%	
Sampling interval	200 picoseconds	
Antenna separation	0.75 feet	
Stacking	DynaQ	
Pulser voltage	180 Volts	

Table 1: Data collection parameters

A GPR setting that deserves special mention is the stacking, set to "DynaQ" (see also Figure 3). One way to improve signal-to-noise ratio for common-offset reflection GPR data is to collect more than 1 trace at each measurement position, average them, and record the average trace. This method is commonly called "stacking." Stacking improves data quality because noise tends to deconstructively interfere, and thus go to zero, as stacks increase. Signal, such as reflection

events, tends to constructively add together. In the Sensors & Software instrument, "DynaQ" is an advanced patented technology that adjusts the data stacking real-time depending on system speed, essentially resulting in enhanced automatic stacking of the data. System testing shows that DynaQ dramatically improves data quality over conventional stacking.

4.4 Location and Positioning

All positioning for the geophysical data used GNSS real-time kinematic (RTK) surveying techniques for optimal positioning accuracy. Due to the inaccuracy of the provided grid corner coordinates, Logic Geophysics established a GNSS base station on-site at project start-up. A GNSS antenna tied to that base station provided RTK data quality (sub-inch accuracy) for the GPR data. The GPR data logger tied incoming GNSS NMEA-data strings from the GNSS antenna directly to the GPR data for real-world positioning of collected data. The Leica GS14 roving antenna streamed GGA standard data packages to the GPR system at 1 Hz. The GNSS coordinate system is WGS84, latitude-longitude, in decimal degrees.

5. Data Quality Assurance and Quality Control (QA/QC)

5.2 QA/QC Tests

GPR data QA/QC checks included the following items:

- 1) System tests before and after data acquisition, to verify system response;
- Static data collection before daily acquisition, to verify data collection parameters and qualitatively assess data quality;
- 3) Dynamic real-time monitoring of GNSS data quality during data acquisition; and
- 4) Real-time monitoring of GPR data quality via the system's visualization of the DynaQ stacking Quality Factor (QF)

Before each line's collection begins, the DVL displayed the system settings to ensure no unintended changes have occurred that would negatively affect data quality. The DVL simultaneously displayed the starting GNSS data quality information to ensure positioning accuracy reliability (RTK scale, Figure 3b).

Real-time GPR QA/QC is provided by visual monitoring of the incoming GPR and GNSS data in the DVL (Figure 3a). The DVL processed the incoming data for visualization purposes, but to maintain data integrity stored only the raw data. With the real-time visualization of processed data, Logic's experienced GPR operator could readily detect problems with signal content or interference from external noise sources, such as VHF radios.

During data collection, the DVL displayed the real-time GNSS quality, ranging from RTK-Fixed to RTK to DGPS to GPS in descending order of accuracy (Figure 3b). During data collection, the system also displayed the DynaQ QF color scale, from blue to green to yellow to red (Figure 3b). Blue and green indicate higher data quality, while yellow and red indicate unacceptable data quality. Thus, the operator could immediately recollect any GPR line where the QF fell to the yellow level or below during acquisition.

5.2 QA/QC Results

All real-time QA/QC of the incoming GPR and GNSS data indicated suitable data quality. Throughout GPR acquisition, we qualitatively assessed the data quality to be fair or good, on a scale of poor-fair-good. The DynaQ QF throughout the surveys was blue, indicating the highest data quality on the DynaQ scale (Figure 3). Concerning the GNSS quality, the incoming positioning data was RTK-Fixed quality throughout 99% of data collection.

6 Project Sites

The project was located at the cemetery in Nome, Alaska (Figure 1). Logic surveyed 5 AOCs in total, comprising about 5.1 acres surveyed (Table 2). AOC size and site conditions, including obstructions, dictated individual grid sizes within each AOC. Maximum grid size employed was 115 feet by 100 feet, due to data processing and visualization considerations.

6.1 Base Area (Masonic Section)

The Base Area was approximately 1.05 acres in size. The corners of this AOC, as confirmed with the cemetery manager, were marked by 4 tall posts. Many known burials were present at this site, as indicated by grave markers and grave enclosures. The surface was mostly level, with grasses of varying heights throughout. We used the cart for data collection throughout the Base Area.

The Base Area surveys comprised 7 grids total, ranging in size from approximately 3,000 square feet to 8,000 square feet. Grave markers, grave enclosures, a small building, and a gravel pile on the AOC all obstructed surveys to varying extents.

6.2 AA1

AA1 was approximately 2.5 acres in size. The cemetery manager delineated the outline of this AOC using existing lathe markers on the northern and western sides and placing flagging on the southwestern and western boundaries. Two roads formed the southernmost boundary.

7 grave markers within this AOC indicated the location of known burials. The site surface was highly variable. In the northeastern corner of the AOC, the surface was tundra with tussocks present as high as 2 feet above mean elevation level. In the southwestern portion of the site, the surface was grassy. Willow trees initially covered much of the area in the central and western sections of this AOC. The City removed the willows and then bulldozed the site to enable GPR data collection. We used the sled for data collection throughout AA1.

The AA1 surveys comprised 14 grids total, ranging in size from about 2,000 square feet to 11,500 square feet. Some obstructions still precluded total coverage, including the existing grave markers and large holes apparently of human origin.

6.3 AA2

AA2 was approximately 1 acre in size. Roads delineated the AOC boundary to the north, east, and west. The cemetery manager flagged the southern boundary, and grass mowing was accomplished with the flagged area. The site surface was variable. In the eastern section of the AOC, the surface was mostly dirt and was very uneven, having holes, rises, and dips throughout. We used the sled for data collection throughout this portion of AA2. In the western half of AA2, the surface was not level but was grassy and firm, so we were able to use the cart for surveying.

The AA2 surveys comprised 6 grids total, ranging in size from about 4,500 square feet to 6,300 square feet in size. Many grave markers and existing graves as well as surface roughness obstructed the surveys to varying degrees at this site.

6.4 AA3

AA3 was approximately 0.3 acres in size. Roads delineated the southern, eastern, and western boundaries of this site. The cemetery manager placed flagging to delineate the northern survey boundary of AA3. The AA3 surveys comprised 3 grids. The site surface was mostly level and grassy. However, many grave markers in place within this AOC obstructed the GPR surveys. We used the cart for data collection at AA3.

6.5 AA4

AA4 was approximately 0.25 acres in size. A road delineated its eastern boundary, while the cemetery manager delineated the western boundary. No grave markers existed within this AOC. The site surface was mostly level and grassy. We used the cart for data collection at this site. The AA4 surveys comprised 1 grid.

AOC	Approximate Area Surveyed	Number of Grids Completed	Approximate Line Miles Surveyed	Days to Complete
Base Area	1.05	7	14	3
AA1	2.5	14	36	10
AA2	1	6	13	3
AA3	0.3	3	5	1
AA4	0.25	1	4	1
Totals	5.1	31	72	18

Table 2: AOC survey information

7. Data Analysis

7.1 Initial Processing

After data collection, we downloaded the data from the DVL onto the processing computer. We used Sensors & Software EKKOProjects software for data processing and visualization. The steps below provide a summary of the data processing workflow:

- Delete bad traces: We deleted traces with zero information content, excessive noise, or bad GNSS data. Besides deleting bad traces, we did not apply any corrections for positioning offsets, due to the high quality of the GNSS data as discussed previously.
- 2) Dewow: Dewow is a zero-phase filter generating the difference between the trace value and the average trace value over a defined window width. Dewow removes unwanted "wow" from the GPR trace while preserving high-frequency signal. Wow is a slowly decaying, low-frequency signal that may be induced on the trace due to the proximity of transmitter and receiver and the electrical properties of the ground. GPR data require the dewow process before viewing or carrying out further processing.
- 3) Repicking the "first break": Repicking the first break is a static shift to determine the time where the signal crosses the defined threshold for each trace, that is, the true "zero time." The algorithm shifted all traces equally in time to align the median value of the first break times with zero time. The algorithm threshold was 5 mV.
- 4) Background subtraction: This process is a 2-dimensional spatial filter. The filter calculated the average trace and subtracted the average trace from every data trace. This filter removed the direct arrival between the 2 antennas, the uppermost band of data, that can blank out very near-surface reflectors. It also removed other static noise in the data, likely caused by the proximity of the GNSS antenna.
- 5) Velocity analysis: Determining the correct radar wave velocity is essential for accurate determination of object depth and for migration processing (Step 6, below). We used a hyperbolic velocity calibration to fit a superimposed hyperbola to diffraction patterns in the data, where present. The software then estimated the radar wave velocity from the parameters of the hyperbola.

- 6) F-K migration: The F-K migration applied a synthetic aperture image reconstruction process to each GPR line. The algorithm computes the Fourier transform of the GPR data into plane waves at a monochromatic frequency. This process superimposes reflection energy to the correct source point and moves dipping reflectors to their true subsurface position. For optimal results, migration requires the input velocity to be as accurate as possible. We used the velocity calculated in Step 5.
- 7) Gain: Since radar signal strength decreases with time due to unavoidable attenuation processes, applying a gain function boosted the later time signals for optimal visualization and interpretation. We used spreading and exponential compensation (SEC) gain, a composite of linear time gain and exponential signal recovery, to optimize late-time reflection events. This gain attempts to compensate both for spherical spreading losses and for the exponential ohmic dissipation of EM energy. SEC gain is the gain closest to physical reality and most commonly used for GPR data.

We derived depth estimates of targets using the "first-break," that is, the first deviation from zero position of the target reflection wavelet. Although many practitioners use the middle of the wavelet rather than the first break, research has shown that the first break provides the correct depth estimate while the middle pick does not.

7.2 Plotting and Interpretation

Typically, practitioners display GPR data in profiles, where the x-axis is position (in odometer mode) or trace number (in free-run mode) along the profile and the y-axis is depth or time. The plots are typically greyscale, but research has shown that color profile plots are more conducive to interpretation. Therefore, we use a typical seismic color plot rather than greyscale, with the amplitude colors ranging from blue (negative) to white (zero) to red (positive). In processed profiles, the colors represent normalized amplitudes, which are unitless. The profile figures in this report do not include color bars, as is standard for GPR profile plots (Figure 4).

After processing, EKKOProjects gridded the individual profile data together to visualize in depth slices from a map view, rather than just a profile view. Processing the data as a series of depth slices usually enhances interpretation of GPR data, providing visualization of coherent anomalies associated with the targets of interest, that is, unmarked burials. The depth slices provide an image of the average normalized (no negative values) GPR amplitude values in the specified thickness, or depth range.

However, due in large part to the surface roughness throughout the sites, in most cases the data maps were not useful for data interpretation. Therefore, we went through each data set line by line, looking for data anomalies indicative of burials. Then, we used the GNSS data to extrapolate coordinates for those anomalies. Finally, we compiled spreadsheets of interpreted anomaly locations, in latitude-longitude format, and anomaly depths. (We ignored any anomalies within the first 2 feet of the surface, as those anomalies were likely correlated with the thawed/frozen interface rather than burials.) Converting these spreadsheets into KMZ files provided a deliverable that the City can view in Google Earth or other georeferenced databases, for future cemetery management.

8. Results

8.1 Interpreted burial locations and depths

Appendix B contains tables of interpreted grave locations for each AOC. The corresponding KMZ files are being delivered with this report. In total, we identified 403 anomalies in the GPR data

that may indicate burial locations (Table 3). In some cases, especially at the Base Area, some anomaly locations may be correlated with existing marked graves. It is important to note when examining the maps that the Google Earth projection is shifted from real-world locations.

AOC	Total	
	Anomalies	
Base Area	145	
AA1	116	
AA2	107	
AA3	20	
AA4	15	
Total	403	

Table 3: Summary showing number of anomalies located in each AOC

8.1 Base Area (Masonic Section)

The base area contained 145 interpreted anomalies. Notably, the northeastern-most 4,000 square feet of this area has minimal interpreted burial locations and appears to be mostly undisturbed ground (Figure 5).

8.2 AA1

We interpreted 116 anomalies in AA1 to be indicative of potential burial sites (Figure 6). These anomalies ranged from 2 feet to 6 feet below surface. Some of these anomalies may be indicative of other anthropogenic activities, such as old mining holes and even previous runway lighting systems, but we erred on the side of caution when interpreting anomalies in this area.

8.3 AA2

Even though it was 60% smaller than AA1, AA2 contained 107 anomalies likely indicative of burial locations, a much higher potential burial density (Figure 7). This result is corroborated by the fact that AA2 is obviously used for current and historic burials, whereas AA1 for the most part has little surface expression of potential burials.

8.4 AA3

AA3 contained 29 anomalies interpreted to be indicative of potential burials (Figure 8). Some anomalies within AA3 were found to exist very close to existing grave markers, yet appearing to be associated with a separate burial.

8.5 AA4

In AA4, we interpreted 15 anomalies likely to be indicative of burial locations, some within just a few feet of the existing roadway (Figure 9).

8.2 Sources of Error and Uncertainty Analysis

Several potential sources of error exist for these data and this analysis. Here we list 3 relevant sources of errors and corresponding considerations.

 <u>Depth errors</u>: For the GPR method, converting the data, measured in time, into depth, is likely the largest source of error. The time-to-depth conversions will be only as accurate as the velocity estimate. Furthermore, incorrect velocity can limit the efficacy of the migration and gridding algorithms essential for viewing the data. Reliably estimating the radar-wave velocity, and therefore anomaly depths, is complicated by the surface roughness present throughout the site. Additionally, in the Arctic, the subsurface velocity structure can be highly variable laterally and vertically. For example, the velocity of the thawed layer can be half the velocity of the underlying permafrost. As a consequence, where the thickness of the thawed layer changes, so does the overall velocity profile of the subsurface. Compensating for this factor is outside the scope of this work. As a result, we estimate the potential error in the overall velocity estimates to be $\pm 20\%$, with the corresponding error in the depth estimates. Due to this large uncertainty, we only report depth estimates in integer values.

- 2) <u>Position errors</u>: Errors in estimates of anomaly position are often linked. These errors can originate from several sources including the following:
 - 1) Horizontal resolution limitations;
 - 2) Spatial sampling density; and
 - 3) Positioning errors of the geophysical data within the grid.

We attempted to minimize travel path errors by traveling between marked points during GPR surveys. During survey set-up, we marked the outer grid lines with a measuring tape and paint. Then, during acquisition, the operator placed a lathe on the end of the line to be traveled, and aimed directly at that lathe while traveling down the line. To mitigate problems associated with spatial resolution, we set the sampling density to about twice that required for 500-MHz data (Table 1). Concerning positioning errors, the RTK-quality GNSS data was accurate to within inches. However, surface roughness at some of the sites (AA1 and AA2) induced movement of the GNSS antenna on the order of a foot or more, with corresponding uncertainty in data positioning.

Horizontal resolution limitations are an unavoidable consequence of the physics behind GPR. We can calculate the horizontal resolution to estimate uncertainty in anomaly positions via known equations. Calculations using these site conditions and 500-MHz antennas reveals that the horizontal resolution at 5 to 6 feet depth is on the order of 6 inches.

3) <u>Site Conditions:</u> At the Nome cemetery, several on-site considerations can give rise to both false positive responses (burials indicated where burials are not present) or false negative responses (no burial indicated where a burial is present). For example, where manmade holes were filled in before the surveys in AA1 and AA2, the GPR data over those locations may appear similar to GPR data responses from graves.

Obviously, the latter response (false negative) is more concerning for cemetery management. False negatives can arise from multiple sources:

- 1) Surface roughness can prevent burial anomalies from appearing coherent and therefore distinguishable from background reflection events in the GPR data.
- 2) Where bodies are interred without caskets, the reflection strength of the GPR signal from the body itself may not be strong enough to distinguish from the background signal, since the electrical properties of bone are not extremely different from soil, especially as compared to, for example, metallic objects in soil.
- 3) Where multiple soil layers are present, such as is the case in the permafrost environment in Nome, reflections from within the soil itself may interrupt reflections from bodies and therefore preclude detection.

In spite of these considerations, as mentioned earlier, GPR is widely regarded as the most reliable method for detecting human burials. Our careful data processing and our expertise in GPR data interpretation also helps to reduce the chances for false responses.

9. Conclusions

Logic Geophysics conducted GPR surveys at the City's cemetery in Nome, Alaska, successfully identifying 403 anomalies likely associated with burials. Logic Geophysics & Analytics LLC is pleased to provide this report to the City of Nome to aid the management of this important cultural and societal resource. Please contact me if you have any questions.

Sincerely,

Esther J. Babcock

Esther Babcock, Ph.D. President/Chief Geophysicist Logic Geophysics & Analytics LLC <u>ebabcock@logicgeophysics.com</u> | Ph: (907) 744-8111 Service Disabled Veteran Owned – Certified Alaska DOT DBE – Woman Owned Small Business

Appendix A





Site Overview from Google Earth Imagery







GPR Antennas

Data logger



Location: Nome, Alaska

Client: City of Nome

GPR Equipment On-Site

Ground-Penetrating-Radar Surveys at the City Cemetery





a) The data logger display starting data collection; the left half shows the previous collected data in profile view, enable realtime quality control during acquisition; note the DynaQ color scale below the profile as described in the text. The right half shows the grid, collected lines, and current line position.



b) The data logger display during data collection; note the GPS and DynaQ data quality indicators on the bottom of the left panel. The GNSS data quality is indicated both by the notation ("RTK Fixed") and the green bars (number of received satellites).

*Red lines are collected data; green lines have yet to be collected.



 Ground-Penetrating-Radar Surveys at the City Cemetery

 Location: Nome, Alaska
 Client: City of Nome

 Example of Data Logger Displays and QA/QC During Collection





Ground-Penetrating-Radar Surveys at the City Cemetery

Location: Nome, Alaska

Client: City of Nome

Example Profile Data

₃₀ Fig.



LogicGeo

Ground-Penetrating-Radar Surveys at the City Cemetery

Location: Nome, Alaska

Client: City of Nome

Interpreted Anomaly Map: Base Area



100 Feet

Interpreted Potential Burial Location
 Approximate Base Area Survey Boundary





Ground-Penetrating-Radar Surveys at the City Cemetery

Location: Nome, Alaska

Client: City of Nome





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100 Feet

Ground-Penetrating-Radar Surveys at the City Cemetery

Location: Nome, Alaska

Client: City of Nome





50 Feet

Interpreted Potential Burial Location
 Approximate AA3 Survey Boundary



LogicGeo

Location: Nome, Alaska

Client: City of Nome





50 Feet

Interpreted Potential Burial Location
 Approximate AA4 Survey Boundary



Location: Nome, Alaska

Client: City of Nome



Appendix B
Base Area Anomaly Locations and Depths

Latitude	Longitude	Name	Depth
64.5049995 N	165.4209336 W	BA-G1-1	3
64.5049241 N	165.4205609 W	BA-G1_4	4
64.5049901 N	165.4208591 W	BA-G1_5	4
64.5049813 N	165.4207138 W	BA-G1_6	4
64.5049805 N	165.4207783 W	BA-G1 7	4
64.5049630 N	165.4205994 W	BA-G1 9	4
64.5048904 N	165.4205967 W	BA-G1 10	4
64.5049382 N	165.4206447 W	BA-G1 11	5
64.5049424 N	165.4204325 W	BA-G1 14	5
64.5049299 N	165.4207451 W	BA-G1 15	5
64.5049535 N	165.4208028 W	BA-G1 17	5
64.5050290 N	165.4208817 W	BA-G1 18	5
64.5049656 N	165.4205624 W	BA-G1 19	5
64.5051597 N	165.4207275 W	BA-G2 1	3
64.5050887 N	165.4204510 W	BA-G2 2	3
64.5050524 N	165.4205586 W	BA-G2 3	3
64.5050967 N	165.4205490 W	BA-G2 4	3
64 5051369 N	165 4204250 W	BA-G2_6	3
64 5051462 N	165 4205907 W	BA-G2 7	4
64 5051507 N	165 4205435 W	BA-G2 9	4
64 5050903 N	165 4208545 W	$BA_G2 10$	3
64 5051857 N	165 4208100 W	$BA-G2_{10}$	3
64 5051852 N	165 /206086 W	$BA_{-G2} 12$	3
64 5050405 N	165 4206807 W	BA G2 13	3
64 5050342 N	165 4206102 W	BA G2 14	4
64 5051692 N	165 /20/72/ W	$BA-G2_14$	4
64.5051002 N	165 4204724 W	$BA-G2_{13}$	3
64.5051227 N	165.4205250 W	$BA-G2_17$	3
64.5051951 N	165.4204900 W	$BA-G2_10$	3
64.5050619 N	165 4205011 W	$BA-G2_20$	4
04.3031600 N	105.4205233 W	BA-G2_21	4
04.5051175 N	105.4207213 W	DA-G2_22	3
04.3032023 N	165.4206590 W	BA-G2_23	4
64.5051465 N	165.4208297 W	BA-G2_24	4
64.5051647 N	165.4208459 W	BA-G2_25	5
04.3031413 N	105.4209785 W	BA-G2_28	5
64.5052010 N	165.4209572 W	BA-G2_30	4
64.5051482 N	165.4209277 W	BA-G2_31	4
04.5051076 N	105.4206337 W	BA-G2_32	4
64.5052035 N	165.420/30/ W	BA-G2_36	4
64.5051538 N	165.4203785 W	BA-G3_1	3
64.5052297 N	165.4202351 W	BA-G3_3	3
64.5053082 N	165.4202487 W	BA-G3_4	3
64.5052939 N	165.4201796 W	BA-G3_5	3
64.5053658 N	165.4200884 W	BA-G3_8	4
64.5052183 N	165.4205528 W	BA-G3_9	4
64.5052372 N	165.4203950 W	BA-G3_10	4
64.5051707 N	165.4202698 W	BA-G3_11	4
64.5054100 N	165.4203443 W	BA-G3_12	4
64.5053092 N	165.4204665 W	BA-G3 13	4

64.5053390 N	165.4199997 W	BA-G3_14	4
64.5053616 N	165.4200458 W	BA-G3_15	4
64.5052593 N	165.4200826 W	BA-G3_16	5
64.5052429 N	165.4201416 W	BA-G3_17	5
64.5053285 N	165.4203902 W	BA-G3_18	5
64.5051998 N	165.4201854 W	BA-G3_19	5
64.5054665 N	165.4202641 W	BA-G4_2	3
64.5054060 N	165.4199865 W	BA-G4_3	4
64.5054705 N	165.4200312 W	BA-G4_5	4
64.5054905 N	165.4201269 W	BA-G4_6	4
64.5054524 N	165.4202467 W	BA-G4_7	4
64.5054281 N	165.4202854 W	BA-G4 8	4
64.5054425 N	165.4201731 W	BA-G4_9	4
64.5053842 N	165.4200752 W	BA-G4 10	4
64.5054286 N	165.4198399 W	BA-G4 11	4
64.5055081 N	165.4200975 W	BA-G4 13	4
64.5054753 N	165.4202361 W	BA-G4 15	5
64.5054385 N	165.4199338 W	BA-G4 16	5
64.5055923 N	165.4198690 W	BA-G4 17	5
64.5054508 N	165.4198606 W	BA-G4 18	5
64.5054815 N	165.4199626 W	BA-G4 19	5
64.5054985 N	165.4201583 W	BA-G4 20	5
64.5050295 N	165.4210781 W	BA-G5 2	3
64.5049950 N	165.4212425 W	BA-G5 4	3
64.5049801 N	165.4210330 W	BA-G5 7	3
64.5050680 N	165.4209831 W	BA-G5 9	3
64.5051642 N	165.4209735 W	BA-G5 10	4
64.5051484 N	165.4210480 W	BA-G5 11	4
64.5051263 N	165.4210671 W	BA-G5 12	4
64.5049940 N	165.4211842 W	BA-G5 13	4
64.5052334 N	165.4209912 W	BA-G5 16	4
64.5050312 N	165.4211266 W	BA-G5 17	4
64.5049950 N	165.4210304 W	BA-G5_18	4
64.5051469 N	165.4209580 W	BA-G5 19	5
64.5050582 N	165.4210647 W	BA-G5 20	5
64.5050456 N	165.4210756 W	BA-G5 21	5
64.5050251 N	165.4211709 W	BA-G5 22	5
64.5050166 N	165.4212123 W	BA-G5 23	5
64.5052119 N	165.4209770 W	BA-G5 24	5
64.5052227 N	165.4209702 W	BA-G5 25	5
64.5050807 N	165.4211509 W	BA-G5 26	5
64.5051101 N	165.4210849 W	BA-G5 29	5
64.5049671 N	165.4211727 W	BA-G5_33	5
64.5051013 N	165.4210224 W	BA-G5_35	6
64.5051147 N	165.4209284 W	BA-G5 36	6
64 5051158 N	165 4209616 W	BA-G5_37	6
64 5051628 N	165 4210330 W	BA-G5 39	6
64 5051437 N	165 4210216 W	BA-G5 40	6
64 5054035 N	165 4207494 W	BA-G6 1	2
64 5052262 N	165 4206148 W	BA-G6 3	2
0-7.0002202 IN		5, 50 5	<u> </u>

64.5054472 N	165.4205615 W	BA-G6_5	2
64.5052332 N	165.4209471 W	BA-G6_7	3
64.5053138 N	165.4208594 W	BA-G6_8	3
64.5053594 N	165.4206560 W	BA-G6_10	4
64.5053305 N	165.4207378 W	BA-G6_11	4
64.5053059 N	165.4205080 W	BA-G6_12	4
64.5053795 N	165.4205408 W	BA-G6_13	4
64.5054718 N	165.4207020 W	BA-G6_14	4
64.5054239 N	165.4204955 W	BA-G6_15	4
64.5054287 N	165.4207440 W	BA-G6_16	4
64.5054444 N	165.4207221 W	BA-G6_17	4
64.5053989 N	165.4204335 W	BA-G6_20	4
64.5053520 N	165.4203710 W	BA-G6_21	4
64.5053917 N	165.4205647 W	BA-G6_22	5
64.5054007 N	165.4205015 W	BA-G6_23	5
64.5053402 N	165.4204531 W	BA-G6_24	5
64.5054197 N	165.4207882 W	BA-G6_25	5
64.5053447 N	165.4207633 W	BA-G6_26	5
64.5054580 N	165.4205071 W	BA-G6_30	6
64.5054255 N	165.4206538 W	BA-G6_31	6
64.5053349 N	165.4206287 W	BA-G6_32	6
64.5053239 N	165.4206570 W	BA-G6_33	6
64.5055387 N	165.4203233 W	BA-G7_1	2
64.5056228 N	165.4204126 W	BA-G7_2	2
64.5054494 N	165.4204113 W	BA-G7_3	3
64.5057192 N	165.4203722 W	BA-G7_4	3
64.5054667 N	165.4204647 W	BA-G7_5	3
64.5056232 N	165.4204923 W	BA-G7_9	3
64.5054867 N	165.4203980 W	BA-G7_10	3
64.5054767 N	165.4205277 W	BA-G7_11	3
64.5055201 N	165.4203230 W	BA-G7_12	3
64.5055270 N	165.4204321 W	BA-G7_15	4
64.5056955 N	165.4202586 W	BA-G7_17	4
64.5056743 N	165.4205098 W	BA-G7_19	4
64.5057160 N	165.4204378 W	BA-G7_20	4
64.5056459 N	165.4203138 W	BA-G7_24	5
64.5055146 N	165.4203369 W	BA-G7_25	5
64.5055480 N	165.4204450 W	BA-G7_26	5
64.5055848 N	165.4204274 W	BA-G7 28	5
64.5055457 N	165.4204017 W	BA-G7 29	5
64.5055733 N	165.4204608 W	BA-G7 31	5
64.5055883 N	165.4204750 W	BA-G7 32	5
64.5056150 N	165.4203832 W	BA-G7 33	6
64.5055596 N	165.4204089 W	BA-G7 34	6
64.5056075 N	165.4204864 W	BA-G7 35	6
64.5055879 N	165.4203897 W	BA-G7 36	6

AA1 Anomaly Locations and Depths

Latitude	Longitude	Name	Depth
64.5060093 N	165.4157688 W	AA1-G1_1	3
64.5057935 N	165.4156105 W	AA1-G1_3	3
64.5060452 N	165.4157102 W	AA1-G1_4	3
64.5058257 N	165.4160104 W	AA1-G1_8	5
64.5057389 N	165.4154848 W	AA1-G1_10	6
64.5058932 N	165.4153036 W	AA1-G1_11	5
64.5057666 N	165.4155603 W	AA1-G1 13	4
64.5058869 N	165.4154637 W	AA1-G1 14	6
64.5058197 N	165.4158654 W	AA1-G1 16	4
64.5058440 N	165.4154151 W	AA1-G1 18	6
64.5058892 N	165.4158799 W	AA1-G1 19	5
64.5056774 N	165.4159140 W	AA1-G2 1	3
64.5056774 N	165.4157070 W	AA1-G2 2	3
64.5056452 N	165.4160377 W	AA1-G2 3	3
64.5056693 N	165.4160899 W	AA1-G2 4	3
64.5057539 N	165.4159240 W	AA1-G2 6	4
64.5057154 N	165.4155449 W	AA1-G2 8	5
64.5054881 N	165.4157145 W	AA1-G2 9	6
64.5057229 N	165.4160324 W	AA1-G2 11	6
64.5056454 N	165.4156843 W	AA1-G2 12	5
64.5055732 N	165.4158644 W	AA1-G2 14	6
64.5055663 N	165.4157902 W	AA1-G2 15	5
64.5056199 N	165.4159254 W	AA1-G2 16	6
64.5053373 N	165.4159855 W	AA1-G3 1	3
64.5054573 N	165.4158109 W	AA1-G3_2	4
64.5054455 N	165.4157300 W	AA1-G3 4	5
64.5054325 N	165.4158712 W	AA1-G3 5	5
64.5053685 N	165.4158919 W	AA1-G3 7	5
64.5053464 N	165.4158357 W	AA1-G3 8	6
64.5059703 N	165.4165272 W	AA1-G5_2	5
64.5060492 N	165.4160603 W	AA1-G5 3	6
64.5061334 N	165,4163930 W	AA1-G5_5	5
64.5060904 N	165,4161959 W	AA1-G5_6	5
64 5060699 N	165 4164772 W	AA1-G5_7	5
64.5059931 N	165.4161534 W	AA1-G5 8	5
64.5059634 N	165.4160441 W	AA1-G5 9	5
64.5060414 N	165.4165761 W	AA1-G5_12	4
64 5057061 N	165 4165832 W	AA1-G6_1	5
64.5057050 N	165,4162220 W	AA1-G6_3	4
64.5057017 N	165.4163060 W	AA1-G6_5	4
64,5057923 N	165,4162543 W	AA1-G6_6	4
64 5057497 N	165 4164398 W	AA1-G6 7	4
64.5058545 N	165.4166109 W	AA1-G6 9	3
64.5057974 N	165.4174158 W	AA1-G7 2	4
64 5058730 N	165 4177077 W	AA1-G7_3	3
64 5059103 N	165 4176051 W	AA1-G7_5	4
64 5058620 N	165 4173980 W	AA1-G7 6	3
64 5058747 N	165 4172586 W	AA1-G7 9	5
64 5059800 N	165 4175590 W	AA1-G7 11	4
5-1.5555500 U N	100.4170000 W	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	т

64.5059167 N	165.4172541 W	AA1-G7_13	2
64.5059732 N	165.4172284 W	AA1-G7_15	2
64.5060560 N	165.4173931 W	AA1-G7_16	3
64.5060632 N	165.4175723 W	AA1-G7_18	3
64.5059176 N	165.4177306 W	AA1-G7_19	4
64.5060079 N	165.4176052 W	AA1-G7_20	4
64.5060127 N	165.4174786 W	AA1-G7_22	3
64.5059741 N	165.4174936 W	AA1-G7_24	4
64.5059339 N	165.4175176 W	AA1-G7_26	4
64.5058742 N	165.4175377 W	AA1-G7_28	5
64.5059255 N	165.4173585 W	AA1-G7_29	3
64.5059737 N	165.4171482 W	AA1-G7 31	3
64.5059093 N	165.4171231 W	AA1-G7 33	3
64.5065919 N	165.4197365 W	AA1-G8 1	3
64.5066293 N	165.4194736 W	AA1-G8 2	3
64.5065987 N	165.4193149 W	AA1-G8 5	4
64.5064867 N	165.4192400 W	AA1-G8 6	4
64.5065761 N	165.4193686 W	AA1-G8 7	4
64.5065533 N	165.4191950 W	AA1-G8 8	5
64.5064988 N	165.4193895 W	AA1-G8 9	4
64.5065270 N	165,4194850 W	AA1-G8 11	4
64.5064956 N	165,4193089 W	AA1-G8 12	4
64.5066161 N	165,4194031 W	AA1-G8 14	4
64.5066094 N	165,4196836 W	AA1-G8 16	3
64.5065744 N	165,4197107 W	AA1-G8 17	3
64.5065683 N	165,4196349 W	AA1-G8_18	5
64 5066011 N	165 4196101 W	AA1-G8 19	4
64 5065527 N	165 4195425 W	AA1-G8_20	4
64 5065383 N	165 4193071 W	AA1-G8_23	5
64 5065455 N	165 4189847 W	AA1-G9_1	3
64.5065126 N	165,4189158 W	AA1-G9_3	3
64.5065162 N	165.4187475 W	AA1-G9 5	3
64 5064482 N	165 4185749 W	AA1-G9_6	3
64 5064776 N	165 4187847 W	AA1-G9 7	3
64 5064867 N	165 4185976 W	AA1-G9 9	4
64 5064249 N	165 4187945 W	AA1-G9 10	4
64 5065019 N	165 4186883 W	AA1-G9_11	4
64 5064454 N	165 4190605 W	AA1-G9_12	5
64 5064010 N	165 4181063 W	AA1-G10 1	2
64 5064853 N	165 4184892 W	AA1-G10_1	4
64 5062630 N	165 4180921 W	AA1-G10 3	4
64 5063256 N	165 4183723 \\	ΔΔ1_G10 /	
64 5064108 N	165 4184000 \/	ΔΔ1_G10 5	-1 5
64 5060060 N	165 4166806 \/	ΔΔ1_Ω11 1	<u>л</u>
64 5062480 N	165 / 1720/2 \/		- - /
64 5061596 N	165 /1600/2 W		4 1
64 5060407 N	165 /167006 W		+ /
64 5061501 N	165 / 165 / 090 W		4 5
64 5061051 N	100.4100400 VV		<u>່</u> ວ
04.3001833 N	100.41/3001 W		3
04.3039497 N	105.400304 W	AAT-GTZ_T	4

64.5058692 N	165.4169636 W	AA1-G12_2	4
64.5059016 N	165.4168161 W	AA1-G12_3	4
64.5059927 N	165.4168130 W	AA1-G12_4	5
64.5057187 N	165.4171519 W	AA1-G12_5	2
64.5059498 N	165.4169868 W	AA1-G12_6	2
64.5058403 N	165.4171543 W	AA1-G12_7	3
64.5057679 N	165.4169315 W	AA1-G12_8	5
64.5055147 N	165.4160391 W	AA1-G13_1	3
64.5054702 N	165.4159865 W	AA1-G13_2	4
64.5062495 N	165.4178204 W	AA1-G14_1	3
64.5062991 N	165.4176222 W	AA1-G14_2	3
64.5063353 N	165.4176265 W	AA1-G14_3	3
64.5062342 N	165.4175867 W	AA1-G14_5	4
64.5062089 N	165.4177000 W	AA1-G14_6	4
64.5061875 N	165.4175526 W	AA1-G14_7	4
64.5063041 N	165.4179330 W	AA1-G14_8	3
64.5063440 N	165.4177745 W	AA1-G14 10	3

AA2 Anomaly Locations and Depths

Latitude	Longitude	Name	Depth
64.5050700 N	165.4169408 W	AA2-G1_1	2
64.5050608 N	165.4172342 W	AA2-G1_3	2
64.5049469 N	165.4173403 W	AA2-G1_4	2
64.5050465 N	165.4170587 W	AA2-G1_5	2
64.5049978 N	165.4171479 W	AA2-G1_6	2
64.5051165 N	165.4169579 W	AA2-G1_7	3
64.5051247 N	165.4170180 W	AA2-G1_8	3
64.5051249 N	165.4171768 W	AA2-G1_9	3
64.5051561 N	165.4170948 W	AA2-G1_10	3
64.5050049 N	165.4173681 W	AA2-G1_12	3
64.5050224 N	165.4169101 W	AA2-G1_14	4
64.5050495 N	165.4171232 W	AA2-G1_15	4
64.5049664 N	165.4173076 W	AA2-G1_17	5
64.5049488 N	165.4171201 W	AA2-G1_18	5
64.5049846 N	165.4170338 W	AA2-G1_19	5
64.5049849 N	165.4173753 W	AA2-G1_20	6
64.5049610 N	165.4173720 W	AA2-G1_21	6
64.5049019 N	165.4170565 W	AA2-G1_22	6
64.5050636 N	165.4171593 W	AA2-G1_24	6
64.5050158 N	165.4171916 W	AA2-G1_25	6
64.5049522 N	165.4175210 W	AA2-G2_1	3
64.5048439 N	165.4176844 W	AA2-G2_2	3
64.5048644 N	165.4176973 W	AA2-G2_3	3
64.5048196 N	165.4175128 W	AA2-G2_4	3
64.5049024 N	165.4173978 W	AA2-G2_6	4
64.5048105 N	165.4176814 W	AA2-G2_7	4
64.5047975 N	165.4175074 W	AA2-G2_9	4
64.5048257 N	165.4176554 W	AA2-G2_10	4
64.5048141 N	165.4175565 W	AA2-G2_11	4
64.5047377 N	165.4175353 W	AA2-G2_12	4
64.5047365 N	165.4175728 W	AA2-G2_13	5
64.5048893 N	165.4174401 W	AA2-G2_14	5
64.5048985 N	165.4172389 W	AA2-G2_15	5
64.5047706 N	165.4173120 W	AA2-G2_16	5
64.5047462 N	165.4173766 W	AA2-G2_17	5
64.5048752 N	165.4176674 W	AA2-G2_18	6
64.5050306 N	165.4178755 W	AA2-G3_2	2
64.5050455 N	165.4176591 W	AA2-G3_4	2
64.5050276 N	165.4176719 W	AA2-G3_5	2
64.5050054 N	165.4176954 W	AA2-G3_6	2
64.5049997 N	165.4177357 W	AA2-G3_7	2
64.5049519 N	165.4177755 W	AA2-G3_8	2
64.5050620 N	165.4178260 W	AA2-G3_10	2
64.5049203 N	165.4175012 W	AA2-G3_11	2
64.5050054 N	165.4175299 W	AA2-G3_12	3
64.5049833 N	165.4175296 W	AA2-G3_13	3
64.5049473 N	165.4175909 W	AA2-G3_15	3
64.5049397 N	165.4177301 W	AA2-G3_16	3
64.5049197 N	165.4177309 W	AA2-G3_17	3

64.5048556 N	165.4178871 W	AA2-G3_20	4
64.5048698 N	165.4177766 W	AA2-G3_22	4
64.5050146 N	165.4178824 W	AA2-G3_23	4
64.5048699 N	165.4179313 W	AA2-G3_24	4
64.5048792 N	165.4178922 W	AA2-G3_25	4
64.5048764 N	165.4178029 W	AA2-G3 27	4
64.5049121 N	165.4176701 W	AA2-G3 29	5
64.5049476 N	165.4176314 W	AA2-G3 30	5
64.5049547 N	165.4176755 W	AA2-G3 31	5
64.5049158 N	165.4178428 W	AA2-G3 32	5
64.5050137 N	165.4176693 W	AA2-G3 36	5
64.5048433 N	165.4178386 W	AA2-G3 38	4
64.5051211 N	165.4175607 W	AA2-G4 2	2
64.5051000 N	165.4174055 W	AA2-G4 3	2
64.5050675 N	165.4173306 W	AA2-G4 5	2
64.5051630 N	165.4173427 W	AA2-G4 6	2
64.5051478 N	165.4173668 W	AA2-G4 7	2
64.5050804 N	165.4173764 W	AA2-G4 8	2
64 5052395 N	165 4175655 W	AA2-G4 9	2
64 5051608 N	165 4171924 W	AA2-G4 10	3
64 5051526 N	165 4173137 W	AA2-G4 12	3
64 5052044 N	165 4172508 W	AA2-G4 14	5
64 5051742 N	165 4173171 W	AA2-G4 15	5
64 5050339 N	165 4174136 W	AA2-G4_16	5
64 5050566 N	165 4174747 W	$\Delta \Delta 2 - G4 - 10$	5
64 5052555 N	165 4174793 W	$\Delta \Delta 2 - G4 - 18$	2
64 5051643 N	165 4174454 W	$\Delta \Delta 2 - G4 - 19$	4
64 5052203 N	165 4173723 W	$\Delta \Delta 2 - G4 - 10$	4
64 5052205 N	165 / 17/580 W	$\Delta \Delta 2_{-}G_{-}Z_{-}$	3
64 5053084 N	165 4171514 W	$\Delta \Delta 2 - G5 1$	2
64 5053076 N	165 / 17/330 W	$AA2-C5_1$	2
64 5051923 N	165 / 17 4330 W	$\Delta \Delta 2$ -G5 3	2
64.5051925 N	165 /172052 W	AA2-05_5 AA2 C5_4	2
64.5052749 N	165 4172052 W	AA2-05_4	2
64.5053957 N	165 4160502 W	AA2-05_5	2
64 5052994 N	165 / 1710/1 M		3
64.5055579 N	105.417 1941 W	AA2-G5_7	4
64.5052015 N	165.4170125 W	AA2-G5_9	4
04.5053624 N	105.4172410 W	AA2-G5_10	5
04.5052537 N	105.4109923 W	AA2-G5_11	3
04.5052732 N	105.4109915 W	AA2-G5_12	3
04.5052490 N	105.41/0691 W	AA2-G5_13	3
04.5053168 N	105.41/0282 W	AA2-G5_14	2
04.5052870 N	165.41/08/1 W	AA2-G5_15	2
64.5053338 N	165.41/3//6W	AA2-G5_16	5
64.5053470 N	165.4169489 W	AA1-G6_1	3
64.5053415 N	165.4169033 W	AA1-G6_2	3
64.5053166 N	165.4169631 W	AA1-G6_3	3
64.5054289 N	165.4168870 W	AA1-G6_4	3
64.5054096 N	165.4172113 W	AA1-G6_5	3
164 5054710 N	165.4169904 W	AA1-G6_6	3

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Item A.

64.5054107 N 165.4172731 W AA1-G6_7 4 64.5054150 N 165.4170807 W AA1-G6_8 4 64.5054600 N 165.4170579 W AA1-G6_9 4 64.5054564 N 165.4172253 W AA1-G6_10 4 64.5054742 N 165.4171859 W AA1-G6_11 4 64.5053806 N 165.4171771 W AA1-G6_12 4 64.5053877 N 165.4168996 W AA1-G6_13 4 64.5053751 N 165.4168788 W AA1-G6_14 4				
64.5054150 N165.4170807 WAA1-G6_8464.5054600 N165.4170579 WAA1-G6_9464.5054564 N165.4172253 WAA1-G6_10464.5054742 N165.4171859 WAA1-G6_11464.5053806 N165.4171771 WAA1-G6_12464.5053877 N165.4168996 WAA1-G6_13464.5053751 N165.4168788 WAA1-G6_144	64.5054107 N	165.4172731 W	AA1-G6_7	4
64.5054600 N165.4170579 WAA1-G6_9464.5054564 N165.4172253 WAA1-G6_10464.5054742 N165.4171859 WAA1-G6_11464.5053806 N165.4171771 WAA1-G6_12464.5053877 N165.4168996 WAA1-G6_13464.5053751 N165.4168788 WAA1-G6_144	64.5054150 N	165.4170807 W	AA1-G6_8	4
64.5054564 N165.4172253 WAA1-G6_10464.5054742 N165.4171859 WAA1-G6_11464.5053806 N165.4171771 WAA1-G6_12464.5053877 N165.4168996 WAA1-G6_13464.5053751 N165.4168788 WAA1-G6_144	64.5054600 N	165.4170579 W	AA1-G6_9	4
64.5054742 N165.4171859 WAA1-G6_11464.5053806 N165.4171771 WAA1-G6_12464.5053877 N165.4168996 WAA1-G6_13464.5053751 N165.4168788 WAA1-G6_144	64.5054564 N	165.4172253 W	AA1-G6_10	4
64.5053806 N 165.4171771 W AA1-G6_12 4 64.5053877 N 165.4168996 W AA1-G6_13 4 64.5053751 N 165.4168788 W AA1-G6_14 4	64.5054742 N	165.4171859 W	AA1-G6_11	4
64.5053877 N 165.4168996 W AA1-G6_13 4 64.5053751 N 165.4168788 W AA1-G6_14 4	64.5053806 N	165.4171771 W	AA1-G6_12	4
64.5053751 N 165.4168788 W AA1-G6_14 4	64.5053877 N	165.4168996 W	AA1-G6_13	4
	64.5053751 N	165.4168788 W	AA1-G6_14	4

AA2 Anomaly Locations and Depths

Latitude	Longitude	Name	Depth
64.5049880 N	165.4185347 W	AA3-G1_2	3
64.5049316 N	165.4184092 W	AA3-G1_4	3
64.5049687 N	165.4184169 W	AA3-G1_5	3
64.5049820 N	165.4183462 W	AA3-G1_6	4
64.5049506 N	165.4184663 W	AA3-G1_7	6
64.5051248 N	165.4181803 W	AA3-G2_1	2
64.5050429 N	165.4182222 W	AA3-G2_2	2
64.5051563 N	165.4181952 W	AA3-G2_3	2
64.5050056 N	165.4182647 W	AA3-G2_4	2
64.5050731 N	165.4180587 W	AA3-G2_5	2
64.5051317 N	165.4183544 W	AA3-G2_6	3
64.5050384 N	165.4182710 W	AA3-G2_7	3
64.5050914 N	165.4183538 W	AA3-G2_8	3
64.5050864 N	165.4181567 W	AA3-G2_9	4
64.5051488 N	165.4180210 W	AA3-G2_11	4
64.5050527 N	165.4180181 W	AA3-G2_12	4
64.5050601 N	165.4182713 W	AA3-G2_13	5
64.5050297 N	165.4180580 W	AA3-G2_14	5
64.5052218 N	165.4181829 W	AA3-G3_1	2
64.5051823 N	165.4180134 W	AA3-G3_25	5

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AA4 Anomaly Locations and Depths

Latitude	Longitude	Name	Depth
64.5048375 N	165.4193891 W	AA4_1	2
64.5049304 N	165.4192292 W	AA4_2	2
64.5049526 N	165.4192424 W	AA4_3	2
64.5049446 N	165.4191358 W	AA4_4	2
64.5047524 N	165.4194782 W	AA4_6	2
64.5049286 N	165.4191243 W	AA4_8	3
64.5048726 N	165.4192509 W	AA4_11	4
64.5048006 N	165.4193772 W	AA4_13	4
64.5048456 N	165.4192150 W	AA4_14	4
64.5049181 N	165.4191644 W	AA4_15	4
64.5048115 N	165.4192290 W	AA4_16	5
64.5048961 N	165.4193125 W	AA4_17	5
64.5048351 N	165.4192438 W	AA4_18	6
64.5047960 N	165.4192933 W	AA4_19	6
64.5050405 N	165.4191324 W	AA4_20	6

Chapter 18.110

MATRIX OF PERMITTED AND CONDITIONAL USES

Sections:

18.110.010 Matrix of permitted and conditional uses.

18.110.020 Violations.

18.110.010 Matrix of permitted and conditional uses.

Zoning District	General Use	Residential	Commercial	Industrial	Resource Development	Open Space/Rec					
Residential Uses						·					
Single-family dwellings	Permitted	Permitted	Conditional Use	Conditional Use	Conditional Use	Not Allowed					
Duplex dwellings	Permitted	Permitted	Conditional Use	Conditional Use	Conditional Use	Not Allowed					
Multiple-family dwelling	Permitted	Permitted	Conditional Use	Conditional Use	Conditional Use	Not Allowed					
Mobile homes and mobile home parks	Permitted	Permitted	Conditional Use	Conditional Use	Conditional Use	Not Allowed					
Residential use of the upper floor above a commercial or industrial use	Permitted	Conditional Use	Conditional Use	Conditional Use	Conditional Use	Not Allowed					
On-premises dwelling for owner or caretaker of commercial use	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed					
Civic/Institutional	Civic/Institutional/Public Uses										
Parks and playgrounds	Permitted	Permitted	Permitted	Conditional Use	Conditional Use	Permitted					
Churches	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed					
Public and governmental buildings and uses	Permitted	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed					
Fire station and emergency medical aid station	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed					
Schools	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed					
Museums and cultural facilities	Permitted	Conditional Use	Permitted	Not Allowed	Conditional Use	Conditional Use					
Public utility facilities or structures	Conditional Use	Not Allowed	Conditional Use	Permitted	Conditional Use	Permitted					
Snow dump and storage sites	Conditional Use	Conditional Use	Conditional Use	Permitted	Conditional Use	Not Allowed					
Youth correction facilities	Conditional Use	Conditional Use	Conditional Use	Not Allowed	Conditional Use	Not Allowed					
Halfway houses	Conditional Use	Conditional Use	Conditional Use	Not Allowed	Conditional Use	Not Allowed					
Correctional facilities	Conditional Use	Not Allowed	Conditional Use	Not Allowed	Conditional Use	Not Allowed					
Cemetery	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed					

Code of Ordinances of Nome Chapter 18.110 MATRIX OF PERMITTED AND CONDITIONAL USES

Zoning District	ict General Use Residential <mark>Commercia</mark>		Commercial	Industrial	Resource Development	Open Space/Rec
Interpretative area or visitor's center	Permitted	Conditional Use	Permitted	Not Allowed	Conditional Use	Permitted
Public watershed area and related facilities	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Conditional Use	Permitted
Business/Commerc	<mark>cial/Retail Uses</mark>					
Hospitals, medical and dental clinics	Permitted	Not Allowed	Permitted	Not Allowed	Conditional Use	Not Allowed
Home businesses and occupations	Permitted	Permitted	Conditional Use	Conditional Use	Conditional Use	Not Allowed
Private storage, including junk, or small warehouse associated with residential use/home occupations	Not Allowed	Not Allowed	Conditional Use	Conditional Use	Conditional Use	Not Allowed
Private storage, not including junk, or small warehouse associated with residential use/home occupations	Permitted	Permitted	Conditional Use	Conditional Use	Conditional Use	Not Allowed
Retail and wholesale businesses	Permitted	Conditional Use	Permitted	Permitted	Conditional Use	Not Allowed
Offices	Permitted	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Restaurants, taverns and	Permitted	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
establishments						
Hotels and motels	Permitted	Not Allowed	Permitted	Not Allowed	Conditional Use	Not Allowed
Funeral home	Permitted	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Clubs or fraternal, religious or philanthropic associations and union hall	Permitted	Not Allowed	Permitted	Not Allowed	Conditional Use	Not Allowed
Personal service businesses	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed
Recreational facilities	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed
Day care houses and facilities	Permitted	Permitted	Conditional Use	Not Allowed	Conditional Use	Not Allowed
Industrial Uses						
Outdoor storage, including junk, as an accessory use to any permitted or conditional use in the district	Not Allowed	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Outdoor storage, not including junk, as an accessory use to any permitted or	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed

Code of Ordinances of Nome Chapter 18.110 MATRIX OF PERMITTED AND CONDITIONAL USES

Zoning District	General Use	Residential	Commercial	Industrial	Resource Development	Open Space/Rec
conditional use in the district						
Incidental, small- scale manufacturing, processing, and storage of goods for wholesale or retail sale on the premises	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed
Service stations	Conditional Use	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Vehicle and equipment repair facilities	Not Allowed	Not Allowed	Conditional Use	Permitted	Conditional Use	Not Allowed
Manufacturing, processing, assembling, wholesale or storage	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Boat marinas and docks	Not Allowed	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Marine transportation and port facilities	Not Allowed	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Navigation aids and facilities	Not Allowed	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Bulk petroleum storage, including aviation fuel	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Junkyards, commercial and auto wrecking yards	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Aircraft storage, loading, parking, repair and aviation-related facilities	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Warehousing and storage	Conditional Use	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Air transport terminals for passengers and freight	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Transportation facilities, including bus and taxi operations	Not Allowed	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed
Dredging and filling	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Dog kennels and lots	Not Allowed	Not Allowed	Not Allowed	Conditional Use	Conditional Use	Not Allowed
Mining of minerals, aggregate, sand, gravel or other earth products; and accessory uses and buildings	Not Allowed	Not Allowed	Not Allowed	Conditional Use	Permitted	Not Allowed

Zoning District	General Use	Residential	Commercial	Industrial	Resource Development	Open Space/Rec
Helicopter landing pad	Permitted	Not Allowed	Permitted	Permitted	Conditional Use	Not Allowed

(Ord. O-08-09-01 § 2 (part), 2008)

18.110.020 Violations.

Any violation of this title shall be an infraction punishable by a fine as set forth in NCO Section 1.20.040. For a subsequent violation to be fined, at least thirty days must have passed since the previous violation. (Ord. O-17-09-03A § 2, 2017)

PLANNING MEMO

TO: Planning Commission Brooks Chandler, Interim City Manager
FROM: Erin Reinders
RE: Planning Update
DATE: December 3, 2024

Downtown Zoning Progress: We have developed an likely schedule that allows for these notice requirements to be met. Additionally, you will notice the addition of a Common Council Worksession.

This is not required per code but will be beneficial due the complexity of this project and the time that the Planning Commission has invested in the effort.

- January 7, 2025: Planning Commission Public Hearing
- January 13, 2025: Common Council Worksession
- January 27, 2025: Common Council First Reading
- March 10, 2025: Common Council Second Reading and Public Hearing

In the meantime, staff is working with the City Attorney to review the ordinance document and to



ensure that the overall process is consistent with code requirements. Included in your packet, you will find a DRAFT of the ordinance. The ordinance includes all of the material we have discussed over the course of the past year (i.e. intent, land uses, dimensional requirements). The DRAFT also introduces the concept of Accessory Uses, which help to clarify those permitted uses that are allowed by right but are incidental to the primary use of the property. I am working with the Attorney on some of the details, so this is still a draft document. I am open to your feedback.

Crew Camps Ordinance Progress: As you know, the Planning Commission reviewed and approved a Crew Camp Ordinance at the October Meeting. Common Council had its first reading of the ordinance at the October 28, 2024, meeting. There was discussion and potential interest in allowing temporary construction camps to be converted to permanent boarding houses as an option designed to increase the supply of rental housing. Council held their second reading and public hearing on November 25, 2024, and passed the ordinance. Council has requested that the Planning Commission consider ways that more permanent housing solutions can be created, including addressing potential change of use from a crew camp. More on this in the new year.

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CITY OF NOME, ALASKA ORDINANCE NO. O-25-XX-XX

AN ORDINANCE AMENDING THE ZONING MAP AND AMENDING TITLE 18 OF THE NOME CODE OF ORDINANCES WITH A NEW CHAPTER 18.62 DOWNTOWN MIXED USE DISTRICT, A NEW CHAPTER 18.66 DOWNTOWN CORE MIXED USE DISTRICT, AND AMENDMENTS TO SECTIONS 18.110.010 AND 18.30.010

IT IS HEREBY ORDAINED by the Nome Common Council as follows:

SECTION 1. Classification. This is a code ordinance.

SECTION 2. Amendment of 18.30.010. Section 18.30.010 Zoning Districts is hereby amended with the following revisions: [additions are <u>underlined]</u>

(a) In order to carry out the provision of this title, the city is divided into the following zoning districts:

U	Zoning District	Map Design	ation
	General Use	GU	
	Residential	R	
	Commercial	С	
	Downtown Mixed Use	DM	
	Downtown Core Mixed Use	DCM	[
	Industrial	Ι	
	Resource Development	RD	
	Open Space/Recreational	OSR	
	Flood Hazard Overlay	FHO	

SECTION 3. Addition of Chapter 18.62. Title 18 is hereby amended with the addition of a new Chapter 18.62 Downtown Mixed Use District to read as follows:

Sections:

18.62.010Intent.18.62.020Permitted uses and structures.18.62.025Accessory uses.18.62.030Conditional uses and structures.18.62.040Dimensional requirements.18.62.050Performance standards.

18.62.010 Intent.

The downtown mixed use district is intended to encourage active commercial uses and building development, and contextually appropriate residential uses.

18.62.020 Permitted uses and structures.

The following principal uses are permitted in the downtown mixed use district:

- (a) Multiple-family dwellings.
- (b) Parks and Playgrounds.
- (c) Churches.
- (d) Public and governmental buildings and uses.
- (e) Fire station and emergency medical aid station.
- (f) Schools.
- (g) Museums and cultural facilities.
- (h) Interpretative area or visitors center.
- (i) Hospitals, medical and dental clinics.
- (j) Retail and wholesale businesses.
- (k) Offices.
- (1) Restaurants, taverns and entertainment establishments.
- (m)Hotels and motels.
- (n) Funeral homes.
- (o) Clubs or fraternal, religious or philanthropic associations and union hall.
- (p) Personal service businesses.
- (q) Recreational facilities.
- (r) Day care houses and facilities.
- (s) Transportation facilities, including bus and taxi operations.

18.62.025 Accessory uses.

(a) Accessory Uses Allowed. In accordance with the provisions of this section, accessory uses that are clearly secondary and customarily incidental to the lawful principal uses on the lot and which are for the convenience, enjoyment, or necessity of the principal uses are allowed in the downtown mixed use district. Such accessory uses include but are not limited to:

- (1) Residential use of the upper floor above a commercial or industrial use;
- (2) Dwelling for owner or caretaker of commercial use;
- (3) Home businesses and occupations; and
- (4) Small-scale manufacturing, processing, and storage of goods for a wholesale or retail sale use.
- (b) General Standards. Accessory uses shall:
 - (1) not be allowed on a lot prior to establishment of a principal use or structure;
 - (2) not be allowed to the extent specifically prohibited or limited by this title; and
 - (3) comply with all other provisions of this title, the building codes adopted by this code of ordinances, and other applicable ordinances.

18.62.030 Conditional uses and structures.

The following uses are permitted with a conditional use permit in the downtown mixed use district:

- (a) Single family dwellings.
- (b) Duplex dwellings.
- (c) Public utility facilities or structures.
- (d) Snow dump and storage sites.
- (e) Youth correctional facilities.
- (f) Halfway houses.
- (g) Correctional facilities.
- (h) Private storage, not including junk, or small warehouse associated with residential use/home occupations.
- (i) Outdoor storage, not including junk, as an accessory use to any permitted or conditional use in the district.
- (j) Service stations.
- (k) Vehicle and equipment repair facilities.
- (1) Manufacturing, processing, assembling, wholesale or storage.
- (m)Boat marinas and docks.
- (n) Marine transportation and port facilities.
- (o) Navigation aids and facilities.
- (p) Warehousing and storage.
- (q) Dredging and filling.
- (r) Dog kennels and lots.
- (s) Helicopter landing pad.

18.62.040 Dimensional requirements.

The following dimensional requirements shall apply to all uses in the downtown mixed use district unless approved by variance as provided in Chapter <u>18.140</u> NCO:

- (a) Lot Size. The minimum lot area shall be five thousand square feet.
- (b) Building Setbacks.
 - (1) Buildings shall be set back at least zero feet from all dedicated rights-ofway.
 - (2) Buildings shall be set back at least five feet from all other lot boundary lines.
 - (3) Buildings shall be set back at least ten feet from the top bank of any drainage ditch.
 - (4) Buildings shall be set back at least ten feet from a closed drainage system.

18.62.050 Performance standards.

All development shall be subject to the following performance standards:

- (a) Drainage. The development shall provide a drainage system that is designed to deposit all runoff into either an engineered drainage system or into natural drainage in conformance with the city's drainage management plan.
- (b) Site Development Standards. All development on lands in this zoning district shall conform to the following:

(1) Development activities shall not adversely impact other properties by causing damaging alteration of surface water drainage, surface water ponding, slope failure, erosion, or siltation. The property owner and developer shall take such steps, including installation of culverts or buffers, or other methods, as necessary to comply with this requirement.
 (2) Upon completion of earthwork operations, all exposed slopes, cleared, filled, and disturbed soils shall be given sufficient protection to prevent subsequent erosion.

(3) Drainage will be stabilized using best management practices and approved by the city.

SECTION 4. Addition of Chapter 18.66. Title 18 is hereby amended with the addition of a new Chapter 18.66 Downtown Core Mixed Use District to read as follows:

Sections:

18.66.010Intent.18.66.020Permitted uses and structures.18.66.025Accessory uses.18.66.030Conditional uses and structures.18.66.040Dimensional requirements.18.66.050Performance standards.

18.66.010 Intent.

The downtown core mixed use district is intended to promote redevelopment, encourage active commercial uses and building development, and contextually appropriate residential uses.

18.66.020 Permitted uses and structures.

The following principal uses are permitted in the downtown core mixed use district:

- (a) Multiple-family dwellings.
- (b) Parks and Playgrounds.
- (c) Churches.
- (d) Public and governmental buildings and uses.
- (e) Fire station and emergency medical aid station.
- (f) Schools.
- (g) Museums and cultural facilities.
- (h) Interpretative area or visitors center.
- (i) Hospitals, medical and dental clinics.

- (j) Retail and wholesale businesses.
- (k) Offices.
- (1) Restaurants, taverns and entertainment establishments.
- (m)Hotels and motels.
- (n) Funeral homes.
- (o) Clubs or fraternal, religious or philanthropic associations and union hall.
- (p) Personal service businesses.
- (q) Recreational facilities.
- (r) Day care houses and facilities.
- (s) Transportation facilities, including bus and taxi operations.

18.66.025 Accessory uses.

(a) Accessory Uses Allowed. In accordance with the provisions of this section, accessory uses that are clearly secondary and customarily incidental to the lawful principal uses on the lot and which are for the convenience, enjoyment, or necessity of the principal uses are allowed in the downtown core mixed use district. Such accessory uses include but are not limited to:

- (1) Residential use of the upper floor above a commercial or industrial use;
- (2) Dwelling for owner or caretaker of commercial use;
- (3) Home businesses and occupations; and
- (4) Small-scale manufacturing, processing, and storage of goods for a wholesale or retail sale use.
- (b) General Standards. Accessory uses shall:
 - (1) not be allowed on a lot prior to establishment of a principal use or structure;
 - (2) not be allowed to the extent specifically prohibited or limited by this title; and
 - (3) comply with all other provisions of this title, building codes adopted by this code of ordinances, and other applicable ordinances.

18.66.030 Conditional uses and structures.

The following uses are permitted with a conditional use permit in the downtown core mixed use district:

- (a) Single family dwellings.
- (b) Duplex dwellings.
- (c) Public utility facilities or structures.
- (d) Snow dump and storage sites.
- (e) Youth correctional facilities.
- (f) Halfway houses.
- (g) Correctional facilities.
- (h) Private storage, not including junk, or small warehouse associated with residential use/home occupations.

- (i) Outdoor storage, not including junk, as an accessory use to any permitted or conditional use in the district.
- (j) Service stations.
- (k) Vehicle and equipment repair facilities.
- (l) Manufacturing, processing, assembling, wholesale or storage.
- (m)Boat marinas and docks.
- (n) Marine transportation and port facilities.
- (o) Navigation aids and facilities.
- (p) Warehousing and storage.
- (q) Dredging and filling.
- (r) Dog kennels and lots.
- (s) Helicopter landing pad.

18.66.040 Dimensional requirements.

The following dimensional requirements shall apply to all uses in downtown core mixed use district unless approved by variance as provided in Chapter <u>18.140</u> NCO:

- (c) Lot Size. The minimum lot area shall be five thousand square feet.
- (d) Building Setbacks.
 - (1) Buildings shall be set back at least zero feet from all dedicated rights-ofway.
 - (2) Buildings shall be set back at least zero feet from all other lot boundary lines.
 - (3) Buildings shall be set back at least ten feet from the top bank of any drainage ditch.
 - (4) Buildings shall be set back at least ten feet from a closed drainage system.

18.66.050 Performance standards.

All development shall be subject to the following performance standards:

- (c) Drainage. The development shall provide a drainage system that is designed to deposit all runoff into either an engineered drainage system or into natural drainage in conformance with the city's drainage management plan.
- (d) Site Development Standards. All development on lands in this zoning district shall conform to the following:

(1) Development activities shall not adversely impact other properties by causing damaging alteration of surface water drainage, surface water ponding, slope failure, erosion, or siltation. The property owner and developer shall take such steps, including installation of culverts or buffers, or other methods, as necessary to comply with this requirement.
 (2) Upon completion of earthwork operations, all exposed slopes, cleared,

filled, and disturbed soils shall be given sufficient protection to prevent subsequent erosion.

(3) Drainage will be stabilized using best management practices and approved by the city.

SECTION 5. Revision of Section 18.110.010 Matrix of Permitted and Conditional Uses. Section 18.110.010 Matrix of Permitted and Conditional Uses is hereby amended with the following revisions: [additions are underlined]

Zoning District	General Use	Residential	Commercia l	<u>Downtown</u> <u>Mixed Use</u>	<u>Downtown</u> <u>Core</u> <u>Mixed Use</u>	Industrial	Resource Developmen t	Open Space/Rec
Residential Uses								
Single-family dwellings	Permitted	Permitted	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Conditional Use	Conditional Use	Not Allowed
Duplex dwellings	Permitted	Permitted	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Conditional Use	Conditional Use	Not Allowed
Multiple-family dwelling	Permitted	Permitted	Conditional Use	Permitted	Permitted	Conditional Use	Conditional Use	Not Allowed
Mobile homes and mobile home parks	Permitted	Permitted	Conditional Use	Not Allowed	Not Allowed	Conditional Use	Conditional Use	Not Allowed
Residential use of the upper floor above a commercial or industrial use	Permitted	Conditional Use	Conditional Use	<u>Accessory</u> <u>Use</u>	Accessory <u>Use</u>	Conditional Use	Conditional Use	Not Allowed

On-premises dwelling for owner or caretaker of commercial use	Permitted	Permitted	Permitted	<u>Accessory</u> <u>Use</u>	<u>Accessory</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed			
Civic/Institutional/Public Uses											
Parks and playgrounds	Permitted	Permitted	Permitted	Permitted	Permitted	Conditional Use	Conditional Use	Permitted			
Churches	Permitted	Permitted	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed			
Public and governmental buildings and uses	Permitted	Not Allowed	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed			
Fire station and emergency medical aid station	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed			
Schools	Permitted	Permitted	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed			
Museums and cultural facilities	Permitted	Conditional Use	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Conditional Use			

Conditional Use	Permitted

Permitted

Item A.

facilities or structures	Use		Use	<u>Use</u>	<u>Use</u>		Use	
Snow dump and storage sites	Conditional Use	Conditional Use	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Youth correction facilities	Conditional Use	Conditional Use	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Not Allowed	Conditional Use	Not Allowed
Halfway houses	Conditional Use	Conditional Use	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Not Allowed	Conditional Use	Not Allowed
Correctional facilities	Conditional Use	Not Allowed	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Not Allowed	Conditional Use	Not Allowed
Cemetery	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Interpretative area or visitor's center	Permitted	Conditional Use	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Permitted
Public watershed area and related facilities	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Conditional Use	Permitted
Business/Comme	ercial/Retail Use	S						

 Conditional
 Not Allowed
 Conditional
 Conditional
 Conditional

Public utility

Hospitals, medical and dental clinics	Permitted	Not Allowed	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed
Home businesses and occupations	Permitted	Permitted	Conditional Use	<u>Accessory</u> <u>Use</u>	<u>Accessory</u> <u>Use</u>	Conditional Use	Conditional Use	Not Allowed
Private storage, including junk, or small warehouse associated with residential use/home occupations	Not Allowed	Not Allowed	Conditional Use	Not Allowed	Not Allowed	Conditional Use	Conditional Use	Not Allowed
Private storage, not including junk, or small warehouse associated with residential use/home occupations	Permitted	Permitted	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Conditional Use	Conditional Use	Not Allowed
Retail and wholesale businesses	Permitted	Conditional Use	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed
Offices	Permitted	Not Allowed	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed

Restaurants, taverns and entertainment establishments	Permitted	Not Allowed	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed			
Hotels and motels	Permitted	Not Allowed	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed			
Funeral home	Permitted	Not Allowed	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed			
Clubs or fraternal, religious or philanthropic associations and union hall	Permitted	Not Allowed	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed			
Personal service businesses	Permitted	Permitted	Permitted	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed			
Recreational facilities	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed			
Day care houses and facilities	Permitted	Permitted	Conditional Use	Permitted	Permitted	Not Allowed	Conditional Use	Not Allowed			
Industrial Uses	Industrial Uses										

Outdoor storage, including junk, as an accessory use to any permitted or conditional use in the district	Not Allowed	Not Allowed	Permitted	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Outdoor storage, not including junk, as an accessory use to any permitted or conditional use in the district	Permitted	Permitted	Permitted	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Incidental, small-scale manufacturing, processing, and storage of goods for wholesale or retail sale on the premises	Permitted	Permitted	Permitted	Accessory Use	Accessory Use	Permitted	Conditional Use	Not Allowed
Service stations	Conditional Use	Not Allowed	Permitted	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Vehicle and equipment repair facilities	Not Allowed	Not Allowed	Conditional Use	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed

Manufacturing, processing, assembling, wholesale or storage	Not Allowed	Not Allowed	Not Allowed	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Boat marinas and docks	Not Allowed	Not Allowed	Permitted	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Marine transportation and port facilities	Not Allowed	Not Allowed	Permitted	Conditional Use	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Navigation aids and facilities	Not Allowed	Not Allowed	Permitted	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Bulk petroleum storage, including aviation fuel	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Junkyards, commercial and auto wrecking yards	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Aircraft storage, loading, parking, repair and aviation- related facilities	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed

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Warehousing and storage	Conditional Use	Not Allowed	Permitted	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Air transport terminals for passengers and freight	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Permitted	Conditional Use	Not Allowed
Transportation facilities, including bus and taxi operations	Not Allowed	Not Allowed	Permitted	Permitted	Permitted	Permitted	Conditional Use	Not Allowed
Dredging and filling	Not Allowed	Not Allowed	Not Allowed	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed
Dog kennels and lots	Not Allowed	Not Allowed	Not Allowed	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Conditional Use	Conditional Use	Not Allowed
Mining of minerals, aggregate, sand, gravel or other earth products; and accessory uses and buildings	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Conditional Use	Permitted	Not Allowed
Helicopter landing pad	Permitted	Not Allowed	Permitted	<u>Conditional</u> <u>Use</u>	<u>Conditional</u> <u>Use</u>	Permitted	Conditional Use	Not Allowed

SECTION 6. Amendment Zoning Map. The Zoning Map is hereby amended to designate the locations of these new zoning districts.

SECTION 7. Effective Date. This ordinance is effective upon passage.

APPROVED and SIGNED the XX day of XXXX, 2025.

JOHN K. HANDELAND Mayor






Phone 907.443.6663 Fax 907.443.5349

Building Inspector Report: 11/27/2024

- 1) Continuing with inspections of Sunshine Subdivision. (Fourteen Single Family Homes with Garages and One Duplex). One home occupied others to follow as work progresses.
- 2) Completion of Atlas Tower Cell adjacent High School. Demo Permit for old GCI tower adjacent pending.
- 3) Working with client across from Martinson Subdivision with FAA compliance for height restrictions of structures desired to be placed on property.
- 4) Working with My Gov software to generate reports more compliant with needs for Commission Reports.
- 5) Working with mechanism in My Gov software to close out permits in which Building Inspector is not included in "steps"
- 6) Continued inspections of Building Permits (when requested) as per attached information shared with Grizzly and Builders Supply.

Continue inspections of existing permits.

Cliff McHenry City of Nome Building Inspector

"There's no place like Nome" www.nomealaska.org

Owner	Applicant	Permit #	Tax Parcel #	Date Issued	EXPIRES	Physcial Address
Ahwinona, Cynthia	Smith, Gregory	24-000093R	001.251.03	8/1/2024	08/01/26	303 W 2nd
Arctic Broadcasting Assn.	Burchell, Patty	23-000065R	001.321.07	4/12/2024	04/12/26	410 W. 5th Ave.
Arctic Broadcasting Assn.	Burchell, Patty	23-000066R	001.301.12	4/15/2024	04/15/26	408 W. D St.
Arctic Chiropractic Nome,	Barton, Chris	24-000015R	001.131.17	4/4/2024	04/04/26	606 E. 1st Ave.
Arrington, Wayne	Arrington, Wayne	23-000139R	001.211.12	1/5/2024	01/05/26	112 W. 5th Ave. Apts. A &
Aullagisaag Center, LLC	Hornak, Jonathan	22-000103R	001.211.04	2/23/2023	02/23/25	306 W. 5th Ave.
Aurquest Alaska Inc	Bullock, John	22-000111 R	001.242.32	10/24/2022	04/16/26	101 101-103 & 201 Front
Baker, John	Baker, John	23-000063R	001.032.39	7/17/2023	07/17/23	906 E 3rd. Ave.
Bering Air Inc.	Greer, Amie	23-000024B	AIRPORT.19	12/12/2023	12/12/25	1452 Seppala Dr.
Bering Air Inc.	Greer, Amie/Matt	23-000025B	Airport.17	8/3/2023	08/03/23	1430 Seppala Dr.
Bering Air Inc.	Greer, Amie/Matt	23-000026B	Airport.17	8/3/2023	08/03/23	1430 Seppala Dr.
Bering Straits Devel Corp	Johnson, Frank	24-000064R	001.242.06	7/26/2024	07/26/26	110 W Front St
Bering Straits Devel Corp	Johnson, Frank	24-000065R	001.421.10	7/9/2024	07/09/26	Prospect PI
Bering Straits Devel Corp	Johnson, Frank	24-000066R	001.421.14	6/20/2024	06/20/26	307 Prospect PI
Bering Straits Devel Corp	Johnson, Frank	24-000067R	001.141.17	6/19/2024	06/19/26	302 Front St
BSRHA	Noet, Erik	23-000038R	001.161.06A	7/27/2023	07/27/23	207 E. & 205 4th Ave.
BSRHA	Noet, Erik	23-000064R	001.052.01	8/2/2023	08/02/23	1008 E. Front St.
BSRHA	Noet, Erik	23-000084R	001.181.28	8/17/2023	08/17/23	208 E. 5th Apts 101-207
BSRHA	Noet, Erik	24-000023R	001.251.01	4/30/2024	04/30/26	301 W. 2nd Ave. Apts. A, B
BSRHA	Noet, Erik	24-000125B	001.029.02	10/10/2024	10/10/26	E 6th Ave
BSRHA	Noet, Erik	24-000126B	1029.03	10/10/2024	10/10/26	1103 E 6th
BSRHA	Noet, Erik	24-000049R	001.181.08	6/4/2024	06/04/26	302 E Nugget Alley
BSRHA	Noet, Erik	24-000050R	001.141.03	6/4/2024	06/04/26	415 E 3rd
Bungay, Ken	Bungay, Ken	24-000024R	001.221.26	4/30/2024	04/30/26	300 W. 4th Ave & 500
Campbell, Walter	Church, Seth	23-000121B	001.131.18	10/25/2023	10/25/25	Lot 31, Block 33 - NT
CARR Gottstein Foods	Church, Seth	23-000129R	001.261.05	3/28/2024	03/28/25	415 Bering St. & 307 W.
Carr, Robert	Carr, Robert	24-000087R	001.171.09	7/16/2024	07/16/26	201 E tobuk Alley
CATHOLIC BISHOP OF N.	Higginson II, Laverne	24-000001R	001.231.05	2/6/2024	02/06/26	406 Steadman St.
City of Nome	Wetzel, Justin	23-00009B	001.301.02 &	4/12/2024	04/12/26	Lot 13A & 13B, Block 63 of
City of Nome	Weaver, David	24-000014R	001.251.13	4/2/2024	04/02/26	102 Division St.
City of Nome	Layton, Sandra, Atlas	24-000039B	198.2.095	5/30/2024	05/30/26	2920 Nome-Teller Hwy
Community United	Reader, Jennifer	23-000069R	001.291.36	4/2/2024	04/02/26	502 W. 2nd Ave.
Conger, Keith	Conger, Keith	24-000121R	198.2.515	8/21/2024	08/21/26	208 Spinning Rock Rd
Creek Properties	Conklin, Brandon	24-000051R	198.2.435	6/21/2024	06/21/26	705 Ivan Johnson Way
Creek Properties	Conklin, Brandon	24-000052R	001.321.09	6/21/2024	06/21/26	406 W 5th Ave

Crockett, William	Crockett, William	23-000122R	001.052.02	9/27/2023	09/27/25	1002 E Front St
Cross, Charles	Cross, Charles	24-000068B	198.2.123	7/9/2024	07/09/26	Missing
Darling, Jeff	Darling, Jeff	24-000035R	198.2.176	5/10/2024	05/10/26	339 Lester Bench Rd.
Enterprises LLV JBO	Oesterritter, Brent	24-000108R	001.261.17	9/18/2024	09/18/26	303 W Bering/313 W 3rd
Evans, David	Evans, David	23-000090B	001.291.12C	12/5/2023	12/05/25	311 W. D St.
Fagerstrom, Charles	Fagerstrom, Charles	24-000131B	001.271.22C	9/13/2024	09/13/26	River St
Farley, Howard & Juliana	Farley, Jessica	23-000107R	001.261.15	8/30/2023	08/30/25	308 W. 2nd Ave.
Farley, Jessica	Farley, Jessica	23-000110R	001.421.04A	10/12/2023	10/12/25	316 Belmont St.
Germain, Sara	Germain, Sara	23-000132R	001.161.49	11/6/2023	11/06/25	404 E. 3rd Ave.
Glacier Creek Investments	Williams, Damien	24-000074R	001.171.15A	7/1/2024	07/01/26	300 E & 302 4th Ave
Green, Nancy	Smith, Bradford (Rural	24-000038R	001.221.06	5/13/2024	05/13/26	507 Spokane St.
Greer, Matt/Amie	Greer, Amie/Matt	23-000044B	001.311.17	7/5/2023	07/05/23	602 W. 4th Ave.
Hahn, Nils	Williams, Damien	24-000075R	001.242.18	7/9/2024	07/09/26	222 Front St.
Hahn, Nils & Haecker, Diana	Hahn, Nils	22-000124R	001.242.18	2/27/2023	02/27/23	222 Front St.
Hall, Ulysses	Hall, Ulysses	24-000011R	001.152.03	4/4/2024	04/04/26	209 E. Front St.
Heck, Seijiro	Jones, R.J.	24-000025R	001.281.28	5/6/2024	05/06/26	209 W. D St.
Hickerson, James	Higginson II, Laverne	24-00003R	001.161.12	3/28/2024	03/28/26	100 E. King Pl.
Hughes, Lori	Hughes, Lori	24-000002B	198.2.364	7/24/2024	07/24/26	505 Spinning Rock
Hughes, Lori	Hughes, Lori	22-	198.2.364	8/9/2022	01/31/26	505 Spinning Rock
Janke, Dan	Janke, Dan	23-000073B	001.411.03B	8/24/2023	08/24/25	308 Belmont St.
Johnson, Brenda	Morton, Nicole	24-000070R	001.021.01	6/26/2024	06/26/26	505 E K St
Kacena, Joelene	Kacena, Joelene	23-000101R	001.232.28	8/21/2023	08/21/23	214 W. 3rd Ave.
Kapp, Kamey	Kapp, Kamey	24-000119R	001.291.02	8/26/2024	08/26/26	310 Bering St
Kauer, Caroline	Kauer, Caroline	23-000119R	001.261.09	10/16/2023	10/16/25	307 W. 3rd Ave
Kawerak	Nagaruk, Nathan	23-000017R	001.301.24	5/22/2023	05/22/23	504 Seppala Dr.
Kelliher, Patrick	Kelliher, Patrick	24-000062R	001.231.44	7/1/2024	07/01/26	112 King Pl
Kelso, Ethan	Pomeranz, Randy	23-000088B	198.2.444	8/23/2023	08/23/23	708 Gas Lamp Rd.
Kim, Yong	Kim, Yong	24-000099R	001.024.01	9/18/2024	09/19/26	507 E N St
Kimmel, Brodie	Erickson, Karl	24-000129R	198.2.414	9/11/2024	09/11/26	707 RTC Dr
Knodel, Patrick	Knodel, Patrick	23-000029B	198.2.035A	5/22/2023	05/22/23	Lot 6, Ivanoff Subd.
Knodel, Patrick	Knodel, Patrick	24-000082R	001.251.15A	7/10/2024	07/10/26	303 W 1st St
Knudsen, Sean	Knudsen, Sean	23-000021R	001.291.07	5/2/2023	05/02/25	408 W. 3rd Ave.
Koehler, Thomas	Koehler, Thomas	23-000109R	001.121.06	9/9/2023	09/09/25	711 E 4th Ave.
Krier, Patrick	Krier, Patrick	22-000125R	001.242.27	1/17/2023	01/17/25	224 Front St.
Leedy, Martina	Hanson, Willow	23-00002R	001.281.40	2/1/2023	02/01/23	612 Lomen Ave.
Lenharr, Urtha	Lenharr, Urtha	24-000114R	198.2.241	8/16/2024	08/16/26	

Lie, Erik	Nagaruk, Nathan	24-000133R	001.181.30	9/18/2024	09/18/26	202 E 5th
Lizak, Sara	Lizak, Sara	23-000040B	001.171.01C	7/25/2023	07/25/23	407 E. 5th Ave.
Locke, Ronald	Locke, Ronald	23-000042R	001.242.21	7/27/2023	07/27/23	243 Front St. A, B
Marble Jr, Charles	Marble Jr, Charles	23-000060R	001.142.05B	8/29/2023	08/29/23	407 E. Front St.
Margaret Olson	Margaret Olson	24-000132R	001.221.33	9/18/2024	09/18/26	202 W 4th
McHenry, Clifton	McHenry, Clifton	24-00006B	001.161.01D	1/11/2024	01/11/26	409 E. 4th Ave. A & B
McLarty, Derek	McLarty, Derek	23-000098B	001.151.37A	8/23/2023	08/23/23	104 E. Front St.
McLarty, Derek	McLarty, Derek	23-000099R	001.151.36	8/29/2023	08/29/23	100 E. Front St.
Merchant, Earl	Merchant, Earl	23-000128R	198.2.389	10/12/2023	10/12/25	506 Round-the-Clock Dr.
Milligrock, Darlene	Smith, Bradford (Rural	24-000037R	001.181.23	5/13/2024	05/13/26	605 Steadman St.
MPS Enterprises LLC	Millican, Marc	24-000005R	001.251.19	3/7/2024	03/07/26	315 & 317 Front St Apts
Murray, Robert	Murray, Robert	22-000054	001.241.14	7/6/2022	07/06/25	202 W 2nd
Nagaruk, Nathan	Nagaruk, Nathan	23-000004R	001.131.02	2/15/2023	02/15/23	707 E. 3rd St.
Nagaruk, Nathan	Nagaruk, Nathan	23-000125R	001.151.21	10/11/2023	10/11/25	302 Moore Way
Nagaruk, Nathan	Nagaruk, Nathan	24-000004R	001.171.19	3/28/2024	03/28/26	405 E Tobuk & 404 E 4th
Nagaruk, Nathan	Nagaruk, Nathan	24-000018R	001.241.20	4/5/2024	04/05/26	213 W. 3rd Ave.
Nanuaq Inc	Wetzel, Justin	24-000036R	001.242.15	5/13/2024	05/13/26	214 Front St.
Nanuag, Inc	Wetzel, Justin	24-000092R	001.242.15	8/12/2024	08/12/26	214 Front St.
Nanuaq, Inc	Warnke, Dawn	24-000061R	001.117.07	7/16/2024	07/16/26	609 E 5th & E. I St.
Nanuaq, LLC	Hunter, Randy	23-000012R	001.301.32	6/9/2023	06/09/25	405 Warren Pl.
Nanuaq, LLC	Warnke, Dawn	23-000032R	001.261.01	6/6/2023	06/06/25	303 4th Ave. & 410
Nanuaq, LLC	Warnke, Dawn	23-000043R	001.171.02E	8/3/2023	08/03/23	311 E 5th Ave
Nome Community Center	Schneider, Rhonda	24-000105B	001.022.01	9/19/2024	09/19/26	901 E 5th
Nome Eskimo Community	Nagaruk, Nathan	24-000103B	001.051.02B	11/13/2024	11/13/26	E 1st Ave Lot Block 35
Nome Preschool Assoc.	Nagaruk, Nathan	23-000005R	001.022.06	2/15/2023	02/15/23	911 E. 5th Ave.
North Star Association LLC	Adams, Nathan	24-000007B	190.1.020	2/21/2024	02/21/26	USMS 1137 North Star
Norton Sound Health Corp.	Suver, Julia	23-000010R	001.211.03A	4/17/2023	04/17/25	607 Division St.
Norton Sound Health Corp.	Newell, Jennifer	23-000011R	190.1.059	4/3/2023	04/03/23	1000 E. 7th Ave.
Norton Sound Health Corp.	Rorabaugh, Becca	23-000076R	190.1.059	11/15/2023	11/15/25	1000 E 7th Ave
Norton Sound Health Corp.	Nagaruk, Nathan	23-000138R	001.221.05A	11/17/2023	11/17/25	117 W. 5th Ave. Apts.
Norton Sound Health Corp.	Garrett Judd	24-000142R	001.131.01A	11/12/2024	11/12/26	711 E 3rd.
NSHC	Wetzel, Justin	23-000028B	190.1.059	8/18/2023	08/18/23	1000 E. 7th Ave.
NSHC	Felli, Desiree	23-000091R	190.1.059	8/29/2023	08/29/23	1000 E. 7th Ave.
Oesterritter, Jessica	Oesterritter, Jessica	23-000135R	001.181.13	5/6/2024	05/06/26	605 E & 607 D St.
Okleasik, Franklin	Nagaruk, Nathan	24-000090R	001.171.30A	7/16/2024	07/16/26	102 E 4th Ave
Oles, Randy	Oles, Randy	24-000046R	001.151.12	5/30/2024	05/30/26	307 Steadman St

Omedelina, Jennie	Nagaruk, Nathan	24-000134R	001.191.05	9/20/2024	09/20/26	705 Steadman
Pederson, Mathias	Pederson, Mathias	24-000053R	001.111.04	6/7/2024	06/07/26	707 E 5th
Pederson, Maureen	Perderson, Maureen	24-000080R	190.1.032	7/5/2024	07/05/26	502 Fireweed Way
Peggy's Rentals	Darling, Jeff	24-000109R	198.2.176	8/8/2024	08/08/26	339 Lester Bench Rd.
Perrigo, Lloyd	Perrigo, Lloyd	23-000023R	001.291.12	5/23/2023	05/23/25	509 Seppala Dr.
Piscoya, Cameron	Piscoya, Cameron	23-000022R	001.111.32	4/25/2023	04/25/25	708 E. 4th Ave
Piscoya, Cameron	Piscoya, Cameron	23-000126R	001.111.32	10/11/2023	10/11/25	708 E. 4th Ave
Ray, Ralph & Donna	Ray, Ralph	23-000104R	001.171.01B	8/30/2023	08/30/25	405 E. 5th Ave.
Reader, Mary	Reader, Mary	23-000136R	001.151.38	11/9/2023	11/09/25	110 E. Front St.
Reddaway, Keith	Reddaway, Keith	24-000063R	198.2.426	6/20/2024	06/20/26	Out of the Way
Rickett, Rylan	Rickett, Rylan	24-000010R	001.241.16	4/4/2024	04/04/26	206 W. 2nd Ave.
Sackett, Windrow	Song, Jason	23-000001R	001.242.23B	1/31/2023	01/31/23	229 Front St.
Schaeffer, Calvin	Schaeffer, Calvin	24-000112B	001.029.06	8/9/2024	08/09/26	E 6th Ave
Seaside Corrections	Johnson, Frank	23-000019R	001.242.05	5/22/2023	05/22/23	108 Front St.
Shahzad, Emelyne	Shahzad, Emelyne	23-000053R	001.232.26	7/27/2023	07/27/23	211 King Pl.
Sherman, Jake	Sherman, Jake	23-000141B	001.231.33	2/21/2024	02/21/26	216 King Pl.
Sherman, James	Sherman, James	23-000124B	001.291.34	10/16/2023	10/16/25	301 W. D St.
Sinnok, Shelby	Sinnok, Shelby	23-000050R	001.241.40	7/5/2023	07/05/23	218 W. 1st Ave.
Slingsby, Danielle	Nagaruk, Nathan	23-000074R	001.232.20	8/10/2023	08/10/23	204 W. 3rd Ave.
Smith, Gregory	Smith, Gregory	23-000034R	001.281.24	6/6/2023	06/06/25	215 W D. Apt A, B
Smith, Gregory	Smith, Gregory	23-000140R	001.281.32	12/13/2023	12/13/25	605 W. 2nd Ave.
Smithhisler, Shane	Pomeranz, Randy	24-00008R	192.1.040	8/29/2024	08/29/26	
Snyder, Jordan	Snyder, Jordan	24-000071R	001.221.12B	8/9/2024	08/09/26	508 Division
Stanley Walker	Stanley Walker	24-000120R	001.281.66	9/5/2024	09/05/26	412 Lomen Av
Tapqaq, Meghan	Tapqaq, Meghan	23-00007R	001.291.10	2/16/2023	02/16/23	305 W. C St.
Thompson, Isaac	Thompson, Isaac	23-000102B	001.111.31	8/28/2023	08/28/23	710 E. 4th Ave.
Thompson, Talitha	Thompson, Talitha	24-000106R	001.131.25	8/8/2024	08/08/26	713 E 3rd
Todd, Steven	Todd, Steven	24-000079R	001.291.45	7/5/2024	07/05/26	300 & 302 Bering St
Trigg, Darlene	Trigg, Darlene	23-000131R	001.181.03	10/25/2023	10/25/25	405 E. 6th Ave.
Tungwenuk, Erica	Tungwenuk, Erica	23-000108R	001.291.13	9/13/2023	09/13/25	309 W. D St.
Twaddle, Dennis	Twaddle, Dennis	23-000048R	001.231.05E	8/3/2023	08/03/23	110 King Pl.
Vaughn, Ashley	Vaughn, Ashley	24-000033B	198.2.372	5/13/2024	05/13/26	Round-the-clock Dr. (Lot
Waltz, Kenneth	Waltz, Kenneth	23-000072R	001.161.41	8/2/2023	08/02/23	Block 50, Lot 19A - E. 3rd
West, Gladys	Bright, Desjarles	23-000137R	001.271.04	11/10/2023	11/10/25	407 & 411 Lomen Ave.
Wilson, Janice E	Wilson, Janice E	22-000119R	001.232.07	8/16/2023	08/16/25	108 W. 3rd Ave
Wolf, Mark	Wolf, Mark	23-000068R	001.251.12	7/20/2023	07/20/23	200 Division St.