MATANUSKA-SUSITNA BOROUGH

350 East Dahlia Avenue, Palmer, Alaska 99645 – 907-861-7874

PLATTING OFFICER
Fred Wagner

PLATTING
ADMINISTRATIVE SPECIALIST
Theresa Taranto

PLATTING TECHNICIANS
Amy Otto-Buchanan
Matthew Goddard
Chris Curlin

PLATTING ASSISTANT
Kayla Kinneen

ABBREVIATED PLAT AGENDA

ASSEMBLY CHAMBERS
350 EAST DAHLIA AVENUE, PALMER

REGULAR MEETING 8:30 A.M. May 3, 2023

Public Participation: To participate in the Abbreviated Plat Hearing, you can attend in person, or you can submit written comments by email to platting@matsugov.us or by mail to Matanuska-Susitna Borough, Platting Division, 350 E. Dahlia Avenue, Palmer, AK 99645.

1. **INTRODUCTION**
   A. Introduction of Staff

2. **UNFINISHED BUSINESS:**
   (None)

3. **PUBLIC HEARINGS:**
   A. **NEW HOPE ESTATES RSB B3 L6-7:** The request is to create three lots from Lots 6 & 7, Block 3, New Hope Estates, Plat No. 2022-114, to be known as **LOTS 6A, 7A & 7B,** containing 19.837 acres +/-. The parcel is located south of N. Wasilla-Fishhook Road, southwest of N. Hope Farm Road and will be accessed by E. Heavenly Circle, Tract A of New Hope Estates (Tax ID#s 8313B03L006/L007); within Section 10, Township 18 North, Range 01 East, Seward Meridian, Alaska. In Fishhook Community Council and Assembly District #1. *(Petitioner/Owner: Dave Hale, PLS, R&M Consultants, Staff: Amy Otto-Buchanan, Case # 2023-035)*

   B. **BUSH PILOTS ESTATES PHASE 1 RSB B2 L3 & TRACT A:** The request is to create two lots from Lot 3, Block 2 and Tract A of Bush Pilot Estates Phase I, Plat No. 2015-38, to be known as **LOTS 3A and TRACT A-1,** containing 14.92 acres +/-. The parcel is located south of the intersection of W. Big Lake Road and W. Parks Highway, south of W. Padre Pio Road and borders on Johnson Pond (Tax ID#s 7399000T00A & 7399B02L003); within Section 13, Township 17 North, Range 03 West, Seward Meridian, Alaska. In Big Lake Community Council and Assembly District #5. *(Petitioner/Owner: Robbie A. & Rebecca Smart, Bush Pilot Estates, LLC, Staff: Amy Otto-Buchanan, Case # 2023-041)*

4. **OLD BUSINESS:**
   A. **MILLHOUSE ESTATES:** The request is to combine Tax Parcel D4 (Government Lot 9) in Section 2 with Tax Parcels A19 & A20 (Parcels 1 & 2, MSB Waiver 85-22-PWm, recorded as 85-108W) in Section 11 and Lot 1, Block 2 of BMB Subdivision (Plat #86-154) into one lot to be known as, **Millhouse Estates**, containing 15.2 acres +/-. Located northwest of E. Palmer-Wasilla Highway and west of E. Myrtle Avenue, with lake frontage on Wasilla Lake {Tax ID #17N01 W02D004, 17N01W11A019, 17N01W11A020, and 3283B02L001) within the SE¼ Section 2 and NE¼ Section 11, Township 17 North, Range 01 West, Seward Meridian. In Assembly District #4 Robert Yundt. *(Petitioner/Owner: Sandra D. Millhouse, Staff: Chris Curlin, Case # 2020-009)*

THE ABBREVIATED PLAT HEARING WILL CONVENE AT **8:30 A.M.** on **May 3, 2023**, in the **Assembly Chambers** at the Dorothy Swanda Jones Building, 350 E. Dahlia Avenue, Palmer, Alaska.

Public Hearing Process

- **Platting Officer states/reads the case/item to be addressed into the record.**
- **Public Hearing Notices**: Secretary states the number of public hearing notices sent out and the date sent.
- **Staff Report:** The Platting Officer gives an overview of the project for the hearing and the public.
- **Public Testimony**: Members of the public are invited to sign in and testify before the officer.
  - 3-minute time limit per person for members of the public.
  - The time limit may be extended at the discretion of the Platting Officer.
- **The public hearing is closed by the Officer.** No further public input is appropriate.
- **Petitioner Comments**: Petitioner, or his/her representative, comes before the officer to discuss staff recommendations and compliance with Title 43 and other applicable regulations.
  - Testimony is limited to five (5) minutes for the petitioner/applicant.
  - The time limit may be extended at the discretion of the Platting Officer
- **Motion to Approve:** Motion to approve is made by the Platting Officer.
  - No further unsolicited input from petitioner is appropriate.
  - Conditions and Findings must be written for all decisions made regarding the action being taken, whether it passed or failed.
  - Decisions are final unless reconsidered by the platting board MSB 43.35.005 or appealed to the board of adjustments and appeals. MSB 43.35.015

3A

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
MAY 3, 2023

ABBREVIATED PLAT:	NEW HOPE ESTATES RSB BLOCK 3, LOTS 6 & 7
LEGAL DESCRIPTION:	SEC 10, T18N, R01E, SEWARD MERIDIAN AK
PETITIONERS:	DAVE HALE, PLS, R&M CONSULTANTS
SURVEYOR/ENGINEER:	R&M CONSULTANTS
ACRES: 19.837 ±	PARCELS: 3
REVIEWED BY:	AMY OTTO-BUCHANAN CASE #: 2023-035

REQUEST: The request is to create three lots from Lots 6 & 7, Block 3, New Hope Estates, Plat No. 2022-114, to be known as **LOTS 6A, 7A & 7B,** containing 19.837 acres +/-. The parcel is located south of N. Wasilla-Fishhook Road, southwest of N. Hope Farm Road and will be accessed by E. Heavenly Circle, a private road within Tract A of New Hope Estates; within Section 10, Township 18 North, Range 01 East, Seward Meridian, Alaska.

EXHIBITS

Vicinity Map and Aerial Photos	**EXHIBIT A** – 4 pgs
Soils Report	**EXHIBIT B** – 24 pgs
Drainage Sketch	**EXHIBIT C** – 1 pg
AGENCY COMMENTS	
Department of Public Works Pre-Design Division	**EXHIBIT D** – 1 pg
Development Services	**EXHIBIT E** – 1 pg
ADF&G	**EXHIBIT F** – 1 pg
Utilities	**EXHIBIT G** – 2 pgs

DISCUSSION: This platting action is creating three lots from Lots 6 & 7, Block 3, of New Hope Estates. Proposed Lot 7A is a flag lot, with a 60' wide flag pole, pursuant to MSB 43.20.300(E). Lot 6A is involved with this platting action to allow for required frontage onto the cul-de-sac for Lot 7A and Lot 7B. Access to all three lots will be from Tract A of New Hope Estates, which contains the private road of E. Heavenly Circle. Pursuant to MSB 43.20.100(C)(5), existing lots created within subdivisions recorded with platting private roads may be subdivided using the private roads as the legal and physical access. All parties with an interest in Tract A have signed an Owner's Statement, as required.

Soils Report: **(Exhibit B)** Robert M. Pintner, PE, R&M Consultants, notes a geotechnical subsurface investigation was performed on October 15, 2022. Four testholes were bored to depths of 27' below the existing ground surface and one test boring to a depth 40.4'. Testhole logs and testhole location map are attached to the report. Mr. Pintner's conclusions are, based on available soils and water table information, topography, MSB code and observations on site, each of the proposed lots contain over 10,000 sf of

contiguous useable septic area and an additional 10,000 sf of useable building area. A drainage sketch is at **Exhibit C**.

Comments: Department of Public Works Pre-Design Division (**Exhibit D**) has no comments. Development Services (**Exhibit E**) notes Lot 7 has an existing driveway that is not permitted. Petitioner to apply for a driveway permit and provide a copy of the application to Platting staff (see ***Recommendation #5***).

ADF&G: (**Exhibit F**) There are no resident or anadromous fish water bodies present with the boundaries of the subject property. A fish habitat permit is not required. Should fish presence be discovered, please notify the ADF&G Habitat Section.

Utilities: (**Exhibit G**) GCI has no comments. Enstar has no comments or recommendations. MEA and MTA did not respond.

At the time of staff report write-up, there were no responses to the Request for Comments from US Army Corps of Engineers; Community Council Fishhook; Fire Service Area #132 Greater Palmer; Road Service Area #16 South Colony; MSB Emergency Services, Community Development, Assessments or Planning; MTA or MEA.

CONCLUSION: The preliminary plat of **NEW HOPE ESTATES RSB BLOCK 3, LOTS 6 & 7** is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There were no objections to the plat from the public in response to the Notice of Public Hearing. Legal and physical access exists to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision exists, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.281(A)(1).

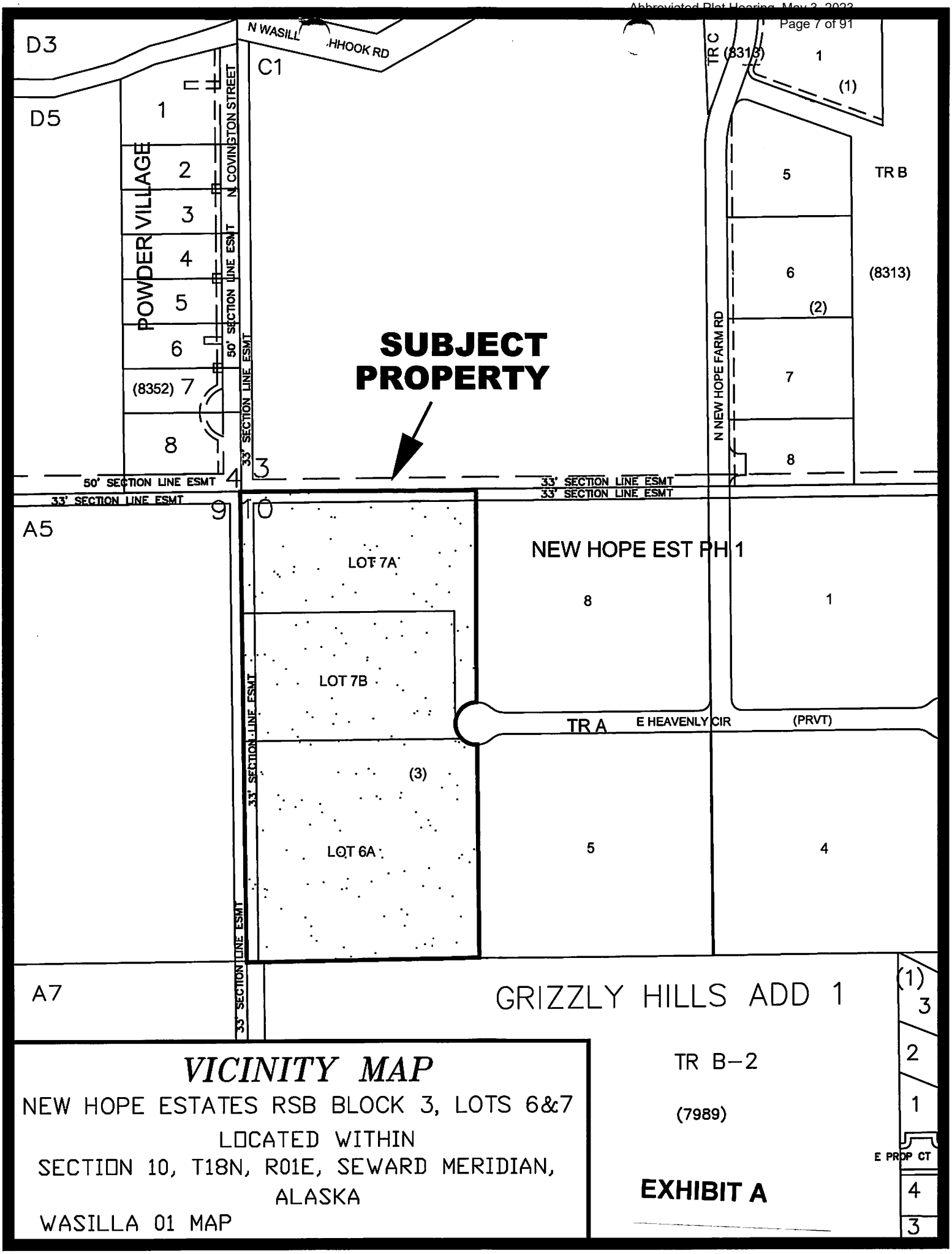
FINDINGS OF FACT

1. The plat of New Hope Estates RSB Block 3, Lots 6 & 7 is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.025 Abbreviated Plats.
2. A soils report was submitted, pursuant to MSB 43.20.28(A)(1). All lots have the required useable area.
3. All lots will have the required frontage pursuant to MSB 43.20.320 and MSB 43.20.100(C)(5).
4. At the time of staff report write-up, there were no responses to the Request for Comments from US Army Corps of Engineers; Community Council Fishhook; Fire Service Area #132 Greater Palmer; Road Service Area #16 South Colony; MSB Emergency Services, Community Development, Assessments or Planning; MTA or MEA.
5. There were no objections from any federal or state agencies, Borough departments, or utilities.
6. There were no objections from the public in response to the Notice of Public Hearing.
7. Pursuant to MSB 43.20.100(C)(5), existing lots created within subdivisions recorded with platting private roads may be subdivided using the private roads as the legal and physical access.

RECOMMENDED CONDITIONS OF APPROVAL:

Staff recommends approval of the abbreviated plat of **New Hope Estates RSB Block 3, Lots 6 & 7,** contingent on the following recommendations:

1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Show all easements of record on final plat.
5. Apply for a driveway permit for existing driveway and provide a copy of the application to Platting staff.
6. Submit recording fees, payable to Department of Natural Resources (DNR).
7. Submit final plat in full compliance with Title 43.



VICINITY MAP

NEW HOPE ESTATES RSB BLOCK 3, LOTS 6&7

LOCATED WITHIN

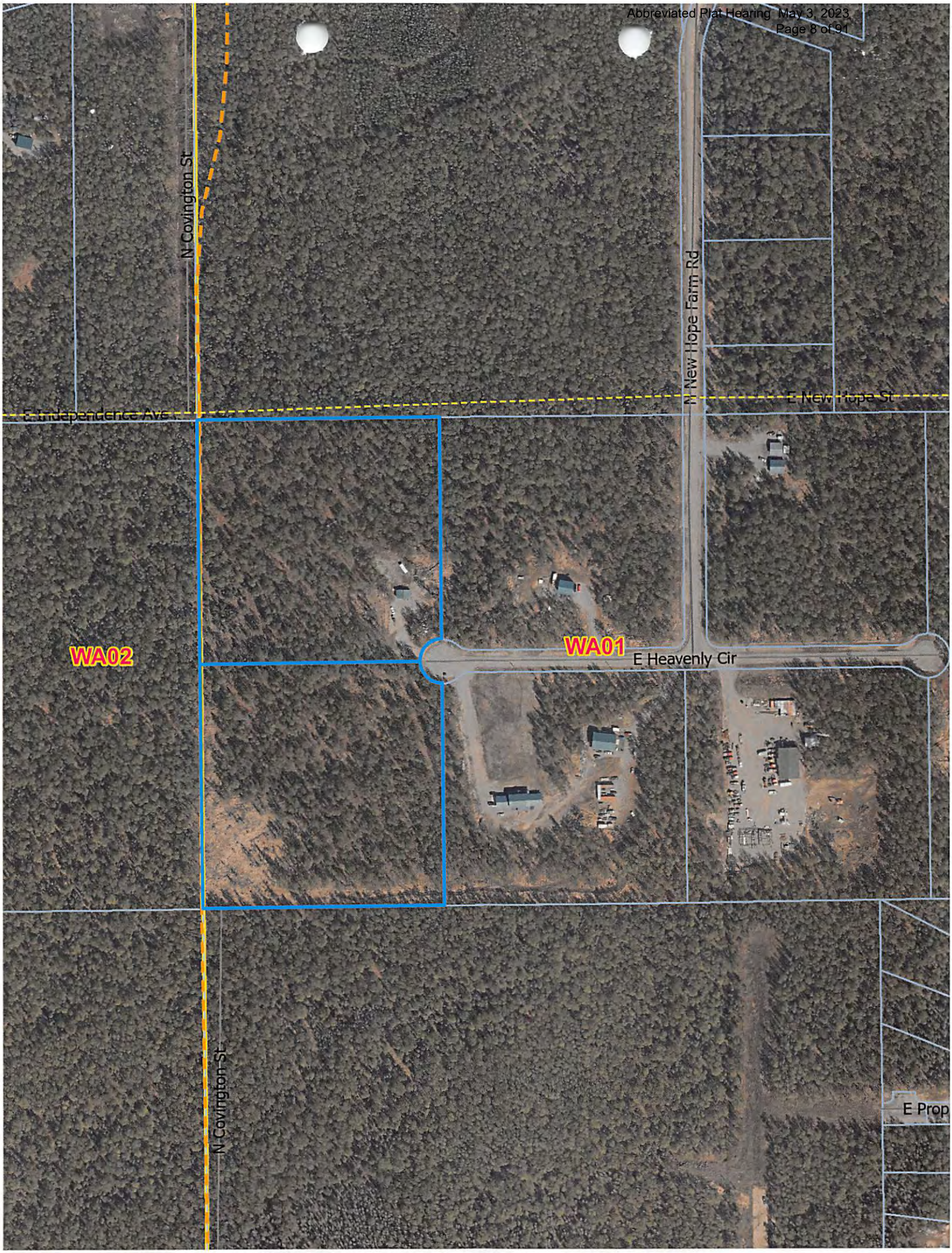
SECTION 10, T18N, R01E, SEWARD MERIDIAN, ALASKA

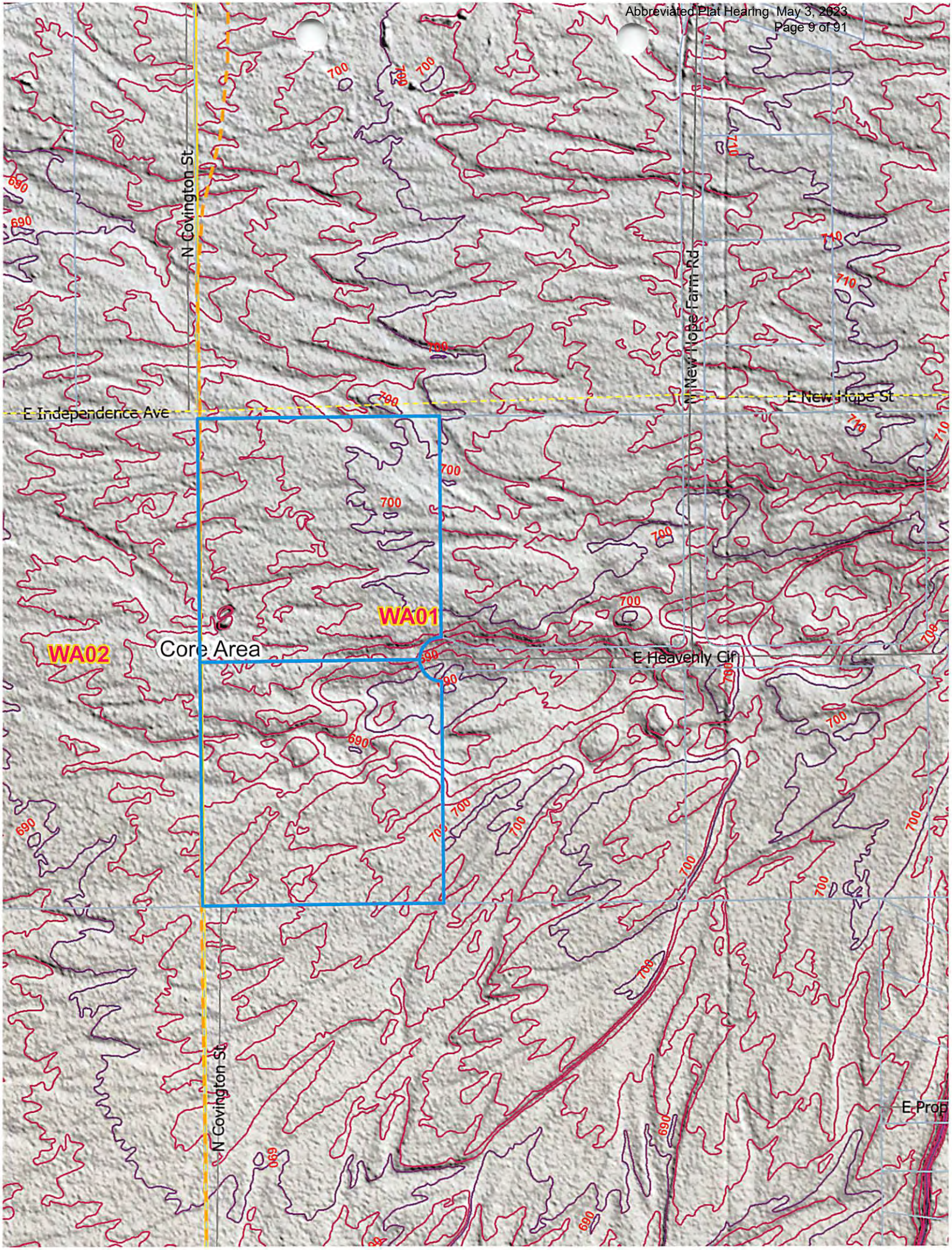
WASILLA 01 MAP

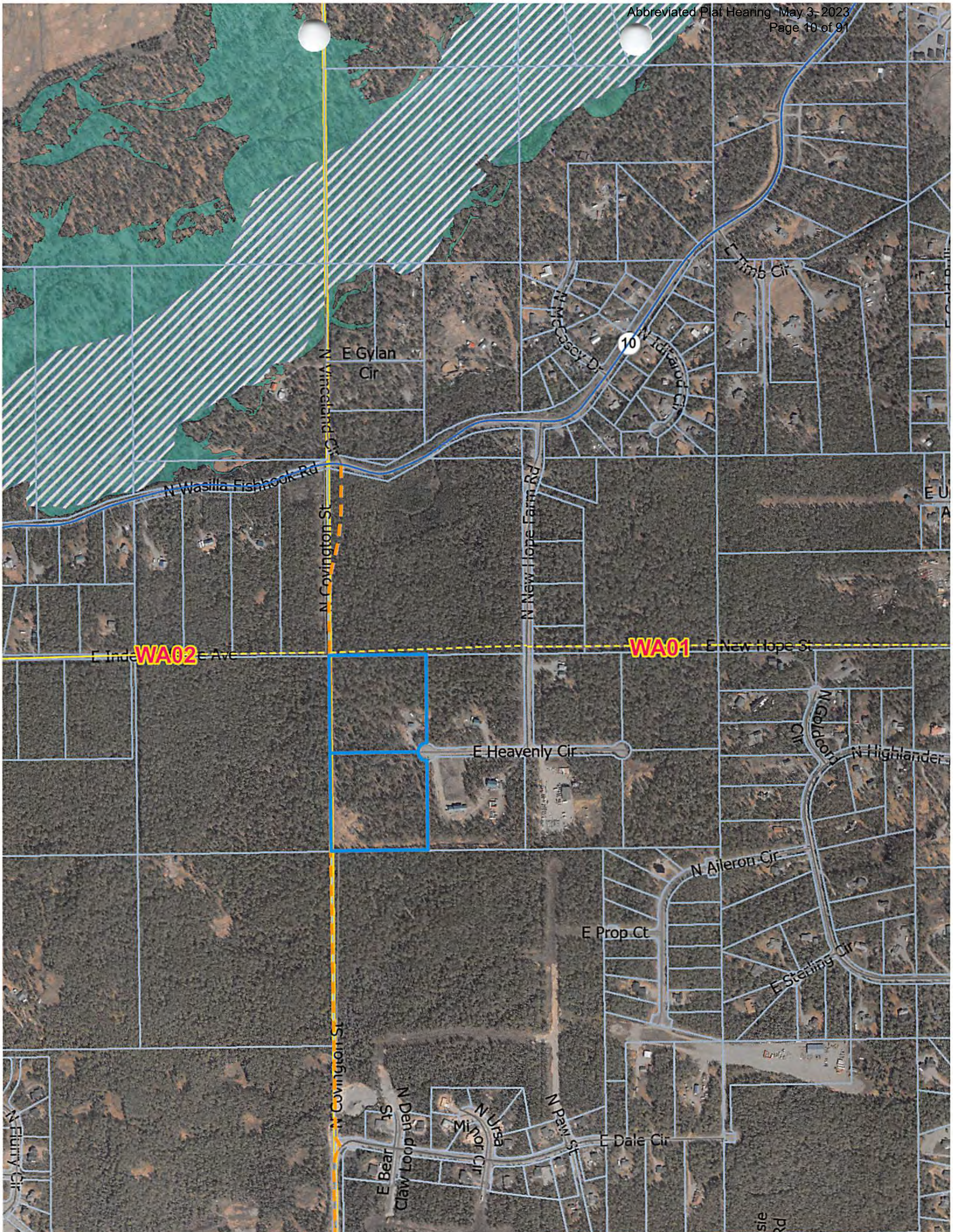
TR B-2

(7989)

EXHIBIT A


N Covington St
N New Hope Farm Rd
E Independence Ave
E New Hope St
WA02
WA01
E Heavenly Cir
N Covington St
E Prop


N Covington St
N New Hope Farm Rd
E New Hope St
E Independence Ave
E Heavenly Cir
E Prop
WA01
WA02
Core Area
700
690
710


E Gylan Cir
N Vinceland Ct
N McCascy Dr
10
N Iditarod Cir
E Timb Cir
N Wasilla Fishhook Rd
N Covington St
N New Hope Farm Rd
WA02
WA01
E New Hope St
E Heavenly Cir
N Highlander
N Aileron Cir
E Prop Ct
E Sterling Cir
N Covington St
N Den Loop
E Bear Claw Loop St
Minor Cir
N Ursa
N Paw St
E Dale Cir
N Flurry Cir

rmconsult.com

R&M CONSULTANTS, INC.

9101 Vanguard Drive
Anchorage, Alaska 99507

phone: 907.522.1707
fax: 907.522.3403

March 1, 2023

R&M No. 3031.03

Manny Lopez
Land Services Manager
Matanuska Electric Association
PO Box 2929
Palmer, Alaska 99645

RE: New Hope Estates Subdivision Lots 6A, 7A, and 7B
Supplemental Geotechnical Investigation Report

Dear Mr. Lopez:

As requested by the Matanuska-Susitna Borough, R&M Consultants, Inc. (R&M) is providing this supplemental geotechnical summary to meet the requirements for platting of the above referenced subdivision. This letter is a supplement to the geotechnical report performed for the Matanuska Electric Association in November, 2022[1].

The following summary is based on the referenced geotechnical report and R&M's review of available topographic, and geologic data. The soils on Lot 7B are expected to generally consist of sand and gravel overlain by a 2 to 3 feet of silty soil. No groundwater table is expected in the upper 30 feet below ground surface. On Lot 6A the topography is suitable for the construction of on-site septic systems, i.e., no steep slopes, and no areas of surface water.

Useable Areas. The proposed lots have a few limitations on areas defined by MSB code as useable septic area or useable building area. Useable septic areas will be limited by setbacks to neighboring water wells, lot lines, and easements. For useable building area, lot lines, utility easements, and ROW /PUE setbacks will be limiting factors. For all the proposed lots, adequate unencumbered area exists to readily meet the code requirements. Based on the available soils and water table information, topography, MSB Title 43 Code definitions, and our observations at the site, each of the proposed lots contain over 10,000 square feet of contiguous useable septic area, and an additional 10,000 square feet of useable building area.

CLOSURE

R&M Consultants, Inc. performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of study described within.

[1] R&M Consultants, Inc. "Proposed Plamer Fishook Substation Preliminary Geotechnical Report" prepared for Matanuska Electric Association, November 9, 2022.

We appreciate the opportunity to perform this geotechnical investigation. Should you require further information concerning the investigation or this report, please contact us at your convenience.

Sincerely,

R&M CONSULTANTS, INC.

Robert M. Pintner, P.E.
Senior Geotechnical Engineer

9 November 2022

R&M No. 3031.03

Manny Lopez
Land Services Manager
Matanuska Electric Association
PO Box 2929
Palmer, Alaska 99645

rmconsult.com

R&M CONSULTANTS, INC.

9101 Vanguard Drive
Anchorage, Alaska 99507

phone: 907.522.1707
fax: 907.522.3403

RE: Proposed Palmer Fishhook Substation
Preliminary Geotechnical Investigation Report

Dear Mr. Lopez:

Matanuska Electric Association (MEA) contracted[1] R&M Consultants, Inc. (R&M) to complete a geotechnical investigation to support site evaluation and preliminary design for a proposed new substation located on an undeveloped parcel in the Fishhook area near Wasilla and Palmer, Alaska (**Drawing 1**). This letter report summarizes the results of our investigation, which included: five geotechnical test borings advanced within the site proposed for the new substation; laboratory soils testing; and preparation of this geotechnical report including general considerations and conclusions regarding site suitability for the proposed development.

BACKGROUND AND PROPOSED DEVELOPMENT

MEA is considering acquisition of an approximately 8.0-acre parcel on the northeastern corner of Matanuska-Susitna Borough Parcel ID 523777 (**Drawing 2**) near Palmer and Wasilla, Alaska. R&M performed a geotechnical investigation within the subject parcel to inform MEA's evaluation of the site for potential purchase of the property. The project site was undeveloped at the time of investigation. We understand the proposed site would be graded to create a relatively level pad with gravel and/or asphalt traffic surfaces and the facility would include various typical substation features (transformers, circuit breakers, enclosures, dead-end structures, overhead utility poles, control buildings) supported on shallow and deep foundations.

FIELD INVESTIGATION

The geotechnical subsurface investigation program was performed on 15 October 2022 and consisted of drilling and logging four test borings (RM22-01 through RM22-04) to depths of around 27 feet below the existing ground surface (bgs) and one test boring (RM22-05) to auger refusal at a depth of 40.4 feet bgs.

Field activities were guided by an R&M engineering geologist who maintained logs of the test borings and samples. Test borings were located and recorded using a recreational grade GPS unit[2]. **Drawing 3** presents approximate test boring locations relative to recent site imagery. A summary of the general notes and an explanation (key) for the test boring logs are presented as **Drawings 4 and 5**, respectively. Logs of the R&M test borings are presented

[1] Contract No. PD22-048, Task Order 3. MEA Work Order 122981.
[2] Recreational grade GPS units are limited to a maximum accuracy of about 15 feet.

as **Drawings 6 through 11**. GPS coordinates for the test borings are presented on the test boring logs and summarized on **Table 1**.

Soil boring and sampling operations were performed by Wininger Drilling, Inc. of Wasilla, using a track-mounted CME-55 drill rig. Test borings were advanced using continuous flight, 8-inch nominal outside diameter (OD), 3.25-inch inside diameter (ID), hollow-stem augers. Soil samples were collected using split-spoon samplers. A modification of the Standard Penetration Test (ASTM D1586) was employed to collect disturbed soil samples below the surface at regular intervals using a 2.5-inch ID (3.0-inch OD) split-spoon sampler advanced by a 340-pound automatic drop-hammer with a fall of 30 inches. Hammer blows (uncorrected) required to drive the sampler each six inches of a 24-inch interval were recorded as shown on the test boring logs, **Drawings 6 through 11**.

All soils recovered in the field were visually described following ASTM D2488. Samples were sealed in double plastic bags and returned to R&M's laboratory for further examination and testing. Test borings were backfilled with drill cuttings.

LABORATORY TESTING

A laboratory testing program was developed to provide data on important subsurface characteristics and material properties for engineering analysis. Testing consisted of measuring general soil index properties for classification purposes and was performed at the R&M Materials Laboratory in Anchorage in accordance with the following ASTM (2022)[3] procedures: Particle Size Analysis (D422[4]); Moisture Content (D2216); and Classification of Soils (D2487 and D2488). It should be noted that the size of gravel particles obtained with 2.5-inch ID split spoon samplers is limited to the size of the opening of the sampler, and the sample is thus not necessarily representative of the coarse gravel fraction. The ASTM Soil Classification System and Frost Design Soil Classification used for this project are summarized on **Drawings 12 and 13**, respectively. The system used to classify soils containing organic matter is summarized on **Drawing 14**. Laboratory test results are presented on the Test Boring Logs and on the Summary of Laboratory Data, **Drawing 15**.

SITE CONDITIONS

Vicinity, location, and area maps for the project site are attached as **Drawings 1 and 2**. The following summarizes information pertaining to the surface and subsurface conditions encountered or interpreted within the project area based on the findings of the investigation.

Geology: The project site is located within the Cook Inlet-Susitna Lowland physiographic province of Alaska[5]. The area is characterized as a glaciated lowland containing areas of ground moraine and stagnant ice topography, drumlin fields, eskers, and outwash plains. The topography in this area is primarily the product of five major glacial advances that crossed the area in the middle to late Pleistocene age[6], as well as the effect of colluvial and alluvial deposits consequent with or subsequent to the advances. Surficial soils across the project site vicinity have been mapped as outwash stream deposits; chiefly sand, gravel, and some silt[7] (**Figure 1**). The in-situ soil profile encountered at the project site appeared generally consistent with this geological mapping.

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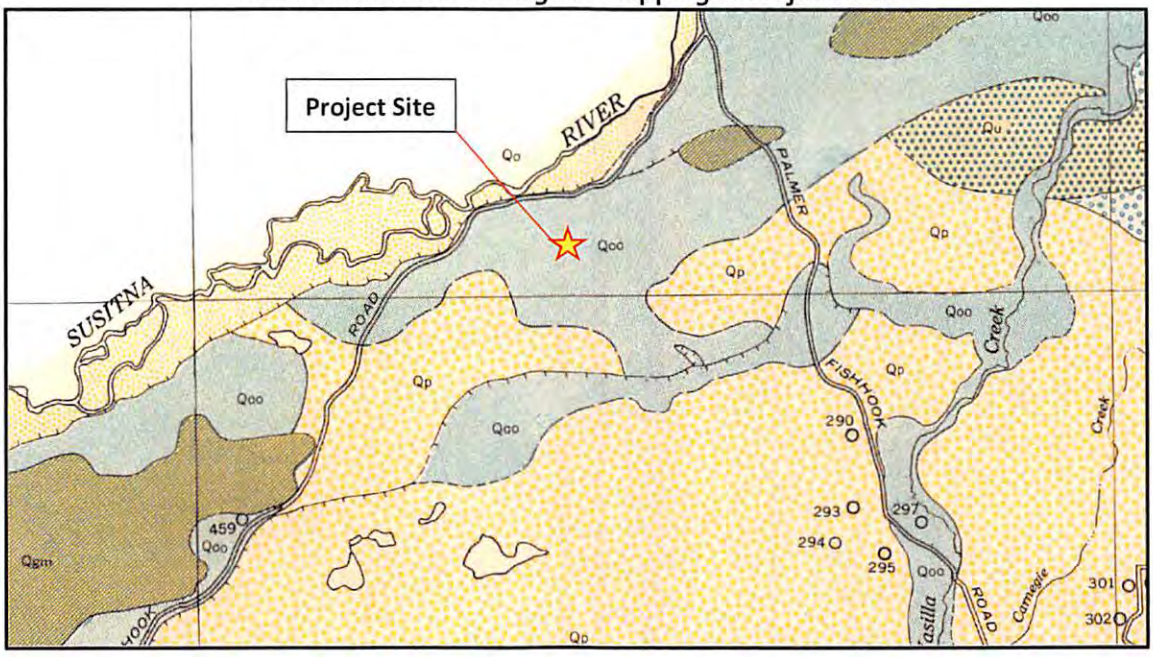
[3] American Society for Testing and Materials (ASTM), 2022, Annual Book of ASTM Standards.
[4] ASTM D422 was not reapproved following calendar year 2016 but remains commonly employed in geotechnical engineering practice.
[5] Wahrhaftig, Clyde. 1965. Physiographic Divisions of Alaska. U.S. Geological Survey Professional Paper 482.
[6] Coulter, H.W., et al. 1965. Map Showing Extent of Glaciations in Alaska. U.S. Geological Survey Miscellaneous Geologic Investigations Map I-415. 1 sheet. Scale 1:2,500,000.
[7] Trainer, F.W., 1960. Map of the Matanuska Valley Agricultural Area, Alaska, Showing Surficial Geology and Location of Wells. Geological Survey Water-Supply Paper 1494, Plate 1, Scale 1:50,000.

FIGURE 1: Surficial Geological Mapping of Project Area



Notes: Map extracted from Trainer, 1960.[7]

-Qoo **(light green shading):** Quaternary outwash stream deposits; chiefly sand, gravel, and some silt in the form of terraces.

-Qp **(yellow dotted shading):** Quaternary pitted deposits; chiefly outwash stream deposits; undifferentiated eskers and crevasse fillings.

- Qgm **(dark green shading):** Quaternary ground moraine deposits; glacial till, in part gravelly, and locally with gravel cover.

- Qu **(yellow shading with green dots):** Quaternary deposits, undifferentiated; chiefly deposits of outwash streams, but include nonglacial lake and stream deposits.

Surface: The project site was undeveloped at the time of the investigation and generally surfaced with a thin layer of peat and grass or brush cover, with a relatively level ground surface. The project site exhibited uplands vegetation and was forested with birch, willow, and spruce. The imagery included on **Drawing 3** (attached) shows ground surface conditions reflective of the surface conditions observed during the investigation.

Subsurface Soil Profile: The soil profile encountered across the project site was consistent, with four generalized soil units interpreted: (I) surficial peat deposits; overlying (II) silt deposits; overlying (III) glacial outwash deposits; transitioning to (IV) poorly lithified bedrock at depth. The depth interval of these generalized units interpreted at each test boring is summarized on **Table 1**, followed by descriptions for each unit highlighting soil classification, density, and laboratory testing results. A graph depicting SPT blowcounts versus depth for each SPT sample performed is provided on **Figure 2**, with SPT values corrected for overburden pressure, sampling characteristics, and oversize sampler.

TABLE 1 – Generalized Soil Unit Profile at Test Boring Locations

Test Boring Location	GPS Coordinates (WGS84)		Interpreted Depth of Soil Unit at Test Boring (in feet below existing ground surface)				Groundwater Depth (in feet below existing ground surface)
	Latitude (N)	Longitude (W)	UNIT I Organic Deposits	UNIT II Silt Deposits	UNIT III Outwash Deposits	UNIT IV Poorly Lithified Bedrock	
RM22-01	61.67135	149.26681	0 to 1.0	1.0 to 3.5	3.5 to 27.0 TD	--	NE
RM22-02	61.67112	149.26686	0 to 0.8	0.8 to 3.1	3.1 to 26.7 TD	--	NE
RM22-05	61.67129	149.26780	0 to 1.0	1.0 to 3.2	3.2 to 35.3	35.3 to 40.4 TD	38 WD
RM22-03	61.67133	149.26877	0.0 to 0.7	0.7 to 3.1	3.1 to 27.0 TD	--	NE
RM22-04	61.67108	149.26877	0.0 to 1.4	1.4 to 3.2	3.2 to 27.0 TD	--	NE

Note: Test borings arranged in general order from east to west across site.
TD = total depth of test boring, NE = groundwater not encountered while drilling, WD=observed while drilling.

(1) **Unit I – Organic Deposits**, generally consisting of a thin layer of peat or organic silt (USCS [Unified Soil Classification] = PT, OL), were encountered surfacing the project site at each test boring location. The organic deposits ranged in thickness from approximately 0.7 to 1.4 feet and were generally moist to wet and soft/loose. Organic deposits are highly frost susceptible (F4).

(2) **Unit II – Silt Deposits**, consisting primarily of silt with variable sand and gravel content (USCS [Unified Soil Classification] = ML), were encountered below the surficial organics at each test boring location. The silt deposits ranged in thickness from approximately 1.8 to 2.5 feet and were generally moist to wet, loose, and nonplastic. This soil unit often contained trace organic matter consisting of roots and other organic debris.

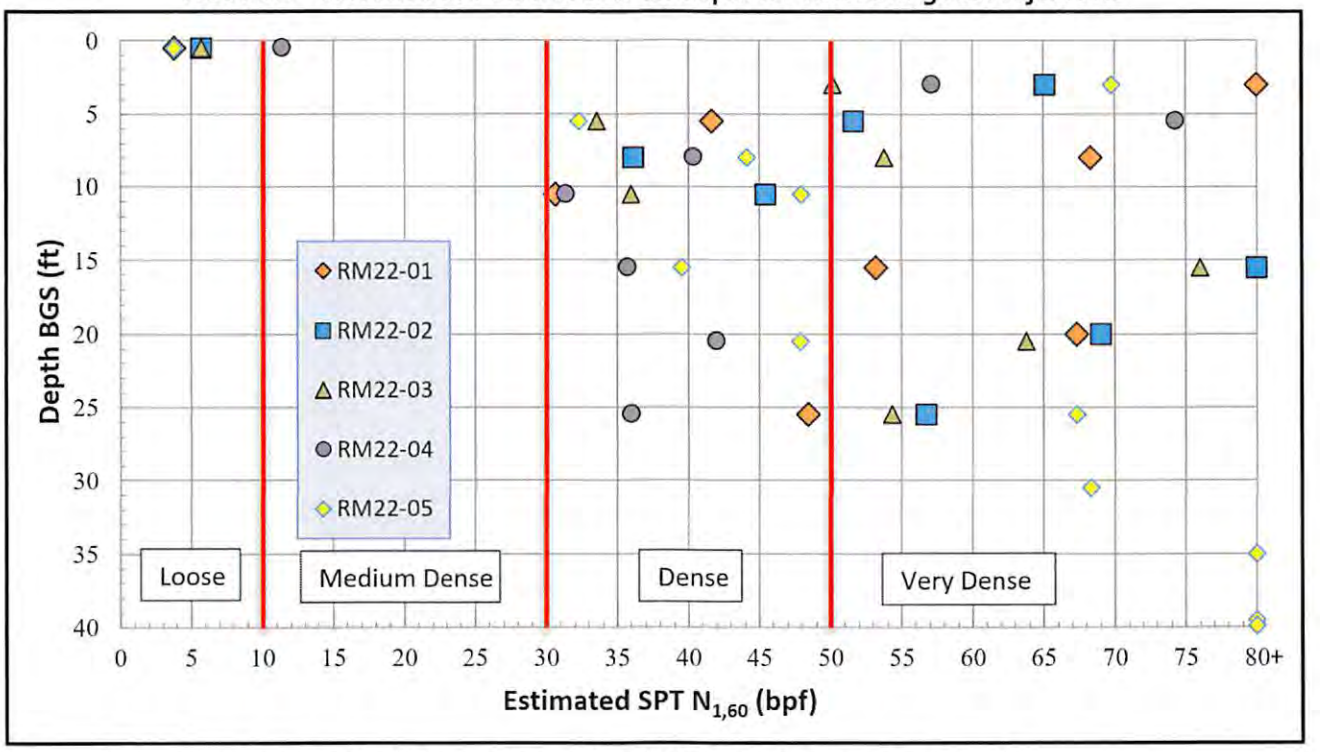
For those samples tested from Unit II: average moisture content was 35.5 percent (range [r] = 33.4 to 36.7 percent, number of tests [n] = 4). Silt deposits are highly frost susceptible (F4).

(3) **Unit III – Outwash Deposits**, consisting primarily of poorly to well-graded gravel and sand with variable silt contents (USCS= GW, GP, SW, SP, GW-GM, GP-GM, SW-SM, SP-SM), was encountered underlying the surficial organics and silt (Units I and II) at each test boring location. This soil unit is relatively consistent with the 'Qoo' unit mapped surfacing the project site (**Figure 1**). Unit III soils were generally interpreted to be dense to very dense in consistency and dry to moist. Sand and silt content generally increased with increasing depth. The outwash deposits unit contained frequent cobbles and possible boulders.

For those samples tested from Unit III: average moisture content was 4.2 percent (r = 2.8 to 8.2 percent, n = 8); and average percent passing the No. 200 sieve (P200) was 8.7 percent (r = 3.7 to 26.0 percent, n = 7). The outwash deposits unit was generally interpreted to be slightly frost susceptible (S1).

(4) **Unit IV – Poorly Lithified Bedrock**, interpreted consisting of soft sandstone to conglomerate and presenting as moderately cemented silty sand with gravel, was interpreted in the deeper test boring (RM22-05) underlying the outwash deposits at a depth of approximately 35 feet bgs. Reasonable auger refusal occurred after advancing about 5 feet into the bedrock unit.

FIGURE 2 – Corrected SPT Blowcounts vs. Depth for Test Borings at Project Site



Note: Coarse gravel and cobbles may have inflated SPT values for some test intervals.

Groundwater was observed not encountered at Test Borings RM22-01 through RM22-04, advanced to completion depths of around 27 feet bgs. Groundwater was only observed at Test Boring RM22-05 at a depth of around 38 feet bgs, near the bedrock surface interface. We do not anticipate shallow groundwater conditions affecting this site.

Permafrost was not suspected or interpreted at the test boring locations during this investigation. The project area is mapped as containing isolated masses of permafrost (less than 10 percent area coverage) with heightened potential for perennially frozen soil in areas with high ground insulation, such as bogs or swamps[8].

Bedrock was interpreted only in the deeper test boring (RM22-05) at a depth 35 feet bgs. Reasonable auger refusal occurred after advancing about 5 feet into this bedrock unit. Bedrock was not encountered to completion depths of around 27 feet in the other 4 Test Borings (RM22-01 through RM22-04). Considering the results of the investigation and geological mapping[7] in the project area, we do not anticipate shallow bedrock (less than 25 feet) affecting this site.

GEOTECHNICAL CONSIDERATIONS AND CONCLUSIONS

The following summarizes general considerations and conclusions regarding suitability of the project site for development, to aid in site evaluation and planning for the substation. Should substation development go forward, additional design level geotechnical investigation and analysis should be performed considering project design information, site grading, and foundation loading criteria.

[8] Jorgenson et al., 2008, "Permafrost Characteristics of Alaska", Institute of Northern Engineering, University of Alaska.

Seismic Design Parameters shown on **Table 2** address the geotechnical aspects of designing foundations on this site relative to ASCE/SEI 7-22.

TABLE 2 – Seismic Design Parameters

Site Parameters	Value
Risk Category	IV
Class	C-D
PGA_M	0.81
S_s	2.29
S_1	0.94
S_{MS}	2.18
S_{M1}	1.95
S_{DS}	1.46
S_{D1}	1.30

Site Stability: The project site is relatively level and generally underlain by coarse-grained, dense to very dense soils; soil liquefaction and slope instability are unlikely. Additionally, loss of bearing capacity and land spreading are not likely to occur in the dense soils underlying the site.

Site Grading. We understand that the project site would be graded to create a relatively level pad for development of the substation facility. Considering the results of this investigation, the project site is favorable for grading.

Prior to site grading, the surficial organic deposits and silt (Units I and II) should be stripped from areas to be developed. The existing coarse-grained soils (Unit III) underlying the surficial organic deposits are generally well graded with relatively low silt contents, and therefore are suitable for directly supporting embankments and may be suitable for reuse as fill for embankment construction if significant cuts and fills are performed. Any cut slopes, graded embankment slopes, or slopes on the periphery of graded areas should be laid back to a maximum steepness of 2 horizontal to 1 vertical. Consider turfing and seeding of final slopes to protect slopes from erosion.

Foundations: Favorable foundation soils (Unit III) were encountered underlying the surficial deposits at the project site. The Unit III soils were generally dense in consistency and non-plastic, with relatively low silt contents. Existing coarse-grained soils (Unit III) at the project site were estimated to be slightly frost susceptible.

The existing coarse-grained soils are favorable for support of conventional shallow foundations. Foundation and pavement design should consider the frost susceptibility of site soils and imported fill materials within the frost interval, especially for structures which will be unheated or those having little tolerance to differential movements.

The project site conditions are favorable for installation of deep foundations (drilled piers, auger cast piles, pipe piles). However, installation of deep foundations may be hampered by cobbles and boulders and very dense soil conditions. Predrilling at deep foundation locations or underreaming methods would reduce risk of premature refusal or pile foundation damage during installation. If conventional pile driving methods are to be applied at this site, extra strong grade piles with reinforced driving tips should be used.

CLOSURE AND SIGNATURES

The discussion presented in this report is preliminary in nature and based on our understandings of the proposed project, our investigation, and the other pertinent information listed herein. Because subsurface characteristics can change significantly within a given area, and with the passing of time, the possibility exists that important conditions not disclosed by this investigation may be discovered on the site during construction. Should this situation occur, the influence of the new information on the design aspects should be evaluated without delay. Should this project site be acquired by MEA for substation development, additional design level geotechnical investigation and analysis should be performed considering project design information, site grading, and foundation loading criteria.

R&M Consultants, Inc. performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of study described within.

We appreciate the opportunity to perform this geotechnical investigation. Should you require further information concerning the investigation or this report, please contact us at your convenience.

Sincerely,

R&M CONSULTANTS, INC.

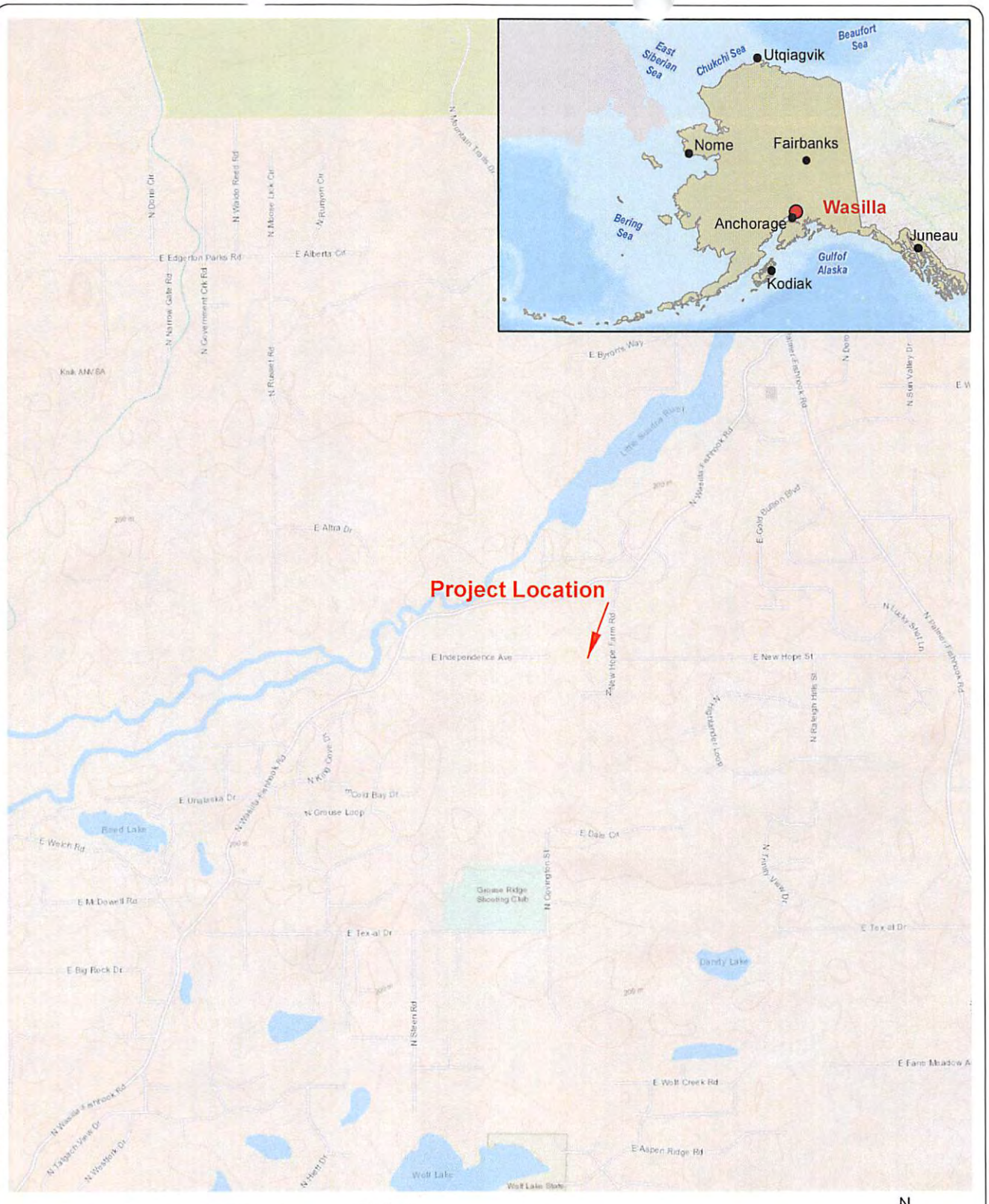
REVIEWED BY:

Brian M. Mullen, P.E.
Geotechnical Engineer

Robert M. Pintner, P.E.
Senior Geotechnical Engineer

ATTACHMENTS:

Location/Vicinity and Area Maps (**Drawings 1 and 2**)
Test Boring Locations Map (**Drawing 3**)
General Notes (**Drawing 4**)
Explanation of Selected Symbols (**Drawing 5**)
Test Boring Logs (**Drawings 6 through 11**)
Classification of Soil for Engineering Purposes (**Drawing 12**)
USACE Frost Design Soil Classification (**Drawing 13**)
Classification of Soils Containing Organic Matter (**Drawing 14**)
Summary of Laboratory Soils Data (**Drawing 15**)



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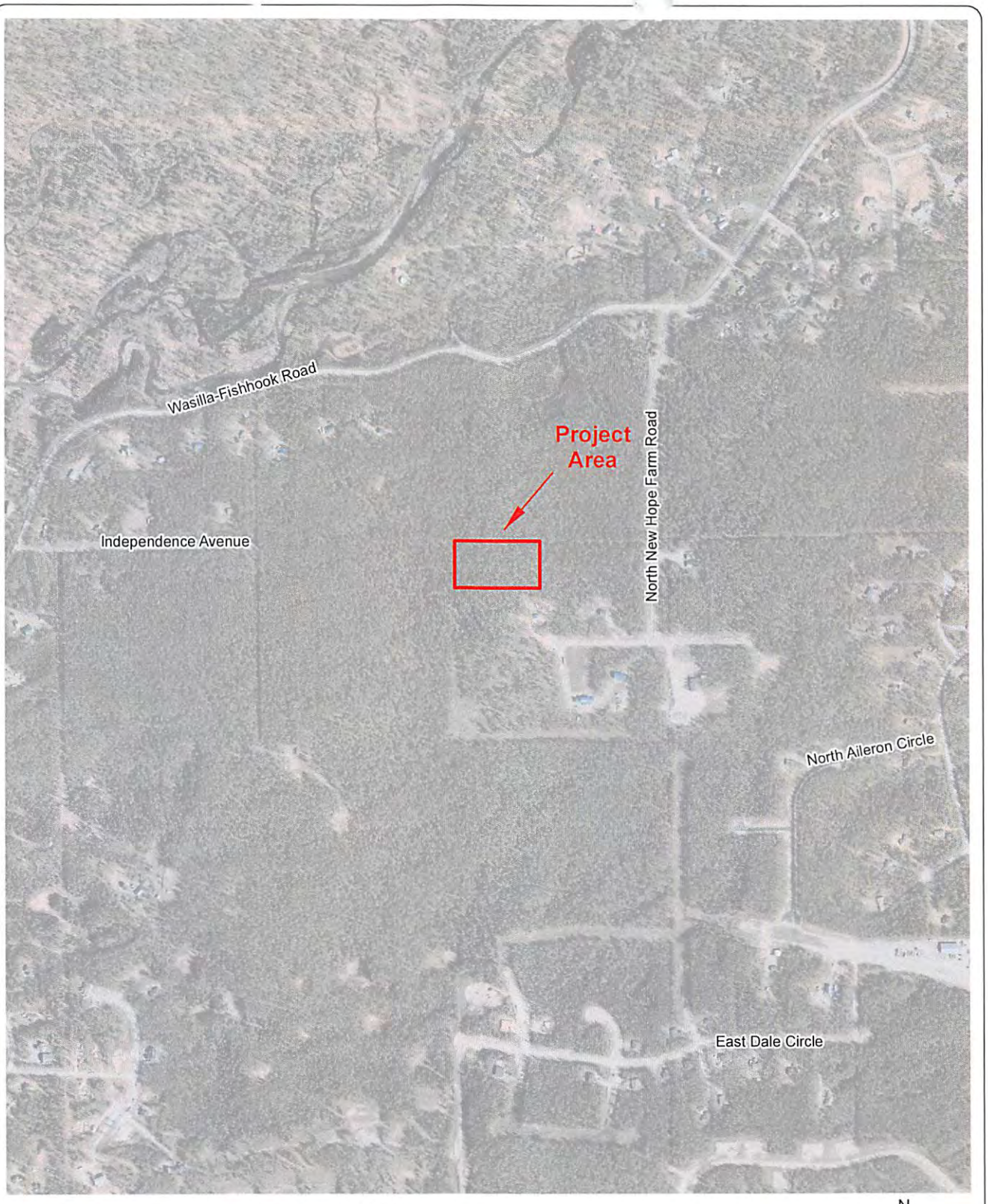
PALMER FISHHOOK SUBSTATION
PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT

LOCATION AND VICINITY MAP

PROJ.NO:	3031.03
DATE:	NOV 2022
REF:	GEOTECH RPT
DRAWING NO:	1



ALL LOCATIONS ARE APPROXIMATE

0 450 900 1,800

APPROXIMATE SCALE IN FEET

NOTES:
- Aerial Photography from World Imagery on ESRI Online

N

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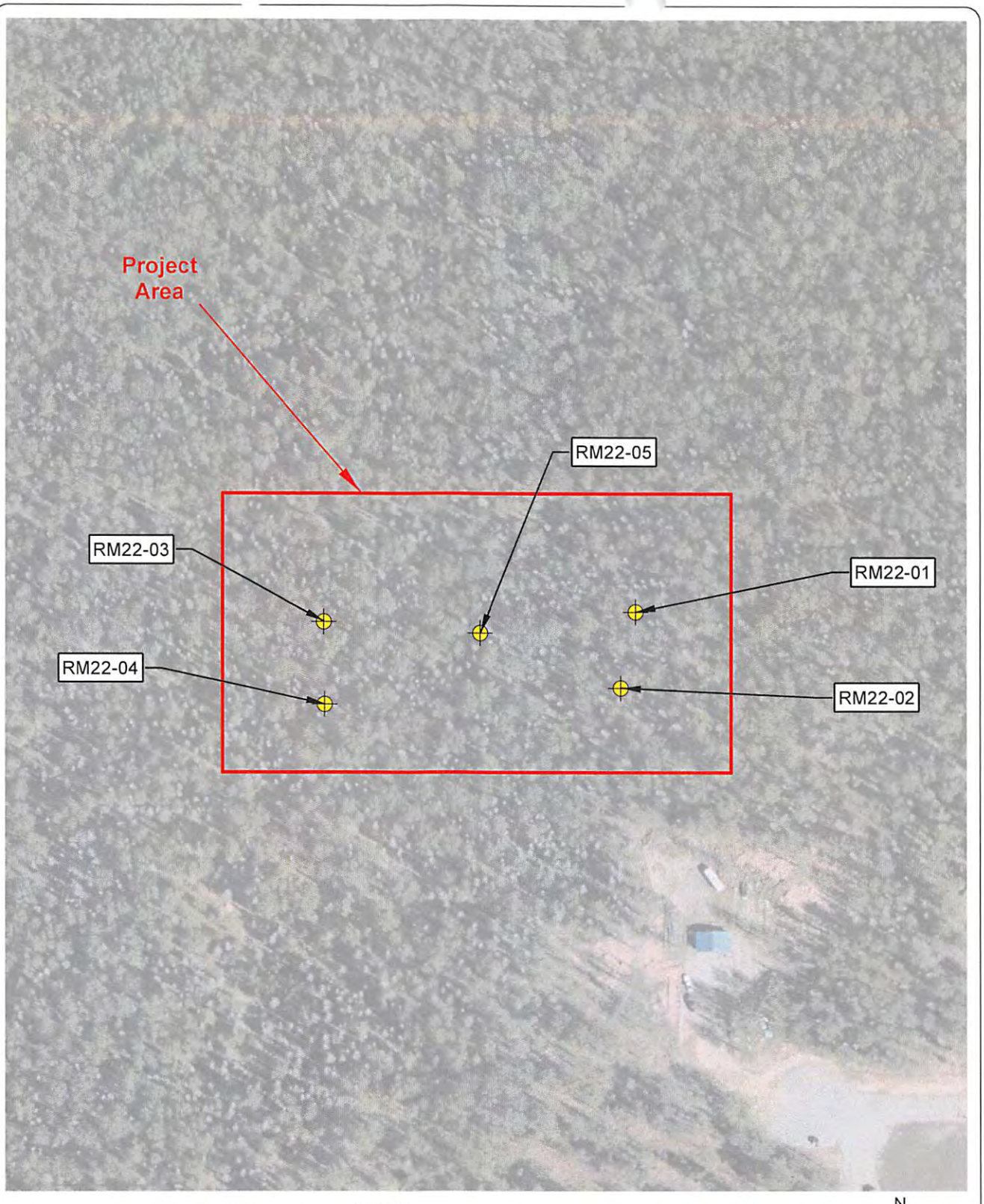
PALMER FISHHOOK SUBSTATION
PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT

AREA MAP

PROJ.NO:	3031.03
DATE:	NOV 2022
REF:	GEOTECH RPT
DRAWING NO:	2



ALL LOCATIONS ARE APPROXIMATE

0 75 150 300

APPROXIMATE SCALE IN FEET

NOTES:
- Aerial Photography from World Imagery on ESRI Online

N

Date Saved: 11/8/2022 3:13:47 PM by VCrandell-Beck \\rm.rmnet\Z_GIS\Projects\3031.03 MEA Term Palmer Fishhook Substation\Map Documents\DWG-3 TestBoringLocationMap_PalmerFishhook.mxd

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PALMER FISHHOOK SUBSTATION
PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT

TEST BORING LOCATION MAP

PROJ.NO:	3031.03
DATE:	NOV 2022
REF:	GEOTECH RPT
DRAWING NO:	3

SOILS
CONSISTENCY AND SYMBOLS

CLASSIFICATION: Identification and classification of the soil is accomplished in accordance with the ASTM version of the Unified Soil Classification System. When laboratory testing data on material passing the 75-mm sieve is available Standard D 2487 (Classification of Soils for Engineering Purposes) is used and when laboratory data is not available D 2488 (Visual-Manual Procedure) is used. This classification system identifies three major soil divisions: coarse-grained soils, fine-grained soils, and highly organic soils. These three divisions are further subdivided into a total of 15 basic soils groups. Based on the results of visual observations and prescribed laboratory tests, a soil is catalogued according to the basic soil groups, assigned a group symbol(s) and name, and thereby classified. Flow charts contained in the two standards can be used to assign the appropriate group symbol(s) and name.

SOIL DENSITY/CONSISTENCY - CRITERIA: Soil density/consistency as defined below and determined by normal field and laboratory methods applies only to non-frozen material. For these materials, the influence of such factors as soil structure, i.e. fissure systems shrinkage cracks, slickensides, etc., must be taken into consideration in making any correlation with the consistency values listed below. In permafrost zones, the consistency and strength of frozen soil may vary significantly and inexplicably with ice content, thermal regime and soil type.

COARSE GRAINED
(DOT&PF 2007)

Relative Density	N * (blows/FT.)
Very loose	0 - 4
Loose	5 - 10
Medium dense	11 - 30
Dense	31 - 50
Very dense	>50

FINE GRAINED
(ASTM D 2488)

Consistency	Thumbnail Test
Very soft	Thumb > 1 in.
Soft	Thumb = 1 in.
Firm	Thumb = 1/4 in.
Hard	Thumbnail indents
Very hard	Thumbnail will not indent

* Standard Penetration "N": Blows per 12 inches of a 140-pound manual hammer (lifted with rope & cathead) falling 30 inches on a 2-inch O.D. split-spoon sampler except where noted. Blow counts presented on test boring logs are direct field values (i.e.they have not been corrected to account for hammer efficiency, borehole diameter, sampling method, or rod length)

KEY TO TEST RESULTS

DD - Dry Density
LL - Liquid Limit
MC - Moisture Content
Org - Organic Content
PI - Plastic Index
PL - Plastic Limit
PP - Pocket Penetrometer
P200 - % Passing No. 200 Screen
P.02 - % Passing 0.02 mm
P.005 - % Passing 0.005 mm
P.002 - % Passing 0.002 mm

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GENERAL NOTES

PROJ.NO:	GENERAL
DATE:	N/A
REF:	N/A
DWG.NO:	04

STANDARD SYMBOLS

SYMBOL	NAME	PARTICLE SIZE	SYMBOL	NAME
	CLAY	< 0.002mm, Plastic		ORGANICS
	SILT	0.002mm, - #200		ICE
	SAND	#200, - #4		ICE W/SOIL INCLUSIONS
	GRAVEL	#4, - 3"		ICE LENSE IN SOIL
	COBBLES & BOULDERS	3" - 12" & > 12"		ICE CRYSTALS IN CLAY

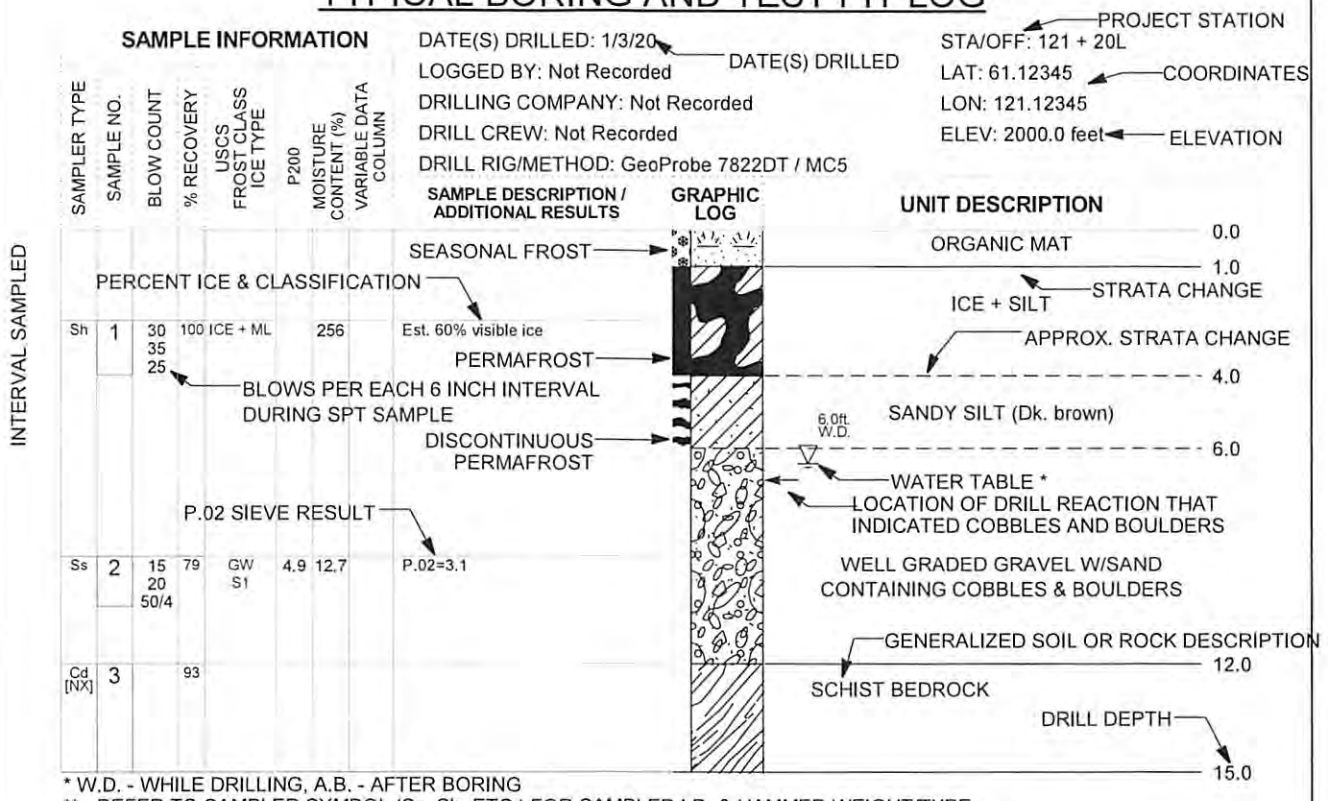
(The symbols shown above are frequently used in combinations, e. g. SILTY GRAVEL W/SAND)

SAMPLER TYPE SYMBOLS

A	Auger Sample	MC	1.5 In. I.D. Macro-core	Ss	1.4 In. Split Spoon w/140 lb. Manual Hammer
C	Cuttings Sample	MC7	3.0 In. I.D. Macro-core	Ssa	1.4 In. Split Spoon w/140 lb. Auto Hammer
Cd	Double Tube Core Barrel	Sh	2.5 In. Split Spoon w/340 lb. Manual Hammer	Tm	Modified Shelby Tube
Cs	Single Tube or Auger Core	Sha	2.5 In. Split Spoon w/340 lb. Auto Hammer	Ts	3.0 In. Shelby Tube
Ct	Triple Tube Core Barrel	Sl	2.5 In. Split Spoon w/140 lb. Hammer	[XX]	Sampler ID (Rock Core - NX, NQ, etc.)
G	Grab Sample				

NOTE: Sampler types are either noted above the boring log or adjacent to it at the respective depth. An individual log may not utilize all of the items listed.

TYPICAL BORING AND TEST PIT LOG



* W.D. - WHILE DRILLING, A.B. - AFTER BORING
** - REFER TO SAMPLER SYMBOL (Ss, Sh, ETC.) FOR SAMPLER I.D. & HAMMER WEIGHT/TYPE
NOTE: Water levels shown on the boring logs are the levels measured in the boring at the times indicated.

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EXPLANATION OF SELECTED SYMBOLS

PROJ.NO:	GENERAL
DATE:	N/A
REF:	N/A
DWG.NO:	05

RM22-01

Log Page 1 of 1

Date(s) Drilled: 10/14/22 - 10/14/22
Logged By: A. Pasikowski
Drilling Company: Wininger Drilling
Drill Crew: Joe, Frank & Cole Wininger
Rig/Method: CME-55 Track-Mounted / Hollow Stem Auger

Lat: 61.67135
Lon: -149.26681

DEPTH (FT)	SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	PERCENT RECOVERY	USCS FROST CLASS ICE TYPE	MOISTURE CONTENT (PERCENT)	P200 (%)	N-VALUE	SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
0											0.0
	Sha	1	1 1	70				2			PEAT (Brown-black, Moist)
1		2	1 1			35.9					1.0
2											SANDY SILT (Light brown, Fine to coarse sand, Nonplastic, Moist)
	Sha	3	9 23	75				45			
3		4	22 21								3.5
4											
	Sha	5	9 14 12 13	75	GW-GM* S1*	3.4	7.1	26	Gr=54, Sa=39, Fines=7		
6											WELL GRADED GRAVEL W/SILT AND SAND CONTAINING COBBLES & BOULDERS (Brown to tan-gray, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Dry to moist)
	Sha	6	46 23 24 22	80				47			
8											
	Sha	7	12 12 11 21	65		2.4		23			
10											
12											
13											13.5
14											
	Sha	8	27 20 15 20	95				35			
16											
18											
	Sha	9	37 50/0.4	67				50	Driving gravel/cobble - low recovery		WELL GRADED SAND W/SILT AND GRAVEL CONTAINING COBBLES & BOULDERS (Brown to tan-gray, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Dry to moist)
20											
22											
24											
	Sha	10	13 23 18 22	100				41			
26											27.0

* Estimated classification

1) Latitude and Longitude coordinates reference the WGS 84 datum and were recorded using a recreational-grade GPS unit.
2) Gr = gravel (%), Sa = Sand (%), Fines = Passing the No. 200 sieve (%), P.xx = % passing size mm.
3) Groundwater not observed while drilling.

R&M CONSULTANTS, INC.

MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

LOG OF TEST BORING

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	06

RM22-02

Log Page 1 of 1

Date(s) Drilled: 10/15/22 - 10/15/22
Logged By: A. Pasikowski
Drilling Company: Wininger Drilling
Drill Crew: Joe, Frank & Cole Wininger
Rig/Method: CME-55 Track-Mounted / Hollow Stem Auger

Lat: 61.67112
Lon: -149.26686

DEPTH (FT)	SAMPLE INFORMATION: SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	PERCENT RECOVERY	USCS FROST CLASS ICE TYPE	MOISTURE CONTENT (PERCENT)	P200 (%)	N-VALUE	SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
0											0.0 PEAT (Brown-black, Moist) 0.8
2	Sha	1	1 1 2 14	70		36.7		3			SANDY SILT W/GRAVEL (Light brown, Gravel subrounded to subangular, friable to hard, Fine to coarse sand, Nonplastic, Moist) 3.1
4	Sha	2									
	Sha	3	8 18 17 17	95				35			
6	Sha	4									
	Sha	5	8 15 16 22	95	GW-GM* S1*	3.3	6.2	31	Fines=6		
8	Sha	6	13 12 12 12	80				24			
10	Sha	7	6 12 21 22	80				33			
12											WELL GRADED GRAVEL W/SILT AND SAND CONTAINING COBBLES & BOULDERS (Brown to tan-gray, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Dry to moist)
14											
16	Sha	8	50 36 34 35	85				70			
18											
20	Sha	9	50/0.4	100				50	Driving gravel/cobble - low recovery		
22											
24											
26	Sha	10	12 17 30 50/0.2	71				47	Driving gravel/cobble		26.7

* Estimated classification

1) Latitude and Longitude coordinates reference the WGS 84 datum and were recorded using a recreational-grade GPS unit.
2) Gr = gravel (%), Sa = Sand (%), Fines = Passing the No. 200 sieve (%), P.xx = % passing size mm.
3) Groundwater not observed while drilling.

R&M CONSULTANTS, INC.

MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

LOG OF TEST BORING

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	07

RM22-03

Log Page 1 of 1

Date(s) Drilled: 10/15/22 - 10/15/22
Logged By: A. Pasikowski
Drilling Company: Wininger Drilling
Drill Crew: Joe, Frank & Cole Wininger
Rig/Method: CME-55 Track-Mounted / Hollow Stem Auger

Lat: 61.67133
Lon: -149.26877

DEPTH (FT)	SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	PERCENT RECOVERY	USCS FROST CLASS ICE TYPE	MOISTURE CONTENT (PERCENT)	P200 (%)	N-VALUE	SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
0											0.0 PEAT (Brown-black, Moist) 0.7
2	Sha	1	1 1 2 4	80		33.4		3			SANDY SILT W/GRAVEL (Light brown-tan, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Moist to wet) 3.1
		2									
4	Sha	3	8 12 15 13	85				27			
		4									
6	Sha	5	8 9 12 10	80	GW-GM* S1*	3.8	6.4	21	Fines=6		
8	Sha	6	8 13 24 17	80				37			
10	Sha	7	14 12 15 14	80				27			
12											
14											WELL GRADED GRAVEL W/SILT AND SAND CONTAINING COBBLES & BOULDERS (Brown to tan-gray, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Dry to moist)
16	Sha	8	16 50/0.4	11				50	Driving gravel/cobble - low recovery		
18											
20	Sha	9	12 25 23 17	80				48			
22											
24											
26	Sha	10	12 24 22 18	85				46			27.0

* Estimated classification

1) Latitude and Longitude coordinates reference the WGS 84 datum and were recorded using a recreational-grade GPS unit.
2) Gr = gravel (%), Sa = Sand (%), Fines = Passing the No. 200 sieve (%), P.xx = % passing size mm.
3) Groundwater not observed while drilling.

R&M CONSULTANTS, INC.

MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

LOG OF TEST BORING

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	08

RM22-04

Log Page 1 of 1

Date(s) Drilled: 10/15/22 - 10/15/22 | Lat: 61.67108
Logged By: A. Pasikowski | Lon: -149.26877
Drilling Company: Wininger Drilling
Drill Crew: Joe, Frank & Cole Wininger
Rig/Method: CME-55 Track-Mounted / Hollow Stem Auger

DEPTH (FT)	SAMPLE INFORMATION: SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	PERCENT RECOVERY	USCS FROST CLASS ICE TYPE	MOISTURE CONTENT (PERCENT)	P200 (%)	N-VALUE	SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
0											0.0
	Sha	1	1 1 5	65				6			PEAT (Brown-black, Moist)
2		2	11								1.4
	Sha	3	8 16	100				31			SANDY SILT W/GRAVEL (Light brown-tan, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Moist)
4		4	15 15			3.2					3.2
	Sha	5	10 16 29 22	100				45			
6											
	Sha	6	47 14 13 12	100	GW-GM* S1*	2.8	6.5	27	Fines=7		
8											
10	Sha	7	8 11 12 15	95				23			
12											
14											WELL GRADED GRAVEL W/SILT AND SAND CONTAINING COBBLES & BOULDERS (Gray, Gravel subrounded to subrounded, friable to hard, Fine to coarse sand, Nonplastic, Dry to moist)
	Sha	8	17 11 12 14	90				23			
16											
18											
20	Sha	9	25 16 15 22	100				31			
22											
24											
26	Sha	10	20 14 16 18	75				30			27.0

* Estimated classification

1) Latitude and Longitude coordinates reference the WGS 84 datum and were recorded using a recreational-grade GPS unit.
2) Gr = gravel (%), Sa = Sand (%), Fines = Passing the No. 200 sieve (%), P.xx = % passing size mm.
3) Groundwater not observed while drilling.

R&M CONSULTANTS, INC.

MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

LOG OF TEST BORING

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	09

RM22-05

Date(s) Drilled: 10/16/22 - 10/16/22 Lat: 61.67129
Logged By: A. Pasikowski Lon: -149.2678
Drilling Company: Wininger Drilling
Drill Crew: Joe, Frank & Cole Wininger
Rig/Method: CME-55 Track-Mounted / Hollow Stem Auger

DEPTH (FT)	SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	PERCENT RECOVERY	USCS FROST CLASS ICE TYPE	MOISTURE CONTENT (PERCENT)	P200 (%)	N-VALUE	SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
0											0.0
	Sha	1	1 1 1	80				2			PEAT (Brown-black, Moist)
2		2	13								1.0 SANDY SILT W/GRAVEL CONTAINING COBBLES (Brown to gray-tan, Gravel subrounded to subangular, friable to hard, Fine to coarse sand, Nonplastic, Moist)
	Sha	3	8 22	90		36.0		39			3.2
4		4	17 15								
	Sha	5	6 9 11 16	85	GW* S1*	3.5	5	20	Gr=65, Sa=30, Fines=5		
6											
	Sha	6	10 15 15 14	85				30			
8											
	Sha	7	6 15 21 25	85				36			WELL GRADED GRAVEL W/SAND CONTAINING COBBLES & BOULDERS (Brown to gray, Gravel subrounded to rounded, friable to hard, Fine to coarse sand, Dry to moist)
10											
12											
14											
	Sha	8	6 12 14 23	80	GW* PFS*	3.0	3.7	26	Fines=4		
16											
18											18.5
	Sha	9	13 19 17 19	90				36			WELL GRADED SAND W/SILT AND GRAVEL CONTAINING COBBLES & BOULDERS (Brown to gray, Gravel subrounded to rounded, friable to hard, Fine to coarse sand, Nonplastic, Dry to moist)
20											
22											
24											
	Sha	10	10 15 42 19	85				57			
26											
28											28.5
	Sha	11	6 14 50 50/0.2	100	SM* F2*	8.2	26	64	Fines=26		SILTY SAND W/GRAVEL CONTAINING COBBLES & BOULDERS (Tan to brown, Gravel subrounded to rounded, friable to hard, Fine to coarse sand, Nonplastic, Moist)
30											
32											32.0

(Continued on Next Page)

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MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

LOG OF TEST BORING

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	10

RM22-05

Log Page 2 of 2

Date(s) Drilled: 10/16/22 - 10/16/22
Logged By: A. Pasikowski
Drilling Company: Wininger Drilling
Drill Crew: Joe, Frank & Cole Wininger
Rig/Method: CME-55 Track-Mounted / Hollow Stem Auger

Lat: 61.67129
Lon: -149.2678

DEPTH (FT)	SAMPLE INFORMATION: SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	PERCENT RECOVERY	USCS / FROST CLASS / ICE TYPE	MOISTURE CONTENT (PERCENT)	P200 (%)	N-VALUE	SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
32											32.0
34											SILTY SAND W/GRAVEL CONTAINING COBBLES & BOULDERS (Tan to brown, Gravel subrounded to rounded, friable to hard, Fine to coarse sand, Nonplastic, Moist)
36	Sha	12	17	100				92	Driving gravel/cobble		35.3
		13	50								POORLY LITHIFIED SANDSTONE-CONGLOMERATE BEDROCK (Presents as moderately cemented silty sand w/gravel soil, Tan-brown, Gravel subrounded to subangular, friable to hard, Fine to coarse sand, Nonplastic, Moist to wet)
			42								
			50/0.3								
38									38.0 WD ▽		
	Sha	14	54	88				50	Driving gravel/cobble - low recovery		
			50/0.3								
40	Sha	15	65	100				62			40.4
			62/0.1								

* Estimated classification

1) Latitude and Longitude coordinates reference the WGS 84 datum and were recorded using a recreational-grade GPS unit.
2) Gr = gravel (%), Sa = Sand (%), Fines = Passing the No. 200 sieve (%), P.xx = % passing size mm.
3) Groundwater observed at 38 feet below the existing ground surface while drilling.

R&M CONSULTANTS, INC.

MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

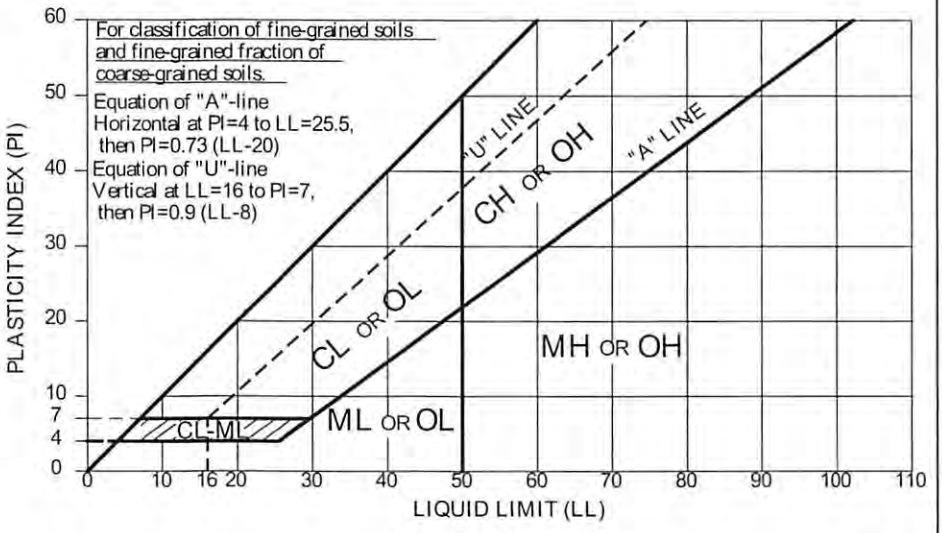
LOG OF TEST BORING

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	11

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]

				Soil Classification	
				Group Symbol	Group Name [B]
Coarse-grained Soils More than 50% retained on the No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]	GW	Well-graded gravel [F]
			$Cu < 4$ and/or $1 > Cc > 3$ [E]	GP	Poorly-graded gravel [F]
		Gravels with Fines More than 12% fines [C]	Fines classify as ML or MH	GM	Silty gravel [F,G,H]
			Fines classify as CL or CH	GC	Clayey gravel [F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5 % fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]	SW	Well-graded sand [I]
			$Cu < 6$ and/or $1 > Cc > 3$ [E]	SP	Poorly-graded sand [I]
		Sands with Fines More than 12 % fines [D]	Fines classify as ML or MH	SM	Silty sand [G,H,I]
			Fines classify as CL or CH	SC	Clayey sand [G,H,I]
Fine-grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid Limit less than 50	inorganic	PI > 7 and plots on or above "A" line [J]	CL	Lean clay [K,L,M]
			PI < 4 and plots below "A" line [J]	ML	Silt [K,L,M]
		organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic Clay [K,L,M,N] / Organic Silt [K,L,M,O]
	Silts and Clays Liquid Limit 50 or more	inorganic	PI plots on or above "A" line	CH	Fat clay [K,L,M]
			PI plots below "A" line	MH	Elastic silt [K,L,M]
		organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OH	Organic Clay [K,L,M,P] / Organic Silt [K,L,M,Q]
Highly organic soils	Primarily organic matter, dark in color, and organic odor			PT	Peat

[A] Based on the material passing the 3-in. (75-mm) sieve.
[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
[C] Gravel with 5 to 12 % fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly-graded gravel with silt
GP-GC poorly-graded gravel with clay
[D] Sands with 5 to 12 % fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly-graded sand with silt
SP-SC poorly-graded sand with clay
[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$
[F] If soil contains > 15% sand, add "with sand " to group name.
[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
[H] If fines are organic, add "with organic fines" to group name.
[I] If soil contains > 15% gravel, add "with gravel" to group name.
[J] If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
[L] If soil contains > 30% plus No. 200, predominantly sand, add "sandy" to group name.
[M] If soil contains > 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
[N] PI > 4 and plots on or above "A" line.
[O] PI < 4 and plots below "A" line.
[P] PI plots on or above "A" line.
[Q] PI plots below "A" line.



R&M CONSULTANTS, INC.

CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES ASTM D 2487

PROJ.NO:	GENERAL
DATE:	N/A
REF:	N/A
DWG.NO:	12

U.S. ARMY CORPS OF ENGINEERS
FROST DESIGN SOIL CLASSIFICATION

FROST GROUP	KIND OF SOIL	PERCENTAGE FINER THAN 0.02 mm BY WEIGHT	TYPICAL SOIL TYPES UNDER UNIFIED SOIL CLASSIFICATION SYSTEM
NFS*	(a) Gravels Crushed Stone Crushed Rock (b) Sands	0 - 1.5 0 - 3	GW, GP SW, SP
PFS+	(a) Gravels Crushed Stone Crushed Rock (b) Sands	1.5 - 3 3 - 10	GW, GP SW, SP
S1	Gravelly Soils	3 - 6	GW, GP, GW-GM, GP-GM
S2	Sandy Soils	3 - 6	SW, SP, SW-SM, SP-SM
F1	Gravelly Soils	6 - 10	GM, GW-GM, GP-GM
F2	(a) Gravelly Soils (b) Sands	10 - 20 6 - 15	GM, GW-GM, GP-GM SM, SW-SM, SP-SM
F3	(a) Gravelly Soils (b) Sands, Except Very Fine Silty Sands (c) Clays, PI>12	Over 20 Over 15 --------	GM, GC SM, SC CL, CH
F4	(a) All Silts (b) Very Fine Silty Sand (c) Clays PI<12 (d) Varved Clays and Other Fine-grained Banded Sediments	-------- Over 15 -------- --------	ML, MH SM CL, CL-ML CL, CL-ML CL and ML CL, ML, and SM; CL, CH and ML; CL, CH, ML and SM

* Non-frost-susceptible
\+ Possibly frost-susceptible, but requires laboratory test to determine frost design soils classification.

From: "Seasonal Frost Conditions", June, 1992, U.S. Army Corps of Engineers TM-5-822-5.

R&M CONSULTANTS, INC.

FROST DESIGN SOIL CLASSIFICATION

PROJ.NO:	GENERAL
DATE:	N/A
REF:	N/A
DWG.NO:	13

CLASSIFICATION[1] OF SOILS WITH ORGANIC MATTER

PEAT (Pt): Soil comprised of predominantly organic carbon fibers (macroscopic) and/or decayed (microscopic) vegetal matter. Peat is generally dark brown to black, with a very spongy feel and strong organic odor; typically, the ash content (ASTM D 2974) is <20%, the moisture content is >500%, the fiber content is >50% (by volume), the specific gravity is <1.7, and the dry unit weight is <17 pounds per cubic-foot (pcf).

PEATY-ORGANIC SOIL (PtO): Transitional soil group comprised of significant proportions, by mass, of both mineral particles and organic carbon fibers and/or decayed vegetal matter. Peaty-Organic Soil is generally light brown to black, with a spongy feel and organic odor; typically, the ash content ranges from 20 to 40%, the moisture content is between 150 and 800%, the fiber content is <50%, the specific gravity ranges from 1.6 to 1.9, and the dry unit weight is between 11 and 19 pcf.

ORGANIC SOIL (O): Soil comprised predominately of mineral particles, with a fraction of organic matter sufficient to notably effect the geotechnical properties (i.e. plasticity, dry strength and compactability). Most of the organic matter formed in-place (sedentary deposit), and is typically comprised of microscopic particles (the fiber content is often insignificant). Organic Soil is generally brown to blackish-brown, and soft to loose; typically, the ash content ranges from 40 to 95%, the moisture content is between 100 and 500%, the specific gravity is >1.7, the liquid limit is >50% and/or the liquid limit measured on an oven-dried sample ("Dry Preparation") is <70% of the liquid limit measured on a fresh sample ("Wet Preparation"), and the dry unit weight is >13 to 15 pcf.

MINERAL SOIL WITH ORGANIC CONTENT (oUSC) [2]**:** Transitional soil group consisting predominately of mineral constituents with a small fraction of organic matter which may, under certain conditions, effect the geotechnical properties. Most of the organic matter is macroscopic and likely formed in-place; but may also include roots, or fibrous particles that likely originated elsewhere and were transported to the site by wind or very low energy lacustrine-environment (sedimentary deposit). The soil color and odor is often not effected by the organic matter; typically, the ash content ranges from 90 to 99%, the moisture content is <100%, the specific gravity is >2.4, and the liquid limit is <50%.

MINERAL SOIL (USC): Soil is comprised predominately of mineral particles, but may contain a trace of organic (or apparent organic) matter that has no significant effect on the geotechnical properties. Ash contents are typically >97 to 99%, and the loss of mass may be more from ignition of interstitial water or non-vegetal, carbon-based matter. Most of the organic matter likely originated elsewhere and was transported to the site by wind or very low energy lacustrine-environment, and is typically comprised of fine-woody particles or roots.

[1] Callout (Group Symbol) for a general stratigraphic unit consisting predominately of this type soil.

[2] Use an annotated group symbol; a small caps "o", proceeded by the mineral constituents based on the Unified Soil Classification (USC) System (following ASTM D 2487, Classification of Soil for Engineering Purposes).

R&M CONSULTANTS, INC.

ORGANIC MATTER SOIL CLASSIFICATION

PROJ.NO:	GENERAL
DATE:	N/A
REF:	N/A
DWG.NO:	14

SAMPLE IDENTIFICATION			PARTICLE SIZE ANALYSIS (% FINER)[1]																ATTERBERG LIMITS			MOIST. CONT. (%)	ASTM CLASS[2]	FROST CLASS[3]
			STANDARD SIEVE SIZE													(mm)								
TEST BORING	NO.	DEPTH (FT)	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#60	#140	#200	0.02	0.005	0.002	LL	PL	PI			
RM22-01	2	1.0- 2.0																					35.9		
RM22-01	5	5.0- 7.0		86	82	76	72	64	59	46	33	24	17	13	8	7.1							3.4	GW-GM*	S1*
RM22-01	7	10.0- 12.0																					2.4		
RM22-02	2	0.8- 2.0																					36.7		
RM22-02	5	5.0- 7.0														6.2							3.3	GW-GM*	S1*
RM22-03	2	0.7- 2.0																					33.4		
RM22-03	5	5.0- 7.0														6.4							3.8	GW-GM*	S1*
RM22-04	4	3.2- 4.5																					3.2		
RM22-04	6	7.5- 9.5														6.5							2.8	GW-GM*	S1*
RM22-05	3	2.5- 3.2																					36.0		
RM22-05	5	5.0- 7.0		100	95	78	65	52	47	35	26	19	13	9	6	5.0							3.5	GW*	S1*
RM22-05	8	15.0- 17.0														3.7							3.0	GW*	PFS*
RM22-05	11	30.0- 31.7														26							8.2	SM*	F2*

NOTES:
1) The maximum particle size of samples is limited by the I.D. of the sampler opening or the width of the auger flights.
2) Soil plasticity was estimated following ASTM D 2488 when the Atterberg limits were not tested.
3) Frost classification was estimated following the USACE Frost Design Classification where hydrometer tests were not performed.
*Estimated classification

R&M CONSULTANTS, INC.

MEA TERM PALMER-FISHHOOK SUBSTATION
WASILLA, AK

SUMMARY OF LABORATORY SOILS DATA

PROJ.NO:	3031.03
DATE:	November 2022
REF:	GEOTECH RPT
DWG.NO:	15

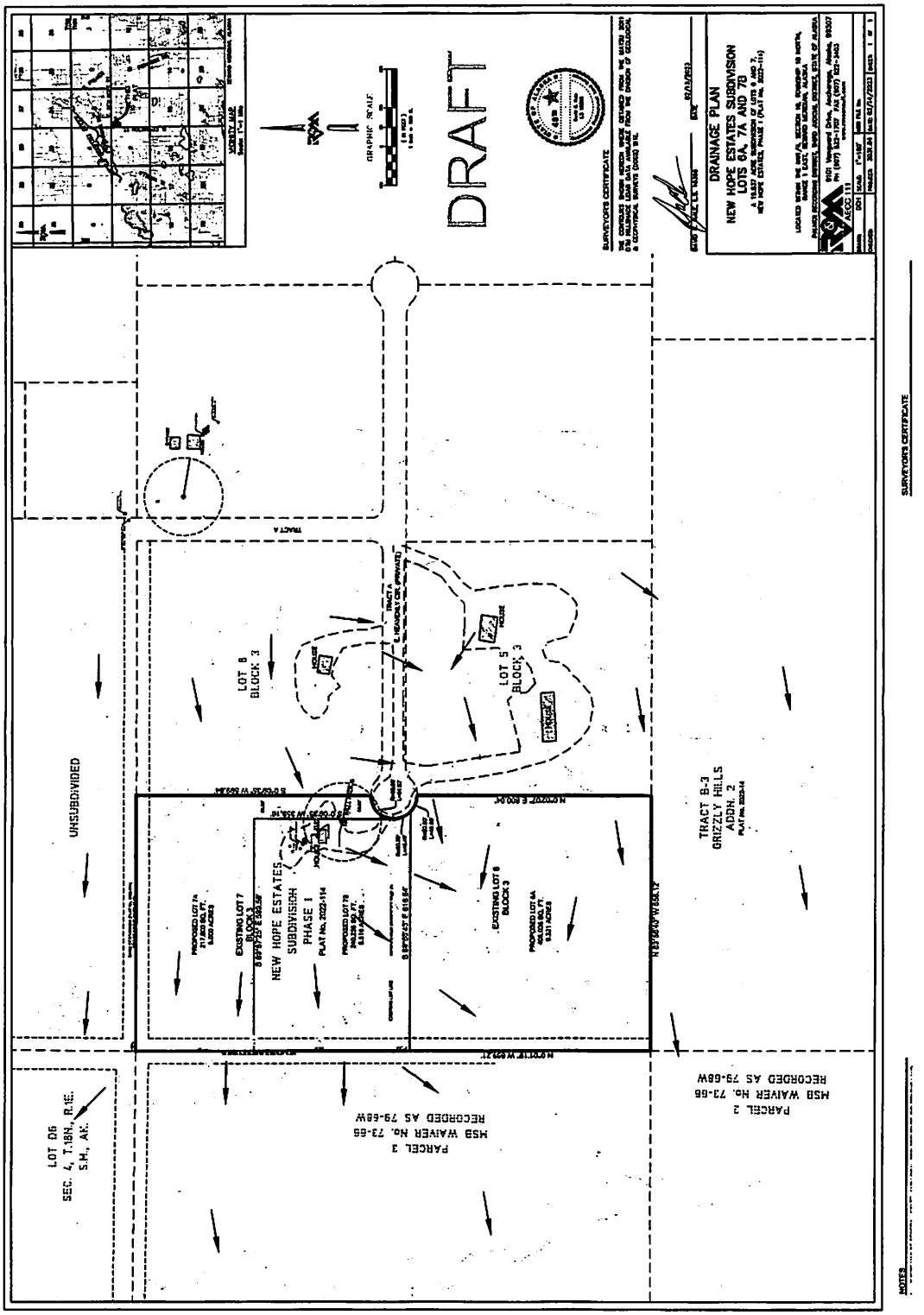

DRAFT
DRAINAGE PLAN
NEW HOPE ESTATES SUBDIVISION
LOTS 6A, 7A AND 7B
SURVEYOR'S CERTIFICATE
NOTES
UNSUBDIVIDED
LOT 8
BLOCK 3
LOT 5
BLOCK 3
TRACT A
TRACT B
NEW HOPE ESTATES
SUBDIVISION
PHASE 1
PLAT No. 2022-114
EXISTING LOT 7
BLOCK 3
PROPOSED LOT 7A
EXISTING LOT 8
BLOCK 3
PROPOSED LOT 7B
PROPOSED LOT 6A
TRACT B-3
GRIZZLY HILLS
ADDN. 2
PLAT No. 2022-14
PARCEL 3
MSB WAIVER No. 73-66
RECORDED AS 79-68W
PARCEL 2
MSB WAIVER No. 73-66
RECORDED AS 79-68W
LOT 06
SEC. 4, T.18N., R.1E.
S.M., AK.

EXHIBIT C

Amy Otto-Buchanan

From: Daniel Dahms
Sent: Monday, April 24, 2023 11:37 AM
To: Amy Otto-Buchanan
Cc: Brad Sworts; Jamie Taylor; Tammy Simmons
Subject: RE: RFC New Hope Est RSB #23-035

Amy,

PD&E has no comments.

Daniel Dahms, PE
Department of Public Works
Pre-Design and Engineering Division

From: Amy Otto-Buchanan <Amy.Otto-Buchanan@matsugov.us>
Sent: Tuesday, April 4, 2023 1:47 PM
To: sarah.myers@alaska.gov; Percy, Colton T (DFG) <colton.percy@alaska.gov>; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; msb.hpc@gmail.com; timhaledistrict1@gmail.com; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; earl.almdale@gmail.com; stark@mtaonline.net; mothers@mtaonline.net; Fire Code <Fire.Code@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; andrew.fraiser@enstarnaturalgas.com; James Christopher <James.Christopher@enstarnaturalgas.com>; row@enstarnaturalgas.com; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop; row@mtasolutions.com
Subject: RFC New Hope Est RSB #23-035

The following link contains a Request for Comments to resubdivided 58313B03L006 & L007. Comments are due by April 26, 2023. Please let me know if you have any questions. Thanks, A.

New Hope Est RSB B3 L6-7

Amy Otto-Buchanan
Platting Specialist
amy.otto-buchanan@matsugov.us
907-861-7872

EXHIBIT D

Amy Otto-Buchanan

From: Permit Center
Sent: Tuesday, April 4, 2023 3:14 PM
To: Amy Otto-Buchanan
Subject: RE: RFC New Hope Est RSB #23-035

Good Afternoon,

Lot 8313B03L007 has a driveway without a permit. Please have your applicant apply for their driveway permit.

Thank you,

Jennifer Monnin, CFM
Permit Technician
350 E Dahlia Ave
Palmer, AK 99645
Jennifer.monnin@matsugov.us
907-861-7822

From: Amy Otto-Buchanan <Amy.Otto-Buchanan@matsugov.us>
Sent: Tuesday, April 4, 2023 1:47 PM
To: sarah.myers@alaska.gov; Percy, Colton T (DFG) <colton.percy@alaska.gov>; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; msb.hpc@gmail.com; timhaledistrict1@gmail.com; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; earl.almdale@gmail.com; stark@mtaonline.net; mothers@mtaonline.net; Fire Code <Fire.Code@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; andrew.fraiser@enstarnaturalgas.com; James Christopher <James.Christopher@enstarnaturalgas.com>; row@enstarnaturalgas.com; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop; row@mtasolutions.com
Subject: RFC New Hope Est RSB #23-035

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New Hope Est RSB B3 L6-7

Amy Otto-Buchanan
Platting Specialist
amy.otto-buchanan@matsugov.us
907-861-7872

EXHIBIT E

Amy Otto-Buchanan

From: Moenaert, Crystal L (DFG) <crystal.moenaert@alaska.gov>
Sent: Thursday, April 6, 2023 11:10 AM
To: Amy Otto-Buchanan
Subject: RFC New Hope Est RSB #23-035

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Good Morning,

The ADF&G Habitat Section has reviewed the RFC packet and associated documents for the creation of three lots from Lots 6 & 7, Block 3, new Hope Estates. Currently there are no resident or anadromous fish water bodies present within the boundaries of the subject property. At this time, a fish habitat permit from the ADF&G Habitat Section is not required. Should fish presence be discovered, please notify the ADF&G Habitat section at 907-861-3200.

Thank you for the opportunity to comment.

Sincerely,

Crystal Moenaert
Habitat Biologist 2
ADF&G Habitat Section
1801 S Margaret Drive, Suite 6
Palmer AK 99645
Ph: 907-861-3204
ADF&G Habitat Section Permits Link

EXHIBIT F

ENSTAR Natural Gas Company
A DIVISION OF SEMCO ENERGY
Engineering Department, Right of Way Section
401 E. International Airport Road
P. O. Box 190288
Anchorage, Alaska 99519-0288
(907) 277-5551
FAX (907) 334-7798

April 5, 2023

Matanuska-Susitna Borough, Platting Division
350 East Dahlia Avenue
Palmer, AK 99645-6488

To whom it may concern:

ENSTAR Natural Gas Company has reviewed the following abbreviated plat and has no comments or recommendations.

- **NEW HOPE ESTATES SUBDIVISION LOTS 6A, 7A AND 7B (MSB Case # 2023-035)**

If you have any questions, please feel free to contact me at 334-7944 or by email at james.christopher@enstarnaturalgas.com.

Sincerely,

James Christopher

James Christopher
Right of Way & Compliance Technician
ENSTAR Natural Gas Company

EXHIBIT G

Amy Otto-Buchanan

From: OSP Design Group <ospdesign@gci.com>
Sent: Tuesday, April 25, 2023 8:33 AM
To: Amy Otto-Buchanan
Cc: OSP Design Group
Subject: RE: RFC New Hope Est RSB #23-035
Attachments: RFC Packet.pdf; Agenda Plat.pdf

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Amy,

In review GCI has no comments or objections to the plat, attached is the signed plat for your records.

Thanks,
MIREYA ARMESTO
GCI | Technician II, GIS Mapping
m: 907-744-5166 | **w:** www.gci.com

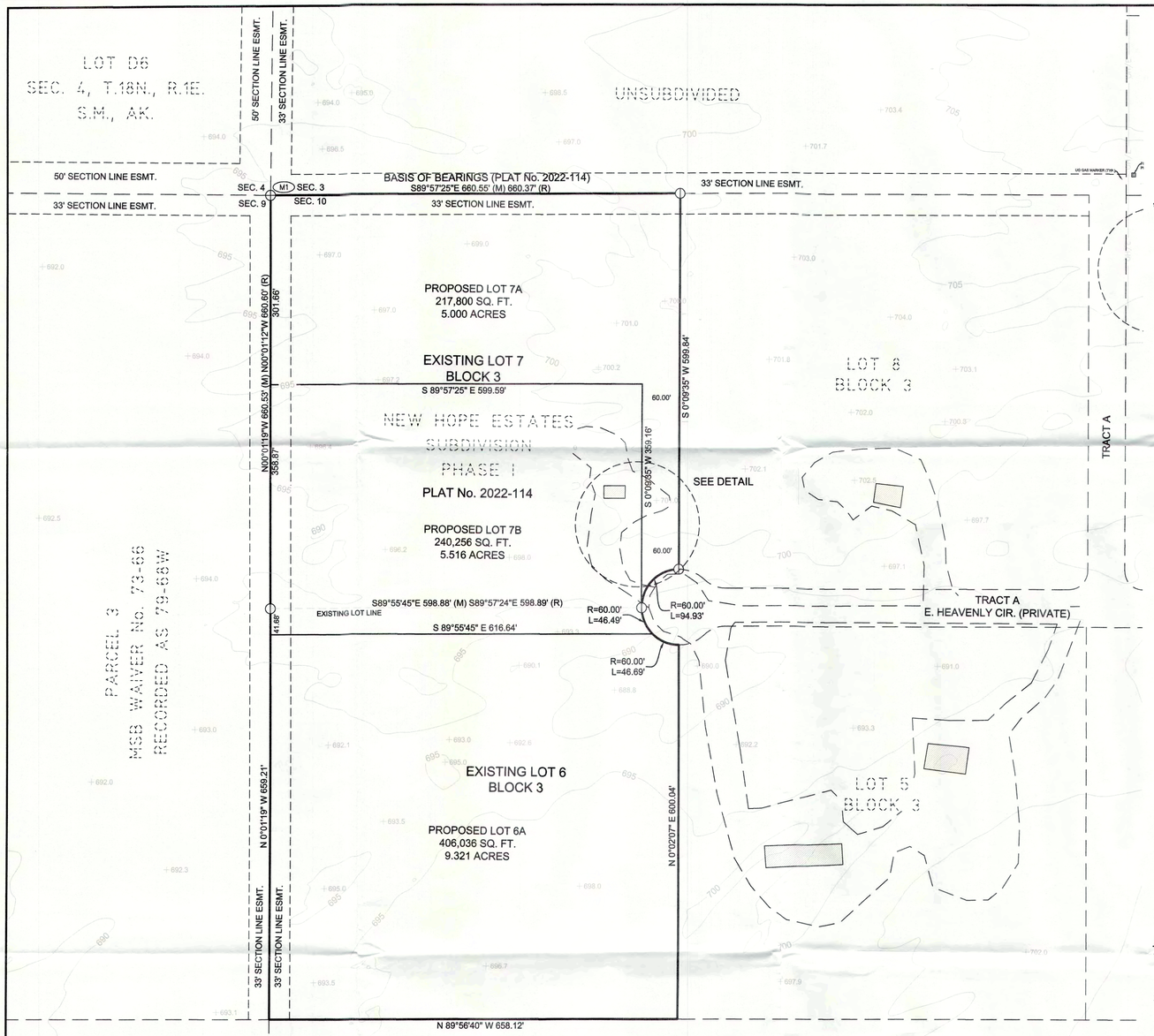
From: Amy Otto-Buchanan <Amy.Otto-Buchanan@matsugov.us>
Sent: Tuesday, April 4, 2023 1:47 PM
To: sarah.myers@alaska.gov; Percy, Colton T (DFG) <colton.percy@alaska.gov>; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; msb.hpc@gmail.com; timhaledistrict1@gmail.com; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; earl.almdale@gmail.com; stark@mtaonline.net; mothers@mtaonline.net; Fire Code <Fire.Code@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; andrew.fraiser@enstarnaturalgas.com; James Christopher <James.Christopher@enstarnaturalgas.com>; row@enstarnaturalgas.com; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop; row@mtasolutions.com
Subject: RFC New Hope Est RSB #23-035

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

The following link contains a Request for Comments to resubdivided 58313B03L006 & L007. Comments are due by April 26, 2023. Please let me know if you have any questions. Thanks, A.

New Hope Est RSB B3 L6-7

Amy Otto-Buchanan
Platting Specialist
amy.otto-buchanan@matsugov.us
907-861-7872



LEGEND

- ⊕ FOUND GLO MONUMENT AS DESCRIBED
- ◐ FOUND TYPICAL YELLOW PLASTIC CAP AS DESCRIBED
- ◑ SET TYPICAL ALUMINUM CAP THIS SURVEY
- ——— SUBDIVISION BOUNDARY
- ——— LOT LINE WITHIN THIS SUBDIVISION
- —— —— ADJACENT PROPERTY LINE NOT SURVEYED
- — — — EASEMENT LINE
- (M) MEASURED DIMENSION THIS SURVEY
- (R1) RECORD DIMENSIONS PER PLAT No. 2022–114, P.R.D.

CERTIFICATE OF PAYMENT OF TAXES

I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS, THOUGH _____, 20___ AGAINST THE PROPERTY INCLUDED IN THE SUBDIVISION HEREON, HAVE BEEN PAID.

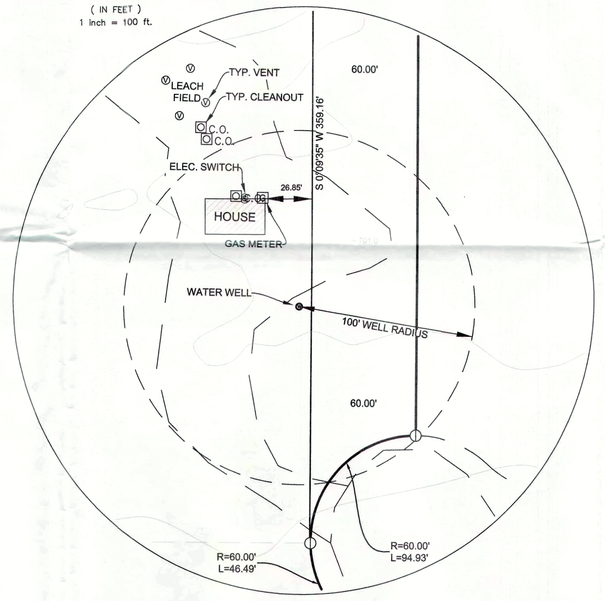
BOROUGH TAX COLLECTION OFFICIAL — DATED

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

FOUND MONUMENTS

M1 — GENERAL LAND OFFICE SURVEY, T18N R1E, S4 S3, S9 S10, 1913
FOUND 3 ¼" BRASS CAP MONUMENT ON 2" IRON POST, 1.2' ABOVE GRADE. GOOD CONDITION

DENALI NORTH O 6925-S
TYPICAL
FOUND 1" YELLOW PLASTIC CAP ON ⅝" REBAR 0.1' ABOVE GRADE. GOOD CONDITION



DETAIL: 1"=40'

SURVEYOR'S CERTIFICATE

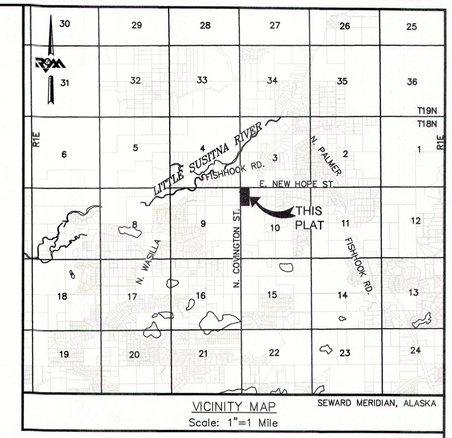
THE CONTOURS SHOWN HEREON WHERE OBTAINED FROM THE MATSU 2011 DTM HILLSHADE LIDAR DATA AVAILABLE FROM THE DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS (DGGS) SITE.

DAVID C. HALE, L.S. 10395 — 03/21/2023 DATE

STATE OF ALASKA — 49TH — DAVID C. HALE LS 10395 03/21/23 — Registered Professional Land Surveyor

NOTES

1. THERE MAY BE FEDERAL, STATE, AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS SUCH SYSTEM IS LOCATED, CONSTRUCTED, AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS, AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERN THOSE SYSTEMS.
3. THE CONTOUR INTERVAL SHOWN IS FIVE-FEET. CONTOURS WERE PRODUCED FROM AVAILABLE LIDAR DATA ON THE MAT-SU BOROUGH GIS PORTAL.
4. A BLANKET RIGHT-OF-WAY EASEMENT IN FAVOR OF ENSTAR NATURAL GAS COMPANY EXISTS AS RECORDED BY DOCUMENT No. 2018-023378-0, PALMER RECORDING DISTRICT, ALASKA.
5. A BLANKET RIGHT-OF-WAY EASEMENT IN FAVOR OF MATANUSKA ELECTRIC ASSOCIATION, INC. EXISTS AS RECORDED BY DOCUMENT No. 2019-016938-0, PALMER RECORDING DISTRICT, ALASKA.
6. A BLANKET RIGHT-OF-WAY EASEMENT IN FAVOR OF MATANUSKA ELECTRIC ASSOCIATION, INC. EXISTS AS RECORDED BY DOCUMENT No. 2019-016939-0, PALMER RECORDING DISTRICT, ALASKA.
7. A 15-FOOT WIDE UTILITY EASEMENT IN FAVOR OF MATANUSKA TELEPHONE ASSOCIATION, INC. EXISTS AS RECORDED BY DOCUMENT No. 2020-020321-0, AND RE-RECORDED BY DOCUMENT No. 2020-020356-0, PALMER RECORDING DISTRICT, ALASKA, THE LOCATION OF WHICH IS TO BE DETERMINED ONCE CONSTRUCTED.
8. A BLANKET RIGHT-OF-WAY EASEMENT IN FAVOR OF MATANUSKA ELECTRIC ASSOCIATION, INC. EXISTS AS RECORDED BY DOCUMENT No. 2020-026316-0, PALMER RECORDING DISTRICT, ALASKA.
9. A BLANKET RIGHT-OF-WAY EASEMENT IN FAVOR OF MATANUSKA ELECTRIC ASSOCIATION, INC. EXISTS AS RECORDED BY DOCUMENT No. 2022-006890-0, PALMER RECORDING DISTRICT, ALASKA, THE LOCATION AND WIDTH OF WHICH WILL BE DETERMINED ONCE CONSTRUCTED.
10. A BLANKET RIGHT-OF-WAY EASEMENT IN FAVOR OF MATANUSKA ELECTRIC ASSOCIATION, INC. EXISTS AS RECORDED BY DOCUMENT No. 2022-006917-0, PALMER RECORDING DISTRICT, ALASKA, THE LOCATION AND WIDTH OF WHICH WILL BE DETERMINED ONCE CONSTRUCTED.
11. TO FURTHER SUBDIVIDE ANY OF THE PARCELS, THE ROADS MUST BE CONSTRUCTED TO RESIDENTIAL STANDARDS AND UNTIL ACCEPTED BY THE BOROUGH, NO BOROUGH MAINTENANCE WILL BE PROVIDED NOR ANY BOROUGH FUNDS SHALL BE SPENT ON UPGRADES.



VICINITY MAP
Scale: 1"=1 Mile
SEWARD MERIDIAN, ALASKA

CERTIFICATE OF OWNERSHIP

WE, THE UNDERSIGNED, HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE REAL PROPERTY SHOWN AND DESCRIBED HEREON, THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION BY OUR OWN FREE CONSENT.

OWNERS: _____ DATE

JOHN C. AND MONICA M. JAMES
P.O. BOX 873137
WASILLA, AK. 99687–3137

NOTARY ACKNOWLEDGMENT

SUBSCRIBED AND SWORN BEFORE ME THIS _____ DAY OF _____, 2023.

NOTARY PUBLIC — MY COMMISSION EXPIRES

PLANNING AND LAND USE DIRECTOR'S CERTIFICATE

I CERTIFY THAT THIS SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA–SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY:

PLAT RESOLUTION NUMBER: _____ DATED: _____

AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, IN WHICH THE PLAT IS LOCATED.

PLANNING AND LAND USE DIRECTOR — DATED

ATTEST: PLATTING CLERK

SURVEYOR'S CERTIFICATE

I, DAVID C. HALE, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PLAT OF NEW HOPE ESTATES SUBDIVISION IS A TRUE AND CORRECT REPRESENTATION OF LANDS ACTUALLY SURVEYED AND THAT THE DISTANCES AND BEARINGS ARE SHOWN CORRECTLY AND THAT ALL PERMANENT EXTERIOR CONTROL MONUMENTS, ALL OTHER MONUMENTS, AND LOT CORNERS HAVE BEEN SET AND STAKED.

DAVID C. HALE, L.S. 10395 — DATE

PROPOSED PLAT OF
NEW HOPE ESTATES SUBDIVISION
LOTS 6A, 7A AND 7B

A 19.837 ACRE SUBDIVISION OF LOTS 6 AND 7,
NEW HOPE ESTATES, PHASE I (PLAT No. 2022–114)

Agenda Copy

RECEIVED
MAR 24 2023
PLATTING

LOCATED WITHIN THE NW1/4, SECTION 10, TOWNSHIP 18 NORTH, RANGE 1 EAST, SEWARD MERIDIAN, ALASKA

PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA

R&M AECC 111
9101 Vanguard Drive, Anchorage, Alaska, 99507
PH (907) 522–1707 FAX (907) 522–3403
www.rmconsult.com

DRAWN: DCH	SCALE: 1"=100'	MSB FILE No.	
CHECKED:	PROJECT: 3031.04	DATE: 03/21/2023	SHEET: 1 OF 1

3B

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
MAY 3, 2023

ABBREVIATED PLAT:	BUSH PILOT ESTATES PHASE I RSB BLOCK 2 LOT 3 & TRACT A
LEGAL DESCRIPTION:	SEC 13, T17N, R03W, SEWARD MERIDIAN AK
PETITIONERS:	ROBBIE & REBECCA SMART AND BUSH PILOT ESTATES LLC
SURVEYOR/ENGINEER:	HANSON LAND SOLUTIONS
ACRES: 14.92 ±	PARCELS: 2
REVIEWED BY:	AMY OTTO-BUCHANAN CASE #: 2023-041

REQUEST: The request is to create two lots from Lot 3, Block 2 and Tract A of Bush Pilot Estates Phase I, Plat No. 2015-38, to be known as **LOTS 3A and TRACT A-1,** containing 14.92 acres +/-. The parcel is located south of the intersection of W. Big Lake Road and W. Parks Highway, south of W. Padre Pio Road and borders on Johnson Pond; within Section 13, Township 17 North, Range 03 West, Seward Meridian, Alaska.

EXHIBITS

Vicinity Map and Aerial Photos	**EXHIBIT A** – 4 pgs
Soils Report	**EXHIBIT B** – 17 pgs
Topographic Mapping & As-Built	**EXHIBIT C** – 3 pgs
AGENCY COMMENTS	
Department of Public Works Pre-Design Division	**EXHIBIT D** – 1 pg
Development Services	**EXHIBIT E** – 1 pg
ADF&G	**EXHIBIT F** – 1 pg
Utilities	**EXHIBIT G** – 2 pgs

DISCUSSION: This platting action is creating two lots from existing Lot 3, Block 2 and Tract A of Bush Pilot Estates Phase I. The lot line adjustment is adding 15' on the southwest boundary to existing Lot 3. Lot 3, as it exists, is a 60' wide flag pole, with access onto S. Northwind Circle, a private road. Pursuant to MSB 43.20.100(C)(5), existing lots created within subdivisions recorded with platting private roads may be subdivided using the private roads as the legal and physical access. Tract A includes a runway and the waterbody known as Johnsons Pond; it also has access onto S. Northwind Circle. Tract A is labeled as a subdivision park on the original plat of Bush Pilot Estates Phase I, but does not include a plat note restricting the use of Tract A; therefore, a plat note amendment is not required.

Soils Report: **(Exhibit B)** Simon Gilliland, PE, Hanson Land Solutions, notes Lot 3 and Tract A were certified by Curtis Holler, Holler Engineering, prior to recording of Plat No. 2015-38. The proposed platting action is taking the existing boundary of Lot 3 and adding to the existing lot. The previously certified lot has been certified as filled to create a minimum of 10,000 sf of useable septic area as required by Borough code, while maintaining 10,000 sf of useable building area. Tract A was also certified originally and the

proposed Tract A-1 is still over the 400,000 sf area requirement for a soils log. Prior certification of the tract will be used in this new tract also. A copy of the complete soils report from Mr. Holler, dated December 6, 2010 is attached. Topographic mapping and as-built is at **Exhibit C**.

Comments: Department of Public Works Pre-Design Division (**Exhibit D**) has no comments. Development Services (**Exhibit E**) notes there is an existing driveway that accesses to 1297 S. Northwind Circle that does not have a driveway permit. Petitioner to apply for a driveway permit and provide a copy of the application to Platting staff (see ***Recommendation #5***).

ADF&G: (**Exhibit F**) Currently there are no anadromous fish water bodies present within the boundaries of the subject property; however, there is a potential for resident fish presence at Johnson Pond. A fish habitat permit from the ADF&G Habitat Section is not required at this time. If water withdrawal from Johnson Pond is needed in the future, a fish habitat permit will be required. Should fish presence be discovered, please contact ADF&G Habitat Section at 907-861-3200.

Utilities: (**Exhibit G**) GCI has no comments. Enstar has no comments or recommendations. MEA and MTA did not respond.

At the time of staff report write-up, there were no responses to the Request for Comments from US Army Corps of Engineers; Community Council Big Lake; Fire Service Area #136 West Lakes; MSB Emergency Services, Community Development, Assessments or Planning; MEA or MTA.

CONCLUSION: The preliminary plat of **BUSH PILOT ESTATES PHASE I RSB BLOCK 2 LOT 3 & TRACT A** is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.025 Abbreviated Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There were no objections to the plat from the public in response to the Notice of Public Hearing. Legal and physical access exists to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision exists, pursuant to MSB 43.20.320 Frontage and MSB 43.20.300(E). A soils report was submitted, pursuant to MSB 43.20.281(A)(1).

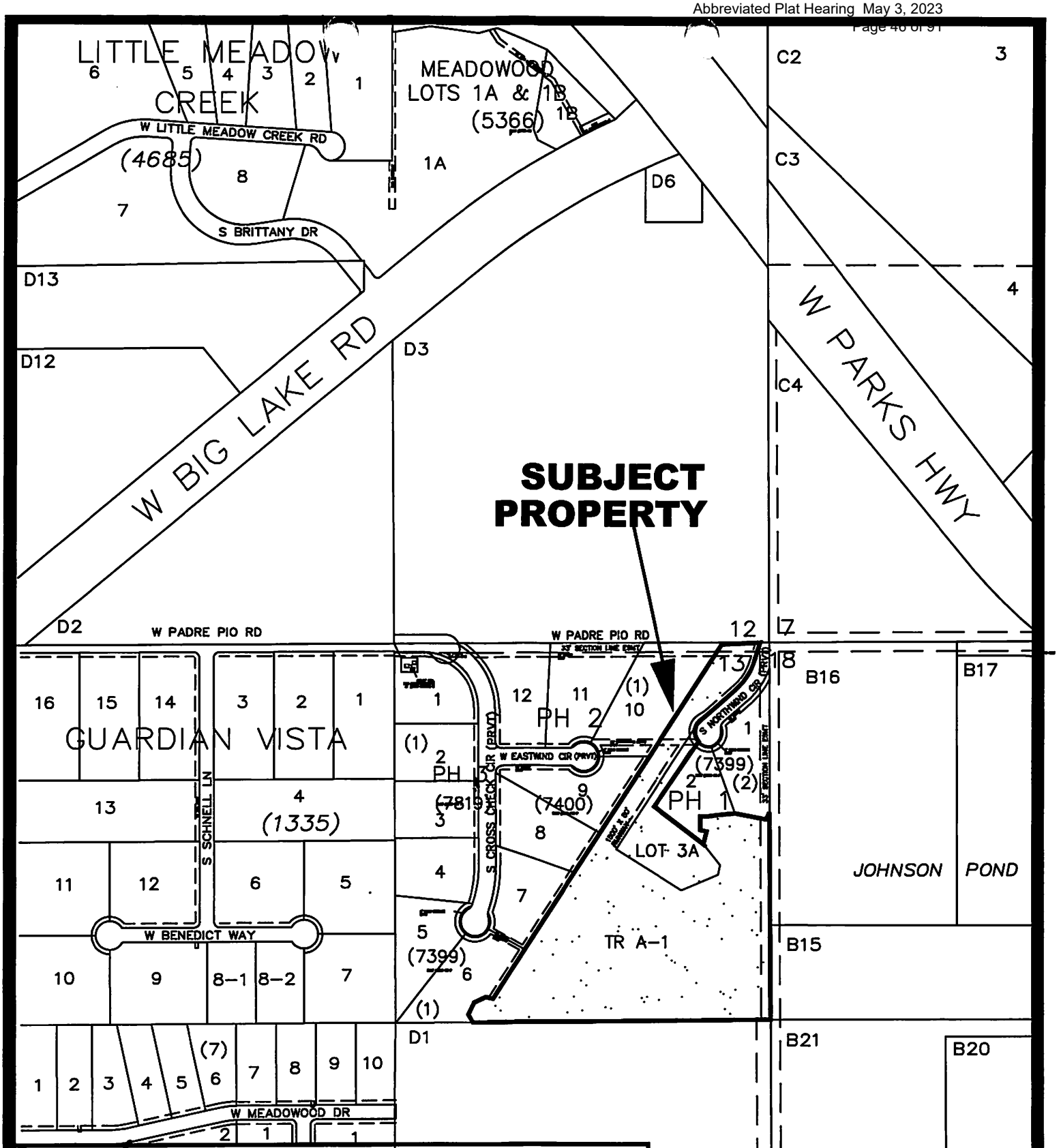
FINDINGS OF FACT

1. The plat of Bush Pilot Estates Phase I RSB Block 2 Lot 3 and Tract A is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
2. A soils report was submitted, pursuant to MSB 43.20.28(A)(1). All lots have the required useable area.
3. All lots will have the required frontage pursuant to MSB 43.20.320 and MSB 43.20.300(E).
4. At the time of staff report write-up, there were no responses to the Request for Comments from US Army Corps of Engineers; Community Council Big Lake; Fire Service Area #136 West Lakes; MSB Emergency Services, Community Development, Assessments or Planning; MEA or MTA.
5. There were no objections from any federal or state agencies, Borough departments, or utilities.
6. There were no objections from the public in response to the Notice of Public Hearing.
7. Pursuant to MSB 43.20.100(C)(5), existing lots created within subdivisions recorded with platting private roads may be subdivided using the private roads as the legal and physical access.

RECOMMENDED CONDITIONS OF APPROVAL:

Staff recommends approval of the abbreviated plat of **Bush Pilot Estates Phase I RSB Block 2 Lot 3 and Tract A,** contingent on the following recommendations:

1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Show all easements of record on final plat.
5. Apply for a driveway permit for Lot 3A and provide a copy of the application to Platting staff.
6. Submit recording fees, payable to Department of Natural Resources (DNR).
7. Submit final plat in full compliance with Title 43.

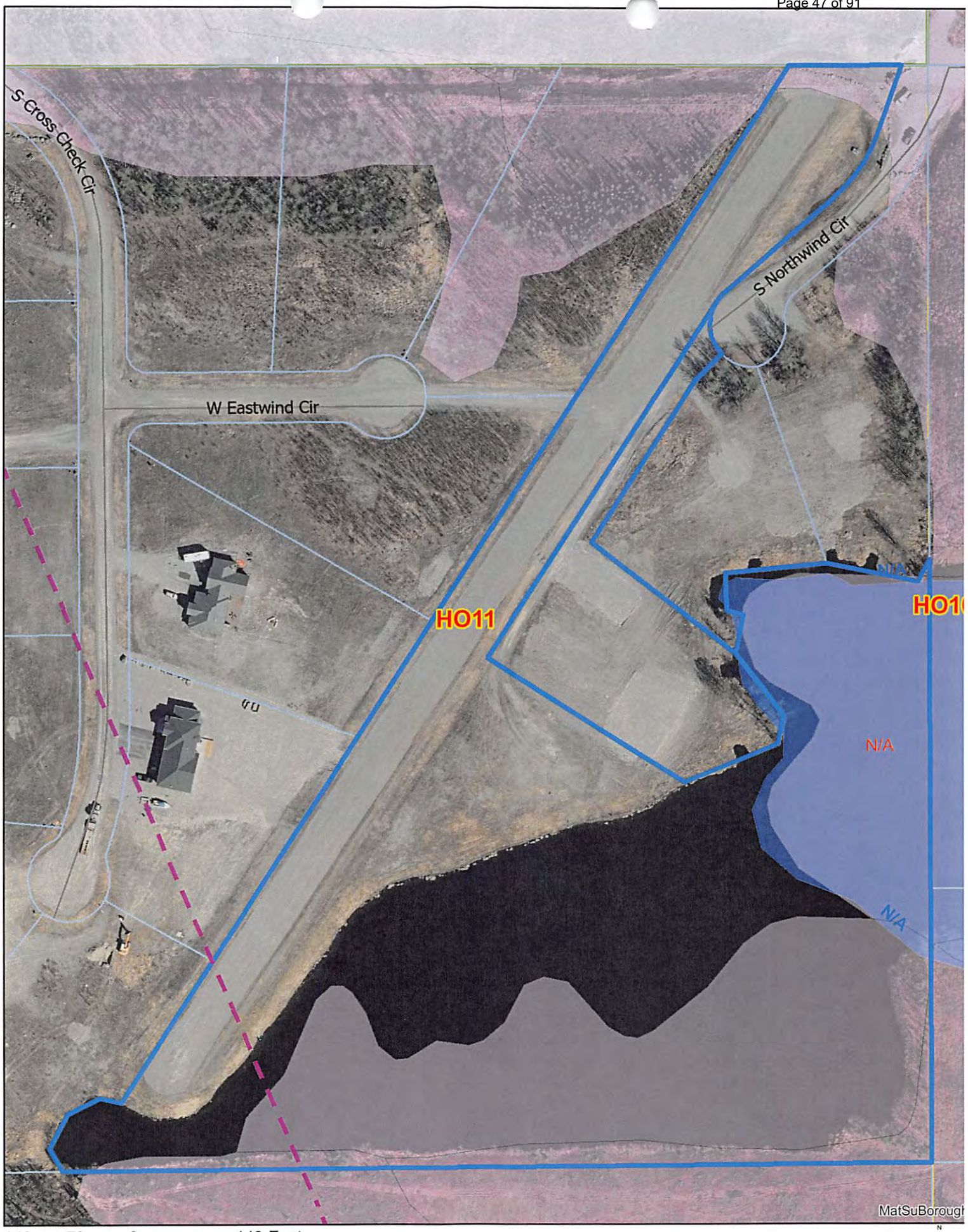


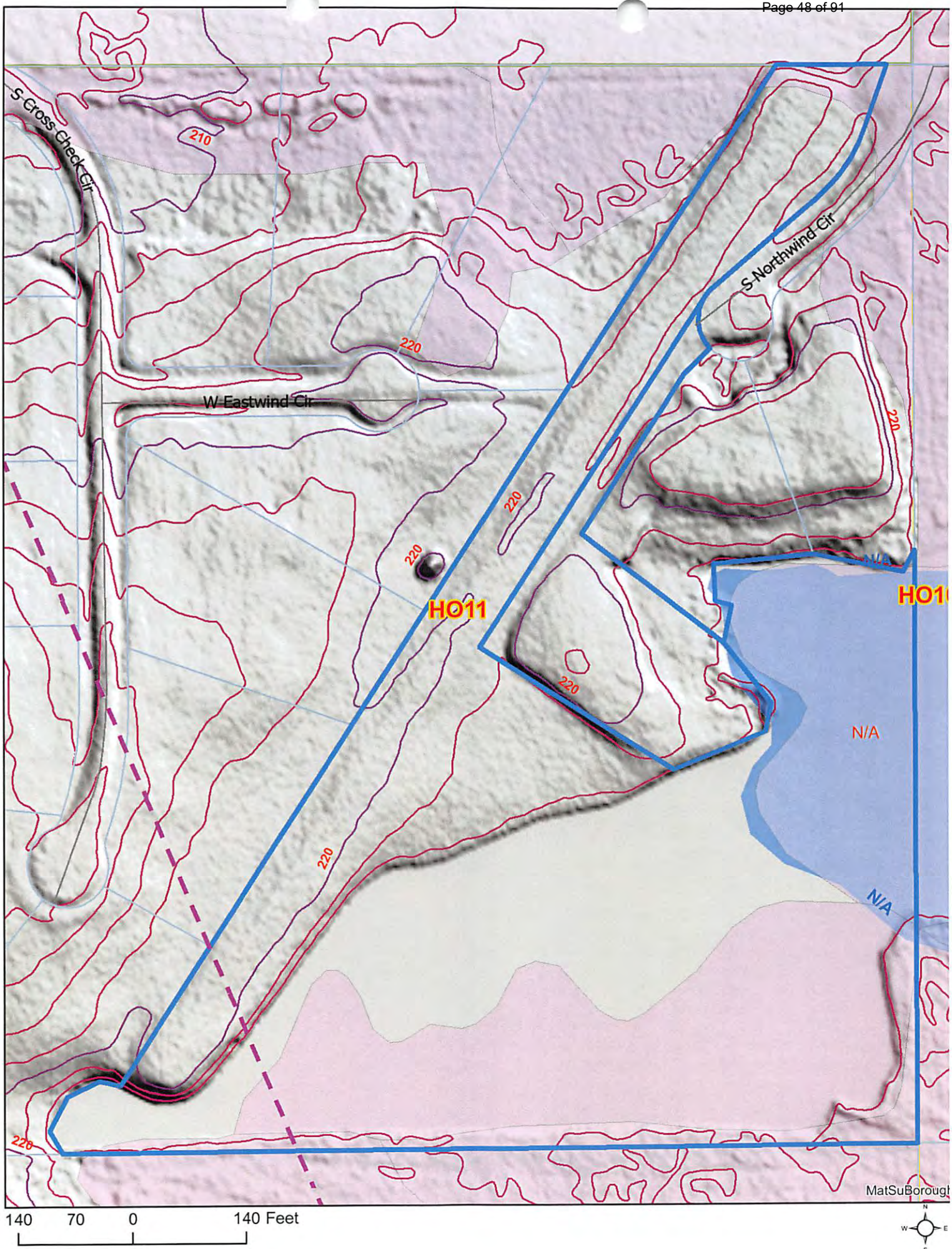
VICINITY MAP

FOR BUSH PILOT ESTATES PHASE I RSB
BLOCK 2, LOT 3 & TRACT A
LOCATED WITHIN
SECTION 13, T17N, R03W, SEWARD MERIDIAN,
ALASKA

HOUSTON 11 MAP

EXHIBIT A


S Cross Check Cir
W Eastwind Cir
S Northwind Cir
HO11
HO1
N/A
N/A
MatSuBorough
140 70 0 140 Feet
N
W
E
S


S Cross Check Cir
S Northwind Cir
W Eastwind Cir
210
220
HO11
N/A
MatSuBorough
140 70 0 140 Feet


W Big Lake Rd
N/A
W Parks Hwy
W Padre Pio Rd
S Cross Check Cir
S Northwind Cir
W Padre Pio Rd
W Eastwind Cir
N/A
HO11
HO10
N/A
W Benedict Way
N/A
W Meadowood Dr
S Winterhaven Dr
MatSuBorough
340 170 0 340 Feet

HANSON LAND SOLUTIONS
SURVEYING, ENGINEERING & LAND DEVELOPMENT SERVICES
305 E. FIREWEED AVE. PALMER, AK 99645

September 21, 2022

Matanuska-Susitna Borough
Planning and Land Use Department
Platting Division
Attention Fred Wagner
350 E. Dahlia Avenue Palmer, Alaska 99645

RE: Bush Pilot Estates PH I Lot 3A and Tract A-1, Block 2 Usable Area Certification

Mr. Wagner,

Lot 3 and Tract A of the previously recorded plat were certified by Curtis Holler prior to recording. His initial usable area certification is attached for you reference. The proposed platting action is taking the existing boundary of Lot 3 and adding to the existing lot. The previously certified lot had been certified as filled to create a minimum of 10,000 square feet of "Usable Septic Area" as required per Title 43.20.281 of the Matanuska-Susitna Borough Code while maintaining 10,000 square feet of "Usable Building Area". Tract A was also certified originally and the proposed Lot A-1 is still over the 400,000 sf area requirement for a soils log. Prior certification of lot will be used to this new lot also.

Respectfully,

Simon Gilliland

Simon Gilliland, PE
Hanson Land Solutions
305 E, Fireweed Ave.
Palmer, AK 99645
(907)746-7738

STATE OF ALASKA
49 TH
SIMON C. GILLILAND
CE-110731
REGISTERED PROFESSIONAL ENGINEER

RECEIVED
APR 0 4 2023
PLATTING

EXHIBIT B

HOLLER ENGINEERING
Water, Wastewater & Soils Consulting
3375 N Sams Dr. Wasilla, Alaska 99654 • 376-0410

December 6, 2010

Paul Hulbert
MSB Platting Officer
350 East Dahlia Avenue
Palmer, Alaska 99645

Re: ***Bush Pilot Estates***; Useable Areas, Flood Hazard Areas, Sample Wells & Drainage Patterns. HE Project # 05036

Dear Mr. Hulbert:

At the request of Bob Fisher, we have performed a soils investigation and related preliminary design work for the referenced proposed subdivision. The project will create 15 new lots and one tract from one existing 40-acre lot with frontage on Johnson Pond. Our soils investigation included logging 10 testholes, review of the provided topography information and observing conditions at the site. See the attached testhole location, drainage and topography map for details.

History. The project site is a reclaimed gravel pit and gravel/peat extaction site, with a significant portion of the pond being man-made. Permits were obtained for all of the mining work. This subdivision was previously approved under Title 16 in a near-identical state, including several lots which were filled as part of the reclamation to provide adequate useable septic area. The external access roads and internal roads were fully constructed and approved by MSB as part of the earlier process; no changes to the roads are proposed.

Topography. The parent parcel slopes between 2-5% grade to the west, with frontage on Johnson Pond along the eastern border. The project surveyor provided a 5' contour topography map. The total elevation differential indicated from the map is around 40'. MSB code requires 2' contours be provided along water bodies, however in this case the bank is steep right to the waters edge and typically rises over 3'; with a lake surface elevation of 208.4', the 208' contour line is underwater, and the 212' contour lies only 3'-4' from the 210' contour. With a scale of 1" = 100', the lines would appear as one wide line and there is no practical value to showing the 2' contours.

Soils & Vegetation. With the exception of a few mature birch trees scattered throughout the lots, most of the natural vegetation was cleared in the past. Currently seeded grass, small plants, and some small shrubbery have begun to appear, and much of the site

EXHIBIT D-1

remains gravel. Soils logged in the 10 testholes varied from dense sand & gravel with silt to clean sands and gravels. In many cases, the native topsoils had been previously stripped and some areas had been filled. One percolation tests was conducted, with a result of 37 minutes/inch. Whether filled or native, soils within areas considered as *useable septic area* are well within the normal range and will not limit development. Copies of the 10 original soils logs are attached.

Groundwater. Groundwater was encountered in the logged testholes and several other holes that were not logged. The levels were monitored over the past 5 years as fill was placed to 8' above the groundwater table. Depths of the testholes ranged between 9 and 15 feet depending on whether a groundwater table was encountered. Although the testholes were excavated in 2005, most will fulfill the depth requirements of 27.20.060A1aii due to encountered water table. Based on the soil types and proximity to surface water, a shallow groundwater table is expected in lower areas close to the lake and any swamp areas. Areas considered as *useable building area* have a groundwater table at least 4' below grade.

Useable Areas. As the older subdivision standards were more stringent in requiring twice as much useable septic area, the filled lots easily qualify under the present standard. The proposed lots have some limitations on areas defined by MSB code as *useable septic area* or *useable building area.* For septic area, limits include new horizontal setbacks to private water wells, as well as *surface water*, and areas with a shallow groundwater table. For useable building area, limits include lotline setbacks, *waterbody* setbacks, groundwater and utility easements. Based on the available soils testing, topography & water table information, MSB Code definitions, and our extensive observations at the site, ***each proposed lot will contain over 10,000 square feet of contiguous useable septic area, and an additional 10,000 square feet of useable building area. Proposed Tract A will contain over 10,000 square feet of useable building area and a septic system is constructible on the tract.***

Preliminary Drainage Plan. Although no further road construction is required, we have updated the previously accepted drainage map. The map shows general and ditched drainage patterns for the site. Additional drainage work was completed and accepted on the two access roads along the section line at the north border.

100-Year Flood Hazard Area Determination. From a FEMA Panel map, the lots are located in flood zone C and are not expected to be prone to flooding. Our flood evaluation included review of the provided topography contours, rainfall analysis and interviewing the longtime pit operator and project surveyor. Additionally, our staff have worked on this site since 2005. Based on many years of anecdotal observations, the lake level is very steady, varying by less than 1' seasonally. There is no formed inlet or outlet, and much of the remainder of the lake shoreline is adjacent to low swampy areas. Since the watershed is relatively small, and as it would be difficult to determine underground outflow, we have attempted a simple estimation of the maximum expected lake level rise due to a 100-year rainfall event. Based on measurements from a 1:25000 USGS topo map, the plat and the *2008 MSB Big Lake Watershed Atlas*, the expanded Johnson Pond has a surface area of approximately 27.5 acres, with a total contributing area estimated at 280 acres. From the *US Department of Commerce/Weather Bureau Technical Paper*

EXHIBIT D-2

#52(1965) Figures 16, 22, 28 & 34, the maximum expected rainfall events for the Big Lake area are:

100 year/2-day event 4" - 5"
100 year/4-7 day event 5" - 7.5"
100 year/10-day event 7.5"

For the calculation, we have assumed a 7.5" rainfall over a 4 to 10 day period. Due to the unknown sub-surface outflow rate, we will conservatively assume that none of the rainfall leaves the lake during the event. For the 27-acre lake itself, the contribution would be 7.5". To account for the approximately 253-acre watershed surrounding the lake, we propose a runoff coefficient of 0.20; typical coefficients for undeveloped wooded areas are as low as 0.15, and 0.20 is conservatively averaged for the mix of developed and undeveloped areas around the lake. Adding the volume from the watershed areas results in the following calculated rise:

100 Year Rise ={(27 acres x7.5") +(253 acres x7.5" x0.20)}/ 27 acres =21.6" or 1.8'

Note that the calculation assumes that the area of the lake remains fixed, when due to the adjacent wetlands it would increase somewhat in an actual event.

In either case, the flood hazard areas shown on the attached map follow the 210' contour provided by the surveyor; as we mentioned earlier, the shore within the project site is steep and the contour and flood line would typically differ horizontally by less than 0.3'.

Sample Wells. A review of the state WELTS database provided 5 proximate well logs, copies of which are attached. The logs indicate yield rates of 20, 30, and 35 gallons per minute, with depths of 41, 60, and 80 feet. See the attached map for approximate locations.

Please feel free to call with any questions you may have.

Sincerely,

Curtis E. Holler, P.E.

c: R. Fisher, w/attachments

EXHIBIT D-3

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal: STATE OF ALASKA 49TH — CURTIS E. HOLLER CE 9607 — REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 1 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet	Soil Type
0	OL SP-GP MIX NNF
0–3	SP-GP w/ TRACE SILT, ROCKS to 4"; NNF
3–5	OL, PEAT, FAST SEEP @ 5'
5–11	SP-GP CLEAN to WITH SLIGHT TRACE SILT ROCKS to 3" MOIST TO WET WITH FAST SEEPS

GWT 7-14-05 (at 3') ; 7-12-05 (at 5'); FAST SEEPS (5'–11')

Slope

Site Plan: See testhole location & topo map (N ↑)

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? FAST SEEP @ 5'
DEPTH AFTER MONITORING? 7-14-05 3'2"
7-13-05 3'1"

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

- PERCOLATION RATE ______ (min/inch) PERC HOLE DIAMETER ______
- TEST RUN BETWEEN ______ FT AND ______ FT DEPTH
- Comments: MONITOR PIPE SET to ± 9.7'

- PERFORMED BY: L. Holler DATE: 7-12-05

EXHIBIT D-4

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal: STATE OF ALASKA 49TH — CURTIS E. HOLLER CE 9607 REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 2 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet / Soil Type

- 0–9 ft: GP w/OL & w/ trace sand & w/ trace silt. Rocks to 3" most are 3/4" to 1 1/2". NNF. Contains trace amount of small sticks/branches
- 9.5–10.5 ft: OL, PEAT
- 10.5–11.5 ft: SP-GP w/ silt, Rocks to 4", varies to clean.
- 12–15 ft: SP, no rocks clean w/ water

GWT 7-14-05 ▽ (approx. 10.5 ft)
▽ 7-12-05 (12 ft)

Slope:

Site Plan: See testhole location & topo map (N ↑)

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? FAST @ 12'
DEPTH AFTER MONITORING? 7-14-05 10' 6.5"

Slope:

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

PERCOLATION RATE ______ (min/inch) PERC HOLE DIAMETER ______

TEST RUN BETWEEN ______ FT AND ______ FT DEPTH

Comments: Monitor pipe set to ± 15'

PERFORMED BY: L. Holler DATE: 7-12-05

EXHIBIT D-5

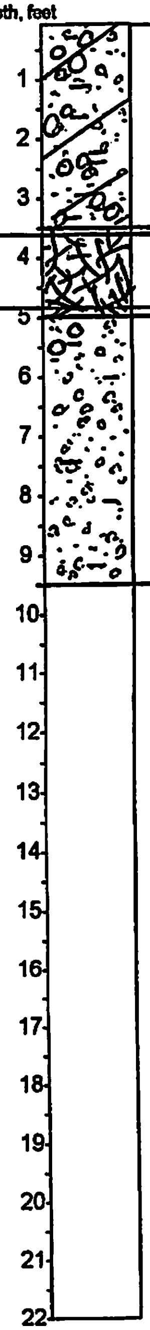
HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal: STATE OF ALASKA 49TH — CURTIS E. HOLLER CE 9607 — REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 3 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet | Soil Type



silt

(NNF)
SP-GP w/ TRACE SILT
ROCK TO 4"

OL NATIVE PEAT/ORGANICS

SP-GP w/SLIGHT TRACE SILT.
ROCK TO 2"
WET

Slope

Site Plan
↑ N
See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? FAST SEEP @ 3.6'
DEPTH AFTER MONITORING? 7-14-05 4' 10"

Slope

PERCOLATION TEST					
Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

- PERCOLATION RATE ______ (min/inch) PERC HOLE DIAMETER ______
- TEST RUN BETWEEN ______ FT AND ______ FT DEPTH
- Comments: MONITOR PIPE TO ± 9.5'

- PERFORMED BY: L. Holler DATE: 7-12-05

EXHIBIT D-6

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal

STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 3A of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet	Soil Type
1–3	SP-GP W/TRACE SILT VARIES "W/SILT" ROCK TO 4" (NNF)
4–5	OL NATIVE PEAT/ORGANICS
6–9	SP-GP W/TRACE SILT ROCK TO 4" WET

Slope

Site Plan

N

See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? FAST SEEPS @ 3.5'
DEPTH AFTER MONITORING? 7-14-05 2'7"

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

- PERCOLATION RATE _____(min/inch) PERC HOLE DIAMETER_____
- TEST RUN BETWEEN _____ FT AND _____ FT DEPTH
- Comments: MONITOR PIPE TO 9' ±
- PERFORMED BY: L. Holler DATE: 7-12-05

THLOG2.xls 7/13/2005

EXHIBIT D-7

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal: STATE OF ALASKA 49TH — CURTIS E. HOLLER CE 9607 — REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 4 of 10

Performed For: Bob Fisher

Legal Description: Bush Pilot Estates

Depth, feet	Soil Type
0–3	SP-GP w/ TRACE SILT, Rocks to 4"; NNF
3–9	OL, PEAT
9–10	SP-GP w/SILT WET

Margin notes: sat; ▽ 3 — -14-05; ▽ 9 — 7-13-05

Site Plan: See testhole location & topo map (N ↑)

Slope

WAS GROUNDWATER ENCOUNTERED? YES

IF YES, AT WHAT DEPTH? FAST @ 9'

DEPTH AFTER MONITORING? 7-14-05 3'1"

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

PERCOLATION RATE ______ (min/inch) PERC HOLE DIAMETER ______

TEST RUN BETWEEN ______ FT AND ______ FT DEPTH

Comments: Monitor Pipe set to ± 9.5'

PERFORMED BY: L. Holler DATE: 7-13-05

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal

STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 5 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet | Soil Type

1–4: NNF: SAND, GRAVEL, SILT, ORGANICS
5–6: NNF: OL W/SAND & SILT MIXED
7–8: SP-GP W/SILT, VARIES TO "W/ TRACE SILT"
9–11: SP, CLEAN TO SP W/GRAVEL
12–22:

SWT 7-13-05
7-12-05

Slope

Site Plan

N

See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? FAST AT 10'
DEPTH AFTER MONITORING? 7-13-05 8'1"

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

- PERCOLATION RATE _____ (min/inch) PERC HOLE DIAMETER _____
- TEST RUN BETWEEN _____ FT AND _____ FT DEPTH
- Comments: MONITOR PIPE TO ±10.5'
- PERFORMED BY: L. Holler DATE: 7-12-05

THLOG2.xls 7/13/2005

EXHIBIT D-9

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal

STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 6 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet | Soil Type (PREVIOUSLY STRIPPED)

1–2: SM W/GRAVEL
3–4: DENSE, ROCK TO 4"
5–6: FEW 8"
7–9:
10: SP W/GRAVEL & SILT
11–13:
14: NO GWT
15–22:

Slope

Site Plan

N

See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? NO
IF YES, AT WHAT DEPTH? N/A
DEPTH AFTER MONITORING? ↓

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

PERCOLATION RATE _____ (min/inch) PERC HOLE DIAMETER _____

TEST RUN BETWEEN _____ FT AND _____ FT DEPTH

Comments: _____

PERFORMED BY: L. Holler DATE: 7-12-05

THLOG2.xls 7/13/2005

EXHIBIT D-10

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal
STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 7 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet | Soil Type

1–6: SM w/ GRAVEL, Rocks TO 3", MEDIUM to HIGH SILT Content- SFC PREVIOUSLY STRIPPED. UNF TO APPROX 3'.

PERC

7–11: GM w/ SP Rocks to 5"

12–13: SP-SP w/ SILT, VARIES to SM-GM W/ LOW SILT CONTENT

14–22

Slope

Site Plan
N
See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? FAST @ 12.5'
DEPTH AFTER MONITORING? 7-13-11-05 12'0"

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
SOAK	7-13-05				
1		1402:28	30 MIN	-4 7/16"	0 15/16"
2		1433:37	30 MIN	-4 5/16"	0 13/16"
3	↓	1504:46	30 MIN	-4 5/16"	0 13/16

- PERCOLATION RATE 37 (min/inch) PERC HOLE DIAMETER 6"
- TEST RUN BETWEEN 5 FT AND 6 FT DEPTH
- Comments: MONITOR PIPE to ± 14'
- PERFORMED BY: L. Holler DATE: 7-12-05

THLOG2.xls 7/13/2005

EXHIBIT D-11

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal
STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 8 of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet — Soil Type (PREVIOUSLY STRIPED)

1–3: SP W/GRAVEL & SILT
ROCK TO 4", VARIES TO
SM-GM W/ LOW SILT CONTENT
MEDIUM-COARSE SANDS

4–5: PEBBLES W/ SILT GM

6–12: SAME AS ABOVE

13: NO GWT

Slope

Site Plan

N

See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? NO
IF YES, AT WHAT DEPTH? N/A
DEPTH AFTER MONITORING?

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

PERCOLATION RATE _____ (min/inch) PERC HOLE DIAMETER _____

TEST RUN BETWEEN _____ FT AND _____ FT DEPTH

Comments: _____

PERFORMED BY: L. Holler DATE: 7-12-05

THLOG2.xls 7/13/2005

EXHIBIT D-12

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska (907) 376-0410

Seal

STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE #8A of 10
Performed For: Bob Fisher
Legal Description: Bush Pilot Estates

Depth, feet | Soil Type

SFC PREVIOUSLY STRIPPED. MIXED DEPOSITS, DISCONTINUOUS SP (MEDIUM & FINE), SP W/SI. LT. SP-SP W/TH SI. LT. NNF TO ± 3.0'

exit ▽

Slope

Site Plan

N

See testhole location & topo map

WAS GROUNDWATER ENCOUNTERED? YES
IF YES, AT WHAT DEPTH? SEEPS STARTING @ 6"
DEPTH AFTER MONITORING? 7-13&14-05 1'9"

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
	N/A visual analysis only				

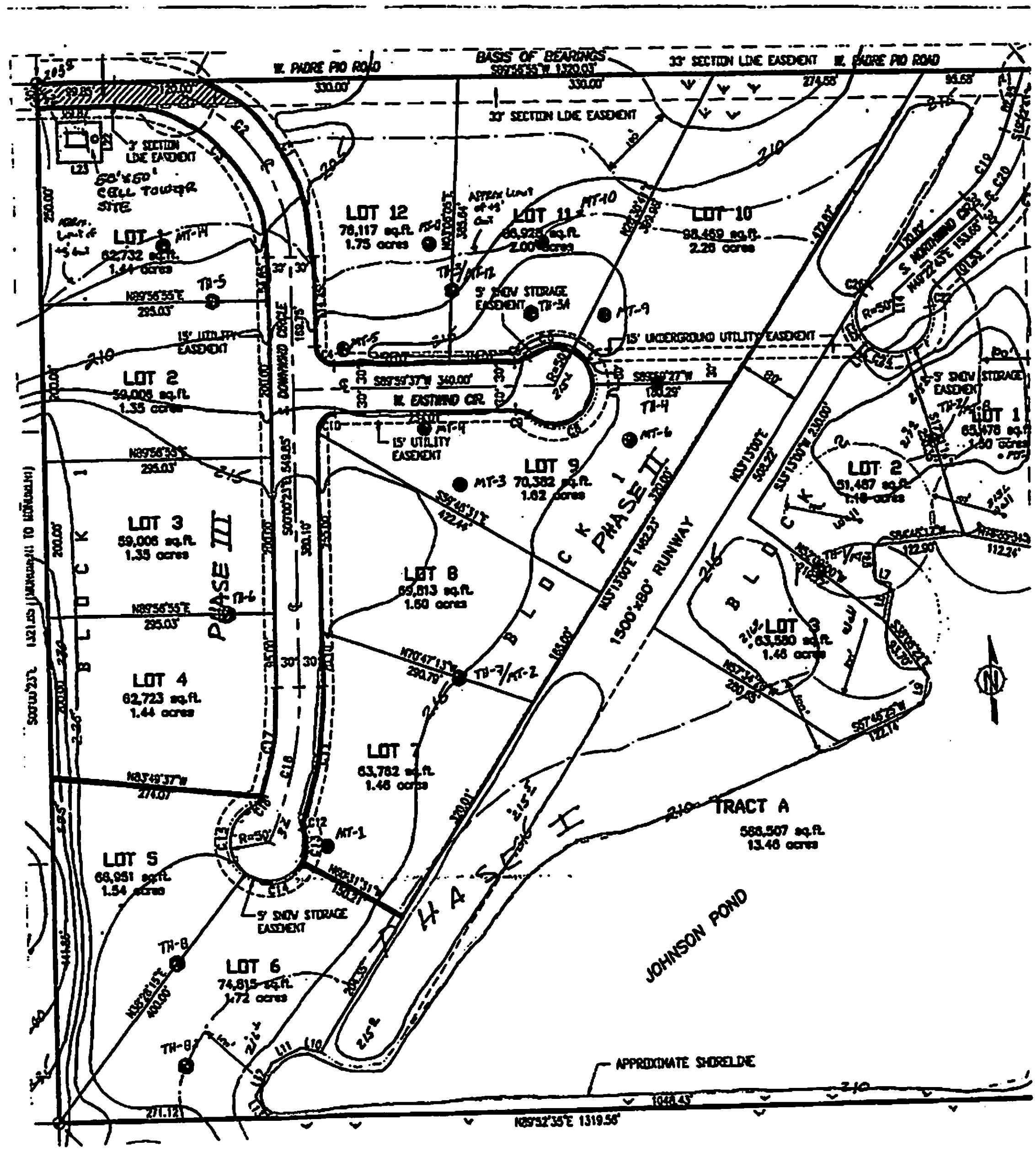
PERCOLATION RATE _____ (min/inch) PERC HOLE DIAMETER _____

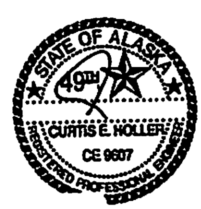
TEST RUN BETWEEN _____ FT AND _____ FT DEPTH

Comments: MONITOR PIPE SET @ ± 7'

PERFORMED BY: L. Holler DATE: 7-12-05

EXHIBIT D-13

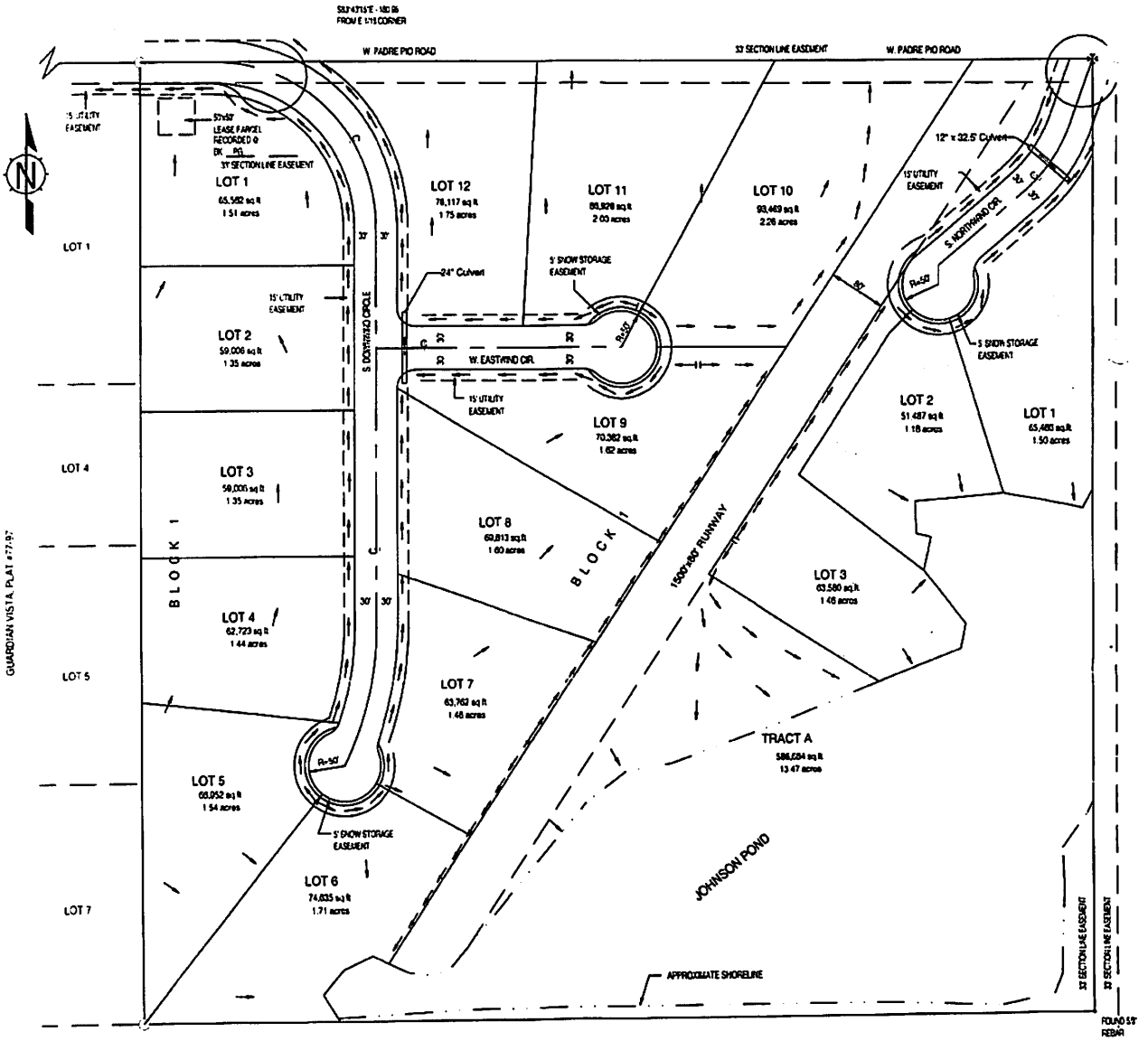

W. PADRE PID ROAD
BASIS OF BEARINGS
33' SECTION LINE EASEMENT
50'x50' CELL TOWER SITE
LOT 1
62,732 sq.ft.
1.44 acres
LOT 2
59,006 sq.ft.
1.35 acres
LOT 3
59,006 sq.ft.
1.35 acres
LOT 4
62,723 sq.ft.
1.44 acres
LOT 5
66,951 sq.ft.
1.54 acres
LOT 6
74,815 sq.ft.
1.72 acres
LOT 7
63,782 sq.ft.
1.46 acres
LOT 8
69,813 sq.ft.
1.60 acres
LOT 9
70,382 sq.ft.
1.62 acres
LOT 10
98,469 sq.ft.
2.26 acres
LOT 11
86,928 sq.ft.
2.00 acres
LOT 12
76,117 sq.ft.
1.75 acres
TRACT A
586,507 sq.ft.
13.46 acres
PHASE III
PHASE II
BLOCK 1
1500'x80' RUNWAY
W. EASTWIND CIR.
DOWNWIND CIRCLE
S. NORTHWIND CIR.
15' UTILITY EASEMENT
15' UNDERGROUND UTILITY EASEMENT
5' SNOW STORAGE EASEMENT
JOHNSON POND
APPROXIMATE SHORELINE
N89°52'35"E 1319.56'



Bush Pilot Estates Topography, Testhole, and Monitor Tube Locations		
HOLLER ENGINEERING 3375 N Sams Dr. Wasilla, Alaska 99654		
Job # 05036	12-3-10	Scale: 1"=100'+/-

Notes: 1. Topography provided by others.

EXHIBIT F-3

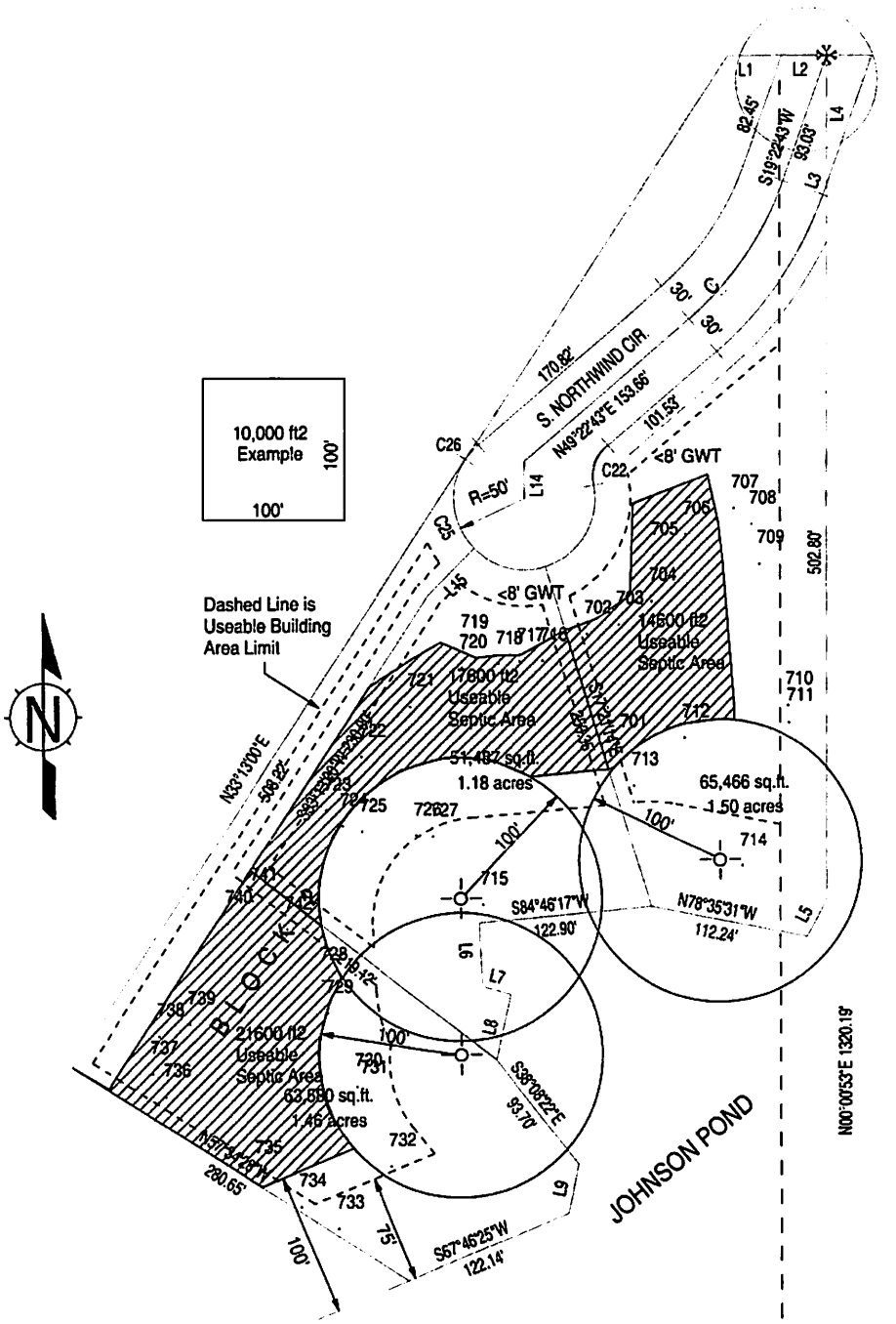


STATE OF ALASKA
49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

Bush Pilot Estates Internal Roads Drainage Map		
HOLLER ENGINEERING 3375 N Sams Dr. Wasilla, Alaska 99654		
Job # 05036	12-06-10	Scale 1"=150'

Notes: 1. Arrows denote apparent drainage patterns.

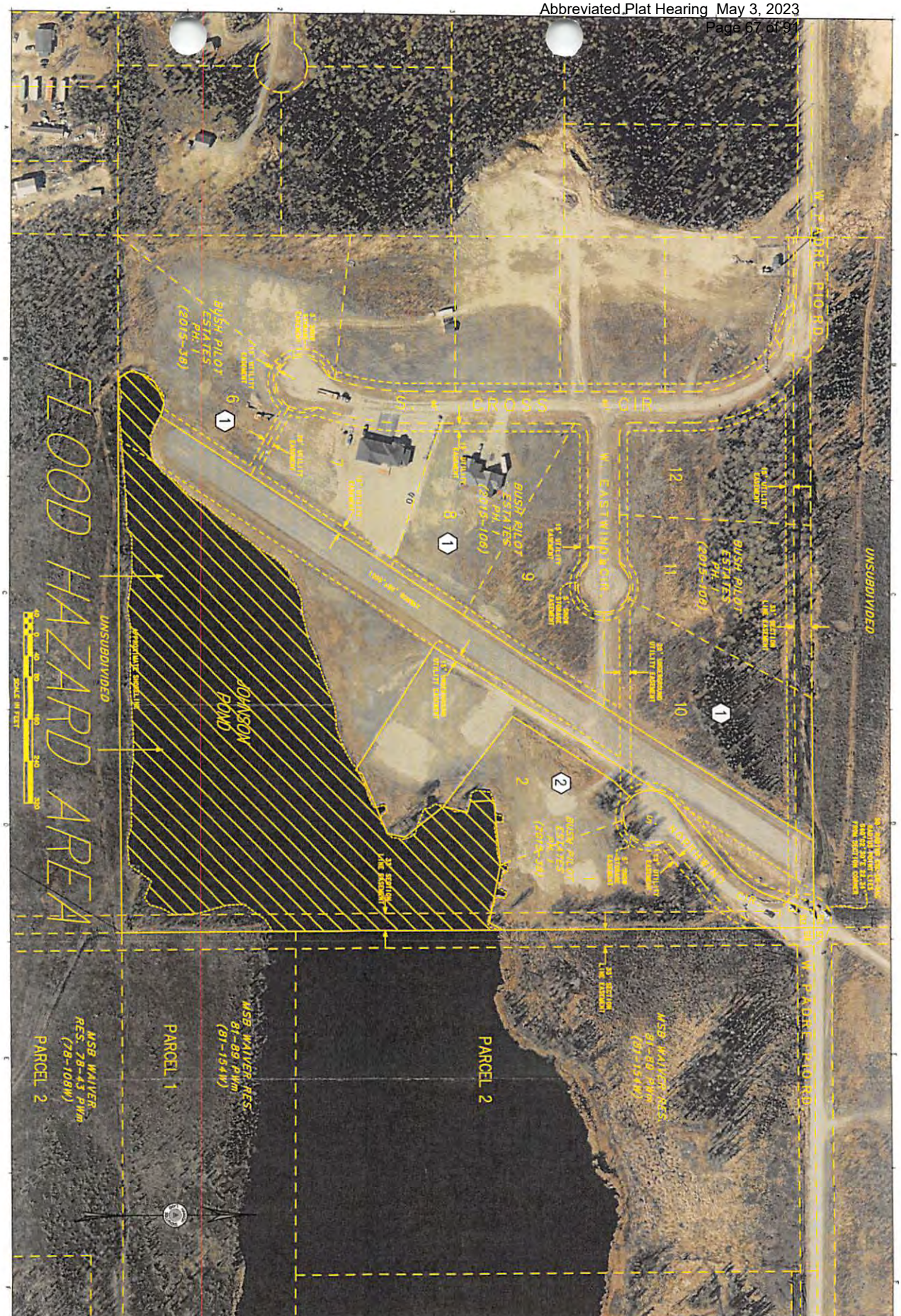
EXHIBIT E



STATE OF ALASKA
49TH
CURTIS E. HOLLER
CE 9607
REGISTERED PROFESSIONAL ENGINEER

Bush Pilot Estates Lots 1, 2 & 3 Useable Area		
HOLLER ENGINEERING 3375 N Sams Dr. Wasilla, Alaska 99654		
Job # 05036	12-6-10	Scale: 1"=80'+/-

EXHIBIT F - 1



HOUSTON, ALASKA
BUSH PILOT ESTATES PH. 1
L3 B2 & TRACT A
SITE PLAN – EXISTING CONDITIONS
PROJECT OVERVIEW

DWG #: 22-238C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE: 1"=160'
11"x17": 22x34: 1"=80'
REVISION DATE: 08/08/22

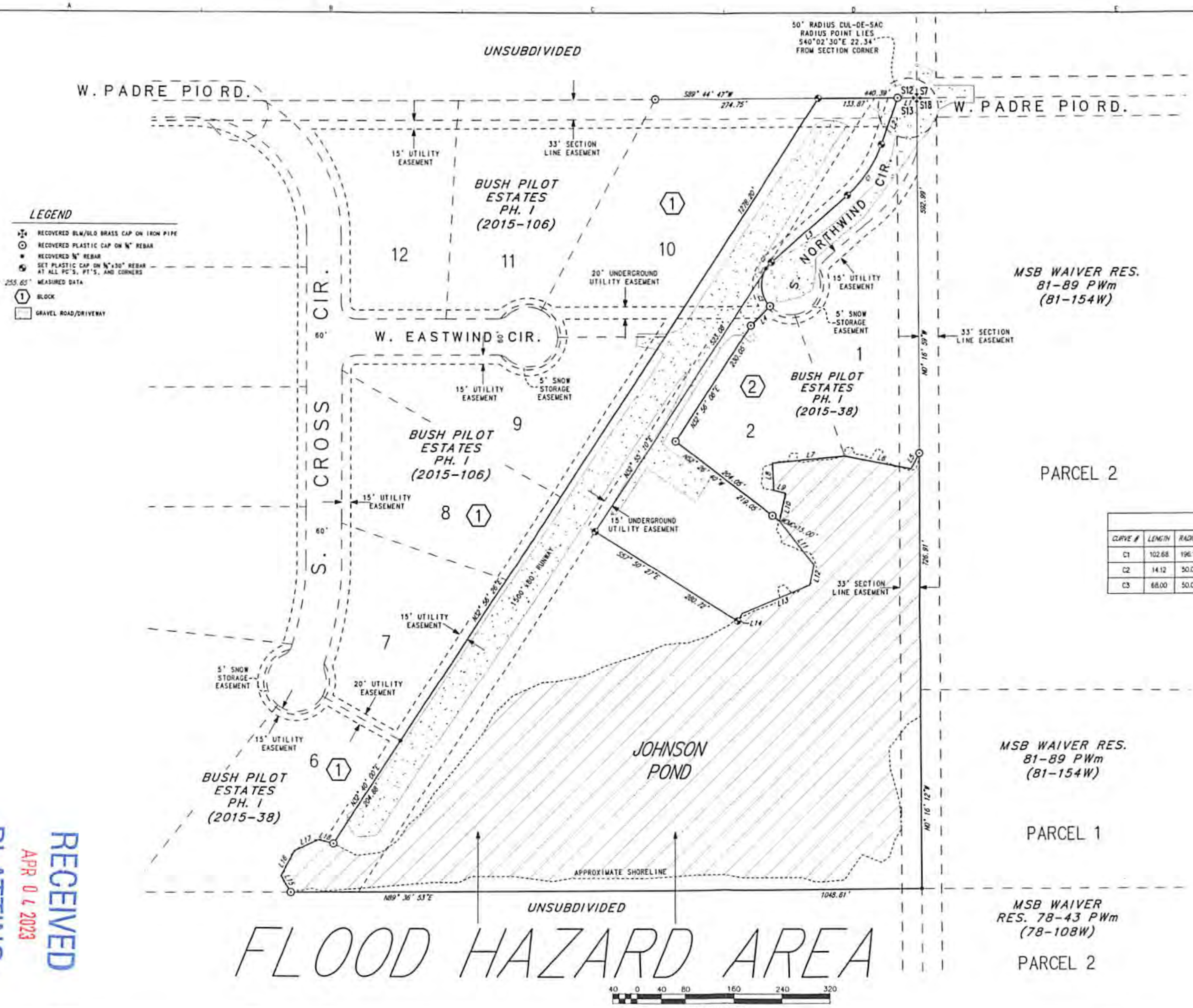
REFERENCE NUMBER: V-2.0
SHEET 1 OF 3

NOTES
1. THE IMAGE SHOWN HEREON IS DERIVED FROM PUBLISHED DATA OF THE MATANUSKA SUSITNA BOROUGH IMAGERY PROJECT, OF 2019/2020/2021.
2. THE HORIZONTAL DATUM IS NAD83 (CORS96) EPOCH 2010.0

HANSON LAND SOLUTIONS
305 E. FIREWEED AVE.
PALMER, AK 99645
(907)746-7295

RECEIVED
APR 05 2023
PLATTING

EXHIBIT C



LINE TABLE		
LINE #	BEARING	LENGTH
L1	N89° 40' 38"W	31.77
L2	S19° 07' 30"W	82.49
L3	S49° 07' 30"W	170.91
L4	N44° 58' 54"E	45.79
L5	N27° 27' 08"E	29.75
L6	S78° 50' 05"E	112.38
L7	N84° 31' 43"E	123.06
L8	N3° 04' 47"W	45.12
L9	N75° 43' 43"W	20.38
L10	N12° 06' 37"E	47.46
L11	N38° 26' 56"W	93.69
L12	N11° 31' 00"E	34.83
L13	N67° 27' 51"E	122.12
L14	N32° 09' 33"E	15.00
L15	N30° 53' 51"W	31.93
L16	N28° 05' 31"E	47.33
L17	N65° 16' 56"E	43.90
L18	S76° 01' 23"E	25.97

CURVE TABLE						
CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH	CHORD BEARING
C1	102.68	196.12	29°59'55"	52.55	101.51	S34° 07' 27"W
C2	14.12	50.00	16°10'38"	7.11	14.07	S40° 45' 34"W
C3	68.00	50.00	77°55'35"	40.44	62.88	N6° 03' 46"W

NOTES
1. THIS FIELD SURVEY WAS CONDUCTED ON XXX XX, 20XX. ALL MONUMENTS HAVE BEEN FOUND OR SET AS DESCRIBED HEREON.
2. ALL DIRECTIONS SHOWN ARE TRUE BEARINGS, ORIENTED TO THE BASIS OF BEARINGS.

HANSON LAND SOLUTIONS
305 E. FIREWEED AVE.
PALMER, ALASKA 99645
(907) 746-7738

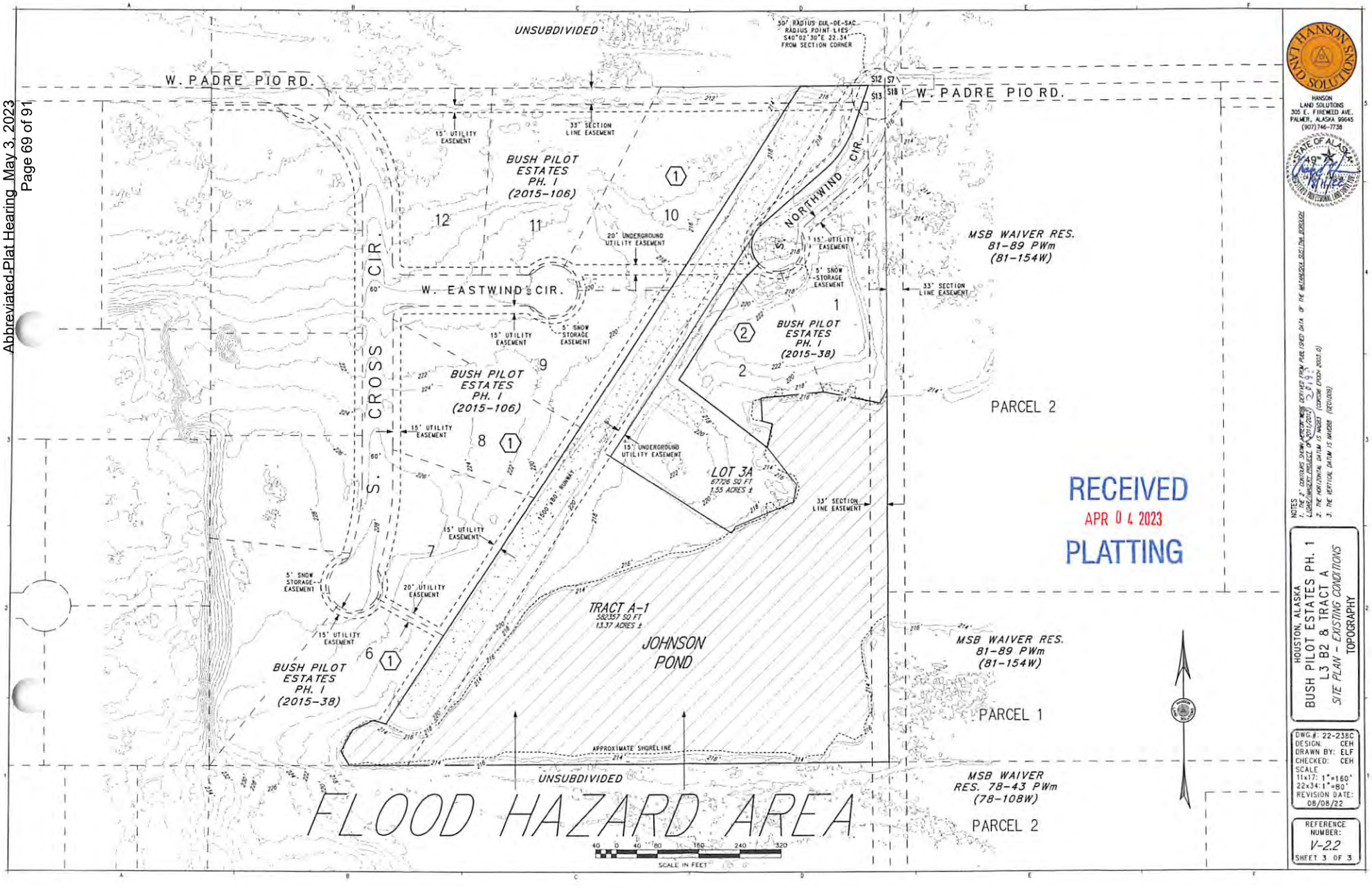
HOUSTON, ALASKA
BUSH PILOT ESTATES PH. 1
L3 B2 & TRACT A
SITE PLAN – EXISTING CONDITIONS
PLANIMETRY-AB

DWG#: 22-238C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=160'
22x34: 1"=80'
REVISION DATE: 08/08/22

REFERENCE NUMBER: V-2.1
SHEET 2 OF 3

RECEIVED
APR 0 5 2023
PLATTING

RECEIVED
APR 0 4 2023
PLATTING



RECEIVED
APR 04 2023
PLATTING

HANSON LAND SOLUTIONS
305 E. FIREWEED AVE.
PALMER, ALASKA 99645
(907)746-7738

STATE OF ALASKA
49th
CHRISTOPHER E. HANSON
LICENSED PROFESSIONAL LAND SURVEYOR

NOTES
1. THE 2' CONTOURS SHOWN HEREON WERE DERIVED FROM PUBLISHED DATA OF THE MATANUSKA-SUSITNA BOROUGH LIDAR/IMAGERY PROJECT OF 2011/2012.
2. THE HORIZONTAL DATUM IS NAD83 (CORSOM EPOCH 2003.0)
3. THE VERTICAL DATUM IS NAVD88 (GEOID09)

HOUSTON, ALASKA
BUSH PILOT ESTATES PH. 1
L3 B2 & TRACT A
SITE PLAN - EXISTING CONDITIONS
TOPOGRAPHY

DWG.#: 22-238C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=160'
22x34: 1"=80'
REVISION DATE: 08/08/22

REFERENCE NUMBER: V-2.2
SHEET 3 OF 3

Amy Otto-Buchanan

From: Daniel Dahms
Sent: Tuesday, April 25, 2023 9:34 AM
To: Amy Otto-Buchanan
Cc: Tammy Simmons; Brad Sworts; Jamie Taylor
Subject: RE: RFC Bush Pilot Est Ph 1 RSB #23-040

Amy,

PD&E has no comments.

Daniel Dahms, PE
Department of Public Works
Pre-Design and Engineering Division

From: Amy Otto-Buchanan <Amy.Otto-Buchanan@matsugov.us>
Sent: Thursday, April 6, 2023 3:59 PM
To: Horton, George C (DNR) <george.horton@alaska.gov>; sarah.myers@alaska.gov; Percy, Colton T (DFG) <colton.percy@alaska.gov>; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; msb.hpc@gmail.com; mokietew@gmail.com; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; greg quinton <clinchnot@yahoo.com>; hsfirewise@gmail.com; Fire Code <Fire.Code@matsugov.us>; John Fairchild <John.Fairchild@matsugov.us>; Tawnya Hightower <Tawnya.Hightower@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; andrew.fraiser@enstarnaturalgas.com; James Christopher <James.Christopher@enstarnaturalgas.com>; row@enstarnaturalgas.com; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop; row@mtasolutions.com
Subject: RFC Bush Pilot Est Ph 1 RSB #23-040

The following link contains a Request for Comments to adjust the lot line between 57399000T00A and 57399B02L003. Comments are due by April 26, 2023. Please let me know if you have any questions. Thanks, A.

Bush Pilot Est Ph 1 RSB

Amy Otto-Buchanan
Platting Specialist
amy.otto-buchanan@matsugov.us
907-861-7872

EXHIBIT D

Amy Otto-Buchanan

From: OSP Design Group <ospdesign@gci.com>
Sent: Tuesday, April 25, 2023 10:13 AM
To: Amy Otto-Buchanan
Cc: OSP Design Group
Subject: RE: RFC Bush Pilot Est Ph 1 RSB #23-040
Attachments: RFC Packet.pdf; Agenda Plat.pdf

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Amy,

In review GCI has no comments or objections to the plat, attached is the signed plat for your records.

Thanks,
MIREYA ARMESTO
GCI | Technician II, GIS Mapping
m: 907-744-5166 | **w:** www.gci.com

From: Amy Otto-Buchanan <Amy.Otto-Buchanan@matsugov.us>
Sent: Thursday, April 6, 2023 3:59 PM
To: Horton, George C (DNR) <george.horton@alaska.gov>; sarah.myers@alaska.gov; Percy, Colton T (DFG) <colton.percy@alaska.gov>; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; msb.hpc@gmail.com; mokietew@gmail.com; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; greg quinton <clinchnot@yahoo.com>; hsfirewise@gmail.com; Fire Code <Fire.Code@matsugov.us>; John Fairchild <John.Fairchild@matsugov.us>; Tawnya Hightower <Tawnya.Hightower@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; andrew.fraiser@enstarnaturalgas.com; James Christopher <James.Christopher@enstarnaturalgas.com>; row@enstarnaturalgas.com; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop; row@mtasolutions.com
Subject: RFC Bush Pilot Est Ph 1 RSB #23-040

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

The following link contains a Request for Comments to adjust the lot line between 57399000T00A and 57399B02L003. Comments are due by April 26, 2023. Please let me know if you have any questions. Thanks, A.

Bush Pilot Est Ph 1 RSB

Amy Otto-Buchanan
Platting Specialist
amy.otto-buchanan@matsugov.us
907-861-7872

EXHIBIT G

ENSTAR Natural Gas Company
A DIVISION OF SEMCO ENERGY
Engineering Department, Right of Way Section
401 E. International Airport Road
P. O. Box 190288
Anchorage, Alaska 99519-0288
(907) 277-5551
FAX (907) 334-7798

April 10, 2023

Matanuska-Susitna Borough, Platting Division
350 East Dahlia Avenue
Palmer, AK 99645-6488

To whom it may concern:

ENSTAR Natural Gas Company has reviewed the following preliminary plat and has no comments or recommendations.

- **BUSH PILOT ESTATES PH. 1 LOT 3A, BLOCK 2 AND TRACT A-1 (MSB Case # 2023-041)**

If you have any questions, please feel free to contact me at 334-7944 or by email at james.christopher@enstarnaturalgas.com.

Sincerely,

James Christopher

James Christopher
Right of Way & Compliance Technician
ENSTAR Natural Gas Company

PLANNING & LAND USE DIRECTOR'S CERTIFICATE

I CERTIFY THAT THIS SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY PLAT RESOLUTION NUMBER _____ DATED _____, 20___, AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, IN WHICH THE PLAT IS LOCATED

_____
PLANNING AND LAND USE DIRECTOR DATE

ATTEST: _____
(PLATTING CLERK)

SURVEYOR'S CERTIFICATE

STATE OF ALASKA 49TH CRAIG E. HANSON LS 12312 REGISTERED PROFESSIONAL LAND SURVEYOR

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

_____
REGISTERED LAND SURVEYOR

LEGEND

- ✠ RECOVERED BLM/GLO BRASS CAP ON IRON PIPE
- ⊙ RECOVERED PLASTIC CAP ON ⅝" REBAR
- ● RECOVERED ⅝" REBAR
- ◔ SET PLASTIC CAP ON ⅝"x30" REBAR
- (C) COMPUTED DATA
- N74°58'11"W 255.65' MEASURED DATA
- (N74°45'W) (254.70') RECORD PER PLAT (2015-38)
- [N74°45'W] [254.70'] RECORD PER PLAT (2015-106)
- 761 SURVEY POINT NUMBER
- ⬡ 1 BLOCK

HANSON LAND SOLUTIONS BOUNDARY MARKER 2022 LS 12312 — TYPICAL SET 1¾" PLASTIC CAP

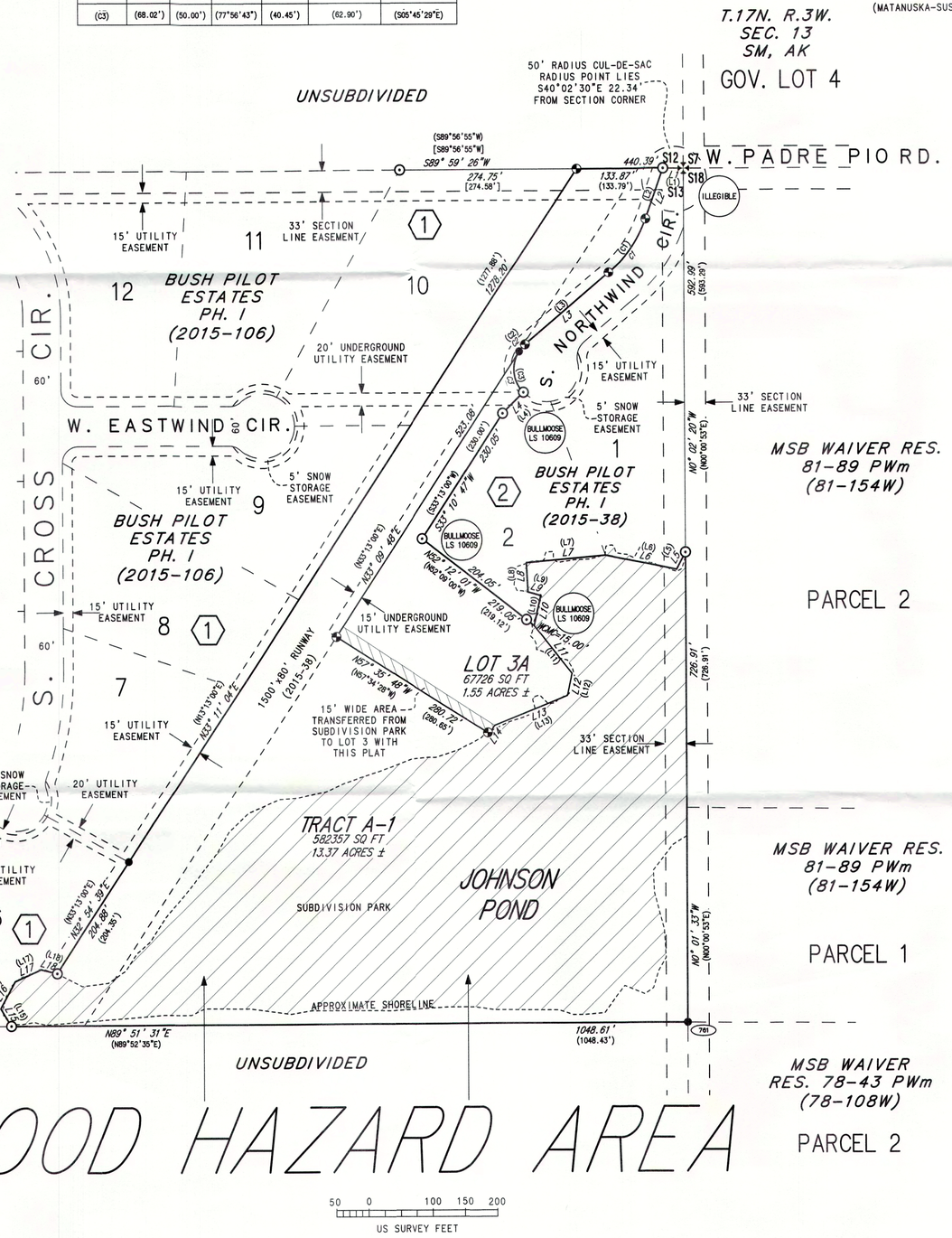
JHH LS-5081 — TYPICAL RECOVERED 1¼" PLASTIC CAP

LINE TABLE

LINE #	BEARING	LENGTH
L1	N89° 25' 59"W	31.77
L2	S19° 22' 08"W	82.49
L3	N49° 22' 08"E	170.91
L4	S45° 13' 33"W	45.79
L5	S27° 41' 47"W	29.75
L6	N78° 35' 26"W	112.38
L7	S84° 46' 22"W	123.06
L8	S2° 50' 08"E	45.12
L9	S75° 29' 04"E	20.38
L10	N12° 21' 16"E	47.46
L11	S38° 12' 18"E	93.69
L12	S11° 45' 38"W	34.83
L13	S67° 42' 29"W	122.12
L14	N32° 24' 12"E	15.00
L15	S30° 39' 12"E	31.93
L16	S28° 20' 10"W	47.33
L17	S65° 31' 35"W	43.90
L18	S75° 46' 44"E	25.97
(L1)	(N89°56'55"E)	(31.81')
(L2)	(S19°22'43"W)	(82.45')
(L3)	(N49°22'43"E)	(170.82')
(L4)	(S45°16'10"W)	(45.78')
(L5)	(N27°41'42"E)	(29.71')
(L6)	(N78°53'31"W)	(112.24')
(L7)	(S84°46'17"W)	(122.90')
(L8)	(S02°50'13"E)	(45.06')
(L9)	(S75°29'09"W)	(20.35')
(L10)	(N76°17'24"W)	(26.19')
(L11)	(S38°08'22"E)	(93.70')
(L12)	(S11°49'34"W)	(34.84')
(L13)	(S67°46'25"W)	(122.14')
(L15)	(S31°09'52"E)	(32.20')
(L16)	(N27°49'30"E)	(47.73')
(L17)	(S66°00'55"W)	(44.27')
(L18)	(N76°17'24"W)	(26.19')

CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH	CHORD BEARING
C1	102.68	196.12	29°59'55"	52.55	101.51	S34° 22' 06"W
C2	14.12	50.00	16°10'38"	7.11	14.07	S41° 00' 13"W
C3	68.00	50.00	77°55'35"	40.44	62.88	N5° 49' 08"W
(C1)	(102.63')	(196.00')	(30°00'06")	(52.52')	(101.46')	(S05°45'29"E)
(C2)	(14.11')	(50.00')	(16°09'50")	(7.10')	(14.06')	(S41°17'51"E)
(C3)	(68.02')	(50.00')	(77°56'43")	(40.45')	(62.90')	(S05°45'29"E)



NOTES

1. ALL DISTANCES SHOWN ARE GROUND DISTANCES.
2. THE BASIS OF BEARING ON THIS PLAT IS TRUE NORTH WITH RESPECT TO THE LONGITUDINAL MERIDIAN THROUGH THE SOUTHEAST CORNER OF TRACT A-1, A RECOVERED REBAR (SURVEYED POINT 761) WITH A NETWORK GNSS GEODETIC POSITION OF 61° 34' 00.95"N 149° 43' 21.03"W
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED, AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS, AND RECOMMENDATIONS OF THE STATE OF ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
4. THERE MAY BE FEDERAL, STATE, AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN ON THE PLAT TO BE RECORDED.
5. THIS SUBDIVISION IS ENCUMBERED BY MEA BLANKET EASEMENTS RECORDED ON OCTOBER 30, 2003 AT DOCUMENT# 2003-032564-0 AND ON APRIL 13, 2012 AT DOCUMENT# 2012-007264-0 AND 2012-007265-0.
6. THIS SUBDIVISION IS ENCUMBERED BY A MTA BLANKET EASEMENT RECORDED ON OCTOBER 2, 200 AT DOCUMENT# 2009-022081-0.
7. THIS SUBDIVISION IS ENCUMBERED BY AN ENSTAR BLANKET EASEMENT RECORDED ON JUNE 19, 2015 AT DOCUMENT# 2015-012652-0.
8. THIS SUBDIVISION IS ENCUMBERED BY COVENANTS, CONDITIONS, AND RESTRICTIONS RECORDED ON APRIL 20, 2015 AT DOCUMENT# 2015-007528-0 AND AMENDED ON JUNE 29, 2015 AT DOCUMENT# 2015-013365-0 AND NOVEMBER 20, 2015 AT DOCUMENT# 2015-025243-0.

ELF

CERTIFICATE OF PAYMENT OF TAXES

I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS, THROUGH_____, 20___, AGAINST THE PROPERTY, INCLUDED IN THE SUBDIVISION OR RESUBDIVISION, HEREON HAVE BEEN PAID.

_____
TAX COLLECTION OFFICIAL DATE
(MATANUSKA-SUSITNA BOROUGH)

CERTIFICATE OF OWNERSHIP

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT I ADOPT THIS PLAN OF SUBDIVISION BY MY FREE CONSENT.

_____
NAME (MEMBER) DATE
BUSH PILOT ESTATES LLC
P.O. BOX 520209
BIG LAKE, AK 99652-0209

NOTARY ACKNOWLEDGEMENT

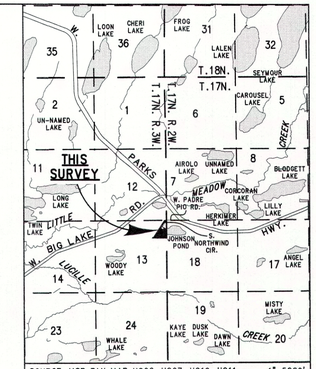
SUBSCRIBED AND SWORN TO BEFORE ME THIS

_____ DAY OF _____, 20___,

FOR _____

_____

NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES:_____



SOURCE: MSB TAX MAP H006, H007, H010, H011, H014, AND H015 1"=5280'

CERTIFICATE OF OWNERSHIP

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT.

_____
ROBBIE A SMART DATE
P.O. BOX 870943
WASILLA, AK 99687

_____
REBECCA SMART DATE
P.O. BOX 870943
WASILLA, AK 99687

NOTARY ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS

_____ DAY OF _____, 20___,

FOR _____

_____

NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES:_____

Agenda Copy

RECEIVED
APR 04 2023
PLATTING

A PLAT OF
BUSH PILOT ESTATES PH. I LOT 3A, BLOCK 2 AND TRACT A-1
A SUBDIVISION OF
LOT 3, BLOCK 2 AND TRACT A BUSH PILOT ESTATES PH. I (2015-38)
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
LOCATED WITHIN
NE¼ SEC. 13, T.17N. R.3W. SM, AK
CONTAINING 14.92 ACRES MORE OR LESS

HANSON LAND SOLUTIONS
ALASKA BUSINESS LICENSE #1525
305 EAST FIREWEED AVENUE
PALMER, ALASKA, 99645
(907)746-7738

FILE: FB22-238 | CK: CEH | SCALE:1"=100' | 09/21/22 | 1 OF 1

3C

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
MAY 3, 2023

ABBREVIATED PLAT:	MILLHOUSE ESTATES
LEGAL DESCRIPTION:	SEC 2 & 11, T17N, R1W, SEWARD MERIDIAN, AK
PETITIONER:	SANDRA D. MILLHOUSE
SURVEYOR:	BULL MOOSE SURVEYING
ACRES: 15.2	PARCEL: 1
REVIEWED BY:	CHRIS CURLIN CASE: 2020-009

REQUEST: The request is to combine Tax Parcel D4 (Government Lot 9) in Section 2 with Tax Parcels A19 & A20 (Parcels 1 & 2, MSB Waiver 85-22-PWm, recorded as 85-108W) in Section 11 and Lot 1, Block 2 of BMB Subdivision (Plat #86-154) into one lot to be known as, **MILLHOUSE ESTATES**, containing 15.2 acres +/-. Located northwest of E. Palmer-Wasilla Highway and west of E. Myrtle Avenue, with lake frontage on Wasilla Lake, within the SE¼ Section 2 and NE¼ Section 11, Township 17 North, Range 01 West, Seward Meridian, Alaska.

EXHIBITS

Vicinity Maps and Aerial Photos	**EXHIBIT A** – 3 pgs
Topographic Mapping and As-Built	**EXHIBIT B** – 1 pg
Topographic Narrative	**EXHIBIT C** – 1 pg

AGENCY COMMENTS

USACE	**EXHIBIT D** – 1 pg
ADF&G	**EXHIBIT E** – 1 pg
SOA DNR	**EXHIBIT F** – 1 pg
ADOT&PF	**EXHIBIT G** – 2 pgs
MSB-DPW	**EXHIBIT H** – 1 pg
Utilities	**EXHIBIT I** – 2 pgs

DISCUSSION This platting action is creating one lot from three parcels. The proposed tract will contain 15.17 acres. Access is currently from East Palmer-Wasilla Highway, an ADOT&PF owned and maintained road.

Access: This parcel has frontage on E. Palmer-Wasilla Highway, N. Betts Street, and E. Myrtle Avenue. N. Betts Street is a 60' wide public right-of-way. E. Myrtle Avenue. is a 30' wide public right-of-way. Both streets are dedicated on the plat of BMB Subdivision, Plat #86-154. There is an existing driveway onto E. Palmer-Wasilla Highway. Petitioner has applied for a driveway permit onto N. Betts street with MSB Development Services.

Topography & As-Built: The surveyor has submitted an as-built and topographic mapping pursuant to MSB 43.15.016(A). The as-built and topographic mapping are shown on the agenda plat.

Comments:
USACE: **(Exhibit D)** does not object and advises authorization may be needed from U.S. Army Corps of Engineers, Alaska District Regulatory Program if placement of fill occurs in any waters or wetlands.
ADF&G **(Exhibit E)** has no objection and advises any activities that impact the bed or banks of anadromous waters will require a permit.
SOA DNR DML&W: **(Exhibit F)** Survey Section commented that if section line easements exist within this subdivision, that they be depicted and labeled on the final plat. (recommendation #2)
ADOT&PF: **(Exhibit G)** has no objection, stated no additional access will be granted to the Palmer-Wasilla Highway, advises possibility of future Hermon road extension to Betts Street with a signal at intersection with Palmer-Wasilla Highway, and that future left turn access from Palmer-Wasilla Highway is not guaranteed.
MSB – DPW: **(Exhibit H)** noted the chicken coop shown on the Agenda Plat next to E. Myrtle Avenue will need to be removed from the public R.O.W. and adhere to setback requirements for E. Myrtle Ave.

Utilities: **(Exhibit I)** GCI has no comments. Enstar has no comments. MEA and MTA did not respond. City of Wasilla did not comment. Staff notes this property is within one mile of the City of Wasilla.

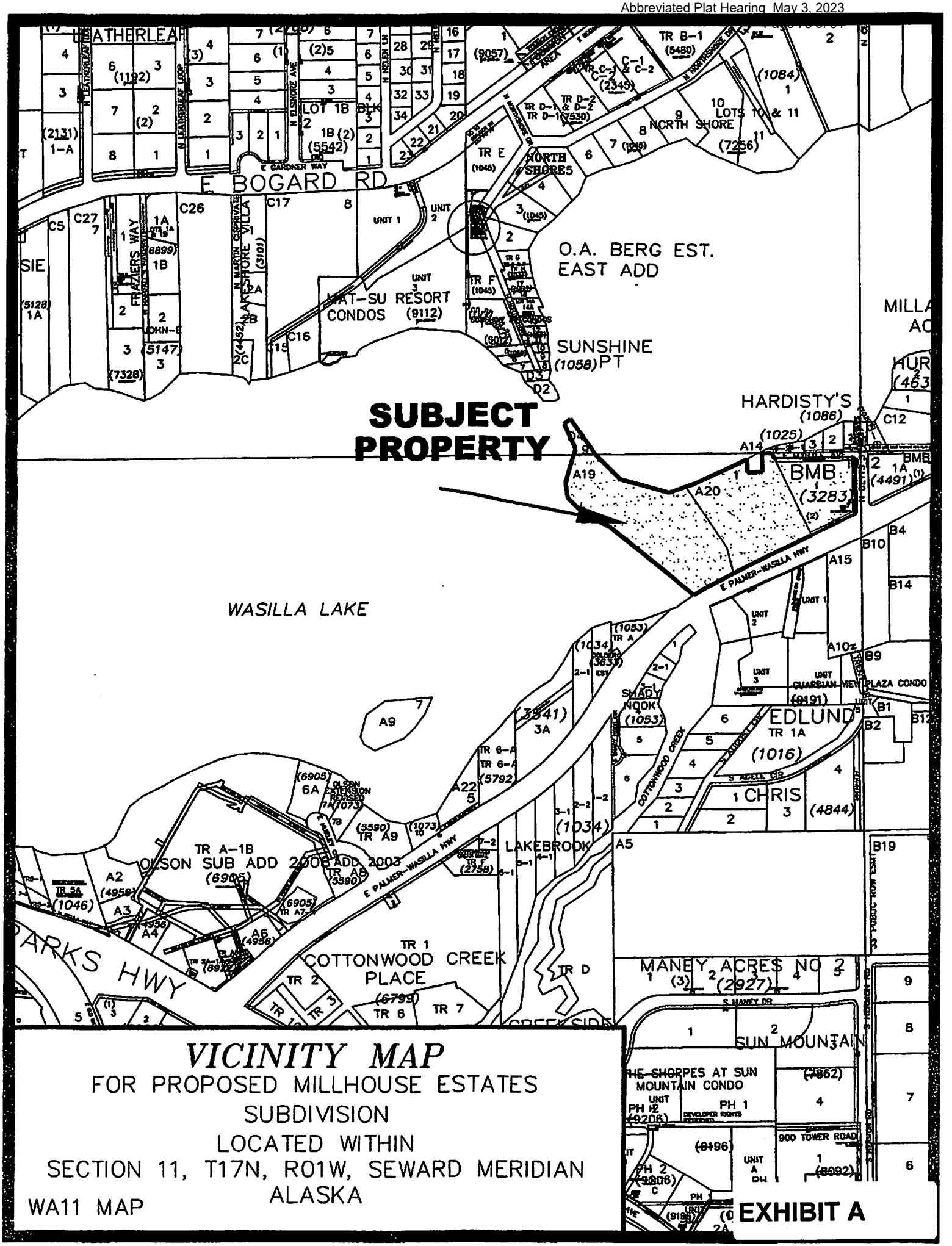
At the time of staff report write-up, there were no responses to the Request for Comments from MSB Fire Services, MSB Community Development, Emergency Services, Assessments; City of Wasilla; MTA, or MEA.

CONCLUSION: The proposed preliminary plat for **Millhouse Estates** is consistent with AS 29.40.070 Preliminary Plats, MSB 43.15.025 Abbreviated Plats. There were no objections to the plat from any federal or state agencies, borough departments, or utilities. There were no objections to the plat from the public in response to the Notice of Public Hearing. Legal and physical access exists to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision exists, pursuant to MSB 43.20.320 Frontage. A topographic narrative was submitted pursuant to MSB 43.20.281. **(Exhibit C)**

FINDINGS OF FACT
1. The proposed preliminary plat for **Millhouse Estates** is consistent with AS 29.40.070 Preliminary Plats, MSB 43.15.025 Abbreviated Plats.
2. At the time of staff report write-up, there were no responses to the Request for Comments from MSB Fire Services, MSB Community Development, Emergency Services, Assessments; City of Wasilla; MTA, or MEA.
3. A Soils Report was not required. A Topographic narrative was submitted per MSB 43.20.281
4. There are no section line easements on this property.
5. A driveway permit application for N. Betts street is on file.
6. At the time this staff report was written there were no objections from any borough departments, outside agencies, or the public.
7. Access exists pursuant to MSB 43.20.320 Frontage, MSB 43.20.120 Legal Access, and 43.20.140 Physical Access.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL for the abbreviated plat of Millhouse Estates, Section 11, Township 17 North, Range 01 West, Seward Meridian, Alaska, contingent on staff recommendations:

1. Pay mailing and advertising fee.
2. Show or list all easements of record on the final plat.
3. Provide copies of all driveway permits or applications for permits.
4. Remove chicken coop from R.O.W. and adhere to setback requirements for E. Myrtle Avenue.
5. Provide updated Certificate to Plat executed within 7 days of plat recordation per MSB 43.15.053(E) and submit Beneficiary Acknowledgement, if applicable.
6. Taxes and special assessments must be paid in full through the year of recording, per MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs) by certified funds or cash.
7. Submit recording fees; payable to DNR.
8. Submit final plat in full compliance with Title 43.



VICINITY MAP

FOR PROPOSED MILLHOUSE ESTATES SUBDIVISION

LOCATED WITHIN

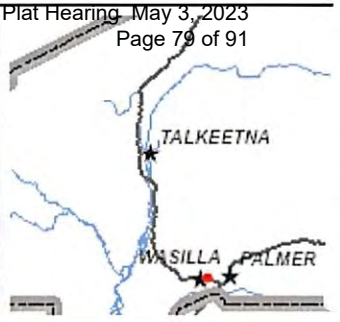
SECTION 11, T17N, R01W, SEWARD MERIDIAN ALASKA

WA11 MAP

EXHIBIT A

Matanuska-Susitna Borough

EXHIBIT A



Legend

- Road Mileposts
- Roads
  - Highway
  - Major Road
  - Medium Road
  - Minor Road
  - Ramp
  - Primitive Road
  - Private Road
  - Not Constructed
- Alaska Railroad
- Mat-Su Borough Boundary
- Incorporated Cities
- Address Numbers
- Parcels
- Lot and Block Numbers
- Government Lot Lines
- Government Lot Numbers
- ROW and Easements Description
- ROW and Easements
  - ROW Road
  - ROW RR
  - ROW Easement
  - Section line easement
- Lakes and Rivers
- Streams
- 100 year Flood Zone
- Section Lines

1: 8,815

0.3 0 0.14 0.28 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

Reported on 04/27/2023 03:48 PM

THIS MAP IS NOT TO BE USED FOR NAVIGATION

This map is solely for informational purposes only. The Borough makes no express or implied warranties with respect to the character, function, or capabilities of the map or the suitability of the map for any particular purpose beyond those originally intended by the Borough. For information regarding the full disclaimer and policies related to acceptable uses of this map, please contact the Matanuska-Susitna Borough GIS Division at 907-861-7858.

Notes

This map was automatically generated using Geocortex Essentials.

EXHIBIT A

Matanuska-Susitna Borough

Legend

- Road Mileposts
- Roads
  - Highway
  - Major Road
  - Medium Road
  - Minor Road
  - Ramp
  - Primitive Road
  - Private Road
  - Not Constructed
- Alaska Railroad
- Mat-Su Borough Boundary
- Incorporated Cities
- Parcels
- Government Lot Lines
- Lakes and Rivers
- Streams
- 100 year Flood Zone
- Section Lines

1: 35,259

1.1 0 0.56 1.11 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

Reported on 04/27/2023 03:50 PM

THIS MAP IS NOT TO BE USED FOR NAVIGATION

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Notes

This map was automatically generated using Geocortex Essentials.

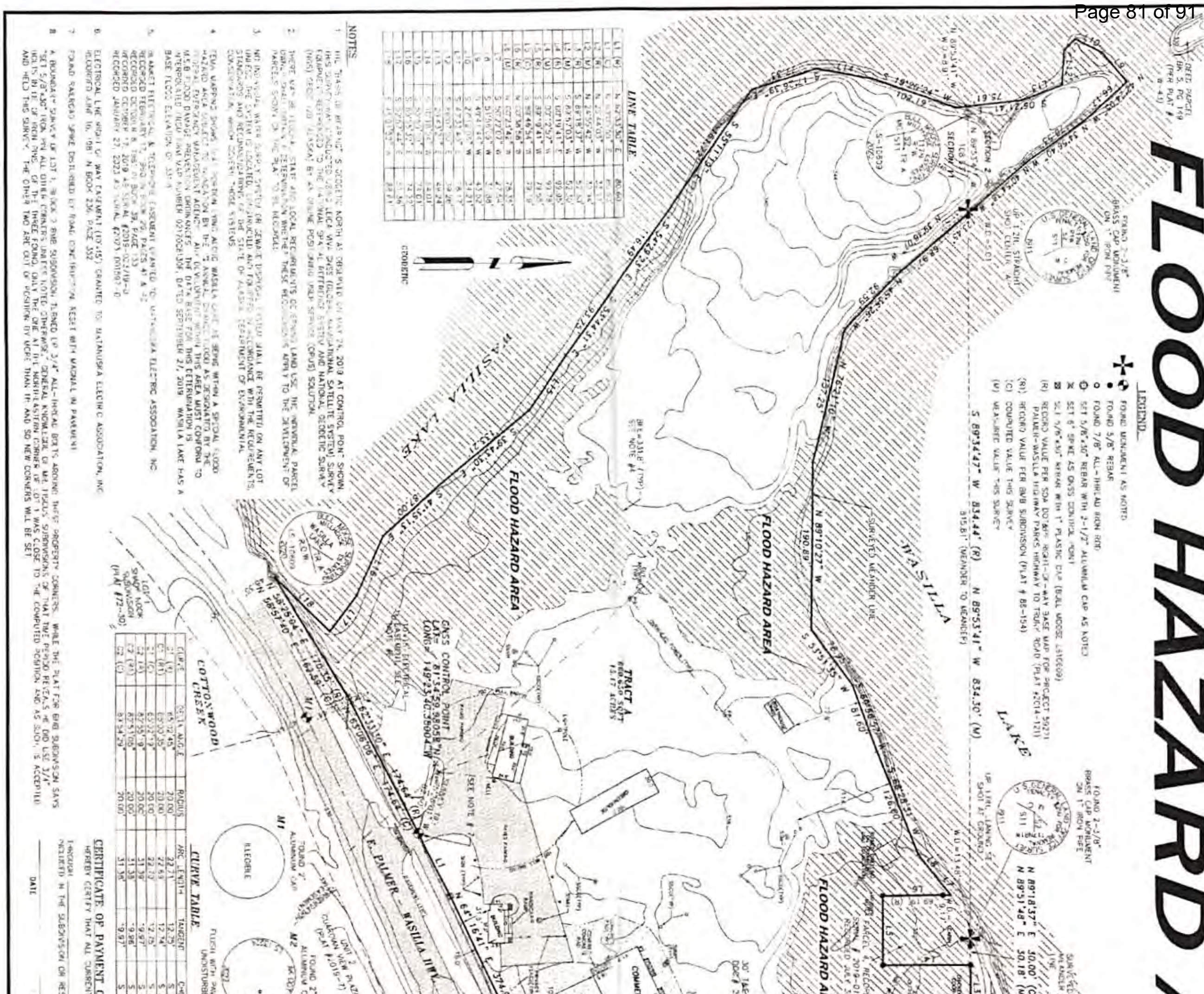

FLOOD HAZARD AREA
FLOOD HAZARD AREA
FLOOD HAZARD AREA
FLOOD HAZARD AREA
WASILLA LAKE
COMMERCIAL BUILDING
E. PALMER - WASILLA HWY.
COTTONWOOD CREEK
LINE TABLE
CURVE TABLE
NOTES
LEGEND
SECTION CORNER DETAIL
CERTIFICATE OF PAYMENT OF TAXES
OWNERSHIP CERTIFICATE
NOTARY ACKNOWLEDGEMENT
PLANNING & LAND USE DIRECTOR'S CERTIFICATE
SURVEYOR'S CERTIFICATE
Agenda Copy
PRELIMINARY
RECEIVED
PLATTING
A PLAT OF
MILLHOUSE ESTATES
A REPLAT OF:
PARCELS 1 & 2,
MSB WAIVER No. 85-22-PWm
(RECORDED AS 85-108W)
AND
GOVERNMENT LOT 9, SECTION 2
AND
LOT 1, BLOCK 2 BMB SUBDIVISION
(PLAT #86-154)
LOCATED WITHIN:
SECTIONS 2 & 11, T17N R1W
SEWARD MERIDIAN, ALASKA
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
BULL MOOSE SURVEYING, LLC.

EXHIBIT B

Bull Moose Surveying LLC

Robert S. Hoffman, P.L.S.
200 E. Hygrade Lane
Wasilla, Alaska 99654
Phone 907.357.6957
Email: bob@bullmoosesurveying.com

4/4/2023

TO: Fred Wagner, Platting Officer
RE: Topographic narrative for proposed Millhouse Estates

Dear Mr. Wagner:

The proposed subdivision is approximately 15.2 acres in area. It is bounded by the East Palmer-Wasilla Highway to the south and Wasilla Lake to the north and west. The ground is generally flat and slopes upward from the road and lake to the northwestern corner, which is the highest ground. Elevations vary from 330' to 344' with a portion of the property in a flood hazard area (elevation 331.8'). There are three septic systems on the property and there is over 400,000 square feet of usable area for septic on the property.

Sincerely,

Robert Hoffman P.L.S.

EXHIBIT C

Jesse Curlin

From: Pagemaster, Reg POA <regpagemaster@usace.army.mil>
Sent: Friday, April 7, 2023 11:22 AM
To: Jesse Curlin
Subject: RE: RFC Millhouse Estates # 20-009

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Good Morning,

Please be advised that if there are waters of the U.S., including wetlands, on the parcel and you are conducting activities that would result in placement of fill into those waters, you may need authorization from the U.S. Army Corps Engineers, Alaska District Regulatory program. Placement of fill includes direct dumping, side casting and mechanized land clearing if material is pushed into or through waters of the U.S. This is not a jurisdictional determination, just advisory in nature.

If you would like more information about the program, please visit our website at:
https://www.poa.usace.army.mil/Missions/Regulatory/.

Very Respectfully,

Rania Corn
Administrative Support Assistant
U.S. Army Corps of Engineers, Regulatory Division
P.O. Box 6896
JBER, AK 99506
(907) 753-5721

From: Jesse Curlin <Jesse.Curlin@matsugov.us>
Sent: Thursday, April 6, 2023 1:12 PM
To: Kristina Huling <kristina.huling@alaska.gov>; David Post <david.post@alaska.gov>; kyler.hylton@alaska.gov; george.horton@alaska.gov; james.walker2@alaska.gov; colton.percy@alaska.gov; sarah.myers@alaska.gov; Pagemaster, Reg POA <regpagemaster@usace.army.mil>; pamela.j.melchert@usps.gov; planning@ci.wasilla.ak.us; publicworks@ci.wasilla.ak.us; davemtp@mtaonline.net; hessmer@mtaonline.net; andrew.fraiser@enstarnaturalgas.com; james.christopher@enstarnaturalgas.com; row@enstarnaturalgas.com; ospdesign@gci.com; mearow@mea.coop; row@mtasolutions.com; robyundtmsb@gmail.com; Alex Strawn <Alex.Strawn@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Collections <Collections@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Marcia vonEhr <Marcia.vonEhr@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Theresa Taranto <Theresa.Taranto@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>
Subject: [URL Verdict: Neutral][Non-DoD Source] RFC Millhouse Estates # 20-009

EXHIBIT D

Jesse Curlin

From: Hoden, George D (DFG) <george.hoden@alaska.gov>
Sent: Thursday, April 6, 2023 3:06 PM
To: Jesse Curlin
Subject: RE: RFC Millhouse Estates # 20-009

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Hi Chris,
I am providing these comments on behalf of the Alaska Department of Fish and Game, Habitat Section, Palmer office. The Habitat Section has no objection to the proposed platting action. Please be advised that Wasilla Lake (AWC Code: 247-50-10300-0010) is cataloged by the Department of Fish and Game as an anadromous water body and supports habitat important for the spawning, rearing, or migration of anadromous fish. Any activities that impact the bed or banks of cataloged anadromous water bodies will require a permit from the Habitat Section in accordance with the Anadromous Fish Act at AS 16.05.871. This includes but is not limited to some common applications such as water withdrawals, docks, or revetments. Fish Habitat Permit applications can be found online at:
https://www.adfg.alaska.gov/static/license/uselicense/pdfs/fhpermitapp.pdf

Respectfully,
George

George Hoden
Habitat Biologist

Alaska Department of Fish & Game
Habitat Section
1801 S. Margaret Dr. Suite 6, Palmer, AK 99645

Office: (907) 861-3200 | **Direct:** (907) 861-3203

From: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>
Sent: Thursday, April 6, 2023 1:29 PM
To: Hoden, George D (DFG) <george.hoden@alaska.gov>
Subject: FW: RFC Millhouse Estates # 20-009

Hi George,

Can you please review?

Thanks!

Sincerely,

Sarah E. E. (Wilber) Myers
Habitat Biologist IV, Mat-Su Area Manager
ADF&G Habitat Section, Palmer Office
Office: 907-861-3206
Fax: 907-861-3232
ADF&G Habitat Section Permits Link

EXHIBIT E

Jesse Curlin

From: Horton, George C (DNR) <george.horton@alaska.gov>
Sent: Monday, April 10, 2023 3:10 PM
To: Jesse Curlin
Subject: RE: RFC Millhouse Estates # 20-009

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Hi Jesse,
If section-line easements exist within the proposed Tract A the DNR, DML&W Survey Section requests they be depicted and labeled on the final plat.
Thank you for the opportunity to comment.
Regards,

George Horton, PLS, CFedS
Land Surveyor I
DNR, DML&W, Survey Section
550 W. 7th AVE; Suite 650
Anchorage, Alaska 99501
(907) 269-8610
http://dnr.alaska.gov/mlw/survey/

"It's a dangerous business going out of your door. You step into the Road, and if you don't keep your feet, there is no knowing where you might be swept off to." Bilbo Baggins

---

From: Jesse Curlin <Jesse.Curlin@matsugov.us>
Sent: Thursday, April 6, 2023 1:12 PM
To: Huling, Kristina N (DOT) <kristina.huling@alaska.gov>; Post, David E (DOT) <david.post@alaska.gov>; Hylton, Kyler (DOT) <kyler.hylton@alaska.gov>; Horton, George C (DNR) <george.horton@alaska.gov>; Walker, James H (DNR) <james.walker2@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; planning@ci.wasilla.ak.us; publicworks@ci.wasilla.ak.us; davemtp@mtaonline.net; hessmer@mtaonline.net; andrew.fraiser@enstarnaturalgas.com; james.christopher@enstarnaturalgas.com; row@enstarnaturalgas.com; ospdesign@gci.com; mearow@mea.coop; row@mtasolutions.com; robyundtmsb@gmail.com; Alex Strawn <Alex.Strawn@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; Brad Sworts <brad.sworts@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Collections <Collections@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <jamie.taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Marcia vonEhr <Marcia.vonEhr@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Theresa Taranto <Theresa.Taranto@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>
Subject: RFC Millhouse Estates # 20-009

The following link contains a Request for Comments to combine 17N01W02D004, 17N01W11A019, 17N01W11A020, and 3283B02L001.

EXHIBIT F

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Transportation and Public Facilities

Program Development and Statewide Planning
Anchorage Field Office

4111 Aviation Avenue
P.O. Box 196900
Anchorage, AK 99519-6900
Main number: 907-269-0520
Fax number: 907-269-0521
Website: dot.alaska.gov

April 14, 2023

Fred Wagner, Platting Officer
Matanuska-Susitna Borough
350 East Dahlia Avenue
Palmer, Alaska 99645

[Sent Electronically]

Re: Plat Review

Dear Mr. Wagner:

The Alaska Department of Transportation and Public Facilities (DOT&PF) Central Region has reviewed the following plats and have the following comments:

- **Plat #2014-11, WA 12 Hacker, Parks Highway**
  - No objection to the proposed plat.
  - No direct access to the Parks Highway will be granted. All proposed lots must take access from McCallister Dr.
  - DOT&PF recommends the Mat-Su Borough consider through road development goals in the area of Seims Street between the Parks Highway, Coghlan Circle and McCallister Dr.
  - DOT&PF requests applicant doesn't develop anything that precludes a future connection of Seims Street between the Parks Highway and McCallister Dr.

- **Plat #74-62, WA 12 Griggs, Parks Highway**
  - No objection to the proposed plat.
  - Access to the north lot must be taken from Airway Circle and access to the south lot must be taken from Commercial Drive.
  - No direct access from the south lot to the Parks Highway.

- **Plat #86-154, WA 11 Millhouse, Palmer-Wasilla Highway**
  - No objection to the proposed lot consolidation.
  - No additional access to the Palmer-Wasilla Highway will be permitted.
  - Please be advised that DOT&PF has a project developing Hermon Road Extension from the Parks Highway to the Palmer-Wasilla Highway. Project improvements anticipate realigning Betts Street and placing a signal at the Palmer-Wasilla Highway and Betts

Street. More information about the project can be found at https://www.hermonroadextension.com/.
- Please be aware of potential DOT&PF Right-of-Way needs as Hermon Road Extension and its signal are developed.
- DOT&PF advises that left turn access on the Palmer-Wasilla Highway is not guaranteed in the future. DOT&PF recommends prioritizing further access development at Myrtle Avenue due to the Betts Street traffic light.

All properties accessing DOT&PF roads must apply to Right of Way for a driveway permit and/or approach road review, subject to provisions listed in 17 AAC 10.020. Any previously issued access permits become invalid once the property undergoes a platting action and must be reissued.

We recommend the petitioner verify all section line easements and DOT&PF road rights-of-way adjacent to their property. For assistance, the petitioner may contact the Engineering group within the Right of Way section in DOT&PF at (907) 269-0700. The petitioner is liable to remove any improvements within the easements and rights-of-way that impede the operation and maintenance of those facilities even if they are not shown on the plat, so it is in the petitioner's best interest to identify the exact locations and widths of any such easements or rights-of-way before they improve the property.

If any section line easements or road rights-of-way exist within the bounds of their plat, we recommend the petitioner dedicate them. If there is an existing right-of-way or easement, the petitioner is unable to develop that portion of the property yet continues to pay property taxes on it; dedicating will remove that cost to the petitioner.

If there are any questions regarding these comments please feel free to contact me at (907) 269-0509 or kristina.huling@alaska.gov.

Sincerely,

Kristina Huling
Mat-Su Area Planner, DOT&PF

cc: Scott Thomas, P.E., Regional Traffic Engineer, Traffic Safety and Utilities, DOT&PF
Jacob Ciufo, P.E., Regional Hydrologist, DOT&PF
Sean Baski, Chief, Highway Design, DOT&PF
Matt Walsh, Property Management Supervisor, Right of Way, DOT&PF
Devki Rearden, Engineering Associate, DOT&PF
Morris Beckwith, Right of Way, DOT&PF
Brad Sworts, Pre-Design & Engineering Div. Manager, MSB

EXHIBIT G

Jesse Curlin

From: Daniel Dahms
Sent: Wednesday, April 12, 2023 11:34 AM
To: Jesse Curlin
Cc: Jamie Taylor; Tammy Simmons; Brad Sworts
Subject: RE: RFC Millhouse Estates # 20-009

Chris,

Chicken Coup shown on Agenda Plat next to Myrtle Avenue will need to be removed from the Public ROW and adhere to setback requirements from Myrtle Ave.

Daniel Dahms
Department of Public Works
Pre-Design and Engineering Division

From: Jesse Curlin <Jesse.Curlin@matsugov.us>
Sent: Thursday, April 6, 2023 1:12 PM
To: Kristina Huling <kristina.huling@alaska.gov>; David Post <david.post@alaska.gov>; kyler.hylton@alaska.gov; george.horton@alaska.gov; james.walker2@alaska.gov; colton.percy@alaska.gov; sarah.myers@alaska.gov; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; planning@ci.wasilla.ak.us; publicworks@ci.wasilla.ak.us; davemtp@mtaonline.net; hessmer@mtaonline.net; andrew.fraiser@enstarnaturalgas.com; james.christopher@enstarnaturalgas.com; row@enstarnaturalgas.com; ospdesign@gci.com; mearow@mea.coop; row@mtasolutions.com; robyundtmsb@gmail.com; Alex Strawn <Alex.Strawn@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Collections <Collections@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Marcia vonEhr <Marcia.vonEhr@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Theresa Taranto <Theresa.Taranto@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>
Subject: RFC Millhouse Estates # 20-009

The following link contains a Request for Comments to combine 17N01W02D004, 17N01W11A019, 17N01W11A020, and 3283B02L001.
Comments are due by April 17, 2023. Please let me know if you have any questions.

WA 11 MILLHOUSE

Sincerely,

Chris Curlin
Platting Technician
Matanuska-Susitna Borough
(909) 861-7873

EXHIBIT H

Jesse Curlin

From: OSP Design Group <ospdesign@gci.com>
Sent: Monday, April 17, 2023 5:14 PM
To: Jesse Curlin
Cc: OSP Design Group
Subject: RE: RFC Millhouse Estates # 20-009
Attachments: RFC Packet.pdf; Agenda Plat.PDF

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Jesse,

In review GCI has no comments or objections to the plat, attached is the signed plat for your records.

Thanks,
MIREYA ARMESTO
GCI | Technician II, GIS Mapping
m: 907-744-5166 | **w:** www.gci.com

From: Jesse Curlin <Jesse.Curlin@matsugov.us>
Sent: Thursday, April 6, 2023 1:12 PM
To: Kristina Huling <kristina.huling@alaska.gov>; David Post <david.post@alaska.gov>; kyler.hylton@alaska.gov; george.horton@alaska.gov; james.walker2@alaska.gov; colton.percy@alaska.gov; sarah.myers@alaska.gov; regpagemaster@usace.army.mil; pamela.j.melchert@usps.gov; planning@ci.wasilla.ak.us; publicworks@ci.wasilla.ak.us; davemtp@mtaonline.net; hessmer@mtaonline.net; andrew.fraiser@enstarnaturalgas.com; james.christopher@enstarnaturalgas.com; row@enstarnaturalgas.com; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop; row@mtasolutions.com; robyundtmsb@gmail.com; Alex Strawn <Alex.Strawn@matsugov.us>; Andy Dean <Andy.Dean@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Charlyn Spannagel <Charlyn.Spannagel@matsugov.us>; Collections <Collections@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Elaine Flagg <Elaine.Flagg@matsugov.us>; Eric Phillips <Eric.Phillips@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Marcia vonEhr <Marcia.vonEhr@matsugov.us>; Margie Cobb <Margie.Cobb@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Theresa Taranto <Theresa.Taranto@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>
Subject: RFC Millhouse Estates # 20-009

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

The following link contains a Request for Comments to combine 17N01W02D004, 17N01W11A019, 17N01W11A020, and 3283B02L001.
Comments are due by April 17, 2023. Please let me know if you have any questions.

WA 11 MILLHOUSE

Sincerely,

Chris Curlin

EXHIBIT I

ENSTAR Natural Gas Company
A DIVISION OF SEMCO ENERGY
Engineering Department, Right of Way Section
401 E. International Airport Road
P. O. Box 190288
Anchorage, Alaska 99519-0288
(907) 277-5551
FAX (907) 334-7798

April 6, 2023

Matanuska-Susitna Borough, Platting Division
350 East Dahlia Avenue
Palmer, AK 99645-6488

To whom it may concern:

ENSTAR Natural Gas Company has reviewed the following abbreviated plat and has no comments or recommendations.

- **MILLHOUSE ESTATES**
  (MSB Case # 2020-009)

If you have any questions, please feel free to contact me at 334-7944 or by email at james.christopher@enstarnaturalgas.com.

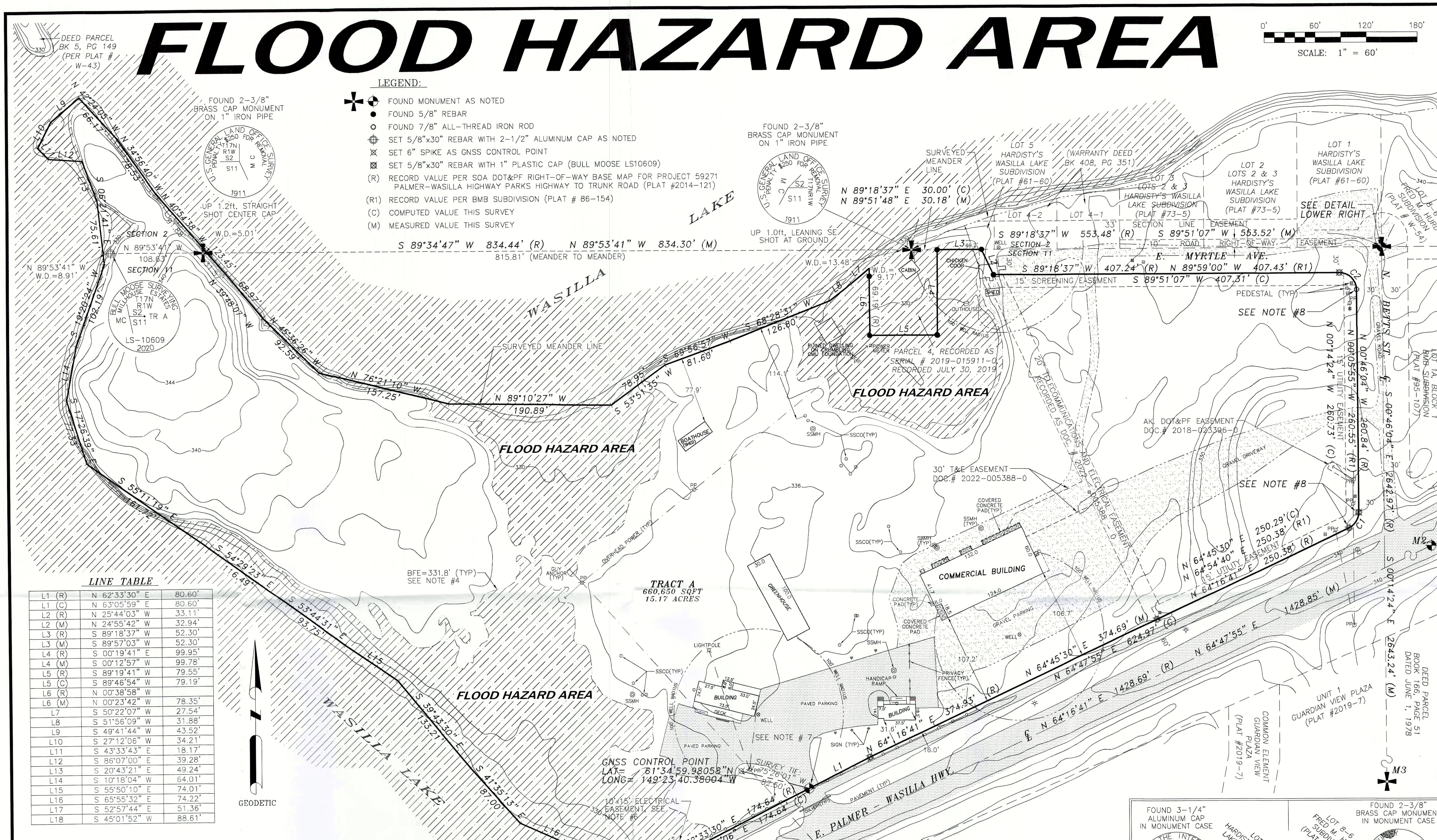
Sincerely,

James Christopher

James Christopher
Right of Way & Compliance Technician
ENSTAR Natural Gas Company

EXHIBIT I

FLOOD HAZARD AREA



LEGEND:

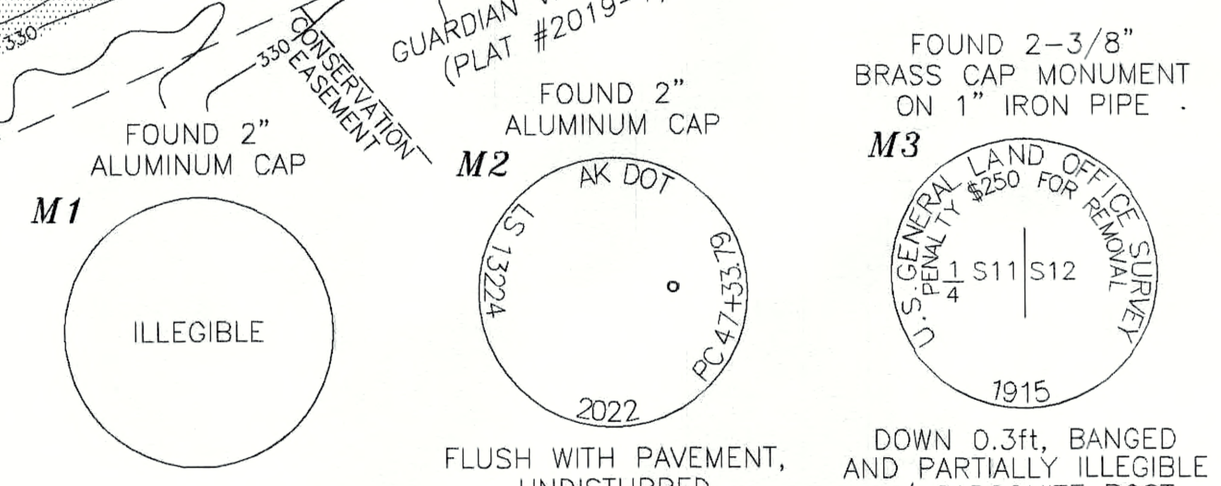
- FOUND MONUMENT AS NOTED
- FOUND 5/8" REBAR
- FOUND 7/8" ALL-THREAD IRON ROD
- SET 5/8"x30" REBAR WITH 2-1/2" ALUMINUM CAP AS NOTED
- SET 6" SPIKE AS GNSS CONTROL POINT
- SET 5/8"x30" REBAR WITH 1" PLASTIC CAP (BULL MOOSE LS10609)
- (R) RECORD VALUE PER SOA DOT&PF RIGHT-OF-WAY BASE MAP FOR PROJECT 59271 PALMER-WASILLA HIGHWAY PARKS HIGHWAY TO TRUNK ROAD (PLAT #2014-121)
- (R1) RECORD VALUE PER BMB SUBDIVISION (PLAT # 86-154)
- (C) COMPUTED VALUE THIS SURVEY
- (M) MEASURED VALUE THIS SURVEY

LINE TABLE

L1 (R)	N 62°33'30" E	80.60'
L1 (C)	N 63°05'59" E	80.60'
L2 (R)	N 25°44'03" W	33.11'
L2 (M)	N 24°55'42" W	32.94'
L3 (R)	S 89°18'37" W	52.30'
L3 (M)	S 89°57'03" W	52.30'
L4 (R)	S 00°19'41" E	99.95'
L4 (M)	S 00°12'57" W	99.78'
L5 (R)	S 89°19'41" W	79.55'
L5 (C)	S 89°46'54" W	79.19'
L6 (R)	N 00°38'58" W	
L6 (M)	N 00°23'42" W	78.35'
L7	S 50°22'07" W	27.54'
L8	S 51°56'09" W	31.88'
L9	S 49°41'44" W	43.52'
L10	S 27°12'06" W	34.21'
L11	S 43°33'43" E	18.17'
L12	S 86°07'00" E	39.28'
L13	S 20°43'21" E	49.24'
L14	S 10°18'04" W	64.01'
L15	S 55°50'10" E	74.01'
L16	S 65°55'32" E	74.22'
L17	S 52°57'44" E	51.36'
L18	S 45°01'52" W	88.61'

NOTES

1. THE "BASIS OF BEARING" IS GEODETIC NORTH AS OBSERVED ON MAY 24, 2019 AT CONTROL POINT SHOWN. THIS SURVEY WAS CONDUCTED USING LEICA VIVA GNSS (GLOBAL NAVIGATIONAL SATELLITE SYSTEM) SURVEY EQUIPMENT REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM AND NATIONAL GEODETIC SURVEY (NGS) GEOID 12B (ALASKA) BY AN ONLINE POSITIONING USER SERVICE (OPUS) SOLUTION.
2. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN ON THE PLAT TO BE RECORDED.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERN THOSE SYSTEMS.
4. FEMA MAPPING SHOWS THAT PORTION LYING ALONG WASILLA LAKE AS BEING WITHIN A SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD AS DESIGNATED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. ANY DEVELOPMENT WITHIN THIS AREA MUST CONFORM TO M.S.B FLOOD DAMAGE PREVENTION ORDINANCES. THE DATA BASE FOR THIS DETERMINATION IS INTERPOLATED FROM FIRM MAP NUMBER 02170C8130F, DATED SEPTEMBER 27, 2019. WASILLA LAKE HAS A BASE FLOOD ELEVATION OF 331.8'.
5. BLANKET ELECTRICAL & TELEPHONE EASEMENT GRANTED TO: MATANUSKA ELECTRIC ASSOCIATION, INC.
RECORDED FEBRUARY 17, 1960 IN BOOK 29, PAGES 41 & 42
RECORDED OCTOBER 6, 1961 IN BOOK 39, PAGE 133
RECORDED OCTOBER 17, 2019 AS SERIAL #2019-023719-0
RECORDED JANUARY 27, 2023 AS SERIAL #2023-001597-0
6. ELECTRICAL LINE RIGHT OF WAY EASEMENT (10'x15') GRANTED TO: MATANUSKA ELECTRIC ASSOCIATION, INC. RECORDED JUNE 16, 1981 IN BOOK 236, PAGE 352
7. FOUND RAILROAD SPIKE DISTURBED BY ROAD CONSTRUCTION, RESET WITH MAGNAIL IN PAVEMENT.
8. A BOUNDARY SURVEY OF LOT 1, BLOCK 2 BMB SUBDIVISION TURNED UP 3/4" ALL-THREAD BOLTS AROUND THESE PROPERTY CORNERS. WHILE THE PLAT FOR BMB SUBDIVISION SAYS "SET 5/8"x30" IRON PIN ALL OTHER CORNERS UNLESS NOTED OTHERWISE," GENERAL KNOWLEGDE OF MR. FISCUS' SUBDIVISIONS OF THAT TIME PERIOD REVEALS HE DID USE 3/4" BOLTS IN LIE OF IRON PINS. OF THE THREE FOUND, ONLY THE ONE AT THE NORTHEASTERN CORNER OF LOT 1 WAS CLOSE TO THE COMPUTED POSITION AND AS SUCH, IS ACCEPTED AND HELD THIS SURVEY. THE OTHER TWO ARE OUT OF POSITION BY MORE THAN 1ft AND SO NEW CORNERS WILL BE SET.



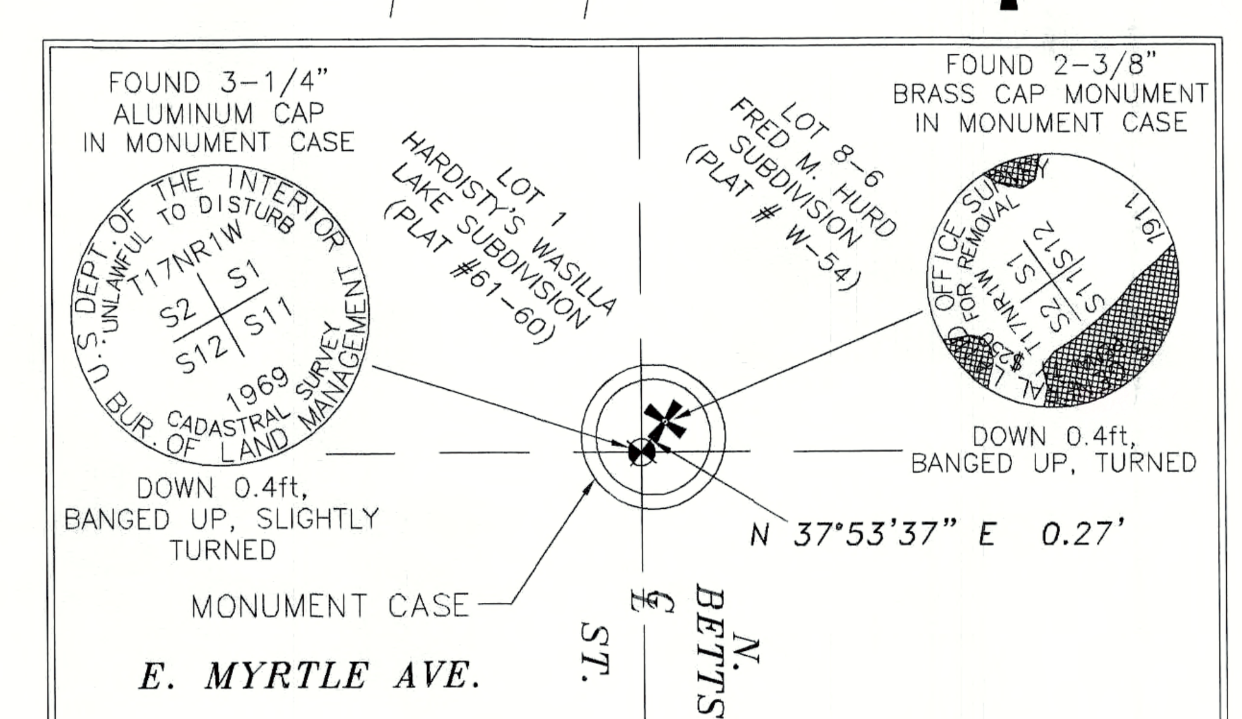
CURVE TABLE

CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	TANGENT	CHORD BEARING	CHORD LENGTH
C1 (R)	65°02'45"	20.00'	22.71'	12.75'	S 31°45'18" W	21.51'
C1 (R1)	65°00'35"	20.00'	22.69'	12.74'	S 32°24'23" W	21.50'
C1 (C)	65°02'19"	20.00'	22.70'	12.75'	S 32°16'46" W	21.50'
C2 (R)	89°55'19"	20.00'	31.39'	19.97'	S 45°43'43" E	28.26'
C2 (R1)	89°53'05"	20.00'	31.38'	19.96'	S 45°02'27" E	28.26'
C2 (C)	89°54'29"	20.00'	31.38'	19.97'	S 45°11'38" E	28.26'

CERTIFICATE OF PAYMENT OF TAXES

I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS THROUGH ______________, AGAINST THE PROPERTY INCLUDED IN THE SUBDIVISION OR RESUBDIVISION HEREON HAVE BEEN PAID.

DATE　　　BOROUGH TAX COLLECTION OFFICIAL



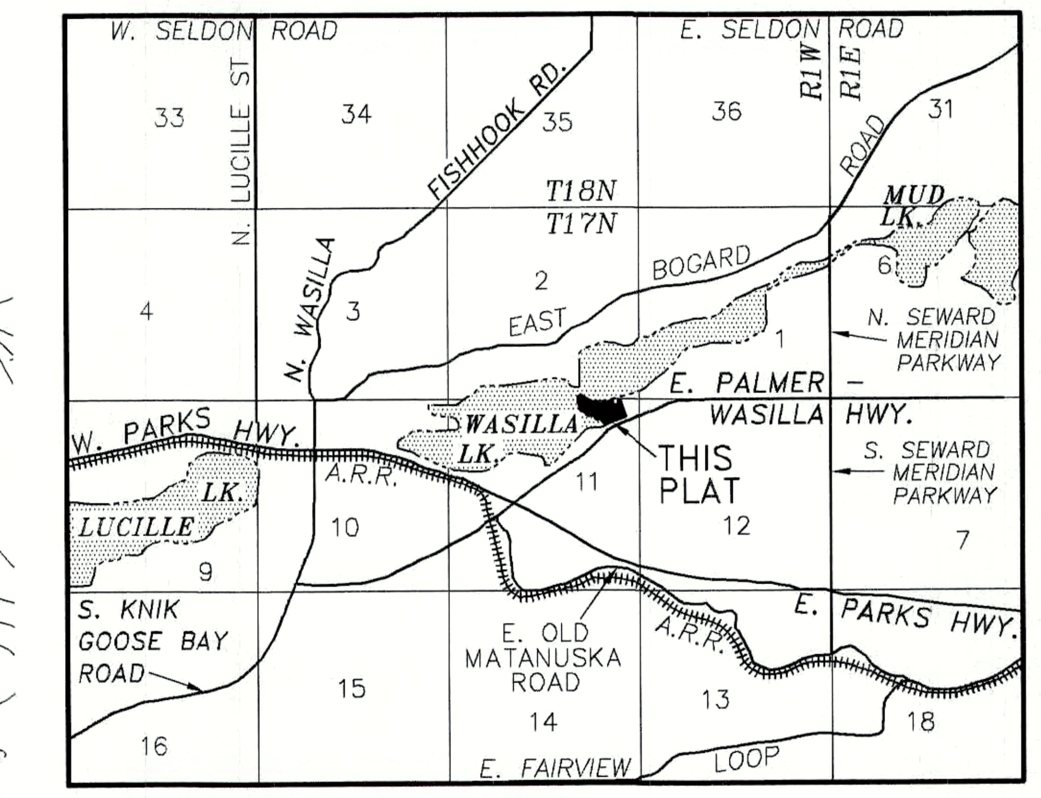
SECTION CORNER DETAIL
NOT TO SCALE

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

STATE OF ALASKA 49TH ROBERT S. HOFFMAN LS-10609 Professional Land Surveyor

ROBERT S. HOFFMAN, P.L.S.　　3/30/2023
LS 10609 PROFESSIONAL LAND SURVEYOR　　DATE



VICINITY MAP: 1" = 1 MILE

OWNERSHIP CERTIFICATE

I CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT I ADOPT THIS PLAN OF SUBDIVISION BY MY FREE CONSENT.

SANDRA D. MILLHOUSE　　DATE
P.O. BOX 874574
WASILLA, AK 99687-4574

NOTARY ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN BEFORE ME

THIS ________ DAY OF ____________

FOR SANDRA D. MILLHOUSE

NOTARY FOR THE STATE OF ALASKA

MY COMMISSION EXPIRES ____________

PLANNING & LAND USE DIRECTOR'S CERTIFICATE

I CERTIFY THAT THIS SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA - SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY

PLAT RESOLUTION NO. ____________

DATED ____________
AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, IN WHICH THIS PLAT IS LOCATED.

PLANNING AND LAND USE DIRECTOR　　DATE

ATTEST:　　PLATTING CLERK

Agenda Copy

PRELIMINARY

RECEIVED
APR 0 4 2023
PLATTING

A PLAT OF
MILLHOUSE ESTATES
A REPLAT OF:
PARCELS 1 & 2,
MSB WAIVER No. 85-22-PWm
(RECORDED AS 85-108W)
AND
GOVERNMENT LOT 9, SECTION 2
AND
LOT 1, BLOCK 2 BMB SUBDIVISION
(PLAT #86-154)

LOCATED WITHIN:
SECTIONS 2 & 11, T17N R1W
SEWARD MERIDIAN, ALASKA
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
CONTAINING 15.2 ACRES MORE OR LESS

BULL MOOSE SURVEYING, LLC.
ROBERT S. HOFFMAN P.L.S.
200 HYGRADE LANE
WASILLA, ALASKA 99654
OFFICE: (907) 357-6957
bob@bullmoosesurveying.com

DRAWN BY: EEG	DRAWING SCALE: 1"=60'
DATE: 3/30/2023	
CHECKED BY: RSH/TGC	SHEET 1 OF 1