

MATANUSKA-SUSITNA BOROUGH
LAND AND RESOURCE MANAGEMENT
PALMER, ALASKA



BIDDING AND LEASE DOCUMENTS
COMPETITIVE SEALED BID
COMMERCIAL MATERIAL LEASE

CML 22-010

MSB007701 – Meadow Gravel, 62 Acres

COMPLETED BIDS MUST BE SUBMITTED NO LATER THAN:
June 8, 2022 @ 2PM

TABLE OF CONTENTS

	Page
SECTION I	
INSTRUCTIONS TO BIDDERS	3
SECTION II	
SPECIFICATIONS/SCOPE OF WORK	9
SECTION III	
BID FORM	10
SECTION IV	
ATTACHMENT - TAX CLEARANCE FORM	11
SECTION V	
SAMPLE LEASE AGREEMENT	12 of pdf
CONDITIONAL USE PERMIT 17302021003	89 of pdf
PLANNING COMMISSION RESOLUTION 21-22	92 of pdf
APPLICATION FOR CUP	109 of pdf
DETAILED PROJECT DESCRIPTION	113 of pdf
SITE PLAN	123 of pdf
GEOTECH REPORT	124 of pdf

SECTION I
INSTRUCTIONS TO BIDDER (6 pages)

01. EXAMINATION OF BIDDING DOCUMENTS AND SITE

The Bidder shall examine carefully the Bidding Documents and site of the proposed work before submitting a Bid. The submission of a Bid shall be an admission that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements and accuracy of the Bidding Documents.

The BOROUGH assumes no responsibility for any understanding or representations concerning conditions made by any of its officers, agents, or employees prior to the execution of this bid document and its contents, unless such understanding or representations are expressly stated in the Bidding Documents or Addenda.

Any interested party submitting a bid on Matanuska-Susitna Borough (BOROUGH) projects should first review the BOROUGH Debarment/Suspension List. This listing is available on the BOROUGH Website. Any submission of a bid, with participation or involvement of an individual, company, firm or corporation on this list will render the bid/proposal as non-responsive.

The Bidder shall include in their bid sufficient sums to cover all items required by the Lease Agreement and the conditions of the site(s), and shall rely entirely upon their own examination in making their bid. The submission of a bid shall be taken as prima facie evidence of compliance with this paragraph.

02. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Bidders shall notify the BOROUGH Land and Resource Management Division Natural Resource Manager (NRM) promptly of any error, omission, or inconsistency that may be discovered during examination of the Bidding Documents and the proposed construction site. Requests from Bidders for interpretation or clarification of the Bidding Documents shall be made in writing to the NRM and shall arrive at least four (4) working days prior to the date for opening Bids. Any questions received after this date may not be answered. Oral questions may be presented at a pre-bid conference if one is provided for in the Bidding Documents. Interpretations, corrections, or changes, if any, to the Bidding Documents shall be made by Addendum. Bidders shall not rely upon interpretations, corrections, and changes made in any other manner, including orally, at the pre-bid conference. Interpretations, corrections, and changes shall not be binding unless included in an Addendum. All Addenda issued during the time of bidding shall become part of the Agreement Documents. Questions or requests for clarifications shall be directed to the NRM. Questions or requests for clarification directed to any other member of the borough staff may be grounds for rejection of bid as being irregular.

If material required for bidding purposes by these documents is absent, the Bidder is required to notify the Land and Resource Management Department in writing, or by e-mail to ekrueger@matsugov.us.

NO ORAL QUESTIONS WILL BE ENTERTAINED.

It is the Bidders sole responsibility to ascertain that they have received all Addenda issued by the Land and Resource Management Division. Addendum will be issued by U.S. Mail, or e-mail. All Addenda must be acknowledged in the space provided on the Bid Form. If no Addendum has been issued, leave blank or write or type "N/A" on the Bid Form in the space provided.

03. PREPARATION AND SUBMISSION OF BIDS

The Bidder with their usual legal signature must sign each bid, preferably in blue ink. Bids shall be submitted on the bid forms supplied and must be manually signed. Bids shall be submitted in a sealed envelope with the Invitation Number plainly marked on the front.

Where required on the bid, Bidders must provide a quote on all items. Failure to do so may disqualify the Bid. When quotes on all items are not required, Bidders shall insert the words "no bid" in the space provided for any item where no quote is made. If erasures or other changes appear on the forms, the person signing the bid must initial each such erasure or change.

Bids shall specify a unit or lump sum price, typed or written in ink in numerical form, for each bid item called for. In case of error in the extension of prices, the unit price will govern. Bids may be rejected if they show any omissions, alteration of the forms, additions not called for, conditional or alternate bids not called for, or irregularities of any kind.

If more than one Proposal/Bid is offered by any one party, by or in the name of their clerk, partner, or other person, all such Proposals/Bids will be rejected. A party who has quoted prices to an Offeror/Bidder is not thereby disqualified from quoting prices to other Offerors/Bidders, or from submitting a Proposal/Bid directly for the work.

Bidders must submit with their bid, a certified check or money order in the full amount of bid. Bidders must also submit evidence of the BOROUGH Business License, Alaska Business License, Tax Clearance, and proof of Insurance in the appropriate amounts. The successful Bidder will be expected to execute the Lease Agreement within 5 days of bid closure. Unsuccessful Bidders will have funds returned once the Lease Agreement is executed by the BOROUGH.

04. BID GUARANTEE - Reserved

05. DIRECTIONS FOR DELIVERY OF BIDS

Envelopes containing the bid, must be sealed, addressed and marked indicating bid number, bid name, and bid opening time and date, and delivered to:

Matanuska-Susitna Borough
Land Management Division
ATTN: Natural Resource Manager
350 East Dahlia Avenue
Palmer, Alaska 99645

6. BIDDERS CHECK LIST

Bids may not be considered if the documents listed at the bottom of the Bid Form are not completely filled out, signed with original signature(s), and submitted with the bid.

7. RECEIPT AND OPENING OF BIDS

Bids must be received by the Land and Resource Management Division no later than June 8, 2022 at 2pm.

Late Bids will not be considered. Time of bid receipt will be determined by date and time stamp of the Land Management office.

Electronic transmitted bids will not be considered unless specifically stated in bid documents. Modification of bids already submitted will be considered if received by the NRM prior to bid closure on June 8 at 2pm.

No liability will attach to the BOROUGH for the premature opening of, or the failure to open, a bid not properly addressed and identified.

Bids may be withdrawn on written or electronic request received from Bidder prior to the time specified for Bid closure.

If more than one Bid is offered by any one party, by or in the name of their clerk, partner, or other person, all such Bids will be rejected. A party who has quoted prices to a Bidder is not thereby disqualified from quoting prices to other Bidders, or from submitting a Bid directly for the work.

Bids shall be opened at the close of bid acceptance. Successful Bidder will be notified within ten working days of bid opening.

08. EVIDENCE OF QUALIFICATIONS

Upon request of the BOROUGH, a Bidder whose Bid is under consideration for the award of the Lease Agreement shall submit promptly to the BOROUGH satisfactory evidence of the Bidder's financial resources, their experience, their performance in completing other projects of a similar nature and the organization and equipment they have available for the performance of the Lease Agreement.

09. QUALIFIED AND RESPONSIBLE BIDDER

Before the bid is considered for award, the NRM reserves the right to determine a Bidder is qualified and responsible and to require the Bidder to complete a Bidder Qualification Form and/or a current financial statement prepared by a Certified Public Accountant.

The NRM shall determine whether a Bidder is qualified pursuant to MSB 23.10.090 Qualifications of Applicants and Bidders which states:

(A) A Bidder at auction or an applicant to otherwise purchase, lease, or use BOROUGH-owned real property must be a legally competent person under the laws of the state of Alaska. A person acting as agent for an applicant or Bidder must also be a legally competent person, and must, prior to placing a bid or submitting an application, file with the manager a duly executed power of attorney or other evidence of such agency acceptable to the manager.

(B) A person is not a qualified applicant or Bidder if:

(1) the person has failed to pay a deposit or payment, including interest at the legal rate, due to the BOROUGH in relation to BOROUGH-owned real property in the previous five years; or

(2) the person is currently in breach or default on any contract or lease for real property transactions in which the BOROUGH has an interest; or

(3) the person has failed to perform under a contract or lease involving BOROUGH-owned real property in the previous five years and the BOROUGH has acted to terminate the contract or lease or to initiate legal action; or

(4) the person has failed to perform under or is in default of a contract with the BOROUGH; or

(5) the person is delinquent in any tax payment to the BOROUGH; or

(6) the manager has good cause to believe that the person is unlikely to make payment or responsibly perform under the lease or other contract.

(C) No BOROUGH-owned real property, nor any interest therein, may be sold, leased, or otherwise transferred to any person who is delinquent in the payment of any obligation to the BOROUGH, nor may the BOROUGH process the application for the sale, lease, or other disposal of real property, or any interest therein.

The NRM shall determine whether a Bidder is responsible on the basis of the following criteria:

The skill and experience demonstrated by the Bidder in performing Agreements of a similar nature.

The Bidder's record for honesty and integrity.

The Bidder's capacity to perform in terms of facilities, personnel and financing.

The BOROUGH reserves the right to require the Bidder to submit information pertaining to its products, service, reputation, and experience, in order to determine, at the BOROUGH's sole discretion, if the Bidder is a qualified/responsible vendor. Past dealings with the BOROUGH and other government agencies will be considered.

A Bidder's representations concerning their qualifications and past dealings as defined above will be construed as a covenant under the Lease Agreement. Should it appear that the Bidder has made any material misrepresentation, the BOROUGH shall have the right to terminate the Lease Agreement for breach, and the BOROUGH may then pursue such remedies as provided in the Lease Agreement or as provided by State statute, Borough code, or as appropriate.

Any determination that a Bidder is non-qualified or non-responsible will be made by the NRM in writing to the Bidder setting forth the reasons for such determination.

10. ACTION ON BIDS

The BOROUGH reserves the right to reject any and all bids, and to waive any informalities and irregularities in bidding or award of the Lease Agreement.

Unless otherwise stated in the bidding documents, a lease, if awarded, shall be issued to the Bidder who submits the highest responsive and acceptable bid within the requirements of the bid document.

11. PERFORMANCE BONDS

SEE PERFORMANCE BOND REQUIREMENTS IN SAMPLE LEASE AGREEMENT.

12. INSURANCE

SEE INSURANCE REQUIREMENTS IN SAMPLE LEASE AGREEMENT.

13. ESTIMATES OF QUANTITIES APPROXIMATE ONLY - RESERVED

14. EXECUTION OF LEASE AGREEMENT

The Bidder whose bid is accepted shall execute the Lease Agreement immediately following the bid opening, if its approved by the Borough Assembly. The Agreement shall be considered executed by the successful Bidder when the Lease Agreement is signed by an authorized representative of the Bidder, and the Bond and insurance certificate(s) are received by the NRM.

The date the Lease Agreement is executed by the BOROUGH the rights and obligations provided for in the Lease Agreement shall become effective and binding upon the parties.

15. LESSEE'S WARRANTY - RESERVED

16. CERTIFIED PAYROLL - RESERVED

17. STATE OF ALASKA PREVAILING WAGE SCALE - RESERVED

18. PURCHASER’S VIOLATIONS OF TAX OBLIGATIONS

- A. No Agreement shall be awarded to any individual, firm, corporation, or business who is found to be delinquent in any area of taxation, lease, land payment, or rental agreement, with the BOROUGH which has not been remedied within 10 calendar days of receipt of written notice.
- B. The Lease Agreement can be terminated for cause if it is determined that the individual, firm, corporation, or business is in arrears of any taxation, lease, land payment, or rental agreement, that is due to the BOROUGH that is not remedied within 10 calendar days of notification by regular mail.

The BOROUGH reserves any right it may have to offset amounts owed by an individual, firm, corporation or business for delinquent BOROUGH taxes, lease, rental agreement, or land sale payments, against any amount owing to the same under an agreement between the BOROUGH and the same.

19. PROTEST OF AWARD OF BID – RESERVED

20. MATANUSKA-SUSITNA BOROUGH BUSINESS LICENSE

Effective January 1996, Matanuska-Susitna Borough Code, Chapter 3.36, requires that all businesses conducting business within the boundaries of the BOROUGH have a current business license issued by the BOROUGH. Prior to any award as a result of this solicitation, the Bidder will be required to provide proof that they have a current Matanuska-Susitna Business License or proof that they have applied for one. Copies of MSB 3.36.040 and instructions on obtaining a business license may be obtained at the Collection Counter, Finance Department, or by calling (907) 861-8632.

21. PROCEDURES FOR AWARD

The Lease Agreement shall be awarded by written notice issued by the NRM to the highest qualified, responsive, and responsible Bidder. The bid must be approved by the Borough Assembly before the Lease Agreement can be executed.

22. LOCAL BIDDER PREFERENCE - RESERVED

23. THIRD-PARTY FINANCING AGREEMENTS AND/OR ASSIGNMENTS OF PAYMENT NOT ALLOWED

Because of additional administrative and accounting time required of Borough departments/divisions when third party financing agreement and/or assignments of payment are permitted, they will not be allowed under any agreement resulting from this solicitation to bid.

24. LICENSE REQUIREMENTS

All bidders, and sub-contractors must comply with state of Alaska requirements regarding licensing. Reference the state of Alaska' s licensing requirements for performing work under this Lease Agreement.

25. ACCEPTANCE OF LEASE AGREEMENT TERMS AND CONDITIONS

By signing the Bid Form, the Bidder certifies that they have examined and accept the terms and conditions of the Lease Agreement contained in this solicitation. The acceptance is inclusive of, but not limited to, all LEASE REQUIREMENTS, TERMS AND CONDITIONS, GENERAL PROVISIONS, AND SUPPLEMENTAL CONDITIONS along with any and all conditions

contained in the INSTRUCTIONS TO BIDDERS associated with this solicitation. Submission of a bid in response to this solicitation, certifies that the Bidder is willing to accept these terms and understands that failure to accept these terms will subject the Bidder to forfeiture of the Lease and loss of any bid guarantee as liquidated damages.

Bidders are encouraged to carefully examine the insurance requirements, any bonding requirements, and any Defense and Indemnification clause contained in the sample Lease Agreement.

26. OVER THE COUNTER SALE

If the successful bidder fails to pay the monthly lease fee and royalty in the time allotted, the Borough will offer a lease to the next highest qualified bidder. If the lease is not issued through this competitive sealed bid, it will be offered over-the-counter on a first-come-first served basis.

SECTION II

MEADOW GRAVEL LEASE

CML#22-010

Specifications / Scope of Work

GENERAL INFORMATION: The Matanuska-Susitna Borough has received a conditional use permit for material extraction on approximately 62-acres on Parcel Tax ID 17N02W02C004. An opportunity to bid on leasing the development and operation of the material site is available. The lease is by sealed bid and is for the period of ten (10) years with one (1) five (5) year renewal option. The minimum bid price is \$46,000 annually/\$3,833.00 per month and \$2.25/ton. The lease allows exclusive use of the 62-acre permitted site. The lease offered is for commercial users. Approximately two million, seven hundred thousand tons of material estimated to be recoverable on site.

SITE LOCATION: The lease site is shown on the attached map. The Tax ID of the parcel on which the site is located is 17N02W02C004. The site is near the intersection of Vine Road and Parks Highway. The approximate latitude is 61.586549N and longitude is -149.604255W.

SPECIFICATIONS: The leasee shall develop and operate an active material extraction site on the premises, in accordance with the issued CUP, to develop the property as specified in the permit. Leasee shall maximize the recoverable reserves to the extent material extraction will not limit future land uses. Sufficient acreage shall remain at least 10 feet above the seasonal high water table to support a school site with a typical septic system. Site should be mined in a way to reduce the cost of the required reclamation, the details of which are up to the leasee. Timber on the site must be purchased or made available for a timber salvage sale. A stumpage payment of \$5,122.50 is required to dispose of the timber.

Interested parties should review the sample lease and Conditional Use Permit packet as well as visit the site.

Lease will be presented for Assembly consideration before execution by the Borough Manager.

SECTION III
BID FORM (1 Page)

CML#22-010 COMPETITIVE SEALED BID MATERIAL LEASE

Provide all personnel, material, supplies, equipment, transportation, and all other items as may be required to complete the services identified within the GENERAL INFORMATION entitled *Competitive Sealed Bid MATERIAL LEASE*.

<u>Sale Name & Number</u>	<u>Approx. Volume and Type</u>	<u>Acres</u>	<u>Rent Bid Amount</u>	<u>Royalty Bid Amount</u>	<u>Legal Description</u>
Meadow Gravel CML#22-010 MSB007701	Approx. 2,700,000 tons of pit run	62	\$ * <i>Minimum Bid</i> \$46,000/year	\$ * <i>Minimum Bid</i> \$2.25/ton	W1/2SW1/4 Section 2, T17N, R02W, SM

By signing below, the Bidder is hereby certifying to the following –

- 1) The Bidder has carefully examined the bid documents for solicitation number, **MSB007701 CML22-010, Competitive Sealed Bid Material Lease**; and agrees to lease said property for the amount listed on the bid form and comply with all requirements of the associated Lease Agreement.
- 2) The individual signing below, the firm association, or corporation of which they are a member, has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this solicitation.
- 3) The individual signing below is authorized by the firm association or corporation to bind such association or corporation to a legal contract.
- 4) The individual signing below, or the firm association or corporation of which they are a member, is not debarred or suspended from doing business with the Matanuska-Susitna Borough.
- 5) They are acknowledging receipt of the following Addenda Numbers (if no addenda have been issued, either leave blank or write “N/A”).
- 6) Completed Bid Packages must be submitted to the MSB Land & Resource Management Division by:
June 8, 2022 @ 2pm.

Addenda numbers being acknowledged:

CML#22-010-1

Company Name	Date
Mailing Address	Signature
City, State & Zip Code	Title (printed or typed)
Phone Number	Email Address

It shall be the responsibility of the Bidder to see that their bid is received at or before the date and time fixed for opening	To be considered responsive, Bidders should include the following with their Bid; <ul style="list-style-type: none"> ✓ Signed Form (acknowledging Addenda if applicable) ✓ Mat-Su Borough & SOA Business Licenses, Insurance & Tax Clearance ✓ Cashier’s Check or money Order in the full amount of bid
---	--



**SECTION IV
TAX CLEARANCE FORM (1 page)**

MATANUSKA-SUSITNA BOROUGH
Community Development Department
350 East Dahlia Avenue Palmer, AK 99645
Phone (907)861-7869 E-mail: lmb@matsugov.us

Date: _____

PLEASE REPLY BY: _____

REPLY TO BIDDER

Questions Call: Emerson Krueger@ 907-861-7867

TO: X Finance/Collections/Real Property

 Taxes/LIDS Bankruptcy/Land Sales

THE LAND & RESOURCE MANAGEMENT DIVISION IS PROCESSING A REQUEST FROM THE FOLLOWING INDIVIDUAL(S) OR ENTITY.

NAME: _____

ADDRESS: _____

PLEASE ADVISE IF YOUR RECORDS INDICATE ONE OR MORE OF THE FOLLOWING CATEGORIES (CHECK ALL THAT APPLY AND PROVIDE ANY COMMENTS BELOW):

 Has failed to pay a deposit or payment (including interest), due the borough in relation to borough-owned real property in the previous five (5) years.

 Is currently in breach or default on any contract or lease for real property transactions in the borough has an interest.

 Has failed to perform under a contract or lease involving borough-owned real property in the previous five years and the borough has acted to terminate the contract or lease or to initiate legal action.

 Is delinquent in any tax payment to the Borough.

 There is reason to believe that the person is unlikely to make payment or responsibly perform under the lease or other contract.

 Other: _____

COMMENTS: _____



Matanuska-Susitna Borough

COMMUNITY DEVELOPMENT DEPARTMENT
LAND & RESOURCE MANAGEMENT DIVISION

GROUND LEASE Earth Materials Site

THIS GROUND LEASE (the "Lease") is entered into this _____ day of _____, 2022, by and between:

MATANUSKA-SUSITNA BOROUGH (hereinafter "Lessor"), a municipal corporation formed under the laws of the State of Alaska, whose mailing address is 350 E. Dahlia Avenue, Palmer, Alaska 99645;

and

[COMPANY NAME] (hereinafter "Lessee"); whose mailing address is [STREET ADDRESS, CITY STATE ZIP].

The parties agree to the following recitals, which are incorporated into this Lease:

- A. Lessor desires to lease to Lessee, and Lessee desires to lease from Lessor, a parcel of land more specifically described and depicted on **Exhibit A** attached to and for all purposes made a part of this Lease (hereinafter "Leased Premises").
- B. The parties desire to adopt this Lease as a complete and final statement of all of the promises, covenants, terms, and conditions in effect and binding between them.
- C. Lessor is entering into this Lease as landowner, exercising its power to manage its own municipal entitlement lands under Alaska Statute (AS) 29.35.010(8), the applicable provisions of the Matanuska-Susitna Borough Code, and the action taken by the Matanuska-Susitna Borough Assembly by ordinance in approving this Lease. The Matanuska-Susitna Borough Community Development Department, Land and Resource Management Division, is responsible for management of Borough-owned real property, timber, and gravel resources including lease origination, management, oversight, and enforcement, under MSB Title 23, and as amended.

In so acting, Lessor is not waiving, and Lessor is explicitly reserving unto itself, all of its governmental authority, sovereignty, and power to enact and enforce laws and regulations governing land use and development, or the conduct of any business or activity, anywhere within the Borough. Nothing in this Lease shall waive or otherwise diminish Lessor's

governmental authority, sovereignty, and power with respect to leased land or Lessee's use or occupancy of it.

- D. The Lessor cannot, and does not through this Lease, make any representations, warranties, or guarantees as to the future results of any land use permits, applications, or proposals, which are governed by MSB Code. This Lease shall be revoked if the Lessee does not acquire all necessary permits, licenses, and approvals for the intended uses.

NOW, THEREFORE, in consideration of the promises and covenants set out below, the parties agree as follows:

Section 1. Leased Premises.

- 1.1 Leased Premises. Lessor, for and in consideration of the rents, covenants and conditions hereinafter specified to be paid, performed and observed by Lessee, leases to Lessee, and Lessee leases from Lessor, the Leased Premises, which is land and improvements situated at 1212 N. Barbi Drive, Wasilla, Alaska and more particularly described and depicted on **Exhibit A**. The land and improvements, together with all rights, easements, privileges, and appurtenances attaching or belonging to the described land, but subject to the reservation contained in Section 1.2 below, is referred to hereafter as the "Leased Premises."
- 1.2 Reservation of Mineral Estate. All oil, gas, coal, other hydrocarbons, geothermal resources, and minerals of whatever nature on, in, or under the Leased Premises are excluded from the Leased Premises and reserved to the Lessor. The mineral estate excludes construction sand and gravel, including all unconsolidated, natural accumulation of typically rounded rock fragments consisting predominately of sand, boulders, cobbles, pebbles, granules or any combination of these fragments.
- 1.3 Rights-of-Way and Easements. Lessor shall have the right to designate or grant rights of way or utility easements across the premises without compensation to Lessee. In the event of destruction or significant interference of any of the Lessee's improvements, Lessee shall be entitled to compensation, and at its option, may terminate this Lease.

Section 2. Use and Occupancy.

- 2.1 Quiet Enjoyment. Upon Lessee's timely payment of all rents and other sums required to be paid by Lessee under this lease, and upon Lessee's full and faithful observance and performance of all of its obligations contained in this Lease, and so long as such observance and performance continues, Lessee shall peaceably hold and enjoy the Leased Premises during the Term without hindrance or interruption by Lessor or anyone lawfully claiming by, through, or under Lessor.
- 2.2 Use of Leased Premises. Lessee specifically agrees that, for the Term, it shall use the Leased Premises for no purpose other than investigating, drilling, mining, and producing aggregates, removal, conveyance via conveyor system, building roads and other structures

thereon to produce, stockpile, transport, market, and own such products, and performing any required reclamation activities on the Leased Premises. Lessee's activities shall be in compliance with Conditional Use Permit 173020210003 (**Exhibit B**). Any change in use will require the prior written approval of Lessor, which may be granted or withheld in its sole and absolute discretion for any reason or for no reason.

- 2.3 Area Plans. Lessee will operate at all time the Leased Premises as an aggregate production and sales company in accordance with Conditional Use Permit 173020210003, attached hereto as **Exhibit B** along with applicable MSB code 17.28 and 17.30, and in accordance with the following existing adopted Meadow Lakes Comprehensive Plan.

To reflect changing times and conditions, a land use allocation decision made as a result of revision to an existing land use plan or decision must be incorporated as an amendment to the terms, covenants, and conditions of this Lease within six (6) months of the land use allocation decision.

- 2.4 Repair and Maintenance. Lessee shall, at Lessee's expense and without notice from Lessor at all times during the Term, keep the Leased Premises and all Improvements now existing or hereafter built on the Leased Premises (including but not limited to exterior building walls, windows, doors, fences, signs, landscaping and yard areas, cut banks, material, stockpiles, waste, refuse disposal equipment and facilities, pavement, curbs, gutters, exterior lighting, and drainage facilities), in good order, condition, maintenance, operability, and repair and of a neat, clean, and pleasing appearance.

- 2.5 Compliance with Laws. Lessee, at all times during the Term, at its own expense, and with all due diligence, shall observe and comply with all laws, ordinances, rules, and regulations that are now in effect or that may later be adopted by any governmental authority (including Lessor), and that may be applicable to the Leased Premises or any Improvement on it or any use of it. This includes all conditions and operational requirements included in Conditional Use Permit 173020210003 (**Exhibit B**), the associated permit application, as well as Planning Commission Resolution Serial Number 21-22.

- 2.6 Authorized Representative. Lessee's principal point of contact for Lessee's operations on the Leased Premises is [NAME, TITLE, PHONE NUMBER]. Lessor shall be entitled to communicate directly with the named individual for all matters under this Lease. Lessee shall promptly notify Lessor of any change in the person acting as Lessee's Authorized Representative for the Leased Premises.

- 2.7 Supervision. Lessee shall maintain reasonable and adequate on-site supervision of the Leased Premises at all times to insure that the terms and conditions of this Lease and all applicable federal, state and Borough laws, rules and regulations governing the Leased Premises are enforced.

- 2.8 Signage. Lessee shall not place on the Leased Premises any signage that is unrelated to any business Lessee is operating on the Leased Premises. Lessee's signage for its business shall be limited to one sign visible from the roadway, which must not exceed thirty-six

inches (36") in height and seventy-two inches (72") in length. No electioneering or campaign signs of any kind shall be placed upon the Leased Premises.

- 2.9 Utilities. Lessee shall pay for all utility services provided to, consumed, or used on the Leased Premises.
- 2.10 Waste and Wrongful Use. Lessee shall not commit or suffer any strip or waste of the Leased Premises or engage in any unlawful activity, or engage in any unauthorized activity that is unsafe, results in any public or private nuisance thereon, or adversely affect the value, character or utility of Lessor's surrounding property.
- 2.11 Setbacks. Lessee shall observe all building setback requirements applicable to the Leased Premises and shall not construct or maintain any building or other structure whatsoever between any road or other specified rights-of-way boundary of the Leased Premises and any setback along such boundary, except for berms, fences or walls approved by Lessor. Lessor reserves the right to make use of, and to grant utility easements and other rights to third parties in the setback areas of the Leased Premises. Lessee shall observe all designated buffers and material extraction operational requirements as described in Conditional Use Permit 173020210003, the associated permit application, as well as Planning Commission Resolution Serial Number 21-22 (**Exhibit B**).
- 2.12 Lessor's Inspection and Notice of Repairs. As provided under Section 2, Lessee shall repair, maintain, and make good all conditions required under the provisions of this Lease, permit requirements, and applicable laws.

If Lessee refuses or neglects to provide reasonable and necessary repairs or maintenance for the Leased Premises as required under the terms of this Lease to the reasonable satisfaction of Lessor after written demand, then Lessor, without prejudice to any other right or remedy it has under this Lease or otherwise, may perform such reasonable and necessary maintenance work or make such repairs without liability to Lessor for any loss or damage that may accrue to Lessee's merchandise or other property or Lessee's business by reason thereof.

In the event of an emergency, Lessor's notice may be verbally given and followed after-the-fact by written notice within 72 hours. Upon completion of any such repair or maintenance, and no later than thirty (30) days after presentation of an invoice therefore, Lessee shall pay as additional rent Lessor's costs for making such repairs or performing such maintenance, plus fifteen percent (15%) of the repair costs to cover Lessor's overhead.

Section 3. Lease Term.

- 3.1 Lease Term. This Lease shall be and continue in full force and effect for an initial term of ten years (10) years (the "Initial Term") commencing as of 12:01 a.m. on _____, 2022, and expiring at 11:59 p.m. on [MONTH DAY, YEAR], unless earlier terminated as provided in this Lease.

- 3.2 Option to Renew. Lessee may apply to renew this Lease for up to one (1) additional period of up to five (5) years (the “Renewal Term”), which may be granted or withheld in Lessor’s sole and absolute discretion. To effectively exercise an option to renew, Lessee must not be in default of any of its obligations at the time of the exercise or at the time of the commencement of any Renewal Term. The parties must reach agreement on modifying **Exhibit C** (Insurance Requirements) pursuant to Section 12. Lessee must give Lessor written notice of the exercise of an option to renew no later than One Hundred Eighty (180) days prior to the expiration of the Initial Term. Time is of the essence in giving written notice of the exercise of an option to renew; the option to renew shall lapse and be void if Lessee fails to give timely notice of their exercise. During the Renewal Term, all of the provisions of this Lease shall remain in full force and effect, unless otherwise addressed herein, and the rent Lessee shall pay to Lessor shall be adjusted as is provided for below.
- 3.3 “Term” Defined. Whenever used in this Lease, the word “Term” shall mean and include both the Initial Term and any Renewal Term.
- 3.4 Option to Terminate. Notwithstanding any other provision in this Lease, Lessee may terminate this Lease at any time, with or without cause, during the Initial Term or any Renewal Term upon one (1) year written notice to the Lessor.

Section 4. Basic Rent and Royalty.

- 4.1 Basic Rent. Lessee shall pay the following rent (the “Basic Rent”) to Lessor, without deduction and without prior notice or demand. Although stated as an annual rent, the Basic Rent shall be paid in equal monthly installments. The monthly installments shall be paid in advance on or before the first day of each calendar month during the Term, with partial periods prorated on a daily basis. Rent is not required during months when extraction is occurring. The Basic Rent and Royalty shall be as follows:
- 4.1.1 Year 1. The annual Basic Rent is forty-six thousand and No/100 dollars (\$46,000), payable in monthly installments of three thousand eight hundred thirty-three and No/100 dollars (\$3,833).
- 4.1.2 Year 2 through Year 10. For Lease years 2 through 10, the Basic Rent shall be increased annually by 3%.
- 4.1.3 Renewal Term. [RESERVED]
- 4.2 Royalty Payments. The Royalty shall be paid to the Lessor semi-annually on July 30 for the period from January 1 through June 30, and January 30 for the period from July 1 through December 31 during the Term of this Lease Agreement. The semi-annual payments will be based on the Records of the Amount of Material Extracted. On the January 30 following every third anniversary of the Commencement Date, the Lessor and Lessee will review the schedule of the Amount of Materials Extracted to true up the Royalty payments that were made over the previous three years.

4.2.1 Royalty. \$2.25 per ton of material removed from the Premises.

4.2.2 Measure / Records of Materials Extracted. The Lessee shall use its scale to estimate the weight of material extracted (the “Estimated Amount of Materials Extracted”), and shall maintain records of the weighted materials. On the January 30 of each year following the Commencement Date, the Lessee shall provide a schedule of the Estimated Amount of Materials Extracted to the Lessor summarizing the mining activity for the previous one-year period running from the prior January 1 to December 31. The records of the weighed materials and the schedules of the Estimated Amount of Materials Extracted are referred to as the “Records”.

If any earth materials extracted from the Leased Premises are removed from the Leased Premises before being weighed, gauged, or measured, Lessee shall have all the material weighed, gauged, or measured by the transporting firm and shall furnish Lessor with the transporter’s statements of the weights of all shipments during the preceding reporting period. Any written certificate or statement of any transporter concerning any shipment from the Leased Premises and its weight, and any copies of transcripts from the books of any transporter concerning shipments or their weights may be admitted as evidence of those facts in any suit or controversy between Lessee and Lessor.

Lessee shall also furnish Lessor with annual reports on the anniversary date of the Lease on the status of mining development and reclamation efforts to date and current mine maps of the Leased Premises from which earth materials are mined showing area mined, as well as any other pertinent information to determine Royalties.

Upon termination of this Lease or surrender of any part of the Leased Premises, Lessee shall furnish to Lessor an up-to-date report of all mining development and reclamation efforts conducted by Lessee on that part of the Leased Premises. This report shall contain suitable maps and information on the location and extent of surface workings, and other pertinent information, including the following:

- a. The tonnage (or equivalent unit of measure) of all earth materials mined from the Leased Premises.
- b. Such additional data on production and sales as may be necessary to determine Royalty.

Lessee shall, at the sole discretion of Lessor, submit an audit of all transactions, contractual agreements and production, or such other records as Lessor may determine appropriate which are related to establishment of the removed earth material tonnage used to calculate the correct Royalty due the Lessor. The audit may be performed by the Lessor, or contracted for by the Lessor, at Lessor’s discretion. The Lessee shall be responsible for the cost of the audit if, based upon

the final audit report, any underpayment of royalty calculated before interest is in excess of five percent (5%) of the payment made for the audit period.

- 4.2.3 Site Resource Exploration and Development Reports. In the event any site resource exploration and development studies are conducted under this Lease, the Lessee shall retain and store all factual site resource exploration and development data and records at a location(s) mutually agreeable with Lessor and Lessee. The Lessor retains the right to examine all such data and records, including representative material samples from boreholes, test pits, etc., along with geologic data, geophysical test and drill hole data, maps, and reports.

Upon termination of this Lease or surrender of any part of the Leased Premises, Lessee shall furnish to Lessor any representative material samples requested by Lessor, and an up-to-date report of any and all site resource exploration and development studies conducted by Lessee on that part of the Leased Premises. Final reports shall contain copies of all factual data generated from any and all site resource exploration and development activities on the Leased Premises as of the date of surrender, including data, records, and materials listed above.

- 4.4 Net Rent and Royalty Intended. The Basic Rent and Royalty provided for under this Lease shall be absolutely net to Lessor. This Lease shall yield net to Lessor the Rent and Royalty specified during the Term of this Lease, not reduced in any way by any costs, expenses and obligations relating to Lessee's use or occupancy of the Leased Premises, which may arise or become due during the Lease Term, except as otherwise expressly provided in this Lease.

- 4.5 Place of Rent and Royalty Payment. All payments of Basic Rent and Royalty shall be delivered to the following address, accompanied by a reference to the lease file number MSB007862, unless Lessor gives Lessee written notice of a different address for rent payments:

Matanuska-Susitna Borough
Land and Resource Management Division
350 East Dahlia Avenue
Palmer, Alaska 99645

Payments shall be effective on the date of Lessor's actual receipt.

- 4.6 Late Payment. Any payment of Basic Rent or Royalty not made within ten (10) days after the date it is due shall be assessed a late fee of \$100 of the amount due. The late fee is not a penalty but is intended to compensate Lessor for the additional costs Lessor will incur as a result of the late payment, the exact amount of such additional costs being extremely difficult and impracticable to ascertain. In addition, all Basic Rent and Royalty, all late charges, and all additional rent specified under this Lease, shall bear interest from the date due to the date of actual payment at the rate of ten and one-half percent (10.5%) per annum or, if less, the maximum amount permitted by law.

Section 5. Security Deposit.

- 5.1 Deposit as Security for Lessee's Performance. As an essential inducement to Lessor to enter into this Lease, Lessee has paid a security deposit in the amount of Fifty Thousand Dollars (\$50,000). This deposit is security for Lessee's full and faithful performance of all its obligations under this Lease. The Lessee shall keep in full force and effect a sufficient lease performance bond to cover the acreage held under this Lease. If the amount becomes depleted because of any claim or claims, the Lessee shall file a new or additional performance bond as required by the Lessor. The security deposit shall be returned to Lessee within sixty (60) days after the expiration of this Lease if Lessee has fully and faithfully performed all the covenants and terms of this Lease that Lessee is obligated to perform. If Lessee fails to perform all its obligations, Lessor, at its sole option, may apply the security deposit against any costs or damages resulting from Lessee's failure to perform. In the event all or part of the security deposit is so applied, Lessee shall, within ten (10) days of Lessor's demand, pay to Lessor the amount necessary to replenish the security deposit to its original amount.
- 5.2 Deposit Transferable. In the event of a sale or transfer of Lessor's fee title in the Leased Premises, Lessor shall have the right to transfer the security deposit to the purchaser or transferee under the terms of this Lease. With Lessor's transfer of the security deposit to the purchaser or transferee, Lessor shall be automatically released from all liability for the return of the security deposit to Lessee.
- 5.3 Rights Regarding Deposit. Lessor's obligations with respect to the security deposit are those of a debtor and not a trustee. Lessor can commingle the security deposit with Lessor's general funds or the deposits of other tenants. Lessor shall not be required to pay Lessee any interest on the security deposit. Lessee may not assign or encumber the money deposited as security, and neither Lessor nor its successors or assigns shall be bound by any such purported assignments or encumbrances.

Section 6. Condition of Leased Premises at Commencement; Delivery of Possession.

- 6.1 Accepted in Present Condition. Lessee acknowledges that it has had an opportunity to inspect the Leased Premises and conduct any studies or assessments of the Leased Premises that Lessee desired prior to entering into this Lease. Lessee accepts the Leased Premises "AS IS" and "WITH ALL FAULTS." No reliance shall be placed on any opinion, material, or information provided by or through the Lessor, and Lessee does so at its own risk, cost, and expense. Lessor shall have no obligation to install, construct or pay for any improvements of any kind or nature on the Leased Premises for Lessee's benefit at or prior to the commencement of the Term.
- 6.2 No Representations or Warranties. Lessor is making no representation or warranty, express or implied, regarding the Leased Premises or their suitability for Lessee's purposes. Without limiting the foregoing, Lessee specifically acknowledges that Lessor has not warranted or made any representation regarding the social, economic, or environmental aspects of the Leased Premises, including the acreage, soil conditions, utility services,

water drainage, physical access, availability of wood supplies now or in the future, natural or artificial hazards that may or may not exist, or the merchantability, suitability or profitability for any use or purpose.

- 6.3 No Liability. Lessor shall have no liability to Lessee, or to Lessee's employees, agents or contractors, or to anyone claiming by, under or through Lessee, regarding the physical condition of the Leased Premises any time during the Term. Lessor has no responsibility for any subsurface conditions, whether known or unknown, natural or man-made to Lessee, specifically including any adverse soil conditions, any washout, subsidence, avulsion, reliction or settling that may occur to Leased Premises. In consideration for Lessor entering into this Lease, Lessee is expressly assuming the risk of any latent or patent defects or deficiencies in, on or under the Leased Premises, whether the same now exist or arise hereafter. In no event shall Lessee be entitled to any damages whatsoever against Lessor with respect to the physical condition of the Leased Premises, including, but not limited to, actual, special, consequential, lost-profits, or any other category of damages.
- 6.4 Delivery of Possession. Lessor shall deliver possession of the Leased Premises to Lessee on the Commencement Date as defined in Section 3.1 of this Lease. However, if Lessor is not able to deliver possession on that date for any reason (whether the cause is beyond Lessor's reasonable control or not), this Lease shall not be void or voidable, nor shall Lessor be liable to Lessee for any loss or damage resulting from the failure to deliver possession. In that event, the commencement of the Initial Term shall be delayed until Lessor is able to deliver possession of the Leased Premises to Lessee, and the rent payable under this Lease shall be abated during the period of delay in the delivery of possession. In addition, the Initial Term of this Lease shall be extended to equal the period of delay in the delivery of possession so that Lessee has the benefit of the Leased Premises for the full period of time provided for in this Lease. If the delay in delivering possession extends beyond one hundred twenty (120) days, then Lessee may cancel this Lease upon giving written notice of cancellation to Lessor, so long as Lessee has not taken possession of the Leased Premises as of the date of giving notice of cancellation. Cancellation shall be Lessee's sole and exclusive remedy in the event of a delay in the possession beyond one hundred twenty (120) days. Upon such a cancellation, Lessor shall refund any security deposit to Lessee, both Lessor and Lessee shall be excused from all their obligations under this Lease, and neither Lessor nor Lessee shall have other or further liability with respect to this Lease or the transaction contemplated by this Lease.

Section 7. Governmental Authority Retained.

- 7.1 No Waiver of Governmental Power. Nothing in this Lease is intended to, or shall have the effect of, waiving or releasing any power or authority that Lessor has as a governmental body. Lessor has not promised or represented that it will exercise or not exercise its governmental power or authority in any way for the benefit of Lessee or Lessee's interests or the Leased Premises. Lessee also specifically acknowledges that, regardless of the title or position that a person holds with Lessor, no person acting or purporting to on Lessor's

behalf has the authority to waive or release the Lessor's power or authority to act as a local government of the State of Alaska.

7.2 Lessee and Leased Premises Subject to MSB Code. Lessee and Lessee's use and occupancy of the Leased Premises shall, at all times be subject to the applicable provisions of the MSB Code, as the MSB Code may be amended from time to time. Lessor has not promised or represented that no new provisions will be added to the MSB Code, or that no existing provisions will be revised or repealed in any way. Lessor likewise has not promised or represented that any provisions of the MSB Code will be relaxed or not enforced for Lessee's benefit. Without limiting the foregoing, Lessee specifically acknowledges and agrees that:

7.2.1 The Leased Premises are subject to all applicable land use, permits, or license provisions of federal, state, and local laws, and of all other governmental authorities any additions to or amendments of those provisions.

7.2.2 The Leased Premises and Lessee's use of the Leased Premises are subject to all applicable building, fire, health, safety, and environmental provisions of the MSB Code, as they presently exist or hereafter adopted.

7.2.3 The Leased Premises and Lessee's use of the Leased Premises shall comply with all conditions, requirements, and operational details outlined in Conditional Use Permit 173020210003 (**Exhibit B**), the associated permit application, as well as Planning Commission Resolution Serial Number 21-22.

Section 8. Improvements.

8.1 Right to Improve. Lessee, when not in default of its obligations under this Lease shall have the following rights during the Lease Term, to the extent Lessee deems advisable, subject however to the satisfaction of the other requirements of this Lease and, when required under this Lease, subject to the condition that Lessor's prior approval be obtained:

8.1.1 To construct, place or install on the Leased Premises, equipment, structures, utilities, and access necessary for the operation and maintenance of an earth material site as well as the reclamation thereof, in accordance with Section 7.2.3 above in connection with the Use and Occupancy as defined in Section 2.1.

8.1.2 To construct, place, or install on the Leased Premises other improvements, including without limitation buildings, structures, fill, paving, landscaping, and other improvements (each an "Improvement and collectively the "Improvements"); and

8.1.3 To make such alterations, additions and repairs to the Leased Premises as Lessee may desire.

All Improvements that Lessee constructs, places or installs on the Leased Premises shall remain Lessee's separate property for the duration of the Term of this Lease except as provided for in Section 16.3.

8.2 Development Timetable. In developing the Leased Premises, Lessee shall comply with the following timetable (the "Development Timetable"):

X/XX/20XX Onsite operations for the sale and distribution of earth materials on the Leased Premises

8.3 Site Work. Prior to the commencement of any site work on the Leased Premises (including any gravel use, timber clearing, grading, or driveway placement), Lessee must:

8.3.1 Provide Lessor plans and specifications called for in Section 8.5.2 for review and approval, which will not unreasonably be withheld. The site plan is required to be signed and sealed by an Alaskan registered professional land surveyor, civil engineer, architect, or landscape architect. All plans and specifications must adhere to Conditional Use Permit 173020210003 (**Exhibit B**). Deviations must be clearly noted, justified, and pre-approved in writing by the Lessor. In some cases, deviations may require an amendment of the permit, which can take three to six months. Lessee must comply with all pre-operational requirements specified in Conditional Use Permit 17302021003 (**Exhibit B**).

8.3.2 Lessee is obligated to comply with all steps of the approved mining and reclamation plans prior to complete termination of this Lease and return of any bond or deposit. Reclamation efforts and requirements are triggered by termination of the Lease due to time limitation of the Lease, voluntary termination, completion of mining phases, or through default of the Lease agreement by Lessee.

No mining shall take place on the Leased Premises with a Lessor approved mining and reclamation plan developed by Lessee based upon requirements of the Lessor.

Lessee shall reclaim the surface of the leased premises in accordance with the approved mining and reclamation plan. The reclamation shall proceed concurrently with mine production in accordance with this plan and shall be completed following termination of mine operation and prior to the termination of the Lease. Reclamation shall occur on those portions of a mining phase that are complete and are not required for the transport of materials off-site.

8.3.3 A mining and reclamation plan for the Leased Premises shall be developed to insure to the maximum extent practicable that:

a. Mining and extraction operations do not have significant adverse impacts on air, plant, wildlife, fishery, surface and groundwater resources, and wetlands, or on public safety.

- b. Waste and unused material piles are located, designed, and utilized to minimize the threat to public safety, to minimize impact to resources, to minimize negative effects on aesthetics, and to allow prescribed reclamation.
- c. Future use of the Leased Premises are anticipated to include a public school site. The mining and reclamation plan shall ensure sufficient area and grade exist on the Leased Premises to support a school and associated infrastructure, including a parking area, water supply well, and septic system. Sufficient separation distance between the ground surface post-mining, and the seasonal high water stable must be maintained to allow for a standard school septic system at a reasonable location on the Leased Premises.
- d. The mining and reclamation plan shall include accurate maps, with appropriate scale, and other supporting data showing:
 - i. Location of the proposed mining phases and layout of the operations areas.
 - ii. Description of proposed development of the mining operation area including materials handling and overburden stripping and stockpiling on the Leased Premises.
 - iii. Proposed buildings, utility corridors, roads and auxiliary facilities to be used and/or constructed on the Leased Premises.
 - iv. Land contours, both existing prior to development and proposed after reclamation.
 - v. A description of the proposed reclamation on the Leased Premises including a description of the capacity of the land to support its anticipated uses following reclamation, including a discussion of the capacity of the reclaimed land to support alternative uses after reclamation; and provisions for grading, establishing self-sustaining vegetation and stabilization that will minimize erosion and sedimentation and public health and safety problems of pits, banks, waste piles, roads upon completion of the mining phase; and provisions for buffer areas, landscaping, and screening.
 - vi. Estimated timetables necessary for accomplishing the events contained in the mining and reclamation plan shall be developed by Lessee and approved by Lessor.
 - vii. Evidence that all necessary permits and licenses required by Federal, State, and Local units of government have been obtained, as provided by the Lessee.
- e. The Lessor and Lessee shall meet and discuss the plan prior to commencement of any operations under this Lease. Prior to beginning mining operations each

year, a written notice of commencement will be sent to Lessor. Any updates to the mining and reclamation plan shall be submitted to the Lessor for review and approval. Any changes to the mining and reclamation plan shall be approved by the Lessor prior to the start of mining each year. Any changes proposed by Lessee shall be prepared and submitted to Lessor each year. If these changes would result in the need for amendments of any permits or licenses issued by Federal, State, or Local units of government, these amendments shall be obtained prior to commencement of mining in the year in which the amendments become necessary. Any such changes shall not be commenced until Lessor has reviewed and approved such modifications.

- 8.4 Clearing and Site Materials. With regard to timber, rock, sand, or gravel that is within the Leased Premises, any use of such material for on-site preparation is allowable under this Lease. Prior to any extraction of rock, sand, or gravel for off-site use other than the uses described in Section 2 of the Lease.

Lessee shall comply with permitting requirements of the Land & Resource Management Division for the extraction and off-site use of any rock, sand, or gravel found on the Leased Premises. The issuance of these permits is not guaranteed and may require the approval of the Matanuska-Susitna Borough Assembly. Lessee's application for such permits is evaluated on its own merits in accordance with the established procedures for such permits. Lessor has not promised that Lessee will receive such permits and Lessor will have no liability to Lessee if Lessee fails to qualify for the permits.

Lessee will be required to pay fair market value for any and all resources extracted from Leased Premises, with exception only for those resources used for on-site development of Leased Premises and as to which no payment will be required.

Lessee shall pay to Lessor at the execution of the Lease the fair market value for the timber resource in the amount of \$5,122.

All activities shall be conducted in a manner that complies with all applicable federal, state, and local laws, and will minimize disturbance to the air, land, and water quality within the Leased Premises and surrounding areas. In no event shall activities occur in violation of the requirements of Conditional Use Permit 173020210003 (**Exhibit B**).

- 8.5 Significant Work.

8.5.1 Definition. "Significant Work" as used in this Section 8.5 means all work on the Leased Premises costing more than One Hundred Thousand and No/100 Dollars (\$100,000) cumulatively for the planning or design of such work and the labor, materials, equipment of the work, where the work involves the excavation, filling, or other alteration of the grade or drainage of the Leased Premises, and/or involves the construction, demolition, alteration or removal of any Improvement on or from the Leased Premises.

- 8.5.2 Approval Required. In addition to the requirements of Section 8, Lessee shall not begin any Significant Work without first obtaining Lessor's prior written approval of the preliminary plans for such work, if any, and of the final plans and specifications for such work, which approval shall not be unreasonably withheld. If Lessor does not approve any of Lessee's plans and specifications required to be approved under this Lease, then Lessee shall have the right to terminate this Lease by giving written notice of such termination to Lessor. The preliminary plans and the final plans and specifications shall be prepared by a licensed architect or engineer and shall include, but not be limited to, a detailed plot plan, a landscaping plan, appropriate cross sections, elevations, seasonal high water table elevations, and floor plans indicating building heights, bulk, density, functions, materials, and utility systems, an itemized estimate of the total cost of such work, and a timetable for completion. No approval by Lessor or by its architects or engineers of such preliminary plans or final plans and specifications shall be deemed a warranty or other representation by any of them that the Improvements or other work contemplated thereby are legal, safe, or sound or constitute the highest and best use of the Leased Premises. Lessee acknowledges that, except as provided in Section 16 with respect to removal of Improvements upon expiration of the Term or earlier termination of this Lease, Lessor has not authorized or required, and Lessor does not authorize or require, Lessee to improve the Leased Premises in any manner that permits Lessor's interest in and title to the Leased Premises to become subject to the liens of Lessee's mechanics and materialmen.
- 8.5.3 Payment and Performance Bonds. Before commencing and project involving any Significant Work, Lessee must furnish a payment and performance surety bond , or other form of Security acceptable to the Lessor in the amount to cover the full expected cost of the contract price of the contractor's respective work on the project. Lessor shall be named as an additional obligee of the bonds and the bonds must be issued by the one or more corporate sureties that are reasonably acceptable to Lessor. The Security agreed upon shall be an absolute and unconditional guaranty of payment and performance. It shall be enforceable against the Security without the necessity of any suit or proceedings on the Lessor's part against the Lessee. The Lessee shall maintain the Security as long as the Lessor deems necessary, including after this lease expires or is terminated. The security may be adjusted as additional activities or uses occur on the site. Copies of the bonds must be provided to Lessor prior to commencement of any work. The furnishing of the payment and performance bonds shall not limit or modify Lessee' obligation to protect Lessor and the Leased Premises from any liens
- 8.6 Utilities. To the extent Lessor desires to have utility services at the Leased Premises that are not already available on the commencement date of the Term, Lessee shall pay for all the costs of bringing and installing utility services to and on the Leased Premises (including electric, telephone, gas, cable, water, solid waste and sewage disposal). Lessee shall obtain Lessor's prior written approval with respect to the location of any improvement for the provision of utility services on the Leased Premises, which approval shall not be

unreasonably withheld. Lessee shall provide Lessor with a recordable, as-built survey stamped by a licensed surveyor within 120 days of the installation of any such improvement, in order for Lessor to grant or dedicate by document an easement for such location. Additional Public Notice is not required under MSB 23.05.025 for the grant or dedication of new utility services specific to Lessee's use of the Leased Premises.

Installation of any onsite water and/or waste water systems shall be in accordance with Alaska Department of Environmental Conservation regulations and stamped by a licensed engineer if applicable. Lessee shall provide all reports, well logs, or any pertinent documentation for the installed water system and/or onsite wastewater system to Lessor upon completion of installation.

- 8.7 Wetlands. Lessee shall utilize a qualified wetlands delineator to identify the edge of all wetlands on the parcel owned by the Lessor, which contains the Leased Premises. The 100-foot undisturbed vegetative buffer surrounding the identified wetlands adjacent to the extraction site shall be identified and marked by a professional land surveyor, licensed to operate in the State of Alaska, prior to beginning extraction activities.
- 8.8 Amendments to Plans. In performing any work on the Leased Premises, Lessee shall not deviate from Lessor's approved or issued site plan, timber and gravel permits. Any deviation from the approved or issued plans, permits, or designs shall require Lessor's prior written authorization, which shall not be unreasonably withheld, and where appropriate, a signed amendment to this Lease or the governing standards or permits.
- 8.9 Construction Completion. In completing any project involving the construction of Improvements on the Leased Premises, Lessee shall provide to Lessor at Lessee's expense a set of as-built drawings for the completed project. The as-built drawings shall be provided in accordance with any deadline set in the plans and specifications approved by Lessor under Section 8.5.2 above. If no deadline is specified, the as-built drawings will be provided within 90 days of substantial completion of the improvement. In completing any project on the Leased Premises, Lessee shall provide remediation of the construction area, including the removal of all construction debris. Lessee shall also provide site remediation and erosion control of the construction area not included in the plans and specifications (if any). Lessee shall provide to Lessor a written plan for site monitoring to insure revegetative success. Lessee's site remediation and erosion control shall utilize methods outlined in *A Revegetation Manual for Alaska*, by Stony J. Wright, Alaska Plant Materials Center, Division of Agriculture, Department of Natural Resources, State of Alaska. Lessee's written plan for site monitoring shall include methods to preclude the introduction of species listed on the State of Alaska list of Prohibited and Restricted Noxious Weeds. In completing any project on the Leased Premises, Lessee shall provide remediation, including the removal of all construction debris, so that upon surrender of the premises they will be in as good or better condition as they were in at the
- 8.10 Liens. Lessee shall not permit any mechanic's lien, laborer's lien, or materialmen's liens against the Leased Premises or any Improvements for any labor, materials or equipment furnished to Lessee, or claimed to have been furnished to Lessee, or to Lessee's agents or

contractors in connection with work of any character performed or claimed to have been performed on the Leased Premises or Improvements, by or at the direction or sufferance of Lessee. Lessee, however, shall have the right to contest the validity or amount of any such lien or claimed lien. In the event of a lien contest, Lessee shall give Lessor such reasonable security as Lessor may demand to insure payment of the lien or claimed lien and prevent the sale or foreclosure of the Leased Premises or Improvements. The security need not exceed one and one-half times the amount of the lien or Lessee may record the bond contemplated by AS 34.35.072. In any lien contest proceedings, Lessee shall immediately pay any judgment rendered with all proper costs and charges and shall have the lien released or judgment satisfied at Lessee's own expense.

Section 9. Taxes and Assessments.

- 9.1 Taxes, Assessments and Charges. Lessee shall pay, not less than ten (10) days before they become delinquent, all real property taxes, assessments, special assessments or other charges of every description for which the Leased Premises, or any Improvement thereon or any use thereof, are now or during the Term may be assessed or become liable, whether made by governmental authority or by any public utility or community service company, and whether assessed to or payable by Lessor or Lessee, subject to Lessee's option to pay in installments where installment payments are permitted. Payments of real property taxes and assessments due during the first and last years of the Term shall be prorated as of the dates the Term begins and ends. Upon Lessor's request, Lessee shall promptly provide to Lessor true and complete copies of receipts for such real property taxes and assessments evidencing their timely payment.
- 9.2 Annual Taxes Due at Lease Expiration, Default, or Termination. As of January 1st of each year, real property taxes are levied. Upon the Lease expiration, default, or termination, Lessee shall be responsible to pay the annual taxes in full for the current tax year.
- 9.3 New Taxes, Assessments and Charges. If at any time during the Lease Term or renewal term, any new or additional taxes, assessments or any other charges not existing on the effective date of this Lease are assessed against the Leased Premises, or any Improvement thereon, Lessee shall pay not less than ten (10) days before they become delinquent, all of such new taxes, assessments and charges.
- 9.4 Contesting Taxes. Nothing contained in this Lease shall prevent Lessee from contesting in good faith the validity, or the amount of such real property taxes or assessments by appropriate proceedings commenced before such real property taxes or assessments become delinquent. Provided, however, that Lessee shall not commence such proceedings without first giving written notice to Lessor of Lessee's intention to do so not less than ten (10) days before such real property taxes or assessments become delinquent. Lessee shall not be deemed in default under this Lease if such notice is provided to Lessor because of its failure to pay any property taxes or assessments when the taxes or assessments are subject to a pending contest or appeal.

9.5 Installment Payments. If there is an option given to pay special assessments in installments, Lessee may elect to pay for such installments as shall accrue during the Term of this Lease. As to permitted installment payments for which the first installment fell due before commencement of the Term, Lessee shall pay all installments falling due during the Term, and Lessor shall pay all installments that fell or will fall due after the Term.

Section 10. Hazardous Materials and Environmental Matters.

10.1 Observance of Environmental Laws. Lessee must, at its own expense, comply with all laws, ordinances, regulations and administrative agency or court orders relating to health, safety, noise, environmental protection, waste disposal, hazardous or toxic materials, and water and air quality. In the event any discharge, leakage, spillage, emission or pollution of any type occurs upon or from the Leased Premises during the Term or any holdover thereafter, Lessee shall immediately notify Lessor and shall, at Lessee's own expense, clean and restore the Leased Premises to the satisfaction of Lessor and any governmental body or court having jurisdiction of the matter. **Under no circumstance shall any hazardous material be improperly disposed of on the Leased Premises.**

10.2 "Hazardous Material" Defined. For purposes of this Lease, the term "Hazardous Material" means any hazardous or toxic substances, material, or waste, including but not limited to: (1) oil, petroleum products and byproducts, gasoline, diesel fuel, stove oil, kerosene, and other hydrocarbons; (2) those substances, materials and wastes listed in the U.S. Department of Transportation Hazardous Materials Table (49 CFR Part 172.101) or by the U.S. Environmental Protection Agency as hazardous substances (40 CFR Part 302), and amendments thereto; (3) all materials and the release of which must be reported under Title 46 of the Alaska Statutes; and (4) any such other substances, materials and wastes that are or become regulated under any applicable local, state or federal law.

10.3 Hazardous Materials on Leased Premises. Lessee may bring, keep, store, use, transfer, and dispense upon the Leased Premises fuel and other petroleum products in connection with the Permitted Use, provided that Lessee complies with all laws regulating such petroleum products. Lessee may bring, keep, store, and use upon the Leased Premises substances used in vehicles, machinery, and equipment necessary or useful to the Permitted Use, provided that such substances will be used, kept and stored in a manner that complies with all laws regulating such substances. Except as provided above, Lessee shall not cause or permit any Hazardous Material to be brought upon, kept, or used in or about the Leased Premises by Lessee, its agents, employees, contractors or invitees without the prior written consent of Lessor, which Lessor shall not unreasonably withhold. Lessee must demonstrate to Lessor's reasonable satisfaction that such Hazardous Material is necessary or useful to Lessee's business and will be used, kept and stored in a manner that complies with all laws regulating any such Hazardous Materials on the Leased Premises.

10.4 Disclosure. At the beginning of the Initial Term of this Lease, Lessee shall inventory and disclose an inventory list of all hazardous materials to which the Lessor has previously consented. Lessee shall not be required to obtain consent from Lessor to use, keep, or store any Hazardous Material on the Leased Premises where the same was consented to by

Lessor prior to the Initial Term. On July 1 of each year thereafter, including the year in which this Lease expires or is terminated, Lessee shall inventory and disclose an inventory list to Lessor with the names and amounts of all Hazardous Materials or any combination thereof that were stored or used on the Leased Premises, or that Lessee intends to store or use on the Leased Premises. Lessee shall keep an updated inventory list at all times and disclose to the Lessor any types of Hazardous Materials throughout the year.

- 10.5 Environmental Control Measures. As a part of the development of the Leased Premises, Lessee shall provide to Lessor, for Lessor's review and approval, a Hazardous Materials control plan. The control plan shall specify the materials, equipment, and procedures that Lessee will utilize in handling Hazardous Materials and in seeking to prevent and respond to any spill, release, or discharge of Hazardous Materials. All containers on the Leased Premises holding Hazardous Materials (e.g. tanks, drums, and supply sources for equipment) shall be marked with the contents and Lessee's name. Lessee shall install and maintain secondary containment or a surface liner under all container and vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fueling or other transfers of Hazardous Materials. For this purpose, "secondary containment" means an impermeable diked area or portable impermeable containment structure capable of containing one hundred ten percent (110%) of the volume of the largest container; and "surface liner" means any safe, non-permeable containment designed to catch and hold fluids for the purpose of preventing spills and sized to accommodate a worst-case spill risk. Lessee shall keep at hand during all fueling and all transfers of Hazardous Materials appropriate spill response equipment to respond to a spill.
- 10.6 Environmental Indemnity. Lessee shall indemnify and defend Lessor against all liability, cost, and expense (including, without limitation, any fines, penalties, diminution in value of the Leased Premises, assessment and clean-up costs, judgments, litigation costs and attorneys' fees) incurred by or levied against Lessor as a result of Lessee's breach of this Section 10 or as a result of any discharge, leakage, spillage, emission, or pollution on or discharged from the Leased Premises during the Term of this Lease, without regard to whether such liability, cost, or expense arises during or after the Term of this Lease. Provided, however, that Lessee shall not be required to indemnify Lessor under this Section 10.6 if the parties agree or a court of competent jurisdiction determines that such liability, cost or expense is caused directly and solely by the negligence or intentional misconduct of Lessor. The foregoing indemnity shall survive the expiration or earlier termination of this Lease.
- 10.7. Environmental Assessments and Testing. Prior to the commencement of the first Significant Work defined in Section 8.5.1, Lessee, at its sole cost, may obtain a Limited Phase II Testing (defined below) on the Leased Premises. The results of the Limited Phase II Testing shall be provided to Lessor upon completion and shall be used to establish the baseline for the condition of the Leased Premises at the commencement of the Term. If such Limited Phase II Testing indicates the possible presence of Hazardous Materials, then Lessee may at its option and sole discretion (a) accept the Leased Premises notwithstanding

such indication; or (b) terminate this Lease giving Lessor a thirty (30) day notice to terminate.

Lessee, upon Lessor's periodic request, which shall not occur any more frequently than once every five years during the Lease Term, including any Renewal Term(s), shall obtain a Limited Phase II Testing on the Leased Premises. Lessee shall pay for the cost of all such Limited Phase II Testing. Lessee shall provide Lessor with copies of the reports of all Limited Phase II Testing as they are completed.

In addition, during the Term of the Lease, Lessee shall be solely responsible for all costs and expenses associated with the performance of Limited Phase II Testing on the Leased Premises, which may be reasonably required by Lessor, upon the expiration or other termination of this Lease. Such Limited Phase II Testing shall be the basis for determining the extent of any environmental impairment caused by the Lessee's use and occupancy of the Leased Premises.

As used herein, "Limited Phase II Testing" means environmental testing of soil samples in such number and at such locations as determined by an Environmental Engineer, subject to the reasonable satisfaction of Lessor, and with the samples to be tested by a facility reasonably acceptable to Lessor.

- 10.8 Lessor's Environmental Expenses. In the event Lessor shall make any expenditures or incur any obligations for the payment of money in connection with this Section 10 including, but not limited to, attorneys' fees for instituting, prosecuting, or defending any action or proceeding. Such sums paid, obligations incurred, and costs shall be deemed to be additional rent due under this Lease and shall be paid by Lessee to Lessor within ten (10) days of the rendering of an invoice to Lessee. Such amounts if not timely paid shall bear interest at the rate of ten and one-half percent (10.5%) per annum.

Section 11. Default and Remedies.

- 11.1 Events of Default. Each of the following events shall be a default by Lessee and breach of this Lease:

- 11.1.1 Failure to Perform Lease Obligations. Lessee's abandonment or surrender of the Leased Premises or of the leasehold estate, or failure or refusal to pay when due any installment of Basic Rent, Royalty, or additional rent or any other sum required by this Lease to be paid by Lessee, or to perform as required by any other obligation, covenant or condition of this Lease.

The Lessee is expected to make application for all separate written permissions required by governmental agencies, including but not limited to easements, rights-of-way, stormwater pollution prevention plans, and mining permits prior to extraction under the Lease. Lessee's obligations under this Lease shall not be excused by failure to make timely applications for permits, seasonal road weight

restrictions, winter snow conditions, or other conditions that are reasonably foreseeable.

- 11.1.2 Appointment of Receiver. The appointment of a receiver or trustee to take possession of the Leased Premises or improvements or of the Lessee's interest in the leasehold estate or of Lessee's operations on the Leased Premises for any reason.
- 11.1.3 Insolvency, Bankruptcy. An assignment by Lessee for the benefit of creditors or the filing of a voluntary or involuntary petition by or against Lessee under any provision of the U. S. Bankruptcy Code.
- 11.1.4 Material Misrepresentation. A material misrepresentation made to Lessor by Lessee regarding the Agreement, including but not limited to a material misrepresentation by Lessee with respect to the intended use of the premises.
- 11.2 Notice. As a precondition to pursuing any remedy for an alleged default by Lessee, Lessor shall before pursuing any remedy, give notice of the default to Lessee. Each notice of default shall state the alleged event of default and the intended remedy, but the identification of the intended remedy shall not limit Lessor's right to seek or use any other available remedy not identified in the notice. Lessor shall give notice of default to Lessee at its address for notices specified in this Lease. Notice shall be by personal delivery or by mailing by certified mail (return receipt requested) to Lessee.
- 11.3 Lessee's Right to Cure Defaults. Lessee shall have the right to cure any default as provided below:
- 11.3.1 Payment Default. If the alleged default is nonpayment of rent, royalty, taxes, or other sums to be paid by Lessee under this Lease, Lessee shall have thirty (30) days after the notice is given to cure the default.
- 11.3.2 Immediate Correction. If, in the reasonable opinion of Lessor, the alleged default substantially endangers either the person or property of Lessor or a third party, or human health or the environment, Lessee shall commence curing the default immediately upon notice and complete the cure within such reasonable time period as is imposed by Lessor or any governmental body having jurisdiction in the matter.
- 11.3.2 Other Default. For the cure of any other default, Lessee shall promptly and diligently commence curing the default and shall have sixty (60) days after notice is given to complete the cure; provided that if a default reasonably requires more than sixty (60) days to cure, Lessee shall have a reasonable period in which to cure such default so long as Lessee diligently commences and pursues curing the default.
- 11.4 Nonwaiver. Lessor's acceptance of any rents, whether Basic Rent, Royalty, or additional rent, shall not be deemed to be a waiver of any breach by Lessee of any of its covenants or obligations contained in this Lease or of the right of Lessor to reenter the Leased Premises or to declare a forfeiture for any such breach. Waiver by Lessor of any breach by Lessee

shall not operate to extinguish the covenant the breach of which is so waived, nor be deemed to be a waiver of the right of Lessor to declare a forfeiture for any other breach thereof or of any other covenant.

11.5 Right of Lessor to Protect Against Default. After Lessor provides notice to Lessee (as provided in Sections 11.2 and 11.3) and Lessee fails to observe or perform any of its obligations contained in this Lease, Lessor, at any time thereafter and without notice, shall have the right, but not the obligation, to observe or perform the same for the account and at the expense of Lessee. Lessor shall not be liable to Lessee or anyone claiming by, through, or under it for any loss or damage by reason thereof to the occupancy, business, or property of any of them. All costs and expenses paid or incurred by Lessor in observing or performing such covenant shall constitute additional rent that Lessee shall pay to Lessor with ten (10) days of Lessee's receipt of an invoice therefore.

11.6 Lessor's Remedies. If any default by Lessee shall continue uncured following a notice of default as required by this Lease, for the period applicable to the default under Section 11.3 of this Lease, Lessor shall have the following remedies in addition to all other rights and remedies provided by law or equity or other provisions of this Lease, to which Lessor may resort cumulatively or in the alternative. The election of one remedy for any one default shall not foreclose an election of any other remedy for another default or for the same default at a later time.

11.6.1 Termination. At Lessor's election, Lessor may terminate this Lease by giving Lessee notice of termination. On the giving of the notice, all Lessees' rights in the Leased Premises and in all Improvements thereon shall terminate, unless Lessor expressly and in writing requires Lessee to remove specified Improvements, in which event Lessee's rights shall continue in the Improvements required to be removed. Promptly after notice of termination, Lessee shall surrender and vacate the Leased Premises and remove all Improvements within 180 days after termination notice and leave the Leased Premises in a clean and leasable condition, and Lessor may reenter and take possession of the Leased Premises and eject all parties in possession, or eject some and not others, or eject none. If all Improvements are not removed within 180 days Lessor may, at its sole and absolute discretion, take possession of them subject to any Security Interest or Fixture Mortgage. Termination under this Section 11 shall not relieve Lessee, or any of its guarantors, insurers, or sureties, from the obligation to make payment of any sum then due to Lessor or from any claim for damages previously accrued or then accruing against Lessee.

11.6.2 Re-entry Without Termination. Lessor may, at Lessor's election, reenter the Leased Premises, and, without terminating this Lease, at any time and from time to time relet the Leased Premises and Improvements, or any part or parts of them, for the account and in the name of Lessee or otherwise. Lessor may, at Lessor's election, eject all persons, or eject some and not others or eject none. Any reletting may be for the remainder of the Term or for a longer or shorter term. Lessor may execute

any leases made under this provision either in Lessor's name or in Lessee's name, and Lessor shall be entitled to all rents from the use, operation, or occupancy of the Leased Premises or Improvements or both. Lessor shall apply all rents from reletting as provided in Section 11.7 of this Lease. Lessee shall nevertheless pay to Lessor on the due dates specified in this Lease, the equivalent of all sums required of Lessee under this Lease, plus Lessor's expenses, less the proceeds of any reletting. No act by or on behalf of Lessor under this provision shall constitute an acceptance of a surrender or a termination of this Lease unless Lessor gives Lessee specific notice of acceptance of a surrender or termination.

11.6.3 Recovery of Rent and Royalty. Lessor shall be entitled, at Lessor's election, to each installment of rent and royalty, or to any combination of installments for any period before termination, plus late charges and interest at the rate of ten and one-half percent (10.5%) per annum from the due date of each installment. If Lessor elects to relet the Leased Premises without terminating this Lease, the proceeds of such reletting shall be applied, when received, as provided in Section 11.7 of this Lease.

11.6.4 Lessee's Personal Property. Lessor may, at Lessor's election, use Lessee's personal property and trade fixtures on the Leased Premises, or any of such property and fixtures, without compensation and without liability for use or damage, or store them for the account and at the cost of Lessee.

11.6.5 Damages. Lessor shall also be entitled, at Lessor's election, to damages as follows: (1) All amounts that would have fallen due as rent and royalty between the time of termination and the time the property is relet, if it is relet; provided that Lessor shall exert reasonable efforts to relet the property at prevailing market value; (2) The amount, if any, by which the Basic Rent and Royalty under this Lease exceed the rents under any subsequent lease upon reletting calculated over the Term; and (3) All administrative, marketing, brokerage, repairs, cleaning, and similar costs incurred by Lessor necessary or useful to reletting the Leased Premises, or placing it in good and marketable condition.

11.6.6 Lessor's Obligation to Attempt to Relet. Notwithstanding any other provision of this Lease to the contrary, Lessor shall not be entitled to recover rent or damages in the event of Lessee's default unless Lessor exerts reasonable efforts to relet the Leased Premises at prevailing market value.

11.7 Application of Sums Collected by Lessor. Lessor shall apply all proceeds of reletting in the order as follows:

(1st) To the payment of reasonable expenses (including attorneys' costs and fees, brokers' commissions, or both) paid or incurred by, or on behalf of Lessor in recovering possession, placing the Leased Premises and Improvements in good condition, and preparing or altering the Leased Premises or Improvements for reletting;

(2nd) to the reasonable expense of securing new tenants;

(3rd) to the fulfillment of Lessee's covenants and obligations to the end of the Lease Term; and

(4th) to Lessee's uses and purposes.

Section 12. Insurance.

12.1 Duration and Requirement. During the entire Term, Lessee shall purchase and maintain all insurance policy or policies specified in **Exhibit C** of this Lease with respect to the Leased Premises, Improvements or appurtenances thereto including but not limited to an earth material extraction site on the Leased Premises, and any and all other business or operations of Lessee (the "Required Insurance") that relate to the Leased Premises and the business operations. Lessee shall ensure that each element of the Required Insurance remains in force and effect for the period specified herein. To the extent the provisions in **Exhibit C** and this section conflict, the terms of **Exhibit C** shall prevail.

Lessor does not warrant or represent that the required coverages and limits required in this Section 12 or in **Exhibit C** are appropriate or adequate to protect Lessee against liability, loss, and/or damage of any type.

Lessor will review the Minimum Coverage Requirements every five (5) years and will adjust the insurance requirements for inflation and compliance with the current uses and operations. Furthermore, any new additions or improvements require Lessor's review of the Minimum Coverage Requirements prior to construction to determine whether an adjustment to the insurance requirements is needed.

12.2 Claims-Made Policies. All liability coverages included in the Required Insurance must be written on an occurrence basis unless expressly permitted to be written on a claims-made basis in **Exhibit C**. Any Required Insurance permitted to be written on a claims-made basis and in fact written on such basis shall have a retroactive date of no later than the commencement of construction of Improvements or commencement of the Lessee's business or operations with respect to the Leased Premises, whichever is applicable. All Required Insurance written on a claims-made basis shall provide for the election and purchase of a 3-year extended reporting period upon; (1) cancellation or nonrenewal of the insurance policy by either the insurer or the insured, except in the case of cancellation or nonrenewal for nonpayment of premium (provided, that the preceding exception shall not relieve Lessee of its obligation to maintain insurance as required under this Lease); or (2) surrender or abandonment of the Leased Premises by the Lessee. The Lessee must have the right to purchase an optional extended reporting period at a predetermined amount for the annual period immediately preceding the triggering event. The Lessee must notify the Lessor as soon as practicable of the Lessee's election not to purchase the extended reporting period, but in no event later than 10 days before the right to purchase the extended reporting period expires and offer Lessor the option to purchase the policy on behalf of Lessee at Lessor's expense

- 12.3 Lessor's Insured Status Under Required Insurance. All liability coverages included in the Required Insurance, except for Workers' Compensation and Employers' Liability Protection, must expressly identify Lessor as an additional insured, and must also insure Lessor's Administrator, officers, officials, employees, and volunteers to the broadest extent permissible under applicable law. To the extent legally permissible, such additional insured status shall extend to liability arising out of business activities, products, premises, and operations of Lessee, as well as automobiles owned, leased, hired, or borrowed thereby. Any exclusions in a policy relating to claims made by one insured against another insured or liability assumed under contract shall be removed or amended to make an exception for claims made by or against the Lessor pursuant to this Lease. The Required Insurance shall be primary (and non-contributing with other insurance held by) with respect to Lessor, Lessor's Administrators, officers, officials, employees, and volunteers, and contain no special limitation on the scope of protection afforded to those insureds. The Required Insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- 12.4 Subcontractors. Except for site pollution liability coverage, before any contractor or subcontractor of any tier conducts any activities or operations with respect to the Leased Premises in connection with a contract in the amount of \$500,000 or more, Lessee shall either: (1) ensure inclusion of such contractor and/or subcontractor as an insured under all liability coverages included in the Required Insurance, and subject to all requirements stated herein and in **Exhibit C**; or (2) obtain and provide to Lessor written confirmation that that contractor and/or subcontractor has satisfied all requirements imposed upon Lessee in this Section 12 and/or **Exhibit C**. All coverages applicable to such contractors and subcontractors must include a provision expressly waiving all rights of subrogation against Lessor.
- 12.5 Acceptability of Insurers. All Required Insurance is to be placed with insurers with a Best's rating of no less than A-VII, and which are not subject to any legal or actual prohibition or restriction against the issuance of policies constituting Required Insurance or otherwise applicable to risks, persons, or property situated in the State of Alaska.
- 12.6 Proof of Insurance. Lessee, as part of the Lease Agreement, shall deliver to Lessor certificates of insurance on or before the commencement date of the Initial Term of this Lease, at renewal periods, or at such other date as agreed to in writing by Lessor. Additionally, Lessee shall deliver to Lessor photocopies of the policy or policies of insurance, certificates of insurance, or copies of endorsements as requested by the Lessor from time to time.

Section 13. General Defense and Indemnification and Recovery of Costs.

- 13.1 Lessee's Defense, Indemnity, Save, and Hold Harmless Obligations. Lessee assumes all responsibility, risk, and liability for its activities and use of or contact with the Leased Premises. The Lessee shall defend, indemnify, save, and hold harmless the Lessor, its elected and appointed officials and officers, agents, and employees, from and against any and all demands, causes of action (whether in the nature of an action for damages,

indemnity, contribution, government cost recovery, hazardous materials or otherwise), fines, judgments, suits, claims, actions, proceedings, losses, costs (including full reasonable attorney's fees and costs), expenses, charges, forfeitures, liens, liabilities, settlements, penalties, and damages of any kind or nature whatsoever, including, but not limited, to those alleging personal injury, wrongful death, nuisance property damage, economic loss, damages, violation of statutes, ordinances, constitutions, or other laws, rules, or regulations, contractual claims, environmental contamination (including any disposal, release, spill or discharge or any threatened disposal, release, spill, or discharge of, or contamination by hazardous materials), and environmental noncompliance (including the Lessee's failure to provide all information, make all submissions, and take all steps required by the authority under the environmental laws or any other law concerning any spill, discharge, or contamination), or any other kind of loss, tangible or intangible, sustained by any person, or property arising out of, in connection with, directly or indirectly from, or otherwise incident to Lessee's, Lessee's officers, agents, employees, guests, invitees, licensees, partners, attorneys, suppliers, and subcontractors' Leasehold activities or performance related to this Lease in any way whatsoever or use of or contact with the Leasehold, except to the extent the parties agree or a court determines the sole legal cause of injury or damage is the recklessness or willful misconduct of the Lessor or anyone acting on the Lessor's behalf. This defense and indemnification responsibility includes claims alleging acts or omission by the Lessor or its agents, which are said to have contributed to the losses, failure, violations, or damage. However, the Lessee shall not be responsible for any damages or claim arising from the sole negligence or willful misconduct of the Lessor, its agents, or employees.

- 13.2 Costs and Expenses of Lessor. Lessee shall pay to Lessor all costs and expenses, including reasonable attorneys' fees, which are (1) paid or incurred by Lessor but are required to be paid by Lessee under any provision of this Lease; (2) paid or incurred by Lessor in enforcing any covenant of Lessee contained in this Lease, in protecting itself against or remedying any breach thereof, in recovering possession of the Leased Premises or any part thereof, or in collecting or causing to be paid any delinquent rents, real property taxes, assessments, or rates; (3) incurred by Lessor in reviewing any matter for which Lessor's approval is sought and in processing such approval; or (4) incurred by Lessor in connection with any action in any respect related to this Lease, the Leased Premises, or Lessee's actions or omissions on the Leased Premises, other than a condemnation action filed by or against Lessee, to and in which Lessor is made a party but not adjudicated to be at fault. The term "costs and expenses" as used in this Lease shall include, but not be limited to, all of Lessor's out-of-pocket expenditures attributable to the matter involved and reasonable attorneys' fees. Except as otherwise expressly provided in this Lease, all costs and expenses of Lessor shall be payable by Lessee to Lessor within ten (10) days after mailing or personal delivery of invoices therefore to Lessee and shall bear interest from the date which is ten (10) days after the date of such mailing or personal delivery at the rate of ten and one-half percent (10.5%) per annum. Such obligations and interest shall constitute additional rent due and payable under this Lease.

- 13.3 Other Defense, Indemnity, and Cost Provisions Not Affected. The provisions of Section 13.1 regarding indemnity and the provisions of Section 13.2 regarding costs and expenses are intended to supplement, not supersede, the other provisions of this Lease that concern Lessee's indemnity obligations and Lessee's obligations to pay for Lessor's costs. Lessee shall fulfill all the indemnity and cost payment obligations owed to Lessor under any of the provisions of this Lease.
- 13.4 The obligations of the Lessee to indemnify, defend, and hold harmless the Lessor under the terms of this Lease shall survive transfer, assignment, or other disposition of an interest in this Lease as well as the expiration, forfeiture, relinquishment, abandonment, or other termination of this Lease.

Section 14. Damage or Destruction to Improvements.

- 14.1 Responsibility upon Damage to or Destruction of Property. In the event a building or any other Improvement situated on the Leased Premises is destroyed or damaged by fire or other casualty, other than through the sole negligence or other sole fault of Lessor, Lessee shall comply in full with one of the following conditions within ninety (90) days of such destruction or damage (or within such other time period as is mutually agreed to in writing):
- 14.1.1 Restore to Same Condition. Lessee may repair, rebuild, or otherwise reinstate the damaged Improvement(s) in a good and substantial manner and in substantially the same form, as it previously existed. In such event, the Lease shall continue in full force and effect without abatement of rents.
- 14.1.2 Rebuild to Different Condition. Lessee may repair, rebuild or otherwise reinstate the damaged Improvement(s) in a manner and style different from the previously existing Improvement(s), so long as the plans therefore are approved by Lessor as required under this Lease. In such event, the Lease shall continue in full force and effect without abatement of rents.
- 14.1.3 Clear Property. Lessee may remove the damaged Improvement(s), in which event Lessee must also place the Leased Premises in the condition specified in Section 16.2 of this Lease. In that event, the Lease shall continue in full force and effect without abatement of rents.
- 14.1.4 Last of Term. If the casualty occurs to the main building(s) or principal structure(s) on the Leased Premises and the casualty occurs within the last five years of the Initial Term, or during any Renewal Term, Lessee may elect to terminate the Lease by the following:
- i. giving written notice to Lessor of its intention to terminate,
 - ii. removing the damaged Improvement(s) and placing the Leased Premises in the condition specified in Section 16.2, and

- iii. paying to Lessor the total amount of rents to come due during the remaining Term of the Lease, applying the rental rate then in effect to the remainder of the Lease Term.

Section 15. Eminent Domain.

- 15.1 Definition. The terms "taking" and "to take" (in any of their forms) as used in this Section 15 refer to any competent authority acquiring by the power of eminent domain, including inverse condemnation, all or any part of the Leased Premises or an interest in the Leased Premises, at any time during the Term. The transfer of title effectuating the taking may be either a transfer resulting from the recording of a final order in condemnation or a voluntary transfer or conveyance to the condemning agency or entity under threat of condemnation in avoidance of an exercise of eminent domain, whether made before or while condemnation proceedings are pending. The time of taking shall be determined by application of Alaska law.
- 15.2 Complete Taking. In the event of a taking of all or materially all of the Leased Premises, this Lease shall terminate on the earlier of the vesting of title in, or the taking of possession by, the condemner.
- 15.3 Partial Taking. Subject to the exception set out in Section 15.4 below, if less than materially all of the Leased Premises are taken (a "partial taking"), this Lease shall continue in effect except as to the portion so taken or condemned, but the rent to be paid by Lessee shall thereafter be reduced by the same ratio as the value of the portion of the Leased Premises so taken bears to the value of the Leased Premises before the taking. If no portion of the net usable area of the Leased Premises is taken, or if the portion thereof so taken is subterranean or aerial and does not interfere with the use of the surface, then Lessee shall not be entitled to any adjustment of rent under this Section 15.3.
- 15.4 Partial Taking in Last of Term. If a partial taking renders the remaining Leased Premises unsuitable for the purposes for which Lessee's Improvements were designed or occurs during the last five (5) years of the Initial Term of this Lease or any Renewal Term, then Lessee, upon sixty (60) days written notice to Lessor and compliance with Section 16 of this Lease, and subject to the rights of any Qualified Mortgagee, may terminate this Lease after vesting of title in the condemner or taking of possession by the condemner. If Lessee does so, the rent and other charges under this Lease shall be apportioned as of the date of termination.
- 15.5 Substantial Taking. If a partial taking renders the remaining Leased Premises substantially unsuitable for the purposes for which Lessee's Improvements were designed or is otherwise such as to substantially impair or interfere with Lessee's use of the Leased Premises, then Lessee, subject to the rights of any Qualified Mortgagee, may terminate this Lease as provided in Section 16 after vesting of title in the condemner or taking of possession by the condemner. If Lessee does so, the rent and other charges under this Lease shall be apportioned as of the date of termination.

- 15.6 Disposition of Proceeds on Total Taking. In the event of a total taking, the rights of Lessor and Lessee to share in the net proceeds of any and all awards for land, buildings, or other Improvements and damages shall be in the following order of priority:
- (1st) To Lessor, a sum equal to the fair market value of the fee simple interest in the Leased Premises unencumbered by this Lease or any sublease, and including Lessor's Improvements and excluding Lessee's Improvements.
 - (2nd) To Lessee, a sum representing the fair market value of Lessee's Improvements. In no event shall Lessee be entitled to any claim for its leasehold interest, and any compensation therefore is hereby assigned to Lessor.
 - (3rd) To Lessor, the balance of the award, excluding interest. Interest shall be allocated between the parties in proportion to their respective shares of the total award provided above. If the value of such respective interests of Lessor and Lessee have been separately determined in such condemnation proceeding, the values so determined shall be conclusive upon Lessor and Lessee. If such values have not been so determined, they may be fixed by agreement between Lessor and Lessee, or if the parties cannot agree, then by the Superior Court for the State of Alaska, Third Judicial District at Palmer.
 - (4th) Nothing in this Section 15 shall prohibit the Lessee from seeking and retaining from the condemning authority a separate award for Lessee's own damages to its business and relocation expenses to the extent permitted by law.
- 15.7 Disposition of Proceeds on Partial Taking. In the event of a partial taking, Basic Rents shall be abated as provided in Section 15.3 and the net proceeds of the award shall be divided between Lessor and Lessee as follows:
- 15.7.1 To Lessor, a sum representing the fair market value of the fee simple interest of the part or parts of the Leased Premises so taken, unencumbered by this Lease, including Lessor's Improvements and excluding Lessee's Improvements; plus an amount representing consequential damages to the part or parts of the land remaining after such taking, considered as if vacant and unimproved.
 - 15.7.2 To Lessee, the balance of the award, which shall be applied by Lessee first to restoration of Lessee's Improvements as nearly as reasonably possible to their condition before such taking, unless Lessee terminates this Lease as provided in Section 15.4 and Section 15.5 above, in which case the balance of the award shall be paid to Lessor.
- 15.8 Rights on Termination. Notwithstanding anything in this Lease to the contrary, if Lessee exercises its right to terminate the Lease under Section 15.4 and Section 15.5 above, the award balance that is attributable to Lessee's Improvements, other than the principal balance (if any) and other proper charges due a Qualified Mortgagee, shall belong to Lessor, free of any claim of Lessee. In no event shall Lessee be entitled to any

compensation for its Improvements if the taking occurs after expiration of the Term or termination of this Lease.

- 15.9 Temporary Taking. If the whole or any part of the Leased Premises, or of Lessee's interest under this Lease, is taken by any competent authority for its temporary use or occupancy, this Lease shall not terminate by reason thereof and Lessee shall continue to pay all rental payments and other charges payable by Lessee hereunder, and to perform all other terms, covenants, and conditions contained in this Lease, except to the extent Lessee is prevented from so doing by the terms of the order of the taking authority. In the event of a temporary taking, Lessee shall be entitled to receive the entire amount of the award and shall be obligated, at its sole expense, to restore the Leased Premises as nearly as may be reasonably possible to the condition in which they existed immediately prior to such taking. Provided, however, that if the period of temporary use or occupancy extends beyond the expiration of the Lease Term, the award shall be apportioned between Lessor and Lessee as of said date of expiration, after Lessor shall have received the entire portion of the award attributable to physical damage to the Leased Premises (excluding Lessee's Improvements) and to the restoration thereof to the condition existing immediately prior to the taking or condemnation. Upon expiration of the temporary taking, Lessee shall have the rights and obligations provided in Section 16, including but not limited to removal of Lessee's Improvements within a reasonable time to be negotiated by Lessor and Lessee.

Section 16. Duties at Termination or Expiration

- 16.1 Surrender of Leased Premises. Upon expiration or early termination of this Lease, Lessee shall surrender to Lessor the possession of the Leased Premises. Lessee shall leave the surrendered Leased Premises and any Improvements in a clean and leasable condition. If Lessee fails to surrender the Leased Premises at expiration or termination, Lessee shall defend and indemnify Lessor as per provisions of Section 13 above from all liability and expense resulting from the delay or failure to surrender, including, but not limited to claims made by any succeeding tenant founded on or resulting from Lessee's failure to surrender. In the event of failure or refusal of Lessee to surrender possession of the Leased Premises, Lessor shall have the right to reenter the Leased Premises and remove therefrom Lessee or any person, firm, or corporation claiming by, through or under Lessee and to obtain damages for trespass from Lessee.
- 16.2 Removal of Improvements upon Termination. Upon the expiration or termination of this Lease or any extension thereof, including termination resulting from Lessee's breach ("termination"), Lessee shall leave the Leased Premises in a clean and leasable condition, which shall include removal of all of Lessee's Improvements and the foundations and footings to any Improvements, personal property, trash, vehicles, and equipment, except as noted in Section 16.3 below. Any excavation on the property, including excavation to remove Lessee's Improvements, shall be filled and compacted with material approved by Lessor, which approval shall not be unreasonably withheld. Reclamation shall be completed upon expiration of this lease on those portions of the mining phases that are complete.

- 16.3 Lessor's Option. Lessor may, at its option, allow Lessee to leave some or all of Lessee's Improvements on the Leased Premises upon termination or expiration. If Lessor so elects, such Improvements shall become the property of Lessor upon termination or expiration, without payment or any additional compensation required. The Lessee is obligated to provide the Lessor with a deed of conveyance or other confirmation if required by the Lessor.
- 16.4 Lessor's Improvements. Any improvements owned by Lessor at the commencement of this Lease, or added to the Leased Premises by Lessor after execution of this Lease, shall not be removed by Lessee.
- 16.5 Abandonment of Lessee's Property. In the event of any termination of the Lease including the expiration of its stated Term, all property that Lessee is not required or allowed to leave on the Leased Premises shall, on the tenth (10th) day following termination or expiration, be conclusively deemed abandoned. Abandoned property shall, at the election of Lessor, become the property of Lessor or be destroyed or removed by Lessor.
- 16.6 Liability for Cleanup Expenses and Reclamation. Lessee shall be liable for all costs and expenses incurred by Lessor to remove or destroy abandoned property and Improvements left of the Leased Premises for longer than 180 days after expiration or termination of the Lease, and the removal of trash or other debris left thereon. In addition, nothing in this Lease shall relieve Lessee of any obligation or liability for reclamation or removal of Hazardous Materials or inappropriate fill material placed on the Leased Premises during the term of the Lease, regardless of when such Hazardous Materials or inappropriate fill material is discovered. Reclamation on the property must be accepted in writing by Lessor. All reclamation requirements are the obligation of the Lessee regardless as to the circumstances involved in the releasing of the rights to mine or the termination of the Lease. Forfeiture of mining rights will not relieve the Lessee of any obligation for reclamation of the Leased Premises.

Section 17. Assignments, Subleasing, and Mortgages.

- 17.1 Limitations on Transfer. Lessee shall not voluntarily or by operation of law assign, transfer, mortgage, sublet, or otherwise transfer or encumber (collectively, "Transfer") all or any part of Lessee's interest in this Lease or in the Leased Premises, except in strict compliance with this Section 17. Any attempted assignment, transfer, mortgage, encumbrance or subletting without such compliance shall be void, and shall constitute a breach of this Lease.
- 17.2 Lessee's Right to Assign or Sublease. Lessee shall have the right to assign, sublease, or make any Transfer of Lessee's interest in this Lease and the estate created by this Lease only upon receiving prior written consent of the Lessor and not otherwise. Lessor shall not unreasonably withhold its consent.
- 17.3 Request for Consent to Assignment or Sublease. To request Lessor's approval of any assignment, sublease, or other Transfer, Lessee shall give Lessor reasonable notice of the

proposed assignment or sublease with appropriate documentation regarding the proposed, which includes, but not limited to the following: (1) a certified financial statement prepared independently and in accordance with generally accepted accounting principles fairly representing the existing financial condition of the proposed assignee or subtenant; (2) the proposed assignee's or subtenant's prior years' income tax returns; (3) the proposed assignee's or subtenant's business or operations plan for the Leased Premises; and (4) any other or further information Lessor shall request.

Lessee shall pay Lessor the costs and fees Lessor estimates it will incur in evaluating and investigating the proposed assignee's or subtenant's qualifications, which costs and fees shall not exceed two thousand dollars (\$2,000).

- 17.4 Liability on Transfer. No Transfer, even if the Transfer is made with Lessor's consent, shall operate to relieve Lessee of any obligations under this Lease, whether the same arise before or after the effective date of the Transfer. In the case of an assignment, the assignee shall assume all rights and obligations of Lessee under this Lease, including unsatisfied obligations to cure any delinquency in rent or other charges under this Lease or to perform any repairs or other work or action required by Lessor before the assignment.
- 17.5 Mortgage of Leasehold Interest. Lessee shall have the right at any time and from time to time, to subject the leasehold estate and any or all of Lessee's Improvements situated on the Leased Premises to one or more mortgages, deeds of trust, or assignments as security for a loan or loans or other obligation of Lessee (each of which is a "Leasehold Mortgage"), provided that:
- 17.5.1 Subordination. Any Leasehold Mortgage and all rights acquired under it shall be subject and subordinate to each and all the covenants, conditions, and restrictions stated in this Lease, and to all rights and interests of Lessor. **Under no circumstances will Lessor's fee simple interest in the Leased Premises, or Lessor's rights under this Lease or its reversionary interest, ever be subject to or subordinate to the lien or encumbrance of any Leasehold Mortgage. With respect to Lessor's interests, this Lease is specifically intended to be only an unsubordinated ground lease.**
- 17.5.2 Notice to Lessor. Lessee shall give Lessor prior notice of any such Leasehold Mortgage, and shall accompany the notice with a true copy of the note and the Leasehold Mortgage as proposed for execution. Upon Lessor's written consent to the Leasehold Mortgage and upon execution of the Leasehold Mortgage by all parties, the mortgagee shall become a "Qualified Mortgagee" as that term is used in this Lease.
- 17.6 Notice of Default and Opportunity to Cure. Upon any default on any of the terms of the Lease by Lessee, Lessor, in addition to notifying Lessee pursuant to Section 11.2, shall also notify each Qualified Mortgagee of the default. Upon receipt of a written notice of default, any such Qualified Mortgagee shall have the length of time set forth in Section 11.3 of this Lease to cure the default. Lessor shall accept any cure provided by a Qualified

Mortgagee whether the cure is tendered in the name of or on behalf of Lessee or the Qualified Mortgagee.

- 17.7 Possession by Mortgagee. A Qualified Mortgagee may take possession of the Leased Premises and vest in the interest of Lessee in the Lease upon the performance of the following conditions:
- 17.7.1 The payment to Lessor of any and all sums due to Lessor under the Lease, including but not limited to accrued unpaid Basic Rent, Royalty, and additional rent.
- 17.7.2 The sending of a written notice to Lessor and Lessee of the Qualified Mortgagee's intent to take possession of the Leased Premises and assume the Lease.
- 17.7.3 The curing of all defaults not remediable by the payment of money within an additional thirty (30) days of the date upon which such default was required to be cured by the Lessee under the terms of this Lease.
- 17.8 No Liability of Mortgagee Without Possession. A Qualified Mortgagee shall have no liability or obligation under the Lease unless and until it sends to Lessor the written notice described in Section 17.7.2 above. Nothing in this Lease nor in the taking of possession of the Leased Premises and assumption of the Lease by a Qualified Mortgagee or a subsequent assignee shall relieve Lessee of any duty or liability to Lessor under the Lease.
- 17.9 Subsequent Transfer. In the event a Qualified Mortgagee forecloses the Leasehold Mortgage, any subsequent assignee or transferee of the leasehold estate proposed by the Qualified Mortgagee must be approved by Lessor, whose discretion in the matter shall be complete.

Section 18. General Provisions.

- 18.1 Lessor's Right to Entry, Inspection, and Repair. Lessor or its authorized agents may enter and inspect the Leased Premises at any time during regular business hours, with or without the presence of Lessee or its authorized representative, after giving twenty-four (24) hours advance notice to Lessee of such inspection. Lessor is specifically authorized to enter the Leased Premises for the purposes of posting notices of non-responsibility for any construction work Lessee undertakes. Lessor's right to inspect shall include, but not be limited to, taking measurements to evaluate extraction progress and depth to water and conducting tests for environmental contamination. All inspections will be conducted in a manner that does not unreasonably interfere with the operation of Lessee's business. In the event of an emergency, Lessor may enter and inspect the Leased Premises on reasonable notice under the circumstances (including no notice to Lessee if the circumstances warrant) and make such repairs or institute such measures, on the account and at the expense of Lessee, as may be necessary to avert or terminate the emergency. An emergency is any action, event, or condition, either extant or imminent, that threatens significant damage to property or injury to persons on or near the Leased Premises, including but is not limited to flood, fire, explosion, earthquake, uncontrolled or dangerous discharge or release of

water or other fluids, unauthorized or illegal placement of hazardous or toxic materials on the Leased Premises, and shifting, settling or loss of earth or support on the Leased Premises.

18.2 Notices. Any notice to Lessor or Lessee required or permitted under this Lease shall be given in writing, mailed by registered or certified mail, return receipt requested, and addressed to such party at its mailing address specified on the first page of this Lease, or at such other address as may be specified by the party in writing. In the alternative, any notice may be delivered personally within the State of Alaska to the party. Except as otherwise expressly provided in this Lease, any notice shall be conclusively deemed to have been given five (5) days after the date of mailing or personal delivery. If at any time during the Term, Lessee is more than one person or entity, any notice given by Lessor to any one person shall constitute notice to all of them, and any agreement or approval with or in favor of Lessor made or given by any of them shall bind all of them.

18.3 Disputes; Forum Selection; Attorneys' Fees. In the event of any dispute or decision by Lessor affecting Lessee's interest in the Leased Premises under this Lease, the reconsideration procedure of MSB Code 23.05.090 shall be available.

Lessor and Lessee shall attempt to resolve any dispute through non-binding mediation prior to litigation. Any litigation arising out of this Lease or related to it shall only be brought in the Superior Court for the State of Alaska, Third Judicial District at Palmer, and not elsewhere. Lessor and Lessee consent to the jurisdiction of such court and waive trial by jury. In any litigation, the prevailing party shall be entitled to an award of its full, reasonable attorneys' fees in addition to any other relief the court grants.

18.4 Lessor's Approvals and Satisfaction. Except as otherwise provided for in this Lease and except for any amendment to the terms of this Lease, Lessor shall not unreasonably, capriciously, or arbitrarily withhold its consent or approval when its consent or approval is required under this Lease.

18.5 Lessor's Conveyance. Lessor retains the absolute and sole unconditional right to convey its fee title in the Leased Premises, or an interest or estate therein.

18.6 Integration and Amendments. This Lease, the exhibits to it, and the provisions of the permits and licenses incorporated under it, contain and state the complete and final understanding of every agreement and representation made by or on behalf of Lessor and Lessee with respect to the Leased Premises. No implied covenant or prior oral or written agreement shall be held to vary or supplement the provisions of this Lease. Any modification of any provision of this Lease shall only be effective when it is made in a writing that specifically states it is an amendment of this Lease and that is signed by authorized representatives of both parties. Lessee acknowledges that no representative of Lessor is authorized to modify this Lease unless the provisions of the MSB Code are satisfied, including, where necessary, the approval of the Matanuska-Susitna Borough Assembly.

- 18.7 Severability. If any provision of this Lease is held to be void or otherwise unenforceable, the remaining provisions of this Lease shall remain in full force and effect.
- 18.8 Holdover Tenancy. Unless otherwise amended by Lessor, this Lease does not provide for any holdover tenancy rights by Lessee. If Lessee remains in possession of the Leased Premises after expiration of the Term without the execution of a new lease or an extension of this Lease, or an amendment of this Lease, and if no notice of termination has been delivered by Lessor to Lessee, Lessee shall be deemed to occupy the Leased Premises only as a tenant at will, from month-to-month, upon and subject to all of the provisions of this Lease which may be applicable to a month-to-month tenancy. Provided, however, that the Basic Rent payable during the any holdover tenancy shall be one hundred and fifty percent (150%) of the rental rate in effect immediately prior to expiration of the Term.
- 18.9 Execution and Counterparts. This Lease may be executed in two or more counterparts, each of which shall be an original, and all of which shall constitute one and the same instrument.
- 18.10 Memorandum of Lease. A Memorandum of Lease for providing constructive notice of the Lease shall be recorded in the Palmer Recording District and which recording expense shall be borne by Lessee.
- 18.11 Discriminatory Acts Prohibited. Lessee, in its use and occupancy of the Leased Premises, shall not discriminate against any person or class of persons by reason of sex, race, color, creed, or national origin and shall comply with all federal regulations and laws in regard to discrimination.
- 18.12 Section Headings. The section headings in this Lease are for convenience only and have no other significance.
- 18.13 Authority. For purposes of the terms and conditions of this Lease, the Matanuska-Susitna Borough Manager or designee shall act on behalf of the Borough.

The Borough's Authorized Representative for purposes of this Lease shall be only the following, or the Borough Attorney, and no others unless the Borough notifies Lessee in writing of an additional or substitute Authorized Representative:

Borough Manager
350 E. Dahlia
Palmer, Alaska 99645
(907)861-8689

The Lessee's Authorized Representative for purposes of this Lease shall be only the following, and no others unless the Lessee notifies the Borough in writing of an additional or substitute Authorized Representative:

[COMPANY NAME]

[FIRST LAST NAME]
[STREET ADDRESS]
[CITY, STATE ZIP]
[PHONE NUMBER]

- 18.14 Binding Effect. This Lease shall be binding upon and shall inure to the benefit of Lessor and Lessee and their respective successors and assigns.
- 18.15 Force Majeure. Any failure to perform by either party due to force majeure shall not be deemed a violation or breach hereof. Forces majeure include interruption, suspension, or interference with the lease caused by acts of God, acts of the public enemy, wars, blockades, insurrections, riots, and similar occurrences.

Section 19. Special Provisions.

- 19.1 Reclamation. Lessee shall develop and submit to the Lessor and the State of Alaska a reclamation plan prior to commencing activities on the Leased Premises. Lessee shall restore the land as specified in the Conditional Use Permit 173020210003 application (**Exhibit B**). All organic overburden will be retained to support reclamation. Incremental reclamation of those portions of the completed mining phases, not required for continued material extraction, will be completed within 12 months of the mining phase completion. Reclamation shall, at a minimum, comply with the standards contained in MSB 17.28.067 as well as in the Conditional Use Permit (**Exhibit B**). A vegetative buffer, consisting of native tree species will be planted along the western and southern site boundaries to screen the property from the adjacent material site after mining on the Leased Premises is completed.
- 19.2 Reclamation Bond. Lessee shall provide documentation of filing a reclamation bond with the State of Alaska prior to exceeding the State thresholds for when a bond is required.

[SIGNATURE PAGES FOLLOW]

IN WITNESS, WHEREOF, the Lessee and Lessor hereto have executed and acknowledged this Ground lease and its attachments.

LESSEE
[Company Name]

[First and Last Name (signature authority)]
[Title]

ACKNOWLEDGEMENT OF LESSEE

State of Alaska)
) ss.
Third Judicial District)

THIS IS TO CERTIFY that on this _____ day of _____, 2022, before me, the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared, _____, [TITLE], of [COMPANY NAME], a company, known to me to be the identical individual who executed the foregoing instrument, and they acknowledged before me that they executed the Ground Lease MSB77001 as the free and voluntary act of said company, with full authority to do so and with full knowledge of its contents, for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year above written.

[SEAL]

Notary Public for State of Alaska
My commission expires: _____

LESSOR
MATANUSKA-SUSITNA BOROUGH

Michael Brown, Borough Manager

ACKNOWLEDGEMENT OF LESSOR

State of Alaska)
) ss.
Third Judicial District)

THIS IS TO CERTIFY that on this _____ day of _____ 2022, before me, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared Michael Brown, Borough Manager of the Matanuska-Susitna Borough, a municipal corporation, who is personally known to me, appeared and acknowledged before me that he signed the Ground Lease MSB007862 for and on behalf of the municipal corporation, and acknowledge to me that he signed the same freely and voluntarily for the uses and purposes therein stated.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year above written.

[SEAL]

Notary Public for State of Alaska
My commission expires: _____

EXHIBIT A

The Leased Premises are legally described as follows:

Located within the west one half of the southwest one quarter (W1/2SW1/4) of Section 2, Township 17 North, Range 2 West, Seward Meridian, Alaska shown as Parcel 2 in the Notice of Forty-Acre Exemption recorded October 8 2021, Document Serial No. 2021-030043-0 in the Palmer Recording District, Alaska.

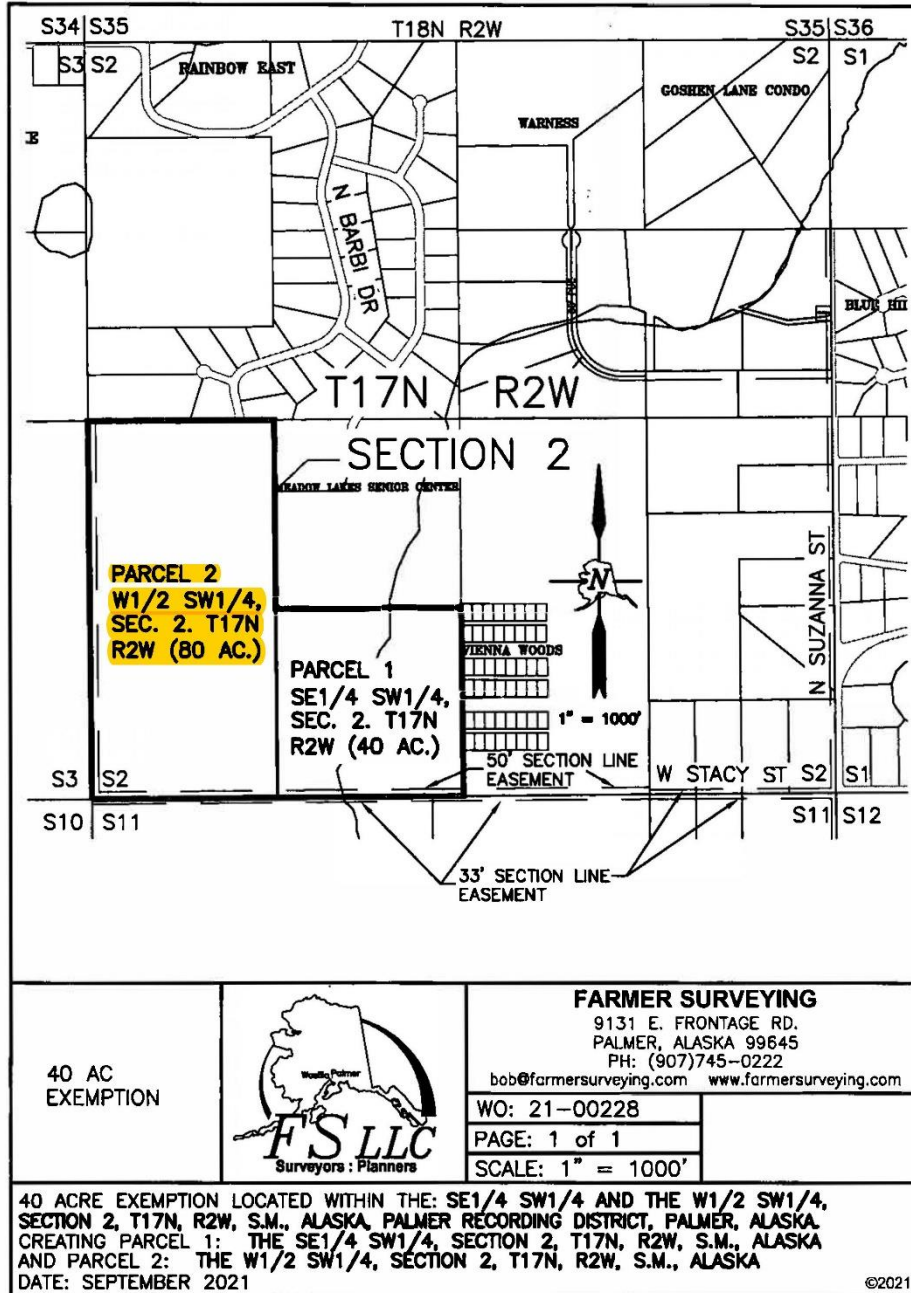


EXHIBIT B



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822
Email: planning@matsugov.us

CONDITIONAL USE PERMIT FOR EARTH MATERIALS EXTRACTION

PERMIT#: 173020210003

EFFECTIVE DATES: October 18, 2021 – December 31, 2038

PERMITTED SITE: Tax ID# 17N02W02C003 (No Site Address); Parcel C3, within Township 17 North, Range 2 West, Section 2, Seward Meridian

**PERMITTEE/
PROPERTY OWNER:** MSB Land & Resource Management Division
350 East Dahlia Avenue
Palmer, AK 99645

Action: In accordance with provisions in Matanuska-Susitna Borough Code 17.28 and 17.30, a Conditional Use Permit for earth materials extraction is hereby approved as referenced within this document. This permit is for the extraction of earth material from an approximately 61.9-acre mining site, within the parcel noted above. The total volume of extraction will be approximately 1,800,000 cubic yards. This decision is based on the findings of fact and conclusions of law contained within MSB Planning Commission Resolution No. 21-22, dated October 18, 2021.

General Requirements and Conditions:

All development and use of the permitted site shall occur as described in the approved application submitted and as further specified by the conditions listed herein. Any variance from the requirements or conditions of this permit, or from borough code, may be grounds for penalties as authorized by borough code.

Specific conditions of the permit for earth material extraction activities:

1. The operation shall comply with all applicable federal, state, and local regulations.
2. A copy of the approved permit shall be provided to each contractor company working at the site.
3. All aspects of the operation shall comply with the description detailed in the application material and an amendment to the Conditional Use Permit shall be required prior to any alteration or expansion of the material extraction operation.
4. Material extraction shall be limited to the approximate 61.9-acre area identified in the application material and depicted on the applicant's site plan(s).

Page 1 of 3

Providing Outstanding Borough Services to the Matanuska-Susitna Community.

5. The earthen berm and vegetative buffer shown on the site plan(s) within the application material shall be maintained.
6. A qualified wetlands delineator shall identify the edge of all wetlands at the site. The 100-foot undisturbed vegetative buffer surrounding the identified wetlands adjacent to the extraction site shall be identified and marked by a professional land surveyor, licensed to operate in the State of Alaska, prior to beginning extraction activities.
7. Vehicles and equipment shall be staged at a designated location and all equipment shall be inspected for leaks at the end of each day.
8. On-site maintenance of vehicles shall be done in an area where all leaks can be contained with drip pans or other discharge prevention devices.
9. Any hazardous materials, drips, leaks, or spills shall be promptly attended to and properly treated.
10. All construction exits shall comply with standard Alaska Pollutant Discharge Elimination System requirements to minimize off-site vehicle tracking of sediments and discharges to storm water.
11. Prior to the commencement of mining activity, an approved SWPPP shall be submitted to the Matanuska-Susitna Borough.
12. Prior to the commencement of any extraction activities within the section line easement, written approval must be obtained from the State of Alaska, and a copy of said approval shall be submitted to the Matanuska-Susitna Borough.
13. All track-out sediments from the site shall be removed from the right-of-way daily.
14. The operation shall perform dust mitigation techniques as described in the application as-needed to minimize dust impacts to the surrounding areas.
15. The operation shall comply with the maximum permissible sound level limits allowed in MSB Code, per the requirements of MSB 17.28.060 – Site Development Standards and MSB 8.52 – Noise, Amplified Sound, and Vibration.
16. All extraction activities, including all activities that cause noise, dust, or traffic, shall be limited to Monday through Saturday, 6:00 a.m. to 10:00 p.m..
17. If cultural remains are found during material extraction activities, the MSB Planning Department shall be contacted immediately so the remains can be documented.
18. A four-foot vertical separation shall be maintained between all excavation and the seasonal high water table.
19. Borough staff shall be permitted to enter onto any portion of the property to monitor compliance with permit requirements. Such access will at minimum, be allowed on demand when activity is occurring, with prior verbal or written notice, and at other times as necessary to monitor compliance. Denial of access to Borough staff shall be a violation of this Conditional Use Permit.
20. The operation shall comply with the reclamation standards of MSB 17.28.067.
21. All junk, trash, and junk vehicles, as defined in MSB 8.50 shall be removed and properly disposed of prior to the completion of reclamation on the subject parcel.

22. If illumination devices are required, they shall not be greater than 20 feet in height, shall utilize downward directional shielding devices, and shall meet the requirements of MSB 17.28.060(A)(6) Lighting standards.
23. Authorization for earth material extraction activities approved by this Conditional Use Permit shall expire on December 31, 2038.

The decision may be appealed within 21 days of the date of approval by the MSB Planning Commission in accordance with MSB 15.39 – Board of Adjustment and Appeals.



Jason Ortiz, Acting Planning & Land Use Director

October 19, 2021

Date of Issuance

By: Mark Whisenhunt
Introduced: August 16, 2021
Public Hearing: October 18, 2021
Action: Approved

**MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. PC 21-22**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION APPROVING A CONDITIONAL USE PERMIT FOR THE EXTRACTION OF 1,800,000 CUBIC YARDS OF EARTH MATERIAL FROM AN APPROXIMATELY 61.9-ACRE SITE WITHIN PARCEL C3, TAX ID# 17N02W02C003 (NO SITE ADDRESS); WITHIN TOWNSHIP 17 NORTH, RANGE 2 WEST, SECTION 2, SEWARD MERIDIAN.

WHEREAS, an application has been received from the Natural Resource Manager for the Matanuska-Susitna Borough for a conditional use permit to extract earth material at Tax ID# 17N02W02C003 (No Site Address); Parcel C3, within Township 17 North, Range 2 West, Section 2, Seward Meridian; and

WHEREAS, it is the intent of the MSB to recognize the value and importance of promoting the utilization of natural resources within its boundaries; and

WHEREAS, it is the purpose of MSB Chapter 17.30 to allow resource extraction activities while promoting the public health, safety, and general welfare of the Borough through the regulation of land uses to reduce the adverse impacts of lands uses and development between and among property owners; and

WHEREAS, it is further the purpose of MSB 17.30 to promote orderly and compatible development; and

Planning Commission Resolution PC 21-22
Adopted: *October 18, 2021*

Page 1 of 17

WHEREAS, MSB 17.30.020(E) requires a conditional use permit for the annual extraction of more than 2,000 cubic yards of earth materials; and

WHEREAS, an Alaska State Department of Revenue mining license is not required for this application because Alaska law was amended in 2012 and rock, sand and gravel quarries are now exempt from the requirement; and

WHEREAS, an Alaska State Department of Natural Resources (ADNR) mining permit is not required for this application because the extraction activities will not take place on state land; and

WHEREAS, a reclamation plan has been developed as required by Alaska State Department of Natural Resources (ADNR), pursuant to A.S. 27.19, and has been submitted as part of this application; and

WHEREAS, the application material indicates the site will be developed to contain storm water runoff. Prior to beginning operations, a contractor will be required to develop a detailed storm water pollution prevention plan (SWPPP); and

WHEREAS, a United States Army Corps of Engineers permit pursuant to Section 404 of the Clean Water Act is not required for this application as the applicant is not proposing any extraction activity to take place within any identified wetlands, lakes, streams, or other waterbodies; and

WHEREAS, the subject parcel is located within the Meadow Lakes Community Council boundaries and is subject to the Meadow Lakes Comprehensive Plan; and

WHEREAS, the Matanuska-Susitna Borough Comprehensive Development Plan (2005) applies to all parcels within the Matanuska-Susitna Borough; and

WHEREAS, Meadow Lakes Comprehensive Plan shows the subject parcel within the "rural residential" area. However, the plan specifically mentions the subject parcel and the need to retain Borough lands for public purposes; and

WHEREAS, Meadow Lakes Comprehensive Plan shows the subject parcel within the "rural residential" area. However, the plan specifically mentions the subject parcel and the need to retain Borough lands for public purposes; and

WHEREAS, Land Use Goal Four of the Meadow Lakes Comprehensive Plan states: "The community wants to maintain the natural, rural character of the community, and to protect the quality of residential neighborhoods. At the same time, the community recognizes the value of creating opportunities for employment, and increasing the local tax base, for example, through sand and gravel extraction. The balance point between these goals is to accept economic development activities, but also to establish rules to minimize the off-site impacts of such activities. This goal focuses on uses with significant impacts, such as large-scale resource

Planning Commission Resolution PC 21-22
Adopted: *October 18, 2021*

Page 3 of 17

development like coal-bed methane and gravel extraction, but is also intended to limit impacts of more modest uses such as auto storage/junk yards"; and

WHEREAS, Meadow Lakes Comprehensive Plan outlines "Standards for commercial, industrial, or other development with significant off-site impacts (for uses ranging from large scale sand and gravel operations to smaller-scale commercial)"; and

WHEREAS, a development standard within the Meadow Lakes Comprehensive Plan states: "Impacts On Environment - Activities creating off site impacts on surface and subsurface water quality and quantity, and air quality are not permitted"; and

WHEREAS, Meadow Lakes Comprehensive Plan, in multiple locations, identifies the need and priority to maintain the quality of surface and drinking water within the community; and

WHEREAS, Goal LU-1 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Protect and enhance the public safety, health, and welfare of Borough residents"; and

WHEREAS, Policy LU1-1 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Provide for consistent, compatible, effective, and efficient development within the Borough"; and

WHEREAS, Goal LU-2 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Protect residential neighborhoods and associated property values"; and

WHEREAS, Policy LU2-1 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Develop and implement regulations that protect residential development by separating incompatible uses, while encouraging uses that support such residential uses including office, commercial and other mixed-use developments that are shown to have positive cumulative impacts to the neighborhood"; and

WHEREAS, the subject parcel is classified for material extraction through Assembly Ordinance 04-167; and

WHEREAS, Assembly Ordinance 04-167 requires a minimum 50-foot vegetative buffer along the boundaries where adjacent activity is not resource related; and

WHEREAS, Informational Memorandum 04-243 details the involvement of the Meadow Lakes Community Council with Assembly Ordinance 04-167; and

WHEREAS, the applicant has worked directly with the Meadow Lakes Community Council to establish measures to minimize or eliminate off-site impacts of the proposed use; and

WHEREAS, Meadow Lakes Community Council submitted a letter of non-objection to the Borough on August 17, 2021; and

WHEREAS, according to the application material, a 200-foot vegetative buffer and 10-foot tall earthen berm will be between the proposed use and the sport fields, Senior Center, and residential developments to the east and north; and

Planning Commission Resolution PC 21-22
Adopted: October 18, 2021

Page 5 of 17

WHEREAS, according to the application material, the eastern 40 acres of the subject parcel will remain open space. An additional 25-foot vegetative buffer and 10-foot tall earthen berm will remain between this 40 acres and the proposed use; and

WHEREAS, according to the application material, material processing and staging will remain in the southern 20 acres of the proposed use to provide a greater separation from the adjacent uses that are not material extraction; and

WHEREAS, the closest residential structure is approximately 400 feet north of the proposed use; and

WHEREAS, according to the application material, access and truck routes will remain on the south end of the parcel and are prohibited from using roads on the north side of the subject parcel; and

WHEREAS, according to the application material, the proposed hours of operation are 6:00 a.m. to 10:00 p.m., Monday through Saturday; and

WHEREAS, the application material indicates the site will be developed to contain storm water runoff. Prior to beginning operations, a contractor will be required to develop a detailed storm water pollution prevention plan (SWPPP); and

WHEREAS, according to the application material, water trucks will be used as needed during operations as a dust control measure; and

WHEREAS, Alaska Department of Environmental Conservation has produced a user manual of best management practices for owners and operators of gravel/rock extraction operations to protect surface water and groundwater quality in Alaska; and

WHEREAS, Alaska Department of Environmental Conservation Best Management Practices Manual states: "DEC has established drinking water protection areas and recommended buffer zones for public water system (PWS) sources, which can be found at <http://dec.alaska.gov/das/GIS/apps.htm>. There are also PWS sources for which drinking water protection areas have not yet been delineated. For those PWS sources, it is recommended that the buffer zone be considered a 1,000-foot radius around the source area. It is recommended that excavation limits be restricted to areas outside any PWS source buffer zone. Equipment storage, maintenance, and operation should be as limited as possible within designated buffer zones, and appropriate BMP's should be used to prevent water contamination (see Chapter 6)"; and

WHEREAS, Alaska Department of Environmental Conservation Best Management Practices Manual states in part: "Some of the best ways to prevent mining impacts to surface and groundwater quality are to maintain distance between mining operations and the water to be protected, and to monitor water quality. This chapter presents recommended setbacks for mining operations from public water system (PWS) source areas, surface water bodies, and the

Planning Commission Resolution PC 21-22
Adopted: *October 18, 2021*

Page 7 of 17

groundwater table. Where proposed mining is closer to these waters than the recommended setbacks, it is recommended that a detailed hydrogeologic study be performed by a qualified person to evaluate potential impacts and design effective mitigation alternatives"; and

WHEREAS, the proposed use will not operate within any "protection areas" for community drinking water wells; and

WHEREAS, the applicant is not proposing to mine below or within four feet of the seasonal high water table; and

WHEREAS, according to a Hydrogeology Report by James Munter, Certified Professional Geologist, the proposed use will have no observant effect to groundwater; and

WHEREAS, according to the application material, water-monitoring wells will be installed to monitor groundwater levels; and

WHEREAS, according to the application material, the operation and reclamation plan will leave the site suitable for future public facilities and/or open space; and

WHEREAS, parcels to the north range in size from 1.5 acres to 40 acres. Those parcels are a mix of residential developments and vacant land; and

WHEREAS, two parcels totaling approximately 6 acres are located to the northeast. The two parcels are owned and developed by Meadow Lakes Seniors, Incorporated. Also to the northeast is a

33-acre parcel owned by the Meadow Lakes Community Council. It is developed with a children's park and sports fields; and

WHEREAS, an 80-acre parcel is to the east. Approximately 16 acres of it has been developed with a mobile home park. The remainder is largely undeveloped, though there is a small material extraction area used for road maintenance within the mobile home park; and

WHEREAS, to the south and west are six large parcels, which are used for material extraction. They total approximately 348 acres in size; and

WHEREAS, an undeveloped 80-acre parcel lies to the northwest; and

WHEREAS, according to the application material, the estimated final year of extraction is 2038; and

WHEREAS, all of the site plan and site development requirements have been provided; and

WHEREAS, maps are included in the record identifying surrounding property ownership, existing land uses, wetlands, and waterbodies within one-half mile of the proposed site; and

WHEREAS, according to the site plan, earth material extraction activities will not take place within 100-feet of any identified wetlands or waterbodies; and

WHEREAS, a site plan is included in the record showing the location of the earth materials extraction site, including phases of mining within the subject parcel; and

WHEREAS, a topographic contour map, bare earth map, and aerial photography are included in the record. These items show topographic features and vegetation of the subject property and adjacent properties; and

WHEREAS, according to the site development plan, proposed permanent and semi-permanent structures associated with the proposed use meet setback requirements; and

WHEREAS, according to the application material, the proposed operation does not anticipate generating traffic in excess of 100 vehicles during the morning or afternoon peak hours or more than 750 vehicles per day; and

WHEREAS, noise levels exceeding the levels in MSB 17.28.060 are prohibited; and

WHEREAS, Earthen berms and vegetative buffers have been incorporated into the operation plan as noise mitigation measures; and

WHEREAS, according to the application material, if lighting is needed, exterior lighting will be located and shielded to direct the light towards the ground in order to minimize light spillage onto adjacent properties and upward into the night sky.

Illumination or other fixtures mounted higher than 20 feet or 150 watts or more will have downward directional shielding; and

WHEREAS, according to the site plan, earth materials extraction activities will not take place within 100-feet of any identified wetlands or waterbodies; and

WHEREAS, the Planning Commission has reviewed this application with respect to standards set forth in MSB 17.30 and MSB 17.28; and

WHEREAS, the Planning Commission conducted a public hearing on October 18, 2021 on this matter.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby adopts the aforementioned findings of fact and makes the following conclusions of law supporting approval of Planning Commission Resolution 21-22:

1. All of the requirements to demonstrate compliance with state and federal laws have been met (MSB 17.30.055(A)).
2. The proposed use, with conditions, is consistent with the applicable comprehensive plans (MSB 17.30.60(A)(1)).
3. The proposed use, with conditions, will not detract from the value, spirit, character, and integrity of the surrounding area (MSB 17.30.060(A)(2)).
4. The application material has met all of the requirements of this chapter (MSB 17.30.060(A)(3)).

5. The proposed use, with conditions, will not be harmful to the public health, safety, convenience and welfare (MSB 17.30.060(A)(4)).
6. Sufficient setbacks, lot area, buffers or other safeguards are being provided (MSB 17.30.60(A)(5)).
7. The surrounding property ownership, existing land uses, and wetlands and water bodies within the notification area have been identified (MSB 17.28.060(A)(1)).
8. The area to be mined, description of the topography and vegetation, and approximate time sequence for the duration of the mining activity have been determined. No permanent, semi-permanent, or portable equipment are anticipated to be located within the required setbacks (MSB 17.28.60(A)(2)).
9. The proposed traffic route and traffic volumes have been identified. Traffic generated from the proposed use will not exceed 100 vehicles during the morning or afternoon peak hours or more than 750 vehicles a day, as specified in MSB 17.61.090, Traffic Standards (MSB 17.28.60(A)(3)).
10. Existing vegetation and earthen berms will be utilized and maintained to meet the visual screening measures (MSB 17.28.60(A)(4)).

11. Noise mitigation measures include retaining vegetative buffers and constructing earthen berms to ensure that sounds generated from earth material extraction activities do not exceed sound levels set forth in MSB 17.28.060(A)(5)(a). Noise levels exceeding the levels in 17.28.060(A)(5)(a) are prohibited.
12. The proposed use meets lighting standards in accordance with MSB 17.28.060(A)(6).
13. The operation will not conduct earth material extraction activities within 100 linear feet of any identified wetland, stream, river or other waterbody and the operation will not mine below or within four feet of the seasonal high water table (MSB 17.28.60(A)(7)(a - b)).

BE IT FURTHER RESOLVED, that the Planning Commission finds this application does meet the standards of MSB 17.30 and MSB 17.28 and does hereby approve the conditional use permit earth material extraction activities with the following conditions:

1. The operation shall comply with all applicable federal, state, and local regulations.
2. A copy of the approved permit shall be provided to each contractor company working at the site.
3. All aspects of the operation shall comply with the description detailed in the application material and an amendment to the Conditional Use Permit shall be

required prior to any alteration or expansion of the material extraction operation.

4. Material extraction shall be limited to the approximate 61.9-acre area identified in the application material and depicted on the applicant's site plan(s).
5. The earthen berm and vegetative buffer shown on the site plan(s) within the application material shall be maintained.
6. A qualified wetlands delineator shall identify the edge of all wetlands at the site. The 100-foot undisturbed vegetative buffer surrounding the identified wetlands adjacent to the extraction site shall be identified and marked by a professional land surveyor, licensed to operate in the State of Alaska, prior to beginning extraction activities.
7. Vehicles and equipment shall be staged at a designated location and all equipment shall be inspected for leaks at the end of each day.
8. On-site maintenance of vehicles shall be done in an area where all leaks can be contained with drip pans or other discharge prevention devices.
9. Any hazardous materials, drips, leaks, or spills shall be promptly attended to and properly treated.

10. All construction exits shall comply with standard Alaska Pollutant Discharge Elimination System requirements to minimize off-site vehicle tracking of sediments and discharges to storm water.
11. Prior to the commencement of mining activity, an approved SWPPP shall be submitted to the Matanuska-Susitna Borough.
12. Prior to the commencement of any extraction activities within the section line easement, written approval must be obtained from the State of Alaska, and a copy of said approval shall be submitted to the Matanuska-Susitna Borough.
13. All track-out sediments from the site shall be removed from the right-of-way daily.
14. The operation shall perform dust mitigation techniques as described in the application as-need to minimize dust impacts to the surrounding areas.
15. The operation shall comply with the maximum permissible sound level limits allowed in MSB Code, per the requirements of MSB 17.28.060 - Site Development Standards and MSB 8.52 - Noise, Amplified Sound, and Vibration.

16. All extraction activities, including all activities that cause noise, dust, or traffic, shall be limited to Monday through Saturday, 6:00 am to 10:00 pm.
17. If cultural remains are found during material extraction activities, the MSB Planning Department shall be contacted immediately so the remains can be documented.
18. A four-foot vertical separation shall be maintained between all excavation and the seasonal high water table.
19. Borough staff shall be permitted to enter onto any portion of the property to monitor compliance with permit requirements. Such access will at minimum, be allowed on demand when activity is occurring, with prior verbal or written notice, and at other times as necessary to monitor compliance. Denial of access to Borough staff shall be a violation of this Conditional Use Permit.
20. The operation shall comply with the reclamation standards of MSB 17.28.067.
21. All junk, trash, and junk vehicles, as defined in MSB 8.50 shall be removed and properly disposed of prior to the completion of reclamation on the subject parcel.
22. If illumination devices are required, they shall not be greater than 20 feet in height, shall utilize downward

directional shielding devices, and shall meet the requirements of MSB 17.28.060(A) (6) Lighting standards.

23. Authorization for earth material extraction activities approved by this Conditional Use Permit shall expire on December 31, 2038.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this 18 day of October, 2021.



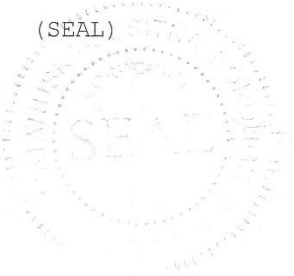
COLLEEN VAGUE, Chair

ATTEST



KAROL RIESE, Planning Clerk

(SEAL)



YES: 7 COMMISSIONER Anderson, Vague, Allen, Mossanen, Elder,
Glashan, Chesbro

NO: 0

Planning Commission Resolution PC 21-22
Adopted: October 18, 2021

Page 17 of 17



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822 • Fax (907) 861-8158

Email: permitcenter@matsugov.us

APPLICATION FOR A CONDITIONAL USE PERMIT FOR EARTH MATERIALS EXTRACTION – MSB 17.30

Carefully read instructions and applicable borough code. Fill out forms completely. Attach information as needed. Incomplete applications will not be processed.

THIS APPLICATION IS FOR MATERIALS EXTRACTION THAT **DOES NOT** OCCUR WITHIN FOUR FEET OF THE SEASONAL HIGH WATER TABLE. IF YOUR PLAN INCLUDES EXTRACTION WITHIN FOUR FEET OF THE SEASONAL HIGH WATER TABLE YOU MUST COMPLETE THE APPLICATION SPECIFIC TO THAT PURPOSE.

Application fee must be attached, check one:

\$500 for Administrative Permit (Less than two years **or** less than 7,000cy annually)

\$1,000 for Conditional Use Permit (More than two years **and** more than 7,000cy annually)

Prior to the public hearing, the applicant must also pay the mailing and advertising fees associated with the application. Applicants will be provided with a statement of advertising and mailing charges. Payment must be made prior to the application presentation before the Borough Planning Commission.

Subject Property: Township: 17N, Range: 02W, Section: 02, Meridian: S.M.

MSB Tax ID# 17N02W02C003

SUBDIVISION: _____ BLOCK(S): _____, LOT(S): _____

STREET ADDRESS: _____

FACILITY / BUSINESS NAME: MSB Land and Resource Management Division

Ownership: A written authorization by the owner must be attached for an agent or contact person, if the owner is using one for the application. Is authorization attached? Yes No N/A

Name of Property Owner

Matanuska-Susitna Borough

Mailing: 350 E. Dahlia Avenue

Palmer, AK 99645

Phone: Hm _____ Fax _____

Wk 861-7867 Cell _____

E-mail lmb@matsugov.us

Name of Agent / Contact for application

Emerson Krueger, Natural Resource Manager

Mailing: 350 E. Dahlia Avenue

Palmer, AK 99645

Phone: Hm _____ Fax _____

Wk 861-7867 Cell _____

E-mail ekrueger@matsugov.us

Revised 4/4/2017

Permit # _____

Page 1 of 4

Description What type(s) of material is being extracted? Pit Run

Total acreage area of all parcels on which the activity will occur: 120-acre parcel

Total acreage area of earth material extraction activity: 61.9 acres

Total cubic yards extraction per year: 124,000 (Estimate)

Total projected cubic yards to be extracted: 1,800,000

What is the estimated final year extraction will occur? 2038 unless there are project delays

Required information

1. Attach a plan of sufficient detail to demonstrate compliance with the requirements of MSB 17.28.050 and MSB 17.28.060.

Plan of Operation	Attached
Provide seasonal start and end dates	x
Provide days of the week operations will take place.	x
Provide hours of operation.	x
Estimated end date of extraction	x
Estimated end date of reclamation	x
Describe all other uses occurring on the site	x
Describe methods used to prevent problems on adjacent properties, such as lateral support (steep slopes), water quality, drainage, flooding, dust control and maintenance of roads; how will the operation monitor the seasonal high water table to stay at least four feet above it	x
Provide quantity estimates and topographical information such as cross section drawings depicting depth of excavation, slopes and estimated final grade	x

2. Submit a site plan. Drawings must be detailed and **drawn to scale**. Drawings under seal of an engineer or surveyor are recommended but not required.

SITE PLAN REQUIREMENTS	Attached
Identify location of permanent and semi-permanent structures on the site for verification of setback requirements. Include wells and septic systems.	x
Depict buffer areas, driveways, dedicated public access easements, and noise buffers (such as fences, berms or retained vegetated areas), and drainage control such as ditches, settling ponds etc.	x
Identify wetlands and waterbodies on site and within one mile	x
Identify existing surrounding land uses within one mile	x
Identify surrounding property ownership (i.e. public vs. private) within one mile of exterior boundaries	x
Show entire area intended for gravel/material extraction activity and the boundary of the lot(s) containing the operation. Identify areas used for past and future phases of the activity. Identify phases of proposed mining activities including a map showing the area to be mined, a description of the topography and vegetation, approximate time sequence for mining at particular locations, and general anticipated location of semi-permanent equipment such as conveyor belts, crushers, dredges, batch plants, etc.	x

Road and access plan that includes anticipated routes and traffic volumes. If the level of activity exceeds the minimum levels specified in MSB 17.61.090, traffic standards, a traffic control plan consistent with state regulations may be required	x
Visual screening measures that include a detailed description of the type of visual screening to be utilized. Visual screening may include, but is not limited to, berms, natural vegetation, solid fences, walls, evergreen hedges or other means as approved by the commission	x
Noise mitigation measures that include a description of measures to be taken by the applicant to mitigate or lessen noise impacts to surrounding properties. Measures shall include, but not be limited to, hours of operation of noise-producing equipment, erecting noise barriers (i.e., berms a minimum of 10 feet in height) between noise-producing equipment and adjacent uses, location of noise-producing equipment (i.e., below grade in excavated pit areas), and measures to utilize equipment with noise reduction features	x
Proposed lighting plan	x
Other (as required by MSB Planning Department)	x

3. Submit a reclamation plan including the following:

Reclamation Plan	Attached
Provided timeline for reclamation at particular locations and that is in compliance with MSB 17.28.067	x
Provide copy of reclamation financial assurance filed with the State of Alaska (If exempt, provide qualifying documents for exemption)	x

4. Submit documentation of compliance with borough, state and federal laws:

COMPLIANCE WITH BOROUGH, STATE AND FEDERAL LAWS	Applied for (list file #)	Attached (list file #) or N/A
Mining license as required by the Alaska State Department of Revenue, pursuant to A.S.42.65		N/A
Mining permit as required by the Alaska State Department of Natural Resources (ADNR) if extraction activities are to take place on state land		N/A
Reclamation plan as required by ADNR, pursuant to A.S. 27.19		x
Notice of intent (NOI) for construction general permit or multi-sector general permit and storm water pollution prevention plan, and other associated permits or plans required by the Environmental Protection Agency (EPA) pursuant to the National Pollutant Discharge Elimination System (NPDES) requirements	To be completed by Contractor	
United States Army Corps of Engineers permit pursuant to Section 404 of the Clean Water Act, 33 U.S.C. 1344, if material extraction activity is to take place within wetlands, lakes and streams.		N/A
Other (Such as, driveway / access permits. List as appropriate.)	To be completed by Contractor	

OWNER'S STATEMENT: I am owner or authorized agent of the following property:

MSB Tax account #(s) 17N02W02C003 _____ and, I hereby apply for approval of conditional use permit for earth material extraction activities on the property as described in this application.

Revised 4/4/2017

Permit # _____

Page 3 of 4

I understand all activity must be conducted in compliance with all applicable standards of MSB 17.28, MSB 17.30 and with all other applicable borough, state and federal laws, including but not limited to, air quality, water quality, and use and storage of hazardous materials, waste and explosives, per MSB 17.30.055.

I understand that other rules such as local, state and federal regulations, covenants, plat notes, and deed restrictions may be applicable and other permits or authorizations may be required. I understand that the borough may also impose conditions and safeguards designed to protect the public's health, safety and welfare and ensure the compatibility of the use with other adjacent uses.

I understand that it is my responsibility to identify and comply with all applicable rules and conditions, covenants, plat notes, and deed restrictions, including changes that may occur in such requirements.

I understand that this permit may transfer to subsequent owners of this land and that it is my responsibility to disclose the requirements of this status to operators on this property, and to the buyer when I sell the land. Additionally, I agree to comply with 17.30.120 Transfer of Conditional Use Permit, in the event this permit is transferred to a subsequent property owner.

I grant permission for borough staff members to enter onto the property as needed to process this application and monitor compliance. Such access will at a minimum, be allowed when the activity is occurring and, with prior notice, and at other times necessary to monitor compliance.

The information submitted in this application is accurate and complete to the best of my knowledge.

Signature: Property Owner Eric Phillips
Printed Name Date

Signature: Agent Emerson Krueger
Printed Name Date

EARTH MATERIAL EXTRACTION APPLICATION

MATANUSKA-SUSITNA BOROUGH

17N02W02C003

June 23, 2021

**MATANUSKA-SUSITNA BOROUGH
LAND AND RESOURCE MANAGEMENT DIVISION**

**17N02W02C003
PROPOSED GRAVEL MINING PLAN OF OPERATIONS
AND SITE PLAN REQUIREMENTS**

The following information is an attachment to the Matanuska-Susitna Borough (MSB) application for Earth Materials Extractions activities that do not occur within four feet of the water table under MSB 17.30, Conditional Use Permit (CUP).

1. Plan of Operation

The Matanuska-Susitna Borough Parcel Tax ID 17N02W02C003 is located approximately 0.25 mile north of the Parks Highway about one mile east of the Parks Highway intersection with Pittman Road. This Proposed Gravel Mining Plan (Plan) details the activities and dates of operation for material extraction proposed to prepare the parcel for future development.

Site Plans for the parcel are provided in Exhibits 3 and 4, depicting the proposed operation area, buffers, visual screening, and truck haul routes. A vicinity map, site map, the landowners within one-mile, wetlands and waterbodies within one mile, and other features are shown in Exhibits 1-6.

The current plan includes a future borrow source located within the property boundary. The maximum area proposed for gravel extraction within the 120-acre parcel is approximately 61.9 acres. The southeast 40-acres of the parcel are proposed to be sold, at less than fair market value, to the Meadow Lakes Community Council for use as open space and public recreation. The remaining acreage is set aside as buffers and visual screening. Property surrounding the parcel is a mix of industrial to the south and west, residential to the north and east, as well as recreational to the east.

The ultimate goal of the gravel extraction activities is to develop the parcel for future public facilities. The property is owned by the Matanuska-Susitna Borough (MSB). Modifications to the Plan will be submitted to the Land and Resources Management Division (MSB-LRMD), as needed, by the Contractor authorized to develop the site prior to the commencement of any mining activities.

The project is expected to last 15 years, but may need to be extended if delays occur. Full development of the borrow source is anticipated to be complete by 2037. Reclamation of the mined area is required prior to development of public facilities. Future public facility construction has not been defined at this time. The site will be developed to support such public facilities as a school, library, community center, fire station, or open space. Incremental reclamation will leave areas where mining has been completed in a vegetated condition suitable for use as public open space. However, given the layout of the mining plan, public recreation on the site will be prohibited until mining is complete for safety reasons.

Extraction operations will be at the Contractor's discretion and are not seasonally dependent. Hours of operation are expected to be Monday through Saturday from 6:00 a.m. to 10:00 p.m.

There will be no loading of trucks or crushing from 10pm to 6am. These hours of operation were agreed to by the Borough and the Meadow Lakes Community Council (MLCC).

A section line easement connects the southwest corner of the site to Pittman Road. This access route may be used as a local haul route, however, existing haul routes through the neighboring gravel pit may also be used. A 50-foot wide section line easement along the southern property boundary also extends to the east connecting to North Suzanna Street. This access route may also be developed for a local haul route. The east haul route is along an unconstructed right-of-way named West Stacy Street. Existing access roads on the adjoining private material site may be used for extraction. Haul routes will be restricted to the south end of the site to minimize negative effects on the residential land to the north. Haul routes will be maintained.

The Borough and MLCC have agreed to prohibit development of a local haul route extending north of the site, given the residential character of the surrounding property in that direction. The Site Plan illustrates each of the potential access routes. Furthermore, the Site Plan indicates 11 mining phases. This application is for all mining phases indicated on these drawings.

A development plan will be prepared by the Contractor, based on project needs and request for access and/or use made to the MSB-LRMD. If a modification of the site plan or development plan is required, a modified plan will be submitted to MSB-LRMD to determine if an amendment to the permit will be required. Structures, either permanent or semi-permanent, and processing equipment will be permitted within southern 20-acres of the site. All contract specifications or use agreements for authorized use of this site shall be required to adhere to the Permit conditions and operational details. Plan deviations must be submitted to the MSB-LRMD by the Contractor for review and approval prior to site development and/or material extraction.

The schedule for excavation and reclamation will be more thoroughly defined by the Contractor developing the site, and will be required in all contractor bid packages. Reclamation will be required. Mined areas will be reclaimed as public open space until such time as public facility construction is needed.

Excavating the western and southern boundaries in anticipation of future road construction will serve to reduce the elevation difference between the existing material site and the subject property. The areas within the section line easement will be left above the grade of the existing material site and the remainder of the subject property to promote road drainage. These areas will be graded to retain storm water runoff on the property.

Retaining an undisturbed 200-foot natural vegetative buffer along the northern boundary will prevent any problems, such as erosion, water quality, draining, flooding on property adjoining the northern boundary of the site. In addition, this 200-foot buffer extends along the eastern boundary of the site where it abuts the Meadow Lakes Senior Housing and Sports Complex and will serve as additional undisturbed buffers between the site and the residential and recreational property to the east.

Retaining an undisturbed 25-foot natural vegetative buffer along the eastern boundary of the site, along the southeast 40-acres of the subject parcel will prevent problems on the adjacent MLCC property. This 40-acre portion of the parcel is proposed open space.

Reserving the southeast 40 acres of the 120-acre parcel for a less than fair market value sale to MLCC, and retaining an undisturbed 25-foot natural vegetative buffer within the proposed material site will minimize the potential for negative off-site effects on the proposed public open

space to the east. In addition, this 40-acre portion of the parcel will provide a buffer between the material site and the residential lots to the east.

A professional hydrologist, with experience evaluating the hydrology of the area was hired to review available data to ensure this mining plan will not result in negative off-site effects on groundwater quality and quantity. Deviations from this mining plan will only be authorized by the borough when supported with more detailed on-site data. The Hydrogeology Report is included as Exhibit 7. The volume estimates are based on the estimated seasonal high water table. The average depth of excavation across the site is estimated to be 20 feet. This goal is to provide adequate separation between the ground surface and the seasonal high water table to allow for future public facilities. Test pits and monitoring wells will be installed prior to the solicitation for site development. The Contractor will be required to monitor the water table elevation prior to and during site development.

2. Site Plan Requirements

To isolate and minimize off-site effects of material processing, these activities will be located close to the existing material site, on the southern 20-acres of the Borough parcel. This includes laydown areas and vehicle parking. Laydown areas are locations where material is stored. Mining will commence at the south end of the property and is anticipated to proceed north as phases of mining are completed. Crushers, screening plants, or batch plants may be used at this location. A screening plant is planned for use in this operation. A screening plant is equipment used to separate materials based on grain size. Earthen berms may be installed around the material processing equipment to mitigate noise to the north and east. As the mining extends north and the working face of the excavation gets further from the material processing equipment, noise monitoring will used to determine when these earthen berms are required. It is not expected to, however, if processing equipment sound levels, measured at the nearest residential properties exceed the sound levels by receiving land use in MSB 17.28.060(A)(5), earthen berms around the equipment will be installed. The hours of operation are intended as noise mitigation measures to protect neighboring properties.

Sand and Gravel Extraction Operations

Total excavation of the site is estimated to include approximately 1,800,000 cubic yards of pit-run material and is expected to be excavated between 2022 and 2037. The total acreage from which material will be extracted is approximately 61.9. This excludes the vegetative buffer as well as the footprint of the 10-foot earthen berms. The Borough intends to solicit bids from Contractors to complete material extraction. Conceptual cross-sections are included as Exhibit 8. The intent of the cross-sections is to provide an approximate visual interpretation of the intended excavation. The volume estimate as well as the cross-sections are based on the best available information. Actual excavation volumes and controls will be determined by the data collected from the boreholes and monitoring wells and included in the contract for site development.

Conventional bulldozers, track-mounted backhoes, rubber-tired loaders, 10-12 cubic yard (CY) capacity dump trucks, and 18-30 CY capacity side or belly dump trucks will be used in the operation. Typically the hauling will be done using a 25 CY dump. A majority of the material may be loaded onto trains from the adjacent existing material site. Local material hauling on the road system is anticipated to be 10% of the total annual extraction. An estimated average of 124,000 CY per year will be extracted from the site. Approximately 12,000 CY may be hauled annually via the local road system. Assuming a four-month operational period for local

construction projects, six days a week, using 10 CY trucks, this could result in 106 CY per day being hauled off-site. This could be 10 ten-yard trucks resulting in 20-trips per day. This is based on the assumption that a majority of the material extracted from the site each year will be transported on the railroad. The anticipated traffic levels indicate no traffic impact analysis is required.

Blasting will not occur on site.

The working depth will typically be approximately 20 feet below original grade, as long as the depth of excavation remains a minimum of four feet above the seasonal high ground water table. Ground water monitoring will be required by the Contractor to ensure mining activities will not encroach within four feet of the seasonal high ground water level.

Development of the site is anticipated to begin from the south, and will depend on the contractor selected and their plans for utilization of the material. The mining plan is based on the premise of developing approximately six acres in each phase, providing an average of approximately 164,000 CY. Mining phase one could start as early as 2022, once the timber has been salvaged from the site. The roughly six acres in phase one would be excavated and developed into a preliminary operations area, where material processing and stockpiling would occur. Mining phases two through four would add additional operational area allowing for greater efficiency in the extraction and processing operations. Mining phases five through eleven would be reclaimed once completed by spreading soil, fertilizer, and seed. Internal transportation routes through these phases must be maintained to support the successive phases of extraction.

Most of the material extracted may be leaving the site via conveyor to a stockpile adjacent to a railcar loader. Truck haul routes are shown in Exhibit 3 – Site Plan. A water truck and/or sweeper may be used for dust control as needed. Haul routes will be maintained.

The operations area is situated within Phases 1-4 of the excavation and will be confined to the southern 20 acres, to minimize negative off-site effects of processing and handling activities. The operations area is shown on the Site Plans, located on the flat area in the southern portion of the project area. Reject material will be stockpiled for future road development in areas adjacent to the section line easement along the western boundary and the proposed public use easement along the southern boundary. Detailed layout of temporary and permanent facilities will be determined by the Contractor hired to develop the site.

The site is currently wooded and undeveloped. The landform for the area indicate the surficial deposits are comprised of Abandoned Meltwater Channel Alluvium. This geologic unit is described as channel fillings of former glacial meltwater streams and alluvium composed of pebble-cobble gravel and gravelly medium to coarse sand.

Organic overburden from the site will be stockpiled for use as earthen berms along the eastern and northern boundaries. Stockpiles of this material will be located in the operations area illustrated on the attached Site Plans.

I. Structures

A 25-foot setback is required from all property lines for structures, permanent or portable facilities, and equipment or material storage per MSB 17.28.070(A). Structures commonly

associated with material extraction sites are planned for use within the site boundaries. All structures and processing equipment will be sited within the operations area in accordance with the required setbacks.

II. Buffer areas and Driveways

Buffers, haul routes and public access easements are shown in Exhibit 3. A driveway permit may be required depending on the haul route selected by the Contractor. The Contractor will be required to obtain all necessary permits to construct access and development within the section line easements. Development within the section line easements will require State authorization. Operations may continue year-round depending on winter weather conditions and demand. Driveways will be maintained during active operational periods. Buffers for this parcel include a 25-foot buffer along the eastern boundary with the 40-acres proposed for sale to MLCC. The southeast 40-acres of the parcel will provide a buffer between the material site and the residential lots to the east. This 40-acres will be reserved for open space and public recreation.

A minimum 200 foot buffer along the northern boundary includes the wetland buffer.

A 200-foot buffer along the senior housing and sports complex, is excluded from the proposed material site. This buffer was agreed to by the Borough and the MLCC for the senior center and sports fields.

A waiver to the visual screening requirements along the western and southern boundaries is requested as the neighboring land use is also a material site. The areas along the western and southern boundaries will be developed for road access to the future public facilities. Material extraction along the western and southern boundaries will help prepare these areas for future road construction. Land to the west and south is owned and operated by a material extraction contractor. An email supporting the visual screening waiver from this landowner is included as Exhibit 9. There is a 20+foot elevation difference between the subject parcel and the parcels to the west and south. The Borough proposes to extract material along the western and southern lot lines to prepare these areas for future roads. Once mining is complete, the Borough will plant trees along the western and southern property lines to visually screen the subject parcel to the west and south. This visual screen is included in anticipation of future public use of the site once material extraction is complete. The Contractor will be required to obtain the necessary permit for work within the section lines easements.

All traffic associated with the material extraction will ingress and egress the site from the southern 20 acres, via a new connection to North Suzanna Street, Pittman Road, or the Railroad. Vehicle parking will occur within the southern 20-acres of the site, not within the section line easements.

III. Wetlands and Waterbodies

No wetland areas are located in the area proposed for mining. Exhibit 5 shows all wetlands within a one-mile radius of the proposed mining site.

IV. Existing and Surrounding Land Uses

Property surrounding the site is residential to the north and east. The land south and west of the landfill is an existing material site. The Meadow Lakes Sports Complex also adjoins the eastern

site boundary. Surrounding properties within a one-mile radius are identified in Exhibit 6. A list of all neighboring property owners within this same radius is also provided with this Exhibit.

The Meadow Lakes Community Comprehensive Plan was reviewed during development of this application. Meetings were held with the Meadow Lakes Community Council to discuss residents' concerns with the proposed material extraction. The development plan for the site was drafted with input from the Community Council.

Meadow Lakes has an extensive comprehensive plan (adopted 2005) that includes land use districts for all of the land contained within the community boundary. Each land use district has land use goals and encouraged/discouraged uses. It appears the property in question is classified in the Comprehensive Plan as "open space". Within the section, the Plan specifically speaks about the subject parcel, in the following excerpt:

MSB land is currently at a premium. Borough lands include two 160 acre parcels, plus the school and fire station properties. These parcels should be managed for current and future public uses. Two sites are already dedicated to community uses – one for a fire station and the school, the other at the intersection of Church and Pittman, for the community's second fire station.

The Meadow Lakes Community Council recently acquired 40 acres of Borough land in a parcel just north of the Parks highway. The intent of the Community Council is to develop the site for a community center, a developed recreational facility, or other facility – such as a library or senior housing. In light of the lack of public land in the Meadow Lakes area, additional Borough parcels should be retained for similar public purposes.

MLCC has achieved the intent of the above referenced 40 acres by building a senior housing facility, park, ballfields, trails, etc. The proposed land sale would allow MLCC to continue providing the community with various public use options and more availability of open space with the expansion of the ballfields, trails, and parks. Existing authorized trails are contained on the Meadow Lakes Sports Complex.

The language in the comprehensive plan states Borough lands should be managed for current and future public uses and goes on to say Borough parcels should be retained for similar public purposes. The proposed material extraction is in conformance with the Comprehensive Plan and MSB 17.30 and is supported by the community. The proposed material extraction is intended to prepare the site for future public facilities. The Reclamation Plan for the site is intended to leave the site in a condition suitable for use as public open space. The operational details of the proposed material extraction were developed with input from MLCC to ensure the setbacks, buffers, haul routes, and operation area minimized the potential for negative offsite effects.

The reclamation plan is robust in its requirements for utilization of all organic overburden on site to be retained to support future use of the property for open space. The material extraction activities will not leave a scar or one big hole in the ground. When the mining is finished, the reclamation plan includes plans for community uses. The site will be available for use as public open space until such time as it is developed for public facilities such as a school or library. The proposed extraction activities are consistent with the Meadow Lake Comprehensive Plan.

The proposed material extraction operation conforms to the approved Borough land classification of Material Lands and Reserve Use

V. Road and Access Plan

All traffic may ingress and egress the site via a new road connection to N. Suzanna Street or Pittman Road, which are paved residential roads. Site access is shown in the attached Site Plans and in Exhibit 3 – Site Map. Existing haul routes on the adjacent material site may also be used for site access.

Construction-related traffic may be expected to generate up to three trips per hour, during the peak construction season. A majority of the material extracted from the site may be conveyed to a stockpile area adjacent to the railroad and loaded on railcars. Extraction and removal traffic will not run out of the north of the site into the surrounding residential area.

VI. Visual Screening Measures

Residential areas and recreational trails are located in the vicinity of the proposed area of development. However, the western and southern boundaries of the site associated with this proposed mining site are bordered by an existing material site. The western and southern boundaries have section line easements that will be developed for future public facility road access once State authorization has been received by the Contractor. Visual screening will be included in the reclamation plan for the property, once these areas have been mined to prepare them for road construction. A vegetative buffer is part of the reclamation plan and will be planted along these boundaries to screen the property from the adjacent material site.

A 25-foot vegetative buffer will be reserved within the site boundary to screen the site from the 40-acres proposed to be sold to MLCC.

A 200+ foot buffer is reserved along the boundary, between the site and the senior housing and sports complex to the east.

A 200+ foot buffer is reserved along the northern boundary of the site.

Earthen berms, ten feet tall and forty feet wide will be constructed along the northern and eastern boundaries when material extraction activities are within 300 feet of site boundaries. Neighboring residential parcels to the north and east and recreational parcels to the east will additionally be buffered with naturally occurring vegetation.

Restricting the operation area to the south 20-acres of the site is intended to provide additional visual screening.

VII. Noise Mitigation

Residential areas and recreational trails are located in the vicinity of the proposed area of development. The earthen berms and existing vegetation will provide a noise buffer to these receptors. The below-grade excavation will also help to attenuate work area noise to acceptable levels consistent with the stipulations of MSB 17.28.060(A)(5). Additionally, haul trucks removing the material from the site will be required to have the appropriate mufflers installed to minimize noise pollution in the adjacent neighborhoods. Restricting the operations to Monday through Saturday, from 6am to 10pm will provide additional noise mitigation. Restricting the

operation area to the southern 20-acres of the site is also intended to provide noise mitigation. Additional earthen berms around processing equipment will be constructed when off-site noise levels exceeds the levels listed in MSB 17.28.060(A)(5).

VIII. Lighting Plan

Most of the work will be conducted primarily during daylight hours without the need for artificial lighting. The contractor will be required to obtain approval from MSB for any artificial lighting. Lighting may be used to illuminate activities in the work area, if needed. All lighting will be focused away from nearby residential areas and will be directed only onto the work at hand. Exterior lighting must be located and shielded to direct light towards the ground, in order to minimize light spillage onto adjacent properties and upward in to the night sky. Illumination or other fixtures mounted higher than 20 feet or 150 watts or more must have downward directional shielding, in accordance with MSB 17.28.060(A)(6).

IX. Dust Plan

Road dust control is a concern of high priority. The contract for development of this site shall contain a specific bid item to provide watering for dust control.

Borough staff or their agent will monitor conditions throughout construction and direct the construction contractor to water the roadway and haul routes as needed to prevent dust from becoming a problem. It is also anticipated that measures to reduce any by-product dirt transport from the borrow site by vehicle tires will be implemented within the borrow pit. The vegetative buffers are intended to mitigate off-site migration of dust. Mud tracked off-site onto public roads will be swept or washed as necessary.

X. Stormwater Pollution Prevention Plan (SWPPP)

The site will be developed to contain all stormwater runoff. The Contractor will be required to develop and implement a SWPPP and associated permitting for the life of the project. The SWPPP will be provided to the Borough for review and approval prior to commencement of extraction activities.

XI. Reclamation Plan

The site will be excavated to create a generally flat area with small rolling hills, in order to prepare the site for development of future public facilities. The site will be available for use as open space. Reclamation of the property will leave the site in a condition suitable for use as public open space until the site is developed for public facilities. To this end, the organic overburden will be stockpiled onsite and used to construct earthen berms for visual screening. The overburden will be distributed over the site upon completion of mining activities and the site will be seeded and fertilized to promote rapid revegetation. Trees will be planted along the western and southern property boundaries to screen the site from the adjacent material site.

Reclamation of each phase of mining will be completed within four growing seasons after completion. Slopes will be graded to a maximum 50% slope, and graded to blend with surrounding undisturbed topography. All surfaces will be stabilized and protected from erosion. Vegetative cover will be established and maintained over all disturbed areas on the site in


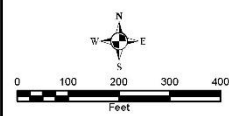
conformance with the current Alaska Department of Natural Resources Revegetation Manual for Alaska. Reseeding of reclaimed areas will utilize certified seed suitable for Alaska, free of noxious weeds and undesirable plants identified in 11 AAC 34.020. Sixty percent live cover of the entire reclaimed area will be achieved by the end of the fourth growing season after completion of a mining phase. However, equipment access through each mining phase will be maintained and remain unreclaimed until mining and reclamation of the last phase is complete. This is in support of the agreement between the Borough and MLCC to restrict material hauling to the south of the site. Material from the last phases of mining must be transported south, across the site to the operations area.

At least 12” of organic overburden are estimated to be on site based on available data. All organic overburden will be stockpiled onsite and used for reclamation.

The Reclamation Plan and bond will be filed with the State when a contractor is selected to begin extraction activities.

XII. Long-Term Plan

This plan is specifically for the extraction of materials to prepare the site for the future public facilities and open space. The site is classified for material extraction and reserve use. Excavation to level the site for the future public facilities is anticipated to include 1,800,000 cubic yards of pit-run materials. Excavation is expected to take place from 2022 through 2037. The Borough Land and Resource Management Division is requesting this Conditional Use Permit to cover the activities associated with the development of this site for future public facilities.

<p>MATANUSKA-SUSITNA BOROUGH LAND AND RESOURCE MANAGEMENT DIVISION</p>  <p>EXHIBIT 3 - SITE PLAN LAYOUT 1 OPERATIONAL FEATURES AND EXISTING TOPOGRAPHY (10' CONTOURS)</p>	<p>LEGEND</p> <ul style="list-style-type: none"> --- PROPOSED ACCESS 40' WIDE x 10' TALL EARTHEN BERM MATERIAL EXTRACTION AREA MINING PLAN AREA OF DISTURBANCE 	 <p>1 inch = 200 feet DATE: APRIL, 2021 SOURCES: MSB GIS, MSB LRMD PROJECTION: NAD 83 / AK 51 / UTM 24 LOCATION: MEADOW LAKES AUTHOR: MSB LRMD</p>
--	--	---

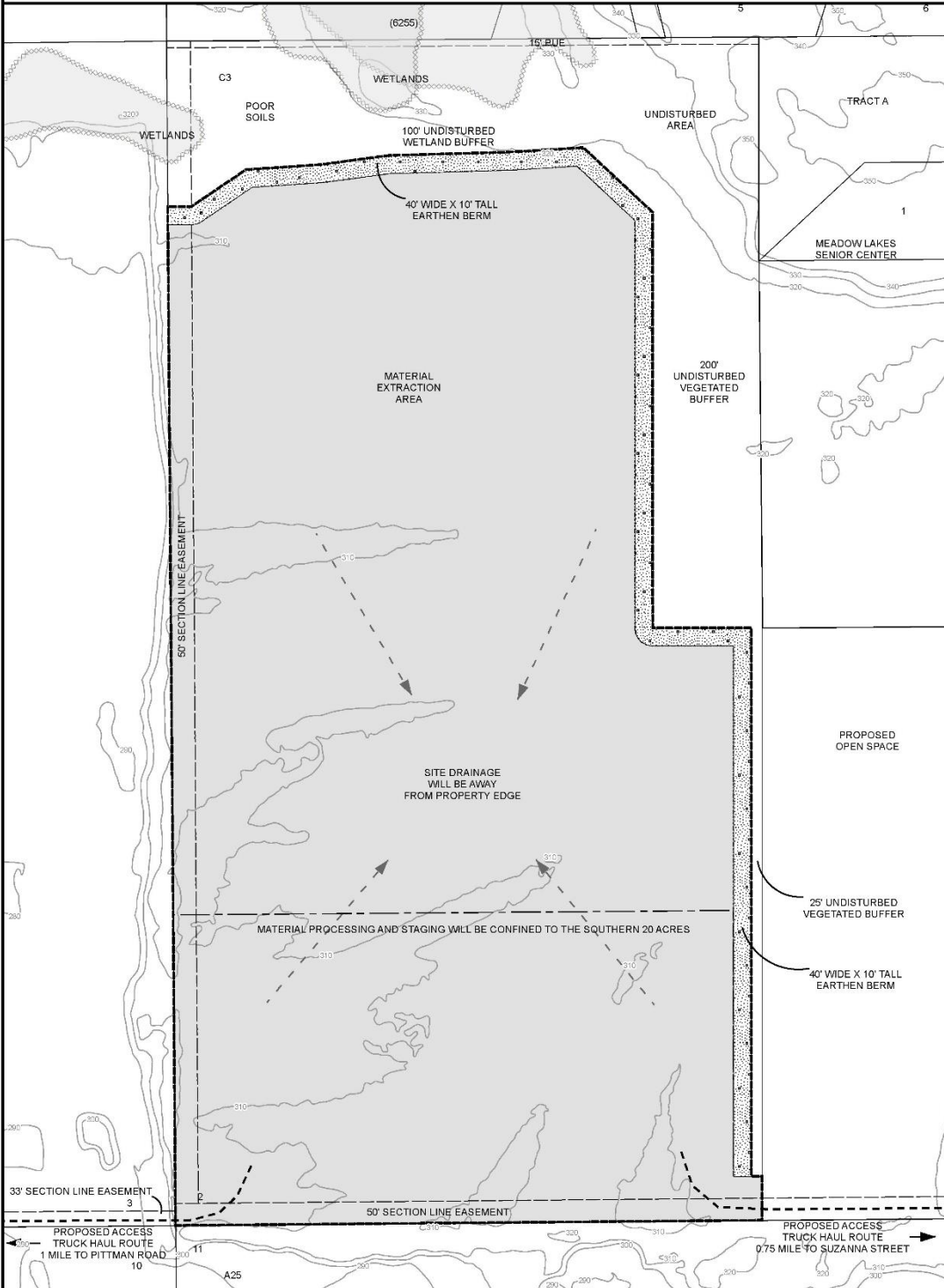


EXHIBIT C

INSURANCE (Lessee)

It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of the Agreement to create in the public or any member thereof a third party benefit hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement.

It is highly recommended that the Lessee confer with their respective insurance companies or brokers to determine if their insurance program complies with the Borough's Insurance requirements.

The Lessee shall procure and maintain the following insurance:

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services office form number CG 0001 (Edition 4/13) covering Commercial General Liability.
2. Insurance Services office form number CA 0001 (Edition 4/13) covering Automobile Liability, symbol 1 "any auto."
3. Worker's Compensation insurance as required by the State of Alaska and Employers Liability Insurance.

B. Minimum Limits of Insurance

Lessee shall maintain limits no less than:

1. General Liability:

\$2,000,000 combined single limit per occurrence for bodily injury, property damage, personal injury, and advertising injury. The minimum general aggregate limit of \$2,000,000 and shall apply separately per project aggregate.

General liability insurance shall be maintained in effect throughout the term of the Agreement.

If the general liability insurance is written on a claims made form, the Lessee shall provide insurance for a period of two years after termination or expiration of this Agreement. The policy(s) shall evidence a retroactive date, no later than the beginning of this Agreement.

2. Auto Liability:

Auto Liability for “any auto” (including owned, non-owned, and hired auto), written on an insurance industry standard form (CA0001 or its equivalent), with \$2,000,000 combined single limit per accident for bodily injury and property damage.

3. Workers’ Compensation and Employers Liability:

Workers’ Compensation shall be statutory as required by the State of Alaska. Employer's liability shall be endorsed to the following minimum limits:

Bodily injury by Accident - \$500,000 each accident
Bodily injury by Disease - \$500,000 each employee
Bodily injury by Disease - \$500,000 policy limit

4. Excess Liability:

In order to meet the required minimum limits of insurance it is permissible for the Lessee to combine an excess liability or umbrella policy with the general liability, or auto liability or employer’s liability. In the instance where the Lessee purchases an excess liability or umbrella policy, the occurrence limit and the aggregate limit may be of the same amount.

C. Deductibles and Self-Insured Retention

Prior to the agreement effective date, any deductible or self-insured retention must be declared and approved by the Borough. Lessee may be requested to demonstrate how the deductible or self-insured retention will be funded in the event of a claim. At the option of the Borough, the Lessee shall reduce or eliminate such deductibles or self-insured retention as respects the Borough, its officers, officials, employees and volunteers; or the Lessee shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

D. Other Insurance Provisions

The policies are to contain, or endorsed to contain, the following provisions:

1. General Liability, Automobile Liability

- a. The Borough, its Administrator, officers, officials, employees and volunteers shall be covered as additional insured as respects: liability arising out of activities performed by or on behalf of the Lessee; products and completed operations of the Lessee premises owned, occupied or used by the Lessee or automobiles owned, leased, hired or borrowed by the Lessee. The coverage shall contain no special limitation on the scope of protection afforded to the Borough, its Administrator, officers, officials, employees, and volunteers.
- b. The Lessee's insurance coverage shall be primary insurance as respects the Borough, its Administrator, officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Borough, its Administrator, officers, officials, employees, and volunteers shall be excess of the Lessee insurance and shall not contribute to it.
- c. The Lessee's insurance shall apply separately to each insured against whom the claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. Workers' Compensation and Employer's Liability

The insurer shall agree to waive all rights of subrogation against the Borough, its Administrator, officers, officials, employees, and volunteers for losses arising from work performed by the Lessee or any subcontractor of the Lessee in relation to this Agreement.

3. All Insurance

Each insurance policy required by this Agreement shall be endorsed to state that coverage shall not be suspended, voided, or canceled by either party, reduced in coverage or in limits except after 30 days prior written notice for nonpayment of premium or fraud on the part of the Lessee; or, 60 days prior written notice for any other reason by certified mail, return receipt requested has been given to the Borough. The Lessee shall mail such notice to the attention of the Borough's Land and Resource Management Division.

E. Acceptability of Insurers

Insurance is to be placed with insurers with a Best's rating of no less than A-VII.

F. Verification of Coverage

Lessee shall furnish the Borough with certificates of insurance and with certified copies of all endorsements effecting coverage required by this clause. The

certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates are to be on forms acceptable to the Borough. All certificates are to be received and approved by the Borough before work commences. The Borough reserves the rights to require complete, certified copies of all required insurance policies, at any time.

G. Subcontractors and Sublessee's

Lessee shall include all subcontractors and sublessees as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor and sublessees naming the Borough as additionally insured. All coverage for subcontractors and sublessees shall be subject to all requirements stated herein.

H. Lapse in Insurance Coverage

A lapse in insurance coverage, any change that restricts, reduces insurance provided, or changes name of insured without Borough approval is a material breach of this agreement, which shall result in immediate termination of the agreement.



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822

Email: planning@matsugov.us

CONDITIONAL USE PERMIT FOR EARTH MATERIALS EXTRACTION

PERMIT#: 173020210003

EFFECTIVE DATES: October 18, 2021 – December 31, 2038

PERMITTED SITE: Tax ID# 17N02W02C003 (No Site Address); Parcel C3, within Township 17 North, Range 2 West, Section 2, Seward Meridian

**PERMITTEE/
PROPERTY OWNER:** MSB Land & Resource Management Division
350 East Dahlia Avenue
Palmer, AK 99645

Action: In accordance with provisions in Matanuska-Susitna Borough Code 17.28 and 17.30, a Conditional Use Permit for earth materials extraction is hereby approved as referenced within this document. This permit is for the extraction of earth material from an approximately 61.9-acre mining site, within the parcel noted above. The total volume of extraction will be approximately 1,800,000 cubic yards. This decision is based on the findings of fact and conclusions of law contained within MSB Planning Commission Resolution No. 21-22, dated October 18, 2021.

General Requirements and Conditions:

All development and use of the permitted site shall occur as described in the approved application submitted and as further specified by the conditions listed herein. Any variance from the requirements or conditions of this permit, or from borough code, may be grounds for penalties as authorized by borough code.

Specific conditions of the permit for earth material extraction activities:

1. The operation shall comply with all applicable federal, state, and local regulations.
2. A copy of the approved permit shall be provided to each contractor company working at the site.
3. All aspects of the operation shall comply with the description detailed in the application material and an amendment to the Conditional Use Permit shall be required prior to any alteration or expansion of the material extraction operation.
4. Material extraction shall be limited to the approximate 61.9-acre area identified in the application material and depicted on the applicant's site plan(s).

5. The earthen berm and vegetative buffer shown on the site plan(s) within the application material shall be maintained.
6. A qualified wetlands delineator shall identify the edge of all wetlands at the site. The 100-foot undisturbed vegetative buffer surrounding the identified wetlands adjacent to the extraction site shall be identified and marked by a professional land surveyor, licensed to operate in the State of Alaska, prior to beginning extraction activities.
7. Vehicles and equipment shall be staged at a designated location and all equipment shall be inspected for leaks at the end of each day.
8. On-site maintenance of vehicles shall be done in an area where all leaks can be contained with drip pans or other discharge prevention devices.
9. Any hazardous materials, drips, leaks, or spills shall be promptly attended to and properly treated.
10. All construction exits shall comply with standard Alaska Pollutant Discharge Elimination System requirements to minimize off-site vehicle tracking of sediments and discharges to storm water.
11. Prior to the commencement of mining activity, an approved SWPPP shall be submitted to the Matanuska-Susitna Borough.
12. Prior to the commencement of any extraction activities within the section line easement, written approval must be obtained from the State of Alaska, and a copy of said approval shall be submitted to the Matanuska-Susitna Borough.
13. All track-out sediments from the site shall be removed from the right-of-way daily.
14. The operation shall perform dust mitigation techniques as described in the application as-needed to minimize dust impacts to the surrounding areas.
15. The operation shall comply with the maximum permissible sound level limits allowed in MSB Code, per the requirements of MSB 17.28.060 – Site Development Standards and MSB 8.52 – Noise, Amplified Sound, and Vibration.
16. All extraction activities, including all activities that cause noise, dust, or traffic, shall be limited to Monday through Saturday, 6:00 a.m. to 10:00 p.m..
17. If cultural remains are found during material extraction activities, the MSB Planning Department shall be contacted immediately so the remains can be documented.
18. A four-foot vertical separation shall be maintained between all excavation and the seasonal high water table.
19. Borough staff shall be permitted to enter onto any portion of the property to monitor compliance with permit requirements. Such access will at minimum, be allowed on demand when activity is occurring, with prior verbal or written notice, and at other times as necessary to monitor compliance. Denial of access to Borough staff shall be a violation of this Conditional Use Permit.
20. The operation shall comply with the reclamation standards of MSB 17.28.067.
21. All junk, trash, and junk vehicles, as defined in MSB 8.50 shall be removed and properly disposed of prior to the completion of reclamation on the subject parcel.

22. If illumination devices are required, they shall not be greater than 20 feet in height, shall utilize downward directional shielding devices, and shall meet the requirements of MSB 17.28.060(A)(6) Lighting standards.
23. Authorization for earth material extraction activities approved by this Conditional Use Permit shall expire on December 31, 2038.

The decision may be appealed within 21 days of the date of approval by the MSB Planning Commission in accordance with MSB 15.39 – Board of Adjustment and Appeals.



Jason Ortiz, Acting Planning & Land Use Director

October 19, 2021
Date of Issuance

By: Mark Whisenhunt
Introduced: August 16, 2021
Public Hearing: October 18, 2021
Action: Approved

**MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. PC 21-22**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION APPROVING A CONDITIONAL USE PERMIT FOR THE EXTRACTION OF 1,800,000 CUBIC YARDS OF EARTH MATERIAL FROM AN APPROXIMATELY 61.9-ACRE SITE WITHIN PARCEL C3, TAX ID# 17N02W02C003 (NO SITE ADDRESS); WITHIN TOWNSHIP 17 NORTH, RANGE 2 WEST, SECTION 2, SEWARD MERIDIAN.

WHEREAS, an application has been received from the Natural Resource Manager for the Matanuska-Susitna Borough for a conditional use permit to extract earth material at Tax ID# 17N02W02C003 (No Site Address); Parcel C3, within Township 17 North, Range 2 West, Section 2, Seward Meridian; and

WHEREAS, it is the intent of the MSB to recognize the value and importance of promoting the utilization of natural resources within its boundaries; and

WHEREAS, it is the purpose of MSB Chapter 17.30 to allow resource extraction activities while promoting the public health, safety, and general welfare of the Borough through the regulation of land uses to reduce the adverse impacts of lands uses and development between and among property owners; and

WHEREAS, it is further the purpose of MSB 17.30 to promote orderly and compatible development; and

WHEREAS, MSB 17.30.020(E) requires a conditional use permit for the annual extraction of more than 2,000 cubic yards of earth materials; and

WHEREAS, an Alaska State Department of Revenue mining license is not required for this application because Alaska law was amended in 2012 and rock, sand and gravel quarries are now exempt from the requirement; and

WHEREAS, an Alaska State Department of Natural Resources (ADNR) mining permit is not required for this application because the extraction activities will not take place on state land; and

WHEREAS, a reclamation plan has been developed as required by Alaska State Department of Natural Resources (ADNR), pursuant to A.S. 27.19, and has been submitted as part of this application; and

WHEREAS, the application material indicates the site will be developed to contain storm water runoff. Prior to beginning operations, a contractor will be required to develop a detailed storm water pollution prevention plan (SWPPP); and

WHEREAS, a United States Army Corps of Engineers permit pursuant to Section 404 of the Clean Water Act is not required for this application as the applicant is not proposing any extraction activity to take place within any identified wetlands, lakes, streams, or other waterbodies; and

WHEREAS, the subject parcel is located within the Meadow Lakes Community Council boundaries and is subject to the Meadow Lakes Comprehensive Plan; and

WHEREAS, the Matanuska-Susitna Borough Comprehensive Development Plan (2005) applies to all parcels within the Matanuska-Susitna Borough; and

WHEREAS, Meadow Lakes Comprehensive Plan shows the subject parcel within the "rural residential" area. However, the plan specifically mentions the subject parcel and the need to retain Borough lands for public purposes; and

WHEREAS, Meadow Lakes Comprehensive Plan shows the subject parcel within the "rural residential" area. However, the plan specifically mentions the subject parcel and the need to retain Borough lands for public purposes; and

WHEREAS, Land Use Goal Four of the Meadow Lakes Comprehensive Plan states: "The community wants to maintain the natural, rural character of the community, and to protect the quality of residential neighborhoods. At the same time, the community recognizes the value of creating opportunities for employment, and increasing the local tax base, for example, through sand and gravel extraction. The balance point between these goals is to accept economic development activities, but also to establish rules to minimize the off-site impacts of such activities. This goal focuses on uses with significant impacts, such as large-scale resource

development like coal-bed methane and gravel extraction, but is also intended to limit impacts of more modest uses such as auto storage/junk yards"; and

WHEREAS, Meadow Lakes Comprehensive Plan outlines "Standards for commercial, industrial, or other development with significant off-site impacts (for uses ranging from large scale sand and gravel operations to smaller-scale commercial)"; and

WHEREAS, a development standard within the Meadow Lakes Comprehensive Plan states: "Impacts On Environment - Activities creating off site impacts on surface and subsurface water quality and quantity, and air quality are not permitted"; and

WHEREAS, Meadow Lakes Comprehensive Plan, in multiple locations, identifies the need and priority to maintain the quality of surface and drinking water within the community; and

WHEREAS, Goal LU-1 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Protect and enhance the public safety, health, and welfare of Borough residents"; and

WHEREAS, Policy LU1-1 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Provide for consistent, compatible, effective, and efficient development within the Borough"; and

WHEREAS, Goal LU-2 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Protect residential neighborhoods and associated property values"; and

WHEREAS, Policy LU2-1 of the Matanuska-Susitna Borough Comprehensive Development Plan states: "Develop and implement regulations that protect residential development by separating incompatible uses, while encouraging uses that support such residential uses including office, commercial and other mixed-use developments that are shown to have positive cumulative impacts to the neighborhood"; and

WHEREAS, the subject parcel is classified for material extraction through Assembly Ordinance 04-167; and

WHEREAS, Assembly Ordinance 04-167 requires a minimum 50-foot vegetative buffer along the boundaries where adjacent activity is not resource related; and

WHEREAS, Informational Memorandum 04-243 details the involvement of the Meadow Lakes Community Council with Assembly Ordinance 04-167; and

WHEREAS, the applicant has worked directly with the Meadow Lakes Community Council to establish measures to minimize or eliminate off-site impacts of the proposed use; and

WHEREAS, Meadow Lakes Community Council submitted a letter of non-objection to the Borough on August 17, 2021; and

WHEREAS, according to the application material, a 200-foot vegetative buffer and 10-foot tall earthen berm will be between the proposed use and the sport fields, Senior Center, and residential developments to the east and north; and

WHEREAS, according to the application material, the eastern 40 acres of the subject parcel will remain open space. An additional 25-foot vegetative buffer and 10-foot tall earthen berm will remain between this 40 acres and the proposed use; and

WHEREAS, according to the application material, material processing and staging will remain in the southern 20 acres of the proposed use to provide a greater separation from the adjacent uses that are not material extraction; and

WHEREAS, the closest residential structure is approximately 400 feet north of the proposed use; and

WHEREAS, according to the application material, access and truck routes will remain on the south end of the parcel and are prohibited from using roads on the north side of the subject parcel; and

WHEREAS, according to the application material, the proposed hours of operation are 6:00 a.m. to 10:00 p.m., Monday through Saturday; and

WHEREAS, the application material indicates the site will be developed to contain storm water runoff. Prior to beginning operations, a contractor will be required to develop a detailed storm water pollution prevention plan (SWPPP); and

WHEREAS, according to the application material, water trucks will be used as needed during operations as a dust control measure; and

WHEREAS, Alaska Department of Environmental Conservation has produced a user manual of best management practices for owners and operators of gravel/rock extraction operations to protect surface water and groundwater quality in Alaska; and

WHEREAS, Alaska Department of Environmental Conservation Best Management Practices Manual states: "DEC has established drinking water protection areas and recommended buffer zones for public water system (PWS) sources, which can be found at <http://dec.alaska.gov/das/GIS/apps.htm>. There are also PWS sources for which drinking water protection areas have not yet been delineated. For those PWS sources, it is recommended that the buffer zone be considered a 1,000-foot radius around the source area. It is recommended that excavation limits be restricted to areas outside any PWS source buffer zone. Equipment storage, maintenance, and operation should be as limited as possible within designated buffer zones, and appropriate BMP's should be used to prevent water contamination (see Chapter 6)"; and

WHEREAS, Alaska Department of Environmental Conservation Best Management Practices Manual states in part: "Some of the best ways to prevent mining impacts to surface and groundwater quality are to maintain distance between mining operations and the water to be protected, and to monitor water quality. This chapter presents recommended setbacks for mining operations from public water system (PWS) source areas, surface water bodies, and the

groundwater table. Where proposed mining is closer to these waters than the recommended setbacks, it is recommended that a detailed hydrogeologic study be performed by a qualified person to evaluate potential impacts and design effective mitigation alternatives"; and

WHEREAS, the proposed use will not operate within any "protection areas" for community drinking water wells; and

WHEREAS, the applicant is not proposing to mine below or within four feet of the seasonal high water table; and

WHEREAS, according to a Hydrogeology Report by James Munter, Certified Professional Geologist, the proposed use will have no observant effect to groundwater; and

WHEREAS, according to the application material, water-monitoring wells will be installed to monitor groundwater levels; and

WHEREAS, according to the application material, the operation and reclamation plan will leave the site suitable for future public facilities and/or open space; and

WHEREAS, parcels to the north range in size from 1.5 acres to 40 acres. Those parcels are a mix of residential developments and vacant land; and

WHEREAS, two parcels totaling approximately 6 acres are located to the northeast. The two parcels are owned and developed by Meadow Lakes Seniors, Incorporated. Also to the northeast is a

33-acre parcel owned by the Meadow Lakes Community Council. It is developed with a children's park and sports fields; and

WHEREAS, an 80-acre parcel is to the east. Approximately 16 acres of it has been developed with a mobile home park. The remainder is largely undeveloped, though there is a small material extraction area used for road maintenance within the mobile home park; and

WHEREAS, to the south and west are six large parcels, which are used for material extraction. They total approximately 348 acres in size; and

WHEREAS, an undeveloped 80-acre parcel lies to the northwest; and

WHEREAS, according to the application material, the estimated final year of extraction is 2038; and

WHEREAS, all of the site plan and site development requirements have been provided; and

WHEREAS, maps are included in the record identifying surrounding property ownership, existing land uses, wetlands, and waterbodies within one-half mile of the proposed site; and

WHEREAS, according to the site plan, earth material extraction activities will not take place within 100-feet of any identified wetlands or waterbodies; and

WHEREAS, a site plan is included in the record showing the location of the earth materials extraction site, including phases of mining within the subject parcel; and

WHEREAS, a topographic contour map, bare earth map, and aerial photography are included in the record. These items show topographic features and vegetation of the subject property and adjacent properties; and

WHEREAS, according to the site development plan, proposed permanent and semi-permanent structures associated with the proposed use meet setback requirements; and

WHEREAS, according to the application material, the proposed operation does not anticipate generating traffic in excess of 100 vehicles during the morning or afternoon peak hours or more than 750 vehicles per day; and

WHEREAS, noise levels exceeding the levels in MSB 17.28.060 are prohibited; and

WHEREAS, Earthen berms and vegetative buffers have been incorporated into the operation plan as noise mitigation measures; and

WHEREAS, according to the application material, if lighting is needed, exterior lighting will be located and shielded to direct the light towards the ground in order to minimize light spillage onto adjacent properties and upward into the night sky.

Illumination or other fixtures mounted higher than 20 feet or 150 watts or more will have downward directional shielding; and

WHEREAS, according to the site plan, earth materials extraction activities will not take place within 100-feet of any identified wetlands or waterbodies; and

WHEREAS, the Planning Commission has reviewed this application with respect to standards set forth in MSB 17.30 and MSB 17.28; and

WHEREAS, the Planning Commission conducted a public hearing on October 18, 2021 on this matter.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby adopts the aforementioned findings of fact and makes the following conclusions of law supporting approval of Planning Commission Resolution 21-22:

1. All of the requirements to demonstrate compliance with state and federal laws have been met (MSB 17.30.055(A)).
2. The proposed use, with conditions, is consistent with the applicable comprehensive plans (MSB 17.30.60(A)(1)).
3. The proposed use, with conditions, will not detract from the value, spirit, character, and integrity of the surrounding area (MSB 17.30.060(A)(2)).
4. The application material has met all of the requirements of this chapter (MSB 17.30.060(A)(3)).

5. The proposed use, with conditions, will not be harmful to the public health, safety, convenience and welfare (MSB 17.30.060(A)(4)).
6. Sufficient setbacks, lot area, buffers or other safeguards are being provided (MSB 17.30.60(A)(5)).
7. The surrounding property ownership, existing land uses, and wetlands and water bodies within the notification area have been identified (MSB 17.28.060(A)(1)).
8. The area to be mined, description of the topography and vegetation, and approximate time sequence for the duration of the mining activity have been determined. No permanent, semi-permanent, or portable equipment are anticipated to be located within the required setbacks (MSB 17.28.60(A)(2)).
9. The proposed traffic route and traffic volumes have been identified. Traffic generated from the proposed use will not exceed 100 vehicles during the morning or afternoon peak hours or more than 750 vehicles a day, as specified in MSB 17.61.090, Traffic Standards (MSB 17.28.60(A)(3)).
10. Existing vegetation and earthen berms will be utilized and maintained to meet the visual screening measures (MSB 17.28.60(A)(4)).

11. Noise mitigation measures include retaining vegetative buffers and constructing earthen berms to ensure that sounds generated from earth material extraction activities do not exceed sound levels set forth in MSB 17.28.060(A)(5)(a). Noise levels exceeding the levels in 17.28.060(A)(5)(a) are prohibited.
12. The proposed use meets lighting standards in accordance with MSB 17.28.060(A)(6).
13. The operation will not conduct earth material extraction activities within 100 linear feet of any identified wetland, stream, river or other waterbody and the operation will not mine below or within four feet of the seasonal high water table (MSB 17.28.60(A)(7)(a - b)).

BE IT FURTHER RESOLVED, that the Planning Commission finds this application does meet the standards of MSB 17.30 and MSB 17.28 and does hereby approve the conditional use permit earth material extraction activities with the following conditions:

1. The operation shall comply with all applicable federal, state, and local regulations.
2. A copy of the approved permit shall be provided to each contractor company working at the site.
3. All aspects of the operation shall comply with the description detailed in the application material and an amendment to the Conditional Use Permit shall be

required prior to any alteration or expansion of the material extraction operation.

4. Material extraction shall be limited to the approximate 61.9-acre area identified in the application material and depicted on the applicant's site plan(s).
5. The earthen berm and vegetative buffer shown on the site plan(s) within the application material shall be maintained.
6. A qualified wetlands delineator shall identify the edge of all wetlands at the site. The 100-foot undisturbed vegetative buffer surrounding the identified wetlands adjacent to the extraction site shall be identified and marked by a professional land surveyor, licensed to operate in the State of Alaska, prior to beginning extraction activities.
7. Vehicles and equipment shall be staged at a designated location and all equipment shall be inspected for leaks at the end of each day.
8. On-site maintenance of vehicles shall be done in an area where all leaks can be contained with drip pans or other discharge prevention devices.
9. Any hazardous materials, drips, leaks, or spills shall be promptly attended to and properly treated.

10. All construction exits shall comply with standard Alaska Pollutant Discharge Elimination System requirements to minimize off-site vehicle tracking of sediments and discharges to storm water.
11. Prior to the commencement of mining activity, an approved SWPPP shall be submitted to the Matanuska-Susitna Borough.
12. Prior to the commencement of any extraction activities within the section line easement, written approval must be obtained from the State of Alaska, and a copy of said approval shall be submitted to the Matanuska-Susitna Borough.
13. All track-out sediments from the site shall be removed from the right-of-way daily.
14. The operation shall perform dust mitigation techniques as described in the application as-need to minimize dust impacts to the surrounding areas.
15. The operation shall comply with the maximum permissible sound level limits allowed in MSB Code, per the requirements of MSB 17.28.060 - Site Development Standards and MSB 8.52 - Noise, Amplified Sound, and Vibration.

16. All extraction activities, including all activities that cause noise, dust, or traffic, shall be limited to Monday through Saturday, 6:00 am to 10:00 pm.
17. If cultural remains are found during material extraction activities, the MSB Planning Department shall be contacted immediately so the remains can be documented.
18. A four-foot vertical separation shall be maintained between all excavation and the seasonal high water table.
19. Borough staff shall be permitted to enter onto any portion of the property to monitor compliance with permit requirements. Such access will at minimum, be allowed on demand when activity is occurring, with prior verbal or written notice, and at other times as necessary to monitor compliance. Denial of access to Borough staff shall be a violation of this Conditional Use Permit.
20. The operation shall comply with the reclamation standards of MSB 17.28.067.
21. All junk, trash, and junk vehicles, as defined in MSB 8.50 shall be removed and properly disposed of prior to the completion of reclamation on the subject parcel.
22. If illumination devices are required, they shall not be greater than 20 feet in height, shall utilize downward

directional shielding devices, and shall meet the requirements of MSB 17.28.060(A)(6) Lighting standards.

23. Authorization for earth material extraction activities approved by this Conditional Use Permit shall expire on December 31, 2038.

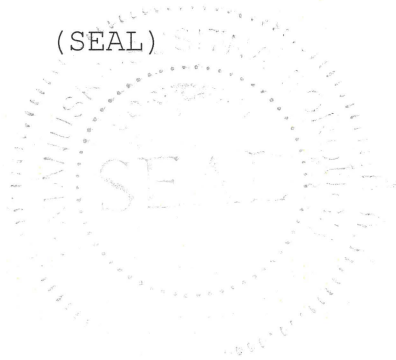
ADOPTED by the Matanuska-Susitna Borough Planning Commission this 18 day of October, 2021.


COLLEEN VAGUE, Chair

ATTEST


KAROL RIESE, Planning Clerk

(SEAL)



YES: 7 COMMISSIONER Anderson, Vague, Allen, Mossanen, Elder, Glashan, Chesbro

NO: 0



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822 • Fax (907) 861-8158

Email: permitcenter@matsugov.us

APPLICATION FOR A CONDITIONAL USE PERMIT FOR EARTH MATERIALS EXTRACTION – MSB 17.30

Carefully read instructions and applicable borough code. Fill out forms completely. Attach information as needed. Incomplete applications will not be processed.

THIS APPLICATION IS FOR MATERIALS EXTRACTION THAT **DOES NOT** OCCUR WITHIN FOUR FEET OF THE SEASONAL HIGH WATER TABLE. IF YOUR PLAN INCLUDES EXTRACTION WITHIN FOUR FEET OF THE SEASONAL HIGH WATER TABLE YOU MUST COMPLETE THE APPLICATION SPECIFIC TO THAT PURPOSE.

Application fee must be attached, check one:

\$500 for Administrative Permit (Less than two years **or** less than 7,000cy annually)

\$1,000 for Conditional Use Permit (More than two years **and** more than 7,000cy annually)

Prior to the public hearing, the applicant must also pay the mailing and advertising fees associated with the application. Applicants will be provided with a statement of advertising and mailing charges. Payment must be made prior to the application presentation before the Borough Planning Commission.

Subject Property: Township: 17N, Range: 02W, Section: 02, Meridian: S.M.

MSB Tax ID# 17N02W02C003

SUBDIVISION: _____ BLOCK(S): _____, LOT(S): _____

STREET ADDRESS: _____

FACILITY / BUSINESS NAME: MSB Land and Resource Management Division

Ownership: A written authorization by the owner must be attached for an agent or contact person, if the owner is using one for the application. Is authorization attached? Yes No N/A

Name of Property Owner

Matanuska-Susitna Borough

Mailing: 350 E. Dahlia Avenue

Palmer, AK 99645

Phone: Hm _____ Fax _____

Wk 861-7867 Cell _____

E-mail lmb@matsugov.us

Name of Agent / Contact for application

Emerson Krueger, Natural Resource Manager

Mailing: 350 E. Dahlia Avenue

Palmer, AK 99645

Phone: Hm _____ Fax _____

Wk 861-7867 Cell _____

E-mail ekrueger@matsugov.us

Description What type(s) of material is being extracted? Pit Run

Total acreage area of all parcels on which the activity will occur: 120-acre parcel

Total acreage area of earth material extraction activity: 61.9 acres

Total cubic yards extraction per year: 124,000 (Estimate)

Total projected cubic yards to be extracted: 1,800,000

What is the estimated final year extraction will occur? 2038 unless there are project delays

Required information

1. Attach a plan of sufficient detail to demonstrate compliance with the requirements of MSB 17.28.050 and MSB 17.28.060.

Plan of Operation	Attached
Provide seasonal start and end dates	X
Provide days of the week operations will take place.	X
Provide hours of operation.	X
Estimated end date of extraction	X
Estimated end date of reclamation	X
Describe all other uses occurring on the site	X
Describe methods used to prevent problems on adjacent properties, such as lateral support (steep slopes), water quality, drainage, flooding, dust control and maintenance of roads; how will the operation monitor the seasonal high water table to stay at least four feet above it	X
Provide quantity estimates and topographical information such as cross section drawings depicting depth of excavation, slopes and estimated final grade	X

2. Submit a site plan. Drawings must be detailed and **drawn to scale**. Drawings under seal of an engineer or surveyor are recommended but not required.

SITE PLAN REQUIREMENTS	Attached
Identify location of permanent and semi-permanent structures on the site for verification of setback requirements. Include wells and septic systems.	X
Depict buffer areas, driveways, dedicated public access easements, and noise buffers (such as fences, berms or retained vegetated areas), and drainage control such as ditches, settling ponds etc.	X
Identify wetlands and waterbodies on site and within one mile	X
Identify existing surrounding land uses within one mile	X
Identify surrounding property ownership (i.e. public vs. private) within one mile of exterior boundaries	X
Show entire area intended for gravel/material extraction activity and the boundary of the lot(s) containing the operation. Identify areas used for past and future phases of the activity. Identify phases of proposed mining activities including a map showing the area to be mined, a description of the topography and vegetation, approximate time sequence for mining at particular locations, and general anticipated location of semi-permanent equipment such as conveyor belts, crushers, dredges, batch plants, etc.	X

Road and access plan that includes anticipated routes and traffic volumes. If the level of activity exceeds the minimum levels specified in MSB 17.61.090, traffic standards, a traffic control plan consistent with state regulations may be required	x
Visual screening measures that include a detailed description of the type of visual screening to be utilized. Visual screening may include, but is not limited to, berms, natural vegetation, solid fences, walls, evergreen hedges or other means as approved by the commission	x
Noise mitigation measures that include a description of measures to be taken by the applicant to mitigate or lessen noise impacts to surrounding properties. Measures shall include, but not be limited to, hours of operation of noise-producing equipment, erecting noise barriers (i.e., berms a minimum of 10 feet in height) between noise-producing equipment and adjacent uses, location of noise-producing equipment (i.e., below grade in excavated pit areas), and measures to utilize equipment with noise reduction features	x
Proposed lighting plan	x
Other (as required by MSB Planning Department)	x

3. Submit a reclamation plan including the following:

Reclamation Plan	Attached
Provided timeline for reclamation at particular locations and that is in compliance with MSB 17.28.067	x
Provide copy of reclamation financial assurance filed with the State of Alaska (If exempt, provide qualifying documents for exemption)	x

4. Submit documentation of compliance with borough, state and federal laws:

COMPLIANCE WITH BOROUGH, STATE AND FEDERAL LAWS	Applied for (list file #)	Attached (list file #) or N/A
Mining license as required by the Alaska State Department of Revenue, pursuant to A.S.42.65		N/A
Mining permit as required by the Alaska State Department of Natural Resources (ADNR) if extraction activities are to take place on state land		N/A
Reclamation plan as required by ADNR, pursuant to A.S. 27.19		x
Notice of intent (NOI) for construction general permit or multi-sector general permit and storm water pollution prevention plan, and other associated permits or plans required by the Environmental Protection Agency (EPA) pursuant to the National Pollutant Discharge Elimination System (NPDES) requirements	To be completed by Contractor	
United States Army Corps of Engineers permit pursuant to Section 404 of the Clean Water Act, 33 U.S.C. 1344, if material extraction activity is to take place within wetlands, lakes and streams.		N/A
Other (Such as, driveway / access permits. List as appropriate.)	To be completed by Contractor	

OWNER'S STATEMENT: I am owner or authorized agent of the following property:

MSB Tax account #(s) 17N02W02C003 and, I hereby apply for approval of conditional use permit for earth material extraction activities on the property as described in this application.

I understand all activity must be conducted in compliance with all applicable standards of MSB 17.28, MSB 17.30 and with all other applicable borough, state and federal laws, including but not limited to, air quality, water quality, and use and storage of hazardous materials, waste and explosives, per MSB 17.30.055.

I understand that other rules such as local, state and federal regulations, covenants, plat notes, and deed restrictions may be applicable and other permits or authorizations may be required. I understand that the borough may also impose conditions and safeguards designed to protect the public's health, safety and welfare and ensure the compatibility of the use with other adjacent uses.

I understand that it is my responsibility to identify and comply with all applicable rules and conditions, covenants, plat notes, and deed restrictions, including changes that may occur in such requirements.

I understand that this permit may transfer to subsequent owners of this land and that it is my responsibility to disclose the requirements of this status to operators on this property, and to the buyer when I sell the land. Additionally, I agree to comply with 17.30.120 Transfer of Conditional Use Permit, in the event this permit is transferred to a subsequent property owner.

I grant permission for borough staff members to enter onto the property as needed to process this application and monitor compliance. Such access will at a minimum, be allowed when the activity is occurring and, with prior notice, and at other times necessary to monitor compliance.

The information submitted in this application is accurate and complete to the best of my knowledge.

Signature: Property Owner	Eric Phillips Printed Name	Date
---------------------------	-------------------------------	------

Signature: Agent	Emerson Krueger Printed Name	Date
------------------	---------------------------------	------

EARTH MATERIAL EXTRACTION APPLICATION

MATANUSKA-SUSITNA BOROUGH

17N02W02C003

June 23, 2021

**MATANUSKA-SUSITNA BOROUGH
LAND AND RESOURCE MANAGEMENT DIVISION**

**17N02W02C004
PROPOSED GRAVEL MINING PLAN OF OPERATIONS
AND SITE PLAN REQUIREMENTS**

The following information is an attachment to the Matanuska-Susitna Borough (MSB) application for Earth Materials Extractions activities that do not occur within four feet of the water table under MSB 17.30, Conditional Use Permit (CUP).

1. Plan of Operation

The Matanuska-Susitna Borough Parcel Tax ID 17N02W02C004 is located approximately 0.25 mile north of the Parks Highway about one mile east of the Parks Highway intersection with Pittman Road. This Proposed Gravel Mining Plan (Plan) details the activities and dates of operation for material extraction proposed to prepare the parcel for future development.

Site Plans for the parcel are provided in Exhibits 3 and 4, depicting the proposed operation area, buffers, visual screening, and truck haul routes. A vicinity map, site map, the landowners within one-mile, wetlands and waterbodies within one mile, and other features are shown in Exhibits 1-6.

The current plan includes a future borrow source located within the property boundary. The maximum area proposed for gravel extraction within the 120-acre parcel is approximately 61.9 acres. The southeast 40-acres of the parcel are proposed to be sold, at less than fair market value, to the Meadow Lakes Community Council for use as open space and public recreation. The remaining acreage is set aside as buffers and visual screening. Property surrounding the parcel is a mix of industrial to the south and west, residential to the north and east, as well as recreational to the east.

The ultimate goal of the gravel extraction activities is to develop the parcel for future public facilities. The property is owned by the Matanuska-Susitna Borough (MSB). Modifications to the Plan will be submitted to the Land and Resources Management Division (MSB-LRMD), as needed, by the Contractor authorized to develop the site prior to the commencement of any mining activities.

The project is expected to last 15 years, but may need to be extended if delays occur. Full development of the borrow source is anticipated to be complete by 2037. Reclamation of the mined area is required prior to development of public facilities. Future public facility construction has not been defined at this time. The site will be developed to support such public facilities as a school, library, community center, fire station, or open space. Incremental reclamation will leave areas where mining has been completed in a vegetated condition suitable for use as public open space. However, given the layout of the mining plan, public recreation on the site will be prohibited until mining is complete for safety reasons.

Extraction operations will be at the Contractor's discretion and are not seasonally dependent. Hours of operation are expected to be Monday through Saturday from 6:00 a.m. to 10:00 p.m.

There will be no loading of trucks or crushing from 10pm to 6am. These hours of operation were agreed to by the Borough and the Meadow Lakes Community Council (MLCC).

A section line easement connects the southwest corner of the site to Pittman Road. This access route may be used as a local haul route, however, existing haul routes through the neighboring gravel pit may also be used. A 50-foot wide section line easement along the southern property boundary also extends to the east connecting to North Suzanna Street. This access route may also be developed for a local haul route. The east haul route is along an unconstructed right-of-way named West Stacy Street. Existing access roads on the adjoining private material site may be used for extraction. Haul routes will be restricted to the south end of the site to minimize negative effects on the residential land to the north. Haul routes will be maintained.

The Borough and MLCC have agreed to prohibit development of a local haul route extending north of the site, given the residential character of the surrounding property in that direction. The Site Plan illustrates each of the potential access routes. Furthermore, the Site Plan indicates 11 mining phases. This application is for all mining phases indicated on these drawings.

A development plan will be prepared by the Contractor, based on project needs and request for access and/or use made to the MSB-LRMD. If a modification of the site plan or development plan is required, a modified plan will be submitted to MSB-LRMD to determine if an amendment to the permit will be required. Structures, either permanent or semi-permanent, and processing equipment will be permitted within southern 20-acres of the site. All contract specifications or use agreements for authorized use of this site shall be required to adhere to the Permit conditions and operational details. Plan deviations must be submitted to the MSB-LRMD by the Contractor for review and approval prior to site development and/or material extraction.

The schedule for excavation and reclamation will be more thoroughly defined by the Contractor developing the site, and will be required in all contractor bid packages. Reclamation will be required. Mined areas will be reclaimed as public open space until such time as public facility construction is needed.

Excavating the western and southern boundaries in anticipation of future road construction will serve to reduce the elevation difference between the existing material site and the subject property. The areas within the section line easement will be left above the grade of the existing material site and the remainder of the subject property to promote road drainage. These areas will be graded to retain storm water runoff on the property.

Retaining an undisturbed 200-foot natural vegetative buffer along the northern boundary will prevent any problems, such as erosion, water quality, draining, flooding on property adjoining the northern boundary of the site. In addition, this 200-foot buffer extends along the eastern boundary of the site where it abuts the Meadow Lakes Senior Housing and Sports Complex and will serve as additional undisturbed buffers between the site and the residential and recreational property to the east.

Retaining an undisturbed 25-foot natural vegetative buffer along the eastern boundary of the site, along the southeast 40-acres of the subject parcel will prevent problems on the adjacent MLCC property. This 40-acre portion of the parcel is proposed open space.

Reserving the southeast 40 acres of the 120-acre parcel for a less than fair market value sale to MLCC, and retaining an undisturbed 25-foot natural vegetative buffer within the proposed material site will minimize the potential for negative off-site effects on the proposed public open

space to the east. In addition, this 40-acre portion of the parcel will provide a buffer between the material site and the residential lots to the east.

A professional hydrologist, with experience evaluating the hydrology of the area was hired to review available data to ensure this mining plan will not result in negative off-site effects on groundwater quality and quantity. Deviations from this mining plan will only be authorized by the borough when supported with more detailed on-site data. The Hydrogeology Report is included as Exhibit 7. The volume estimates are based on the estimated seasonal high water table. The average depth of excavation across the site is estimated to be 20 feet. This goal is to provide adequate separation between the ground surface and the seasonal high water table to allow for future public facilities. Test pits and monitoring wells will be installed prior to the solicitation for site development. The Contractor will be required to monitor the water table elevation prior to and during site development.

2. Site Plan Requirements

To isolate and minimize off-site effects of material processing, these activities will be located close to the existing material site, on the southern 20-acres of the Borough parcel. This includes laydown areas and vehicle parking. Laydown areas are locations where material is stored. Mining will commence at the south end of the property and is anticipated to proceed north as phases of mining are completed. Crushers, screening plants, or batch plants may be used at this location. A screening plant is planned for use in this operation. A screening plant is equipment used to separate materials based on grain size. Earthen berms may be installed around the material processing equipment to mitigate noise to the north and east. As the mining extends north and the working face of the excavation gets further from the material processing equipment, noise monitoring will be used to determine when these earthen berms are required. It is not expected to, however, if processing equipment sound levels, measured at the nearest residential properties exceed the sound levels by receiving land use in MSB 17.28.060(A)(5), earthen berms around the equipment will be installed. The hours of operation are intended as noise mitigation measures to protect neighboring properties.

Sand and Gravel Extraction Operations

Total excavation of the site is estimated to include approximately 1,800,000 cubic yards of pit-run material and is expected to be excavated between 2022 and 2037. The total acreage from which material will be extracted is approximately 61.9. This excludes the vegetative buffer as well as the footprint of the 10-foot earthen berms. The Borough intends to solicit bids from Contractors to complete material extraction. Conceptual cross-sections are included as Exhibit 8. The intent of the cross-sections is to provide an approximate visual interpretation of the intended excavation. The volume estimate as well as the cross-sections are based on the best available information. Actual excavation volumes and controls will be determined by the data collected from the boreholes and monitoring wells and included in the contract for site development.

Conventional bulldozers, track-mounted backhoes, rubber-tired loaders, 10-12 cubic yard (CY) capacity dump trucks, and 18-30 CY capacity side or belly dump trucks will be used in the operation. Typically the hauling will be done using a 25 CY dump. A majority of the material may be loaded onto trains from the adjacent existing material site. Local material hauling on the road system is anticipated to be 10% of the total annual extraction. An estimated average of 124,000 CY per year will be extracted from the site. Approximately 12,000 CY may be hauled annually via the local road system. Assuming a four-month operational period for local

construction projects, six days a week, using 10 CY trucks, this could result in 106 CY per day being hauled off-site. This could be 10 ten-yard trucks resulting in 20-trips per day. This is based on the assumption that a majority of the material extracted from the site each year will be transported on the railroad. The anticipated traffic levels indicate no traffic impact analysis is required.

Blasting will not occur on site.

The working depth will typically be approximately 20 feet below original grade, as long as the depth of excavation remains a minimum of four feet above the seasonal high ground water table. Ground water monitoring will be required by the Contractor to ensure mining activities will not encroach within four feet of the seasonal high ground water level.

Development of the site is anticipated to begin from the south, and will depend on the contractor selected and their plans for utilization of the material. The mining plan is based on the premise of developing approximately six acres in each phase, providing an average of approximately 164,000 CY. Mining phase one could start as early as 2022, once the timber has been salvaged from the site. The roughly six acres in phase one would be excavated and developed into a preliminary operations area, where material processing and stockpiling would occur. Mining phases two through four would add additional operational area allowing for greater efficiency in the extraction and processing operations. Mining phases five through eleven would be reclaimed once completed by spreading soil, fertilizer, and seed. Internal transportation routes through these phases must be maintained to support the successive phases of extraction.

Most of the material extracted may be leaving the site via conveyor to a stockpile adjacent to a railcar loader. Truck haul routes are shown in Exhibit 3 – Site Plan. A water truck and/or sweeper may be used for dust control as needed. Haul routes will be maintained.

The operations area is situated within Phases 1-4 of the excavation and will be confined to the southern 20 acres, to minimize negative off-site effects of processing and handling activities. The operations area is shown on the Site Plans, located on the flat area in the southern portion of the project area. Reject material will be stockpiled for future road development in areas adjacent to the section line easement along the western boundary and the proposed public use easement along the southern boundary. Detailed layout of temporary and permanent facilities will be determined by the Contractor hired to develop the site.

The site is currently wooded and undeveloped. The landform for the area indicate the surficial deposits are comprised of Abandoned Meltwater Channel Alluvium. This geologic unit is described as channel fillings of former glacial meltwater streams and alluvium composed of pebble-cobble gravel and gravelly medium to coarse sand.

Organic overburden from the site will be stockpiled for use as earthen berms along the eastern and northern boundaries. Stockpiles of this material will be located in the operations area illustrated on the attached Site Plans.

I. Structures

A 25-foot setback is required from all property lines for structures, permanent or portable facilities, and equipment or material storage per MSB 17.28.070(A). Structures commonly

associated with material extraction sites are planned for use within the site boundaries. All structures and processing equipment will be sited within the operations area in accordance with the required setbacks.

II. Buffer areas and Driveways

Buffers, haul routes and public access easements are shown in Exhibit 3. A driveway permit may be required depending on the haul route selected by the Contractor. The Contractor will be required to obtain all necessary permits to construct access and development within the section line easements. Development within the section line easements will require State authorization. Operations may continue year-round depending on winter weather conditions and demand. Driveways will be maintained during active operational periods. Buffers for this parcel include a 25-foot buffer along the eastern boundary with the 40-acres proposed for sale to MLCC. The southeast 40-acres of the parcel will provide a buffer between the material site and the residential lots to the east. This 40-acres will be reserved for open space and public recreation.

A minimum 200 foot buffer along the northern boundary includes the wetland buffer.

A 200-foot buffer along the senior housing and sports complex, is excluded from the proposed material site. This buffer was agreed to by the Borough and the MLCC for the senior center and sports fields.

A waiver to the visual screening requirements along the western and southern boundaries is requested as the neighboring land use is also a material site. The areas along the western and southern boundaries will be developed for road access to the future public facilities. Material extraction along the western and southern boundaries will help prepare these areas for future road construction. Land to the west and south is owned and operated by a material extraction contractor. An email supporting the visual screening waiver from this landowner is included as Exhibit 9. There is a 20+foot elevation difference between the subject parcel and the parcels to the west and south. The Borough proposes to extract material along the western and southern lot lines to prepare these areas for future roads. Once mining is complete, the Borough will plant trees along the western and southern property lines to visually screen the subject parcel to the west and south. This visual screen is included in anticipation of future public use of the site once material extraction is complete. The Contractor will be required to obtain the necessary permit for work within the section lines easements.

All traffic associated with the material extraction will ingress and egress the site from the southern 20 acres, via a new connection to North Suzanna Street, Pittman Road, or the Railroad. Vehicle parking will occur within the southern 20-acres of the site, not within the section line easements.

III. Wetlands and Waterbodies

No wetland areas are located in the area proposed for mining. Exhibit 5 shows all wetlands within a one-mile radius of the proposed mining site.

IV. Existing and Surrounding Land Uses

Property surrounding the site is residential to the north and east. The land south and west of the landfill is an existing material site. The Meadow Lakes Sports Complex also adjoins the eastern

site boundary. Surrounding properties within a one-mile radius are identified in Exhibit 6. A list of all neighboring property owners within this same radius is also provided with this Exhibit.

The Meadow Lakes Community Comprehensive Plan was reviewed during development of this application. Meetings were held with the Meadow Lakes Community Council to discuss residents' concerns with the proposed material extraction. The development plan for the site was drafted with input from the Community Council.

Meadow Lakes has an extensive comprehensive plan (adopted 2005) that includes land use districts for all of the land contained within the community boundary. Each land use district has land use goals and encouraged/discouraged uses. It appears the property in question is classified in the Comprehensive Plan as "open space". Within the section, the Plan specifically speaks about the subject parcel, in the following excerpt:

MSB land is currently at a premium. Borough lands include two 160 acre parcels, plus the school and fire station properties. These parcels should be managed for current and future public uses. Two sites are already dedicated to community uses – one for a fire station and the school, the other at the intersection of Church and Pittman, for the community's second fire station.

The Meadow Lakes Community Council recently acquired 40 acres of Borough land in a parcel just north of the Parks highway. The intent of the Community Council is to develop the site for a community center, a developed recreational facility, or other facility – such as a library or senior housing. In light of the lack of public land in the Meadow Lakes area, additional Borough parcels should be retained for similar public purposes.

MLCC has achieved the intent of the above referenced 40 acres by building a senior housing facility, park, ballfields, trails, etc. The proposed land sale would allow MLCC to continue providing the community with various public use options and more availability of open space with the expansion of the ballfields, trails, and parks. Existing authorized trails are contained on the Meadow Lakes Sports Complex.

The language in the comprehensive plan states Borough lands should be managed for current and future public uses and goes on to say Borough parcels should be retained for similar public purposes. The proposed material extraction is in conformance with the Comprehensive Plan and MSB 17.30 and is supported by the community. The proposed material extraction is intended to prepare the site for future public facilities. The Reclamation Plan for the site is intended to leave the site in a condition suitable for use as public open space. The operational details of the proposed material extraction were developed with input from MLCC to ensure the setbacks, buffers, haul routes, and operation area minimized the potential for negative offsite effects.

The reclamation plan is robust in its requirements for utilization of all organic overburden on site to be retained to support future use of the property for open space. The material extraction activities will not leave a scar or one big hole in the ground. When the mining is finished, the reclamation plan includes plans for community uses. The site will be available for use as public open space until such time as it is developed for public facilities such as a school or library. The proposed extraction activities are consistent with the Meadow Lake Comprehensive Plan.

The proposed material extraction operation conforms to the approved Borough land classification of Material Lands and Reserve Use

V. Road and Access Plan

All traffic may ingress and egress the site via a new road connection to N. Suzanna Street or Pittman Road, which are paved residential roads. Site access is shown in the attached Site Plans and in Exhibit 3 – Site Map. Existing haul routes on the adjacent material site may also be used for site access.

Construction-related traffic may be expected to generate up to three trips per hour, during the peak construction season. A majority of the material extracted from the site may be conveyed to a stockpile area adjacent to the railroad and loaded on railcars. Extraction and removal traffic will not run out of the north of the site into the surrounding residential area.

VI. Visual Screening Measures

Residential areas and recreational trails are located in the vicinity of the proposed area of development. However, the western and southern boundaries of the site associated with this proposed mining site are bordered by an existing material site. The western and southern boundaries have section line easements that will be developed for future public facility road access once State authorization has been received by the Contractor. Visual screening will be included in the reclamation plan for the property, once these areas have been mined to prepare them for road construction. A vegetative buffer is part of the reclamation plan and will be planted along these boundaries to screen the property from the adjacent material site.

A 25-foot vegetative buffer will be reserved within the site boundary to screen the site from the 40-acres proposed to be sold to MLCC.

A 200+ foot buffer is reserved along the boundary, between the site and the senior housing and sports complex to the east.

A 200+ foot buffer is reserved along the northern boundary of the site.

Earthen berms, ten feet tall and forty feet wide will be constructed along the northern and eastern boundaries when material extraction activities are within 300 feet of site boundaries. Neighboring residential parcels to the north and east and recreational parcels to the east will additionally be buffered with naturally occurring vegetation.

Restricting the operation area to the south 20-acres of the site is intended to provide additional visual screening.

VII. Noise Mitigation

Residential areas and recreational trails are located in the vicinity of the proposed area of development. The earthen berms and existing vegetation will provide a noise buffer to these receptors. The below-grade excavation will also help to attenuate work area noise to acceptable levels consistent with the stipulations of MSB 17.28.060(A)(5). Additionally, haul trucks removing the material from the site will be required to have the appropriate mufflers installed to minimize noise pollution in the adjacent neighborhoods. Restricting the operations to Monday through Saturday, from 6am to 10pm will provide additional noise mitigation. Restricting the

operation area to the southern 20-acres of the site is also intended to provide noise mitigation. Additional earthen berms around processing equipment will be constructed when off-site noise levels exceeds the levels listed in MSB 17.28.060(A)(5).

VIII. Lighting Plan

Most of the work will be conducted primarily during daylight hours without the need for artificial lighting. The contractor will be required to obtain approval from MSB for any artificial lighting. Lighting may be used to illuminate activities in the work area, if needed. All lighting will be focused away from nearby residential areas and will be directed only onto the work at hand. Exterior lighting must be located and shielded to direct light towards the ground, in order to minimize light spillage onto adjacent properties and upward in to the night sky. Illumination or other fixtures mounted higher than 20 feet or 150 watts or more must have downward directional shielding, in accordance with MSB 17.28.060(A)(6).

IX. Dust Plan

Road dust control is a concern of high priority. The contract for development of this site shall contain a specific bid item to provide watering for dust control.

Borough staff or their agent will monitor conditions throughout construction and direct the construction contractor to water the roadway and haul routes as needed to prevent dust from becoming a problem. It is also anticipated that measures to reduce any by-product dirt transport from the borrow site by vehicle tires will be implemented within the borrow pit. The vegetative buffers are intended to mitigate off-site migration of dust. Mud tracked off-site onto public roads will be swept or washed as necessary.

X. Stormwater Pollution Prevention Plan (SWPPP)

The site will be developed to contain all stormwater runoff. The Contractor will be required to develop and implement a SWPPP and associated permitting for the life of the project. The SWPPP will be provided to the Borough for review and approval prior to commencement of extraction activities.

XI. Reclamation Plan

The site will be excavated to create a generally flat area with small rolling hills, in order to prepare the site for development of future public facilities. The site will be available for use as open space. Reclamation of the property will leave the site in a condition suitable for use as public open space until the site is developed for public facilities. To this end, the organic overburden will be stockpiled onsite and used to construct earthen berms for visual screening. The overburden will be distributed over the site upon completion of mining activities and the site will be seeded and fertilized to promote rapid revegetation. Trees will be planted along the western and southern property boundaries to screen the site from the adjacent material site.

Reclamation of each phase of mining will be completed within four growing seasons after completion. Slopes will be graded to a maximum 50% slope, and graded to blend with surrounding undisturbed topography. All surfaces will be stabilized and protected from erosion. Vegetative cover will be established and maintained over all disturbed areas on the site in

conformance with the current Alaska Department of Natural Resources Revegetation Manual for Alaska. Reseeding of reclaimed areas will utilize certified seed suitable for Alaska, free of noxious weeds and undesirable plants identified in 11 AAC 34.020. Sixty percent live cover of the entire reclaimed area will be achieved by the end of the fourth growing season after completion of a mining phase. However, equipment access through each mining phase will be maintained and remain unreclaimed until mining and reclamation of the last phase is complete. This is in support of the agreement between the Borough and MLCC to restrict material hauling to the south of the site. Material from the last phases of mining must be transported south, across the site to the operations area.

At least 12” of organic overburden are estimated to be on site based on available data. All organic overburden will be stockpiled onsite and used for reclamation.

The Reclamation Plan and bond will be filed with the State when a contractor is selected to begin extraction activities.

xii. Long-Term Plan




This plan is specifically for the extraction of materials to prepare the site for the future public facilities and open space. The site is classified for material extraction and reserve use. Excavation to level the site for the future public facilities is anticipated to include 1,800,000 cubic yards of pit-run materials. Excavation is expected to take place from 2022 through 2037. The Borough Land and Resource Management Division is requesting this Conditional Use Permit to cover the activities associated with the development of this site for future public facilities.

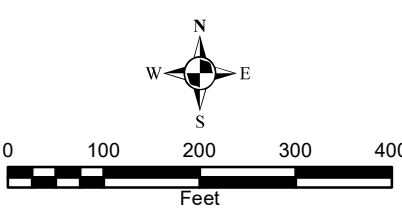
**MATANUSKA-SUSITNA BOROUGH
LAND AND RESOURCE
MANAGEMENT DIVISION**



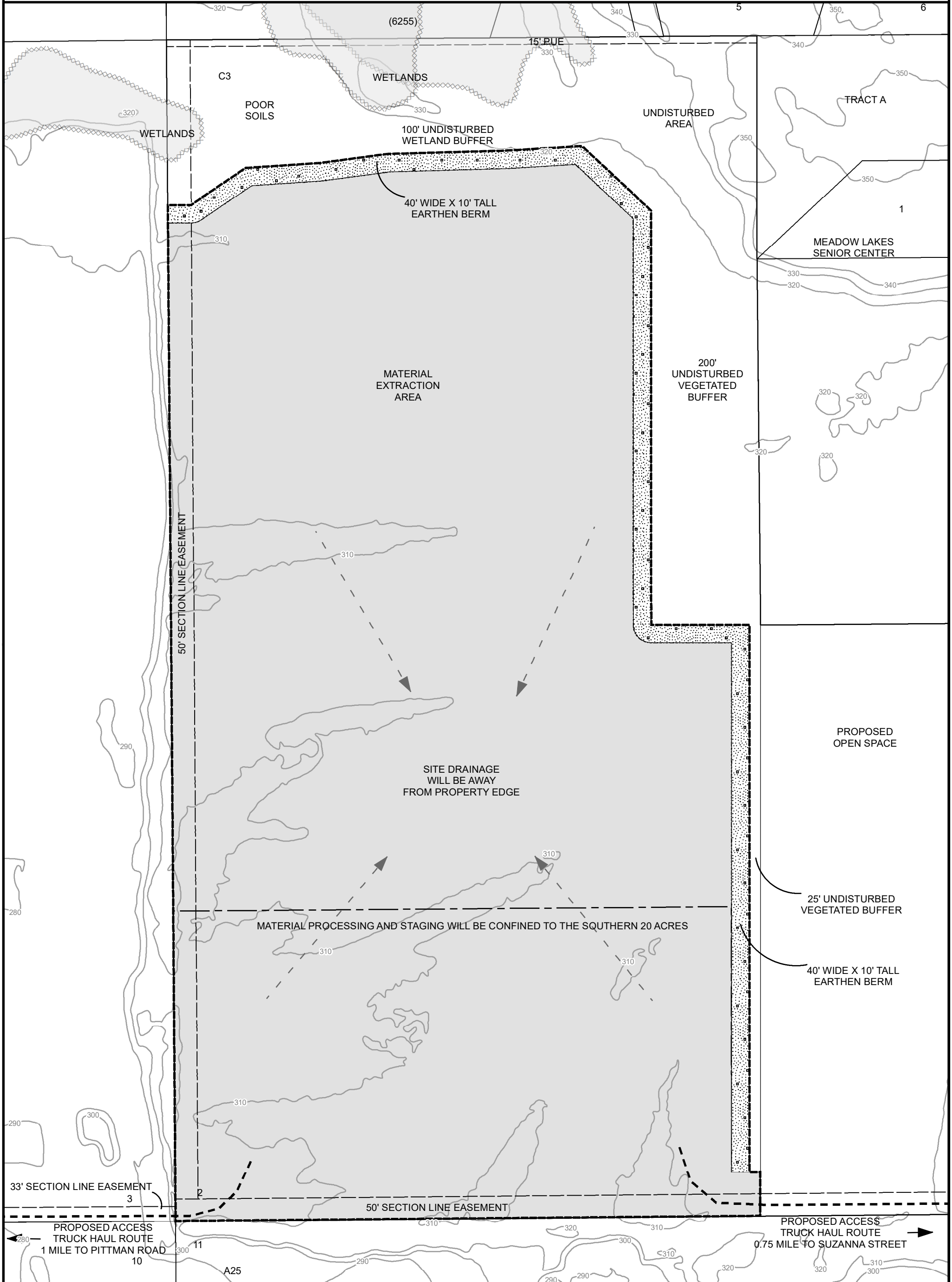
**EXHIBIT 3 - SITE PLAN LAYOUT 1
OPERATIONAL FEATURES AND
EXISTING TOPOGRAPHY (10' CONTOURS)**

LEGEND

- PROPOSED ACCESS
-  40' WIDE x 10' TALL EARTHEN BERM
-  MATERIAL EXTRACTION AREA
-  MINING PLAN AREA OF DISTURBANCE



1 inch = 200 feet
DATE: APRIL, 2021
SOURCES: MSB GIS, MSB LRMD
PROJECTION: NAD 83 AK ST PLN Z4
LOCATION: MEADOW LAKES
AUTHOR: MSB LRMD



July 9, 2021

Emerson Krueger, Natural Resource Manager
 Matanuska-Susitna Borough
 350 E Dahlia Avenue
 Palmer, AK 99645

RE: Geotechnical Engineering Services
 Meadow Lakes Materials

Dear Mr. Krueger:

In accordance with your request, HDL Engineering Consultants, LLC (HDL) conducted a geotechnical engineering evaluation for the proposed gravel resource in Wasilla, Alaska. The findings, conclusions, and recommendations that HDL derived from the geotechnical evaluation are provided in this letter report (Report). Included in this report is a description of the project, description and results of the subsurface exploration and laboratory testing, and our opinion on the suitability of the materials. This Report is subject to the attached limitations.

BACKGROUND

The proposed gravel resource is located at parcel Tax ID 17N02W02C003, north of the intersection of Vine Road and the Parks Highway in Wasilla, Alaska (Site). Previous work and adjacent gravel pits in the area suggest there are gravel resources that could be developed on the property. The Matanuska-Susitna Borough (MSB) requested geotechnical engineering services including subsurface exploration and piezometer installation to evaluate the potential resources. The Site is close to rail infrastructure which may make the resources marketable in Anchorage. The Site is currently undeveloped and forested.

SETTING

The following section provides information about the geologic and climatic setting for the site.

General Geology

The project area is located within the Cook Inlet-Susitna Lowland Section of the Coastal Trough physiographic province of Alaska. The Talkeetna Mountains border the province on the east, the Alaska Range lies to the north and west and the Cook Inlet lies to the south. Glacial features including ground moraines, drumlins, eskers, and outwash plains characterize the entire Cook Inlet-Susitna Lowlands. Kame and kettle topography, indicative of glacial outwash plains, is common and forms many of the hills and small rounded lakes that exist in the project area. Five major glacial advances of the Quaternary Period can be recognized throughout the vicinity (Wahrhaftig, 1965).

Soils in the area are typically glacial derived sands and gravels with varying fines content. Peat bogs have developed in many of the low-lying areas subsequent to the last glaciations. As the glaciers receded towards the mountains, the Susitna and Knik River drainages were

- CIVIL ENGINEERING
- GEOTECHNICAL ENGINEERING
- TRANSPORTATION ENGINEERING
- ENVIRONMENTAL SERVICES
- PLANNING
- SURVEYING & MAPPING
- CONSTRUCTION ADMINISTRATION
- MATERIAL TESTING
- REAL ESTATE SERVICES

established, as well as others in the project area. These drainages deposited sands and gravels in channel areas and fine grain sediment in floodplains.

The project is located in a region of moderate seismicity and large-scale earthquakes may cause ground ruptures in some areas. Based on the United States Geologic Survey (USGS) earthquake catalog, there were 118 events above Richter Magnitude 5 within 100 miles of the Site from 1899 through 2021, of which 27 were above Richter Magnitude 6.

Climatology

The project area is located in a transitional climatic zone varying between continental and maritime climates. The zone is characterized by pronounced diurnal and annual temperature variations, moderate annual precipitation, and moderate surface winds (Shulski et. al, 2007). Climatology data presented in this report was collected in Wasilla by the Western Regional Climate Center. The average January temperatures in the area range between 10.8°F and 26.6°F, while average July temperatures range between 44.0°F and 66.6°F. The mean annual temperature in the area is approximately 37.3°F with an average of 21.5 inches of precipitation per year.

SUBSURFACE EXPLORATION

HDL evaluated the subsurface conditions of the Site from June 22 to June 24, 2021. The subsurface exploration consisted of six (6) borings, designated HDL-01 through HDL-06. Piezometers were installed in two (2) borings, HDL-01 and HDL-04, to a maximum depth of 35 feet below the existing ground surface (bgs) with a 10 feet of screen at the bottom. The borings were located in the field using GPS coordinates. The approximate boring locations are illustrated on the attached Borehole Location Map.

Discovery Drilling, Inc. provided the drilling services using a track-mounted Geoprobe 7822DT and hollow stem augers to drill the borings to a maximum depth of 37 feet bgs. Split-spoon sampling was conducted using the Modified Penetration Test procedure. In the Modified Penetration Test, samples are recovered by driving a 3-inch outside diameter (O.D.) split-spoon sampler into the bottom of the advancing hole with blows of a 340-pound hammer free-falling 30 inches onto the drill rod. The number of blows required to advance the sampler the middle 12 inches of a 24-inch penetration in the test is termed the Penetration Resistance, which was recorded for each sample. The values give a measure of the relative density (compactness) or consistency (stiffness) of cohesionless and cohesive soils, respectively.

HDL performed fieldwork in general accordance with the procedures outlined in the Alaska Department of Transportation and Public Facilities (DOT&PF) "Alaska Geotechnical Procedures Manual". An experienced HDL engineering assistant located the borings, collected samples, logged subsurface conditions, and observed groundwater depths, where encountered. We described the subsurface conditions in accordance with the following methods and standards:

- ASTM International Standard (ASTM) D2488 for field description of soils;
- Frost Design Soil Classification using the DOT&PF methodology; and,

- Unified Soil Classification System (ASTM D2487) to confirm or modify soil classifications based on laboratory test results.

The Boring Log Key, Frost Design Soil Classification Key, and boring logs are attached for reference.

LABORATORY TESTING

HDL conducted the following laboratory tests on select soil samples at our AASHTO accredited and United States Army Corps of Engineers validated laboratory:

- Forty-three (43) natural moisture content tests (ASTM D2216); and
- Eight (8) grain size distribution tests (ASTM D422)

The attached boring logs and grain size distribution curves present the results of the laboratory tests.

SUBSURFACE CONDITIONS

In general, the borings encountered a maximum of 1.0 feet of overburden (organic mat) underlain by granular soils consisting of sand and gravel with varying amounts silt to termination depths. Table 1 provides a summary of laboratory testing results for the granular soils.

Table 1 – Laboratory Results Summary

Test Hole	Depth	Grain Size Distribution		
	(ft)	% Gravel	% Sand	% P200
HDL-01	7.5	65.2	28.6	6.2
HDL-02	5.0	61.9	34.3	3.8
HDL-02	15.0	61.3	29.4	9.3
HDL-03	5.0	55.3	37.7	7.0
HDL-03	15.0	32.3	44.8	22.9
HDL-04	5.0	35.4	50.9	13.7
HDL-04	20.0	2.3	78.4	19.3
HDL-05	2.5	59.8	34.4	5.8

Free groundwater was encountered in HDL-01 and HDL-04 at a depth of 34 feet bgs and 26 feet bgs, respectfully, at the time of drilling. Groundwater levels at the Site may not have stabilized at the time of drilling and may fluctuate depending on the season, temperature, and precipitation. Additional groundwater measurements throughout the year are recommended to determine actual groundwater elevations and seasonal groundwater fluctuations. Groundwater levels during construction may be higher or lower than those encountered. A survey from the top of the well casing is recommended to determine the elevation of the groundwater.

MATERIAL PROPERTIES

The materials encountered were consistent with the depositional environment and typical of gravel pits in the area. The materials in the surrounding gravel pits typically meet the DOT&PF quality parameters for tests including degradation, soundness, and abrasion.

The table below provides a summary of the average grain size distribution of the materials encountered.

Table 2 – Average Grain Size Distribution

Sieve Number	Diameter (mm)	Percent Passing
2"	50.8	100
1"	25.4	76.18
3/4"	19.0	71.72
1/2"	12.7	65.72
3/8"	9.5	61.70
#4	4.75	53.30
#10	2.0	42.80
#20	0.85	32.42
#40	0.425	24.07
#60	0.25	18.66
#100	0.15	14.94
#200	0.075	10.99

The table below provides a summary of the common DOT and Municipality of Anchorage material specifications and the relative processing effort needed.

Table 3 – Processing Effort for Common Material Specifications

Specification	Gradation	Minimal Processing/ Easily Achievable	Moderate Processing	Significant Processing/ Not Achievable
DOT&PF	Structural Fill	X		
DOT&PF	Selected Mat., Type A	X		
DOT&PF	Selected Mat., Type B	X		
DOT&PF	Selected Mat., Type C			
DOT&PF	D-1	X		
DOT&PF	E-1		X	
DOT&PF	Porous Backfill A			X
DOT&PF	Porous Backfill B			X
MOA	Type II	X		
MOA	Type II-A	X		
MOA	Type III	X		
MOA	Type IV	X		
MOA	Type V	X		
MOA	Type VI		X	
MOA	Leveling Course	X		

ESTIMATED VOLUME OF MATERIAL

The following assumptions were used to estimate the volume of material available at the site:

1. The overburden thickness of one foot.
2. The excavation will be limited to four feet above groundwater.
3. Groundwater will be encountered at a minimum depth of 26 feet bgs.
4. The elevation will remain the same over the material extraction area.
5. The excavation area of 62 acres provided by MSB is accurate.

The usable volume of material was calculated for a depth of 22 feet bgs based on the conditions encountered in the borings and the highest observed depth of groundwater. The estimated volume of material is 2,101,000 cubic yards.

If desired, the analysis can be refined with additional topographic survey data, groundwater monitoring, and additional borings. HDL would be pleased to discuss the costs and benefits of any additional work upon request.

CLOSURE AND LIMITATIONS

We appreciate the opportunity to assist you with this important project. If you have any questions, please contact me at 564-2150 or dsimon@hdlalaska.com.

Sincerely,

HDL ENGINEERING CONSULTANTS, LLC



Jason McKee, EIT
Engineering Assistant



Doug P. Simon, P.E.
Geotechnical Services Manager

attach: Limitations – 2 Pages
Borehole Location Map – 1 Page
Boring Log Key – 1 Page
Frost Design Soil Classification – 1 Page
Boring Logs – 10 Pages
Grain Size Distribution Curves – 2 Pages

GEOTECHNICAL LIMITATIONS

Use of Report

1. HDL Engineering Consultants, LLC (HDL) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to HDL.
2. If substantial time has elapsed between submission of this report and the start of work at the site, or if conditions have changed because of natural causes or construction operations at or adjacent to the site, we recommend that HDL be retained to review this report to determine the applicability of the conclusions considering the time lapse or changed conditions.

Standard of Care

3. HDL's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. If conditions other than those described in this report are found at the subject location(s), or the design has been altered in any way, HDL shall be so notified and afforded the opportunity to revise the report, as appropriate, to reflect the unanticipated changed conditions.
4. HDL's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

Subsurface Conditions

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs.
6. Unanticipated soil conditions are commonly encountered and cannot be fully determined by merely taking soil samples or advancing borings. Such unexpected conditions frequently require additional expenditure to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate such potential extra costs.
7. In preparing this report, HDL relied on certain information provided by the Client, state

and local officials, and other parties referenced therein which were made available to HDL at the time of our evaluation. HDL did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this evaluation.

8. Water level readings have been made in test holes (as described in the Report) and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this Report. Fluctuations in the level of the groundwater occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The water encountered in the course of the work may differ from that indicated in the Report.
9. HDL's services did not include an assessment of the presence of oil or hazardous materials at the property. Consequently, we did not consider the potential impacts (if any) that contaminants in soil or groundwater may have on construction activities, or the use of structures on the property.
10. Recommendations for foundation drainage, waterproofing, and moisture control address the conventional geotechnical engineering aspects of seepage control. These recommendations may not preclude an environment that allows the infestation of mold or other biological pollutants.

Compliance with Codes and Regulations

11. We used reasonable care in identifying and interpreting applicable codes and regulations. These codes and regulations are subject to various, and possibly contradictory, interpretations. Compliance with codes and regulations by other parties is beyond our control.

Additional Services

12. HDL recommends that we be retained to provide services during any future: site observations, design, implementation activities, construction and/or property development/redevelopment. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

H:\Jobs\19-117 Muldoon (Big City)\CAD\Drawings\19-117 ANC Muldoon, 1=1, 08-26-19 at 12:24 by jkk
LAYOUT: FIGURE 2
XREF: _AK83-SP4-ALL-IMAGES



FIGURE 1
BOREHOLE LOCATION MAP
MEADOW LAKES MATERIALS
WASILLA, AK

BORING LOG KEY

Summary of the Unified Soil Classification System (from ASTM International Standard D2487) ^A				Soil Classification	
				Group Symbol	Group Name ^B
Coarse-grained Soils (More than 50% retained on No. 200 sieve)	Gravels (More than 50% of coarse fraction retained on No. 4 sieve)	Gravels with < 5% fines ^C	$C_u \geq 4$ and $1 \leq C_c \leq 3^D$	GW	Well-graded gravel ^E
			$C_u < 4$ and/or $[C_c < 1$ or $C_c > 3]^D$	GP	Poorly graded gravel ^E
		Gravels with > 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{E,F,G}
		Fines classify as CL or CH	GC	Clayey gravel ^{E,F,G}	
	Sands (50% or more of coarse fraction passes No. 4 sieve)	Sands with < 5% fines ^H	$C_u \geq 6$ and $1 \leq C_c \leq 3^D$	SW	Well-graded sand ^I
			$C_u < 6$ and/or $[C_c < 1$ or $C_c > 3]^D$	SP	Poorly graded sand ^I
Sands with > 12% fines ^H		Fines classify as ML or MH	SM	Silty sand ^{F,G,I}	
	Fines classify as CL or CH	SC	Clayey sand ^{F,G,I}		
Fine-grained Soils (More than 50% passes the No. 200 sieve)	Silts and Clays (LL < 50)	Inorganic	PI > 7 and plots on or above "A" line ^J	CL	Lean clay ^{K,L,M}
			PI < 4 or plots below "A" line ^J	ML	Silt ^{K,L,M}
		Organic	LL - Oven dried/LL - Not dried < 0.75	OL	Organic clay/silt ^{K,L,M,N/O}
	Silts and Clays (LL ≥ 50)	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	LL - Oven dried/LL - Not dried < 0.75	OH	Organic clay/silt ^{K,L,M,P/Q}
Highly Organic Soils	Primarily organic matter, dark in color, and organic odor			PT	Peat

NOTES:

Visual soil descriptions performed in accordance with ASTM D2488
 Lowercase USCS abbreviation indicates field classification
 Uppercase USCS abbreviation indicates laboratory classification

^ABased on the material passing the 3-in. (75-mm) sieve

^BIf field sample contained cobble or boulders, or both, add "with cobbles or boulders, or both" to group name

^CGravels 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 $C_u = D_{60}/D_{10}$, $C_c = (D_{30})^2 / (D_{10} \times D_{60})$

^EIf soil contains ≥ 15% sand, add "with sand" to group name

^FIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM

^GIf fines are organic, add "with organic fines" to group name

^HSands 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

^IIf soil contains ≥ 15% gravel, add "with gravel" to group name

^JIf Atterberg limits plot in hatched area, soil is a CL-ML, silty clay

^KIf soil contains 15 to < 30% plus No. 200, add "with sand" or "with gravel", whichever is predominant

^LIf soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name

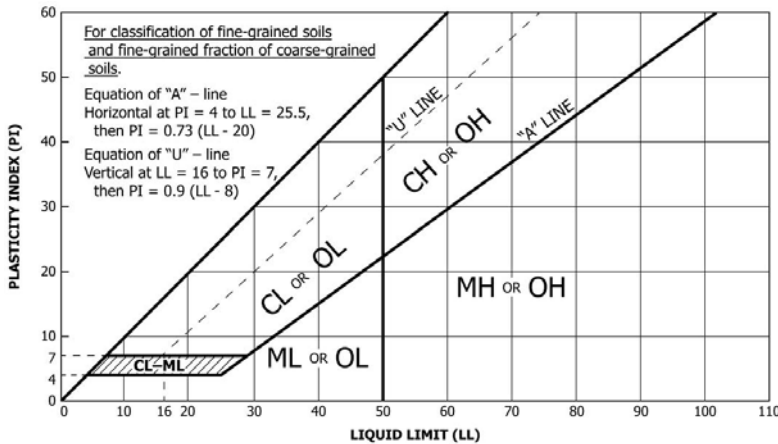
^MIf soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name

^NPI ≥ 4 and plots on or above "A" line

^OPI < 4 or plots below "A" line

^PPI plots on or above "A" line

^QPI plots below "A" line



GRAIN SIZE		
Size Class	Inches	mm
Boulders	>12 inches	>300
Cobbles	3 to 12	75 - 300
Gravel		
Coarse	3/4 - 3	19.0 - 75
Fine	3/16 - 3/4	4.76 - 19.0
Sand		
Coarse	1/16 - 3/16	2.0 - 4.76
Medium	1/64 - 1/16	0.42 - 2.0
Fine	1/256 - 1/64	0.074 - 0.42
Silt and Clay	<1/256	<0.074

SAMPLE TYPES	
Symbol	Description
SS	Split Spoon
MSS	Modified Split Spoon
G	Grab
ST	Shelby Tube
GP	Push Sample
C	Core

SOIL CONSISTENCY		
Description	N-Value	Pocket Pen.
Very Soft	<2	<0.25
Soft	2 - 4	0.25 - 0.5
Medium	4 - 8	0.5 - 1.0
Stiff	8 - 15	1.0 - 2.0
Very Stiff	15 - 30	2.0 - 4.0
Hard	>30	>4.0

RELATIVE SOIL DENSITY	
Description	N-Value
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	>50

COMPONENT PROPORTION (Visual)	
Term	Range
Trace	0 - 5%
Little	5 - 15%
Some	15 - 30%
And	30 - 50%



FROST DESIGN SOIL CLASSIFICATION

US Army Corps of Engineers (USACE) Methodology

The following frost design soil classification was developed by the USACE for describing the potential frost susceptibility of soils. The standard is published in USACE, EM 1110-3-138, "Pavement Criteria for Seasonal Frost Conditions," April 1984.

FROST GROUP	GENERAL SOIL TYPE	% FINER THAN 0.02 mm BY WEIGHT	TYPICAL USCS SOIL CLASS
NFS ⁽¹⁾	(a) Gravels Crushed Stone Crushed Rock	0-1.5	GW, GP
	(b) Sands	0-3	SW, SP
PFS ⁽²⁾	(a) Gravels Crushed Stone Crushed Rock	1.5 -3	GW, GP
	(b) Sands	3-10	SW, SP
S1	Gravelly Soils	3-6	GW, GP, GW-GM, GP-GM, GW-GC, GP-GC
S2	Sandy Soils	3-6	SW, SP, SW-SM, SP-SM, SW-SC, SP-SC
F1	Gravelly Soils	6-10	GM, GC, GW-GM, GP-GM, GW-GC, GP-GC
F2	(a) Gravelly Soils	10-20	GW, GP, GW-GM, GP-GM, GW-GC, GP-GC
	(b) Sands	6-15	SM, SW-SM, SP-SM, SC, SW-SC, SP-SC, SM-SC
F3	(a) Gravelly Soils	Over 20	GM, GC, GM-GC
	(b) Sands, except very fine silty sands	Over 15	SM, SC, SM-SC
	(c) Clays, PI>12	--	CL, CH
F4	(a) Silts	--	ML, MH, ML-CL
	(b) Very fine silty sands	Over 15	SM, SC, SM-SC
	(c) Clays, PI<12	--	CL, ML-CL
	(d) Varied clays or other fine-grained banded sediments	--	CL or CH layered with ML, MH, ML-CL, SM, SC, or SM-SC

(1) Non-frost susceptible

(2) Possibly frost susceptible, requires lab test for void ratio to determine frost design soil classification. Gravel with void ratio > 0.25 would be NFS; Gravel with void ratio < 0.25 would be S1; Sands with void ratio > 0.30 would be NFS; Sands with void ratio < 0.30 would be S2 or F2

Alaska Department of Transportation and Public Facilities (DOT&PF) Methodology

As shown above, the USACE standard is based in part on the percentage of material finer than 0.02 mm ($P_{0.02}$). The DOT&PF modifies the USACE standard by referencing the percentage of material finer than the #200 sieve, which is 0.075 mm, (P_{200}) rather than 0.02 mm. As reported in the Alaska Flexible Pavement Guide, the P_{200} value is typically twice that of the $P_{0.02}$; therefore, DOT&PF considers material with less than 6% by weight passing the #200, non-frost susceptible (NFS).

Municipality of Anchorage (MOA) Methodology

The MOA uses a simplified method based on the USACE methodology noted above. The MOA method is detailed in the Design Criteria Manual and summarized below. Note that the MOA method uses the $P_{0.02}$ value rather than the P_{200} value.

FROST GROUP	SOIL TYPE	PERCENTAGE FINER THAN 0.02 MILLIMETER BY WEIGHT	TYPICAL SOIL TYPES UNDER UNIFIED SOIL CLASSIFICATION SYSTEM
NFS	a. Gravels	0 to 3	GW, GP
	b. Sands	0 to 3	SW, SP
F-1	Gravelly soils	3 to 10	GW, GP, GW-GM, GP-GM
F-2	a. Gravelly soils	10 to 20	GM, GW-GM, GP-GM
	b. Sands	3 to 15	SW, SP, SM, SW-SM, SP
F-3	a. Gravelly soils	Over 20	GM, GC
	b. Sands, except very fine silty sands	Over 15	SM, SC
	c. Clays, PI>12	--	CL, CH
F-4	a. All silts	--	ML, MH
	b. Very fine silty sands	Over 15	SM, SC
	c. Clays, PI<12	--	CL, CL-ML
	d. Varied clays and other fine-grained, banded sediments	--	CL, CL-ML
		--	CL, CH, ML, SM

* Municipality of Anchorage, Project Management & Engineering Department, Design Criteria Manual, January 2007.



PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: Southeast quadrant of parcel

Lat/Long: 61°35'7.1232"N, 149°35'40.3656"W

Elevation:

Equipment Type: Geoprobe 7822DT

Field Crew: Discovery Drilling, Inc.

Geologist: J. McKee

Total Depth: 37.0 feet

Date: 6/22/2021

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data		
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date
0	Hollow-Stem Auger	SS	S-1	2	14	ml	gp-gm		SUBSURFACE MATERIAL			
0.0				4	14				0.7			
1		10	SS	S-2	6	20	gp-gm		0.7	5.0		
2		17			10						10	
3		10	SS	S-3	5	15	sp-sm		5.0	7.5		
4		10			7						13	
5		5	SS	S-4	8	15	gp-gm		7.5	10.0		
6		13			7						13	
7		10	SS	S-5	40	53	gp-gm		10.0	12.5		
8		30			40						30	
9		10	SS	S-6	22	53	gp-gm		12.5	15.0		
10		40			21						32	
11		10	SS	S-7	21	53	gp-gm		15.0	16.0		
12		40			21						50	
13		10	SS	S-7	21	53	gp-gm		16.0	17.0		
14		40			21						50	
15		10	SS	S-7	21	53	gp-gm		17.0	18.0		
16	40	21			50							
17	10	SS	S-7	21	53	gp-gm		18.0	19.0			
18	40			21						50		
19	10	SS	S-7	21	53	gp-gm		19.0	20.0			
20	40			21						50		

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

 Station / Location: Southeast quadrant of parcel
 Lat/Long: 61°35'7.1232"N, 149°35'40.3656"W
 Elevation:

 Equipment Type: Geoprobe 7822DT
 Field Crew: Discovery Drilling, Inc.
 Geologist: J. McKee

 Total Depth: 37.0 feet
 Date: 6/22/2021

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data		
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date
20	Hollow-Stem Auger	SS	S-8	9		25	gm		SUBSURFACE MATERIAL			
21				13							medium dense, Moisture =2.9%	
22				12								
23				8								
24												
25		SS	S-9	30						Well-graded GRAVEL, (gm); fine to coarse, subrounded; some sand, fine to coarse; some silt; gray, dry to moist refusal: 50/5", Moisture =4.9%	25.0	
26												
27												
28												
29												
30		SS	S-10	32		68				wet, very dense, Moisture =6.2%		
31	44											
32	24											
33	31											
34												
35	SS	S-11	6		sm		Poorly-graded SAND, (sm); fine to coarse; little to some silt; little gravel, fine to coarse, subrounded; brownish gray, wet refusal: 50/3", Moisture =12.0%	35.0				
36			24									
37							Notes: One inch diameter PVC standpipe installed with 10 feet of screen at the bottom to monitor groundwater.	37.0				

A USCS LOG OF TEST HOLE 21-107, MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: East section of parcel
Lat/Long: 61°35'15.5862"N, 149°35'40.059"W
Elevation:

Equipment Type: Geoprobe 7822DT
Field Crew: Discovery Drilling, Inc.
Geologist: J. McKee

Total Depth: 27.0 feet
Date: 6/22/2021

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data			SUBSURFACE MATERIAL												
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date													
0													Organic mat	0.0											
1	Hollow-Stem Auger	SS	S-1	1		5	gm		0.5	Poorly-graded GRAVEL, (gm); fine to coarse, subrounded; with silt; some sand, fine to coarse; brown, moist Moisture =16.5%															
4																									
2				11																					
3		SS	S-2	8		gp	2.7		Poorly-graded GRAVEL, (gp); coarse, subrounded; trace sand, white, dry, fractured cobble in spoon refusal: 50/3", Moisture =0.8%																
15																									
5				10		GW	5.0		Well-graded GRAVEL, (GW); fine to coarse, subrounded; some to with sand, fine to coarse; trace silt; brownish gray, dry to moist, medium dense, NFS P200 =3.8%, Sa =34.3%, Gr =61.9%, Moisture =2.0%																
11		SS	S-3	11													21	dense, Moisture =2.3%							
6						10																			
7				11																					
8				13																					
9		SS	S-4	12		32	very dense, Moisture =2.5%																		
15																									
10			12																						
11	SS	S-5	24		58	Moisture =2.1%																			
34																									
12			41																						
13	SS	S-6	15		56																				
19																									
14			37																						
15			24																						
15	SS	S-7	15		gp-gm	15.0	Poorly-graded GRAVEL, (gp-gm); fine to coarse, subrounded; some sand, fine to coarse; little silt; brownish gray, dry to moist, dense, F1 P200 =9.3%, Sa =29.4%, Gr =61.3%, Moisture =3.2%																		
20																									
15																15		35							
16			20																						
17			8																						
18																									
19																									
20																									

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

LOG OF BORING

Hole #: **HDL-02**

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: *East section of parcel*
 Lat/Long: 61°35'15.5862"N, 149°35'40.059"W
 Elevation:

Equipment Type: *Geoprobe 7822DT*
 Field Crew: *Discovery Drilling, Inc.*
 Geologist: *J. McKee*

Total Depth: *27.0 feet*
 Date: *6/22/2021*

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data										
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date								
20	Hollow-Stem Auger	SS	S-8	11	27	gm			SUBSURFACE MATERIAL											
21				16								Poorly-graded GRAVEL, (gm); fine to coarse, subrounded; some sand, fine to coarse; some silt; grayish brown, moist, medium dense Moisture =5.1%								
22				11																
23				9																
24																				
25																				
26																				
27																				
25				SS								S-9	22	54	sm					
26													25							
27	39																			
27	32																			
27							BOH 27	Notes: No free groundwater encountered.												

A USCS LOG OF TEST HOLE 21-107, MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: Southwest quadrant of parcel
Lat/Long: 61°35'11.7378"N, 149°35'58.2246"W
Elevation:

Equipment Type: Geoprobe 7822DT
Field Crew: Discovery Drilling, Inc.
Geologist: J. McKee

Total Depth: 27.0 feet
Date: 6/23/2021

Depth (Feet)	Drilling Method	Sample Data				USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data		SUBSURFACE MATERIAL
		Sample Type	Number	Blow Count	Sample Recovery				N-Value	Depth (feet)	
0										0.0	Organic mat
1		SS	S-1	10	29	gw-gm				0.7	Well-graded GRAVEL, (gw-gm); fine to coarse, subangular to subrounded; some to with sand, fine to coarse; little silt; brownish gray, dry, F1 Moisture =2.9%
2				19							fractured cobbles in spoon, very dense, Moisture =1.8%
3		SS	S-2	24	58						
4				24							
5				34							
6		SS	S-3	48	56						P200 =7.0%, Sa =37.7%, Gr =55.3%, Moisture =2.8%
7				16							
8				30							
9		SS	S-4	26	45						some sand; dense, Moisture =3.0%
10				8							
11				22							
12		SS	S-5	18	44						Moisture =9.3%
13				27							
14		SS	S-6	33							gray, refusal: 50/5", Moisture =1.6%
15				20							
16		SS	S-7	24		sm					Poorly-graded SAND, (sm); fine to medium; with gravel, coarse, subangular to subrounded; some silt; gray, dry, F3 refusal: 50/3", P200 =22.9%, Sa =44.8%, Gr =32.3%, Moisture =1.2%
17				22							
18											
19											
20											

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

 Station / Location: Southwest quadrant of parcel
 Lat/Long: 61°35'11.7378"N, 149°35'58.2246"W
 Elevation:

 Equipment Type: Geoprobe 7822DT
 Field Crew: Discovery Drilling, Inc.
 Geologist: J. McKee

 Total Depth: 27.0 feet
 Date: 6/23/2021

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data		
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date
20	Hollow-Stem Auger	SS	S-8	1		63	gm		SUBSURFACE MATERIAL			
21				37					20.0			
22				26						Well-graded GRAVEL, (gm); fine to coarse, subangular to subrounded; some sand, fine to medium; some silt; brownish gray, moist, very dense Moisture =3.4%		
23				22								
24												
25		SS	S-9	32		70			BOH 27	Notes: Rock broke shoe at 2.5 feet bgs. Borehole was shifted and drilling continued to termination. No free groundwater encountered.	27.0	
26				30								Moisture =5.9%
27				40								
				37								

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: West edge of parcel
Lat/Long: 61°35'17.3826"N, 149°36'1.4508"W
Elevation:

Equipment Type: Geoprobe 7822DT
Field Crew: Discovery Drilling, Inc.
Geologist: J. McKee

Total Depth: 32.0 feet
Date: 6/23/2021

Depth (Feet)	Drilling Method	Sample Data				USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data		SUBSURFACE MATERIAL
		Sample Type	Number	Blow Count	Sample Recovery				N-Value	Depth (feet)	
0								26		0.0	
0.4						ml				0.4	
1	SS	S-1	0	1						SILT, (ml); with sand, fine to medium; trace gravel, fine, subrounded; brown, moist Moisture =30.2%	
2			4								
3	SS	S-2	18		gm					Poorly-graded GRAVEL, (gm); fine to coarse, subrounded; with sand, fine to coarse; some silt; grayish brown, dry to moist refusal: 50/5", Moisture =2.9%	
4											
5	SS	S-3	31		sm					Poorly-graded SAND, (sm); fine to coarse; with gravel, fine to coarse; little silt; gray, dry, F2 refusal: 50/5", P200 =13.7%, Sa =50.9%, Gr =35.4%, Moisture =2.5%	
6			50								
7											
8	SS	S-4	17							dense, Moisture =1.9%	
9			17								
10	SS	S-5	18		35					refusal: 50/5", Moisture =3.7%	
11			18								
12											
13	SS	S-6	21		gp-gm					Poorly-graded GRAVEL, (gp-gm); fine to coarse, subrounded; some sand, fine to coarse; little silt; gray, dry to moist, dense Moisture =2.3%	
14			26								
15	SS	S-7	15		35					very dense, Moisture =2.3%	
16			13								
17			12								
18	SS	S-7	18		55						
19			37								
20			34								

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

LOG OF BORING

Hole #: **HDL-04**

PROJECT NUMBER : 21-107


PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: *West edge of parcel*
 Lat/Long: *61°35'17.3826"N, 149°36'1.4508"W*
 Elevation:

Equipment Type: *Geoprobe 7822DT*
 Field Crew: *Discovery Drilling, Inc.*
 Geologist: *J. McKee*

Total Depth: *32.0 feet*
 Date: *6/23/2021*

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data	
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time
20	Hollow-Stem Auger	SS	S-8		X		sm		26		
21											
22											
23											
24											
25				8			gm				
26		SS	S-9	19			43				
27				24							
28				27							
29											
30			7								
31	SS	S-10	23			44					
32			21								
			28								
										SUBSURFACE MATERIAL	
										20.0	
Poorly-graded SAND, (sm); fine to coarse; some silt; trace gravel, fine, subrounded; tan, dry, F3 refusal: 50/3", P200 =19.3%, Sa =78.4%, Gr =2.3%, Moisture =2.1%											
										25.0	
Poorly-graded GRAVEL, (gm); fine to coarse, subrounded; some sand, fine to coarse; some silt; brownish gray, moist to wet, dense Moisture =7.8%											
										32.0	
Notes: Terminated boring due to auger refusal. One inch diameter PVC standpipe installed with 10 feet of screen at the bottom to monitor groundwater.											

A USCS LOG OF TEST HOLE 21-107, MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

LOG OF BORING

Hole #: **HDL-05**

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: Northwest quadrant of parcel
 Lat/Long: 61°35'24.3594"N, 149°36'0.144"W
 Elevation:

Equipment Type: Geoprobe 7822DT
 Field Crew: Discovery Drilling, Inc.
 Geologist: J. McKee

Total Depth: 7.0 feet
 Date: 6/24/2021

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data			SUBSURFACE MATERIAL
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date	
0							ml					SILT, (ml); with sand; trace to little organics; Moisture =45.6%	0.0
1		SS	S-1	0		1	gw-gm					Well-graded GRAVEL, (gw-gm); fine to coarse; with sand, fine to coarse; little silt, gray, dry, NFS	1.0
2				10									
3		SS	S-2	13								cobbles, refusal: 50/5", P200 =5.8%, Sa =34.4%, Gr =59.8%, Moisture =2.0%	
4	Hollow-Stem Auger			33									
5		SS	S-3	27								boulder encountered refusal: 50/5", Moisture =11.9%	
6													
7												boulder encountered	
								BOH 7				Notes: Terminated boring due to auger refusal. No free groundwater encountered.	7.0

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

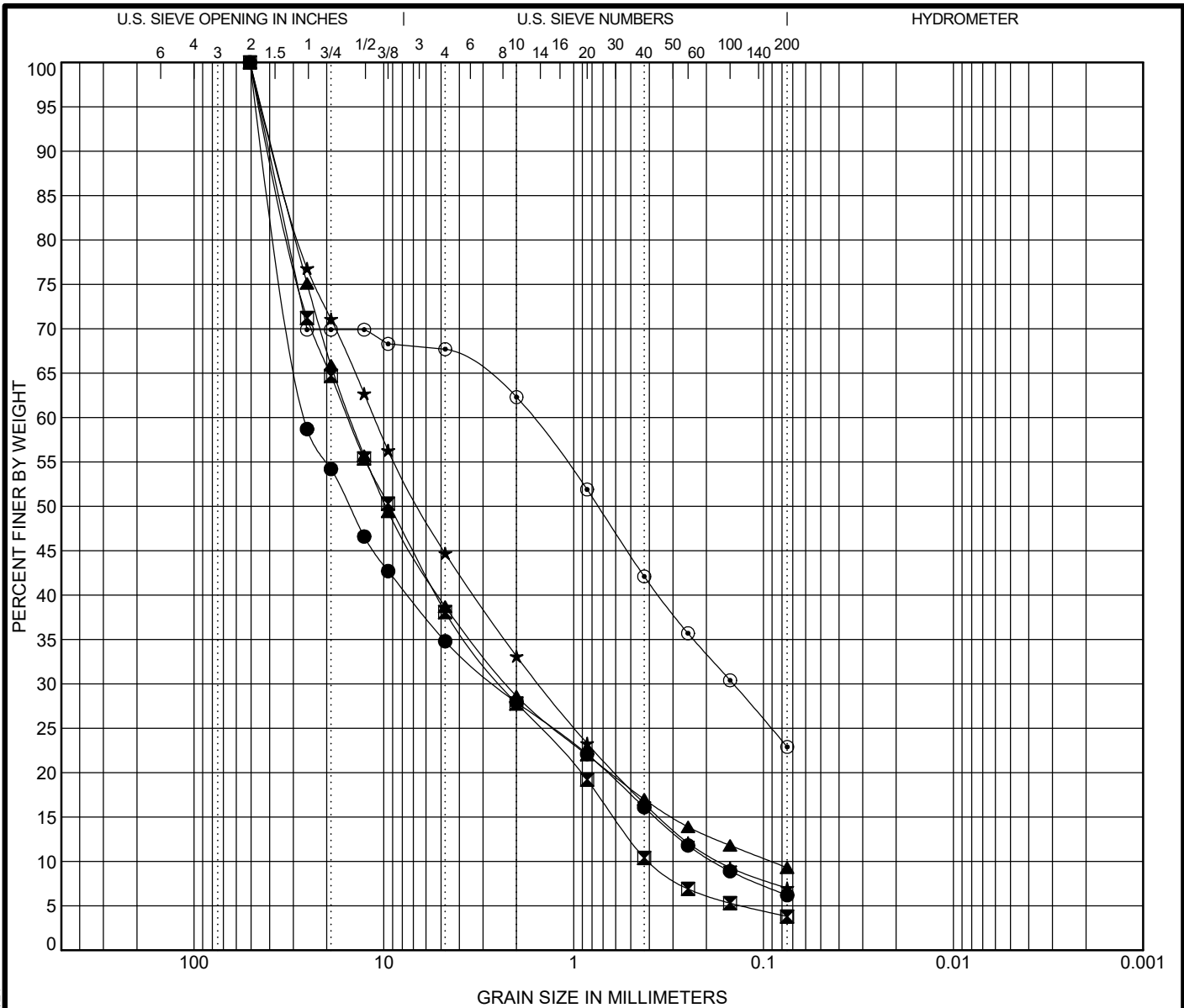
Station / Location: Northeast quadrant of parcel
Lat/Long: 61°35'24.1074"N, 149°35'44.628"W
Elevation:

Equipment Type: Geoprobe 7822DT
Field Crew: Discovery Drilling, Inc.
Geologist: J. McKee

Total Depth: 16.0 feet
Date: 6/24/2021

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data			SUBSURFACE MATERIAL	
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date		Symbol
0													Organic mat	0.0
0.5							gp-gm						Poorly-graded GRAVEL, (gp-gm); fine to coarse; with sand, fine to coarse; trace to little silt; with cobbles; gray, dry Moisture =1.9%	0.5
1	SS	S-1		1 2 10 14		12								
2														
3														
4														
5														
6														
7														
8														
9	Hollow-Stem Auger													
10													refusal: 50/5"	
11	SS	S-2		10 24 31										
12														
13														
14														
15	SS	S-3											rock in shoe, refusal: 50/4"	
16														
									BOH 16				Notes: Terminated boring due to auger refusal. No free groundwater encountered.	16.0

A USCS LOG OF TEST HOLE 21-107, MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 6/30/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● HDL-01 DEPTH 7.5	POORLY GRADED GRAVEL with SAND(GP)				1.43	142.58
☒ HDL-02 DEPTH 5.0					0.93	38.75
▲ HDL-02 DEPTH 15.0					3.71	165.28
★ HDL-03 DEPTH 5.0					1.22	65.93
◎ HDL-03 DEPTH 15.0						

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● HDL-01 DEPTH 7.5	50.8	25.96	2.602	0.182	65.2	28.6	6.2	
☒ HDL-02 DEPTH 5.0	50.8	15.5	2.406	0.4	61.9	34.3	3.8	
▲ HDL-02 DEPTH 15.0	50.8	15.051	2.255	0.091	61.3	29.4	9.3	
★ HDL-03 DEPTH 5.0	50.8	11.236	1.526	0.17	55.3	37.7	7.0	
◎ HDL-03 DEPTH 15.0	50.8	1.655	0.145		32.3	44.8	22.9	

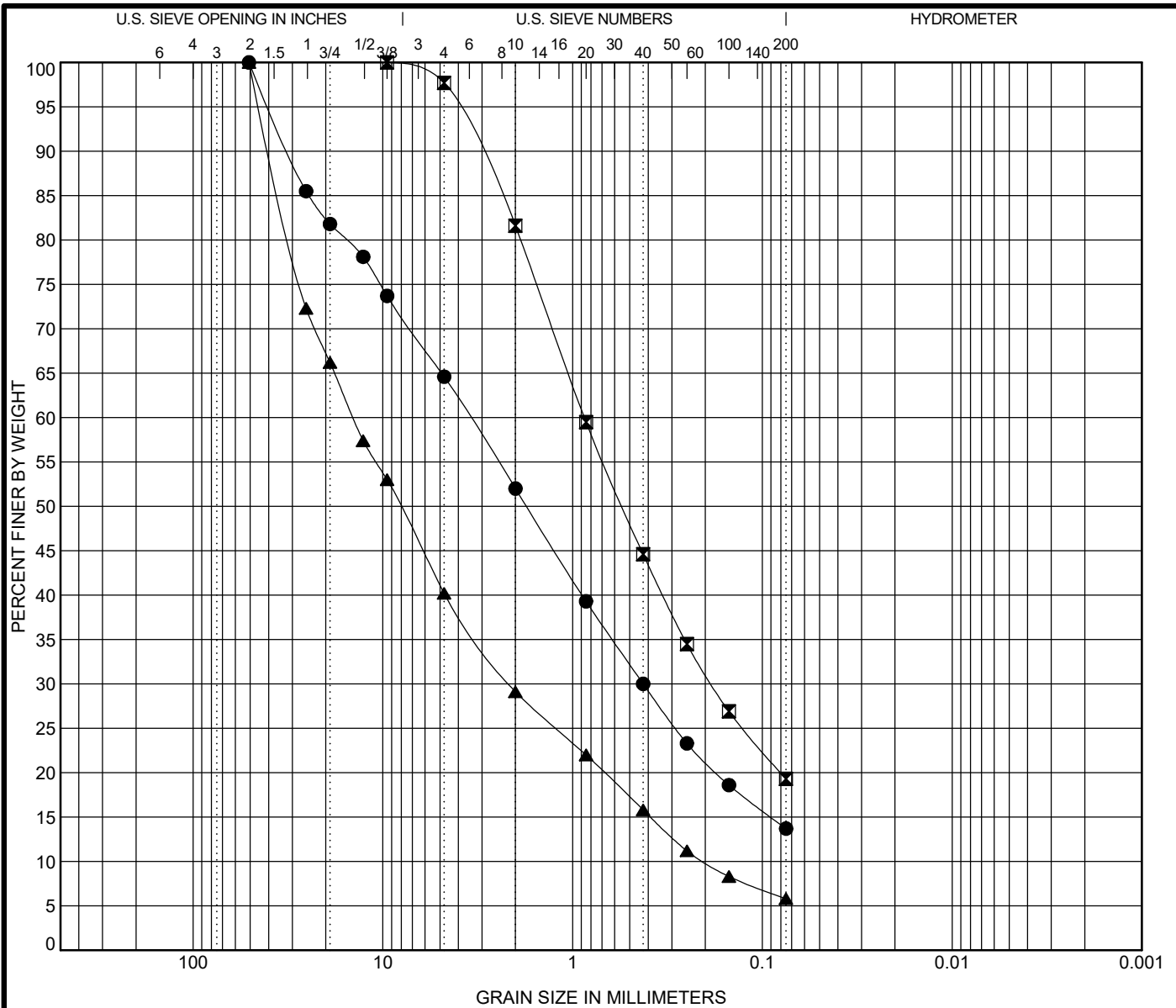


3335 Arctic Blvd Ste 100
 Anchorage, AK 99503
 Telephone: 907-564-2120
 Fax: 907-564-2122

GRAIN SIZE DISTRIBUTION

Project: Meadow Lakes Materials
 Client: Matanuska-Susitna Borough
 Project Number: 21-107

U.S. GRAIN SIZE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL.MODIFIED.GDT 6/29/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					LL	PL	PI	Cc	Cu
● HDL-04 DEPTH 5.0										
☒ HDL-04 DEPTH 20.0										
▲ HDL-05 DEPTH 2.5									1.59	70.69

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● HDL-04 DEPTH 5.0	50.8	3.464	0.425		35.4	50.9	13.7	
☒ HDL-04 DEPTH 20.0	9.5	0.867	0.185		2.3	78.4	19.3	
▲ HDL-05 DEPTH 2.5	50.8	14.305	2.145	0.202	59.8	34.4	5.8	

HDL ENGINEERING
 Consultants LLC
 3335 Arctic Blvd Ste 100
 Anchorage, AK 99503
 Telephone: 907-564-2120
 Fax: 907-564-2122

GRAIN SIZE DISTRIBUTION
 Project: Meadow Lakes Materials
 Client: Matanuska-Susitna Borough
 Project Number: 21-107

U.S. GRAIN SIZE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL_MODIFIED.GDT 6/29/21

LOG OF BORING

Hole #: **HDL-06b**

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: *Northeast quadrant of parcel*
 Lat/Long: 61°35'24.1074"N, 149°35'44.628"W
 Elevation:

Equipment Type: *Geoprobe 7822DT*
 Field Crew: *Discovery Drilling, Inc.*
 Geologist: *J. McKee*

Total Depth: *35.0 feet*
 Date: *8/24/2021*

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data			
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date	Symbol
0										25		8/24/21	∇
SUBSURFACE MATERIAL													
0									Organic mat				0.0
0.5						gp-gm			Poorly-graded GRAVEL, (gp-gm); fine to coarse; subrounded, with sand, fine to coarse; little silt; brownish gray, dry, with cobbles				0.5
1													
2													
3													
4													
5													
6													
7													
8													
9													
10	Air Rotary												
11													
12													
13													
14													
15									gray, driller and drill action indicates large cobbles				15.0
16													
17													
18													
19													
20													

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 8/27/21

LOG OF BORING

Hole #: **HDL-06b**

PROJECT NUMBER : 21-107

PROJECT : Meadow Lakes Materials

CLIENT : Matanuska-Susitna Borough

Station / Location: *Northeast quadrant of parcel*
 Lat/Long: 61°35'24.1074"N, 149°35'44.628"W
 Elevation:

Equipment Type: *Geoprobe 7822DT*
 Field Crew: *Discovery Drilling, Inc.*
 Geologist: *J. McKee*

Total Depth: *35.0 feet*
 Date: *8/24/2021*

Depth (Feet)	Drilling Method	Sample Data					USCS Classification	Bonded Zone	Soil Graphic	Ground Water Data		
		Sample Type	Number	Blow Count	Sample Recovery	N-Value				Depth (feet)	Time	Date
20	Air Rotary						gp		25			
21												
22							gp					
23												
24												
25							gp-gm					
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
									SUBSURFACE MATERIAL			
									Poorly-graded GRAVEL, (gp); fine to coarse; subrounded, some sand, fine to coarse; trace silt; gray, with cobbles			
									Poorly-graded GRAVEL, (gp); fine to coarse; subrounded, trace to little sand, fine to coarse; light gray, fractured shards of cobbles makes up most of cuttings			
									Poorly-graded GRAVEL, (gp-gm); fine to coarse; subrounded, with sand, fine to coarse; some silt; dark gray, moist to wet, driller mentions increase in fines content			
									wet, with cobbles			
									Notes: No samples collected. Soil classifications based on drill action and cuttings. One inch diameter PVC standpipe was installed with 10 feet of screen at the bottom to monitor groundwater.			

A USCS LOG OF TEST HOLE 21-107 MEADOW LAKES MATERIALS DRAFT LOGS.GPJ HDL MODIFIED.GDT 8/27/21