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Mat-Su Borough
Development Services



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department

Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822

Email: permitcenter@matsugov.us

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

NOTE: Carefully read instructions and applicable borough code. Fill out forms completely. Attach information as needed. Borough staff will not process incomplete applications.

Application fee must be attached, check one:

\$1000 for Administrative Permit (Less than two years or less than 7,000cy annually)

\$1,500 for Conditional Use Permit (More than two years and more than 7,000cy annually)

Required Attachments:

Site plan as detailed on Page 2

Narrative with operational details and all information required on Page 2

Reclamation Plan

Subject Property:

MSB Tax Account ID#(s): 18N01E35C006, 18N01E35C009

Street Address: 8751 & 8901 E. Palmer Wasilla Hwy., Palmer, AK

Facility/Business Name: Mountain Gravel Pit

Name of Property Owner

Mountain Gravel Investment Group, LLC
~~Cameron Johnson, Managing Member~~

Mailing: PO Box 260770

Encino, CA 91426

Phone: Cell (818) 825-5488

Wk _____ Hm _____

E-mail: cjohnson@amgland.com

Name of Agent / Contact for application

Timothy Alley, PE, TBC, Inc.

Mailing: 1508 E. Bogard Road #7

Wasilla, AK 99654

Phone: Cell (907) 830-2821

Wk (907) 357-6760 Hm _____

E-mail: talley@tbcaak.com

| Attach a narrative describing the proposed extraction activities. | Attached |
|--|-----------------|
| Describe the types of material being extracted. | X |
| Provide total acreage of all parcels on which the activity will occur. | X |
| Provide total acreage of earth material extraction activity. | X |
| Provide total cubic yards to be extracted. | X |
| Provide the estimated final year extraction will occur. | X |
| Provide seasonal start and end dates. | X |
| Provide hours of operation. | X |
| Provide days of the week operations will take place. | X |
| Provide proposed peak hour and traffic volume at the peak hour | X |
| Provide estimated end date of extraction. | X |
| Provide 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. | X |
| Describe how the operation will monitor the seasonal high water table. | X |
| Provide quantity estimates and topographical information such as cross section drawings depicting depth of excavation, slopes, and estimated final grade. | X |
| Provide Reclamation Plan in accordance with MSB 17.28.063 and 17.28.067. | X |

| Submit a detailed site plan, <i>drawn to scale</i>. Drawings under the seal of an engineer or surveyor are recommended but not required. | 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, noise buffers (such as fences, berms or retained vegetated areas), and drainage control such as ditches, settling ponds, etc. | X |
| Identify the entire area intended for gravel/material extraction activity. | X |
| Identify the property boundary containing the operation. | X |
| Identify ADEC Drinking Water Protection Areas wherever proposed project area boundaries fall within drinking water protection area buffer zones. | X |
| Identify areas used for past and future phases of the activity. | X |
| Provide road and access plan that includes anticipated vehicle 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 |
| Provide detailed description of the proposed visual screening. | X |
| Provide measures to mitigate or lessen noise impacts on surrounding properties. | X |
| Provide proposed lighting plan. | N/A |

| Submit documentation showing compliance with borough, state, and federal laws. | Applied for (list file #) | Attached (list file #) or N/A |
|--|---|-------------------------------|
| Submit 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 | |
| Provide reclamation plan as required by ADNR, pursuant to AS 27.19. Provide copy of reclamation financial assurance filed with the State of Alaska (If exempt, provide qualifying documents for exemption). | Submitted, Awaiting review | |
| Provide 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. | N/A, See narrative | |
| Provide 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 | |
| Provide any other applicable permits, such as driveway/access permits; list as appropriate. | Driveway Permit submitted, confirmation attached. | |

Prior to the public hearing, the applicant must also pay the mailing and advertising fees associated with the application. Staff will provide applicant with a statement of advertising and mailing charges. Payment must be made **prior** to the application presentation at the public hearing.

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

MSB Tax Account ID #(s) 118N01E35C006 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.

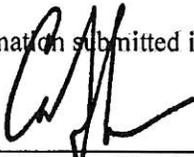
I understand that other rules such as local, state, and federal regulations, covenants, plat notes, and deed restrictions may be applicable and other permits or authorizations may be required. I understand that the borough may also impose conditions and safeguards designed to protect the public's health,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

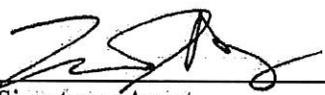
I understand that it is my responsibility to identify and comply with all applicable rules and conditions, covenants, plat notes, and deed restrictions, including changes that may occur in such requirements.

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 MSB 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 Cameron Johnson 3/12/24
Printed Name Date


Signature: Agent TIMOTHY ACARY 3/12/24
Printed Name Date



MATANUSKA-SUSITNA BOROUGH

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Street Address: 8751 & 8901 E. Palmer Wasilla Hwy., Palmer, AK

Facility/Business Name: Mountain Gravel Pit

Name of Property Owner

Louis Green and Bryce W-Green

Mailing: PO Box 3432

Palmer, AK 99645

Phone: Cell 907-202-1389

Wk _____ Hm _____

E-mail: pipercub58@yahoo.com

Name of Agent / Contact for application

Timothy Alley, PE, TBC, Inc.

Mailing: 1508 E. Bogard Road #7

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| Provide proposed peak hour and traffic volume at the peak hour | X |
| Provide estimated end date of extraction. | X |
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| Describe all other uses occurring on the site. | X |
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| Provide Reclamation Plan in accordance with MSB 17.28.063 and 17.28.067. | X |

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| Identify the entire area intended for gravel/material extraction activity. | X |
| Identify the property boundary containing the operation. | X |
| Identify ADEC Drinking Water Protection Areas wherever proposed project area boundaries fall within drinking water protection area buffer zones. | X |
| Identify areas used for past and future phases of the activity. | X |
| Provide road and access plan that includes anticipated vehicle 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 |
| Provide detailed description of the proposed visual screening. | X |
| Provide measures to mitigate or lessen noise impacts on surrounding properties. | X |
| Provide proposed lighting plan. | N/A |

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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.

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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.

 Louis H. Green, Jr. 3/13/24
Signature: Property Owner Printed Name Date

 Timothy A. ... 3/12/24
Signature: Agent Printed Name Date

March 13, 2024



Mountain Gravel Investment Group, LLC
Cameron Johnson, Managing Member
PO Box 260770
Encino, CA 91426

Subject: Letter of Consent for Gravel Extraction

Dear Mr. Johnson,

We, Louis and Bryce W-Green, the legal owners of the property located at 8751 E. Palmer Wasilla Hwy., Palmer, AK 99645, having legal description Township 18N Range 1E Section 35 Lot C9, hereby grant our consent to Mountain Gravel Investment Group, LLC, to undertake the extraction of gravel on the specified site.

By providing this consent, we, Louis and Bryce W-Green, confirm that we are the legal owners of the property and have the authority to grant permission for gravel extraction on the subject lot.

We trust that Mountain Gravel Investment Group, LLC, will carry out the gravel extraction activities with the highest level of responsibility and consideration for the environment and surrounding community.

This consent is provided under the following conditions:

1. Mountain Gravel Investment Group, LLC, must comply with all local, state, and federal laws and regulations governing gravel extraction and environmental protection during the entire extraction process.
2. Mountain Gravel Investment Group, LLC, is responsible for obtaining all necessary permits and approvals required for gravel extraction from the relevant authorities.
3. The extraction activities should be conducted with the utmost care to minimize impact to surrounding properties and the environment. The site shall be reclaimed as required by the Reclamation Plan submitted to Matanuska-Susitna Borough and Alaska Department of Natural Resources.
4. The extraction activities should not interfere with the rights and activities of neighboring properties, and any potential disruption should be minimized.
5. Mountain Gravel Investment Group, LLC, must hold Louis and Hayden Green harmless from any liability, claims, or damages arising out of or in connection with the gravel extraction activities.

6. Mountain Gravel Investment Group, LLC, shall limit activity to the area identified for gravel extraction and is liable for any damages caused to the property outside of the gravel extraction area and is required to take appropriate measures to prevent such damages.

Signed,

Louis and Bryce W-Green

8751 E. Palmer Wasilla Hwy.

Palmer, AK 99645

Louis Green

3/13/24

Date

Bryce W-Green

3/13/24

Date

By Louis Green P.O.A.

STATE OF ALASKA)

) ss.

THIRD JUDICIAL DISTRICT)

I, the undersigned Notary Public for the aforesaid jurisdiction, do hereby certify that Louis Green, POA Bryce Green of City of Palmer, personally appeared before me this day, and being by me duly sworn, says that he executed the foregoing and annexed instrument for and in behalf of City of Palmer.

Witness my hand and official seal, this 13th day of March, 2023.



Notary Public for the State of Alaska

My commission expires: 09/16/27



The Boutet Company, Inc.
601 E. 57th Place, Ste 102
Anchorage, AK 99645

Phone 907.522.6776
www.tbca.com

July 1, 2024

Planning and Land Use Department
Matanuska- Susitna Borough
350 E. Dahlia Avenue
Palmer, AK 99645

RE: Earth Materials Extraction Permit
Mountain Gravel Pit

To Whom It May Concern:

On behalf of Mountain Gravel Investment Group, LLC, The Boutet Company has prepared the following submittal in pursuit of a Conditional Use Permit for Earth Materials Extraction with the Matanuska-Susitna Borough. The proposed gravel extraction is located on two lots located at 8751 and 8901 E. Palmer Wasilla Highway (PWH) having legal descriptions Township 18N Range 1E Section 35 Lot C6 and C9. The lots have a total area of 13.16 acres of which the gravel extraction will occur on the easter 5.96 acres. The gravel extraction will remove a ridge that runs east to west through lot C6 and terminates in lot C9. The extraction will remove material to an elevation near the existing elevation of the Palmer Wasilla Highway to prepare it for future commercial and/or multifamily development.

An existing residence is located in the northwest corner of Lot C9. Mountain Gravel Investment Group is in the process of purchasing this lot. The current owner has signed a letter of consent for the gravel extraction until the transfer of ownership is completed, at which time the residence will be vacated.

The site is an existing hill approximately 50' tall running from east to west across the properties. The planned development proposed to extract approximately 285,000 cubic yards of gravel material over the next 8-9 years. Use of the gravel extracted will be limited to select developments. The pit will not be open to the general public. Screening of material is the only planned processing of soils. No crushers, asphalt or concrete plants will be used.

Three test pits were dug to assess the subsurface soil conditions. Based on initial soil test pits there is approximately 1-3' of topsoil with usable clean gravels below. Test pits 1 and 3 were dug to a depth of 10' and more than 4' below the planned bottom of pit. The location of test hole 1 and monitoring tube has an existing elevation of approximately 372.97' the test hole was dug to a depth of 363' (10' deep) and a 4" perforated tube was installed for groundwater monitoring. Heading northwest through the site toward test hole 3 in the northwest corner the topography rises to an maximum approx. elevation of 418.00' and then drops back down to 360' elevation at the northwest property corner. At the location of test hole 3, the existing ground elevation is 368.90'. This hole was excavated 10' deep to a

bottom of hole elevation of 359' elevation and a 4" perforated tube was installed for groundwater monitoring. No groundwater was encountered during the exploration. Test hole 2 was excavated at the top of the gravel ridge to verify the quality of the onsite soils.

The site will be excavated to a depth of 5 to 49 feet maximum below the existing ground surface. During extraction, side slopes will be excavated to the maximum slope of 1.5' horizontal to 1' vertical and then flattened to 2:1 with silty overburden material. Noise and sight buffering will be completed with retained vegetation and berm. A 10-foot no clearing buffer, protecting existing vegetation, along all adjacent property boundaries (except ROW) to protect the neighboring properties from noise, equipment lights (no site lighting is proposed) and slope erosion. This setback will be maintained throughout extraction and reclamation. In addition to the 10' vegetated buffer, a 10-foot tall berm will be maintained around all sides of the pit with the exception of the southeast corner where access is provided off of the Palmer-Wasilla Highway. It is requested that this area be waived from screening requirements as it is necessary to provide access to the site. At the onset of development of a phase, all grubbing will be pushed to the phase limits to create the 10-foot berm. Extraction will take place working from south to north for phases 1-6 and east to west for phases 7-9. Equipment will extract from the bottom of the cut slope. As the limits of the pit are reached, the berm created with grubbing material will be removed and a 10-foot minimum height slope will remain on the inside of the pit. As the extraction enters into phase 4, an additional room is available, the settling pond will be relocated to provide room to construct a 10' berm along the southern portion of the eastern property line. In this way, a 10' high noise buffer will be maintained along all property lines to the greatest extent practicable.

Site drainage will be controlled primarily in the grading of the pit floor. The final grade of the pit will be sloped into the pit to minimize discharge from the site. A minimum 10-foot-high pit wall and/or berm will be maintained around the pit providing perimeter runoff control from extraction through reclamation. The gravels within the site and pit floor are fairly clean, free from silt and free draining. Stormwater will easily percolate into the pit floor during extraction continuing when the site is reclaimed.

The extraction operation will utilize minimal equipment on this site. A loader and/or excavator will be utilized to load trucks for hauling. Peak hour traffic is difficult to estimate as the pit will typically run a set quantity of trucks for the day for several hours and will be adjusted due to travel time to and from the pit during high traffic times on PWH. With this in mind it, is estimated that the peak traffic hour will be 10:00 AM when the AM peak hour on PWH has subsided and is least restrictive to the truck haul. That said, the operator will be limited onsite to how quickly they can load trucks on site. It is estimated that truck time at the pit will be 5 minutes minimum from entrance to load and exit. The operator will choose the amount of trucks hauling based on distance to the customer/project to keep maximum efficiency at the pit and not have trucks lined up, waiting to be loaded. This allows for an average of 12 trucks per hour. As the site is developed, additional room may be available onsite for turning around trucks but at no time will the traffic be greater than 20 trucks per hour. Track out and dust control with the pit will be mitigated through use of a track out BMP at the site entrance to help vibrate soils loose before trucks enter the roadway. Additionally, the pit operator will sweep PWH as

needed by not less than every 4 hours. Water will be used during sweeping and extraction as needed to keep dust generation to a minimum.

The site will use the existing approach onto PWH. Right turns may be made readily from the site on PWH. During high traffic times on the PWH and when hauling at more than 10 trucks per hour the approach will be utilized as right-in, right-out only to avoid turning across PWH. Advanced warning signs (CW 8-6 Truck Crossing) will also be set up on PWH to warn traffic of the trucks turning from the approach. Pit will operate daily, as needed for projects, between 7:00 AM and 5:00 PM, Monday through Saturday.

The material extraction area does extend into a Zone A drinking water protection area. A hydrogeologic analysis was completed by Stafford Glashan, Shannon and Wilson. The analysis concluded, due to the distance from the well and the impermeable soil below between the extraction area and aquifer, normal gravel extraction activities will be unlikely to have a negative impact on the water quality in the well associated with this protection area. Best management practices were recommended to minimize accidental releases of petroleum products, These include no storage of petroleum products in excess of 55 gallons within the protection area, Store all petroleum products within a secondary containment feature and observe all maintenance and refueling activities to promptly clean up any drips and report all spills to ADEC as required by regulation. The operator will implement a stormwater protection plan and include these recommended BMP's for implementation during extraction until reclamation.

The area proposed for extraction can provide approximately 285,000 cubic yards of gravel and topsoil material. It is intended that 30,000-40,000 CY will be extracted yearly while the pit is in operation yearly from (approximately) May 15 to October 31, depending on demand, seasonal weight restrictions and weather. It is estimated that the pit will be exhausted after about 9 years (2033) of extraction at 33,000 CY/Yr.

As material is extracted, pit walls will be excavated to a maximum 1.5' V to 1' H temporarily and then flattened to 2:1 for stabilization. While the soil is stable at 1.5:1 slope, 2:1 will provide additional protection and minimize risk for erosion. No slope will be left steeper than 2:1 during seasonal shutdown of the pit (winter). Reclamation of the pit expansion includes stabilization of the site slopes and pit floor by placing 4" minimum compacted thickness of topsoil and hydraulically applied mulch and seed. Completion of the slopes will occur as soon as possible as the material is extracted and to avoid contamination (silt and organics) of the existing soils. The site shall be kept clear of garbage and debris including derelict/abandoned vehicles and/or parts. All garbage and debris will be hauled to MSB Central Landfill or approved recycling site for disposal.

A SWPPP has been prepared as required by the Multisector General Permit (MSGP), however, no outfall is required nor will be constructed. The pit bottom will be graded relatively flat and the existing soils will easily absorb any precipitation. As such, no stormwater or non-stormwater sources will discharge from the pit area and therefore does not fall under coverage of the permit. The proposed pit expansion is not eligible for a Notice of Intent per 2020 MSGP section

1.2.1, "To be eligible to discharge under this permit, a permittee must have a storm water discharge associated with industrial activity from the permittee's primary industrial activity..."
This is confirmed in the attached letter from Shawn Trasky, AK CESCL certified.

Please see the attached supporting documents for this submittal. Please feel free to contact me for with any questions or requests for additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'T. Alley', with a stylized flourish at the end.

Tim Alley, PE
Civil Engineer
The Boutet Company, Inc.
Office: (907) 357-6760
Mobile: (907) 830-2821
Email: talley@tbcak.com



The Boutet Company, Inc.
601 E. 57th Place, Ste 102
Anchorage, AK 99645



Phone 907.522.6776
www.tbca.com

March 27, 2024

Peggy Horton
Planner II
Planning and Land Use Department
Matanuska- Susitna Borough
350 E. Dahlia Avenue
Palmer, AK 99645

RE: Earth Materials Extraction Permit - RFAI
Mountain Gravel Pit

Dear Peggy,

Thank you for your review of this permit application. Since the time of the initial application submittal, the pit operator, Mountain Gravel Investment Group, LLC, has entered into an agreement with the neighboring west property owners to extract gravel from a portion of that property as well. This 8.78 acre property is located at 8751 E. Palmer Wasilla Hwy (PWH) having legal description: Township 18N Range 1E Section 35 Lot C9. This additional proposed extraction will be completed under the same conditions and methods as the original proposed extraction. The inclusion of this lot brings the total extraction area up to 5.96 acres on the total 13.16 acres of these two parcels. Originally, after material was extracted from 8901 PWH a ridge would have been left at the property line. The inclusion of this area will result in more usable area for future development in this prime location for commercial uses. An additional application has been signed by the owner of this lot and is provided with this letter.

We have reviewed your request for additional information and have provided the responses below and attached supporting documentation:

1. Comment: The application form was outdated.
Response: Please see attached application on latest MSB Form.
2. Comment: Site plans do not have the correct property boundary.
Response: Property Boundary has been updated. Revised extraction and reclamation plans are attached.
3. Comment: Correct the mislabeling of the sheets; there are two sheets labeled as 5/6.
Response: This has been corrected with the attached revised plans.

4. Comment: During our research we found a 'Zone A' drinking water protection area overlaying a good portion of the subject property. According to the BMP's for Gravel/Rock Extraction Projects, DEC recommends extraction 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.
- MSB 17.28.067€ states that surface water quality shall be protected by implementing applicable best management practices described in the current publication of the State of Alaska's User Manual BMP's for Gravel Pits.
 - Where proposed mining is closer to the public water system source areas, the BMP's recommended that a detailed hydrogeologic study per section 4.3 be performed by a qualified person to evaluate potential impacts and design effective mitigation alternatives.
 - Address these concerns and how the extraction will mitigate impacts.

Response: The subject Zone A drinking water protection area boundaries have been added to the extraction plan. Please see attached letter discussing the aquifer associated with this protection zone and associated mitigation measures.

5. Comment: The application states that 10' test pits were dug and groundwater monitoring tubes were installed. The application also states the site will be excavated to a depth of 45 feet on average, 49 feet maximum below the existing ground surface.
- Discuss how the operation will monitor seasonal high water table to maintain a four-foot vertical separation as required by MSB 17.28.060(A)(7)(b). Explain how you will monitor the groundwater depth when you go beyond 10' deep test holes and then through several years of excavation.
 - I may be misunderstanding how deep the groundwater monitoring tubes are; please explain.

Response: The site currently has a ridge of gravel running east-west through the lot. The location of test hole 1 and monitoring tube has an existing elevation of approximately 372.97' the test hole was dug to a depth of 363' (10' deep) and a 4" perforated tube was installed for groundwater monitoring. As you move northwest through the site toward test hole 3 in the northwest corner the topography rises to an maximum approx. elevation of 418.00' and then drops back down to 360' elevation at the northwest property corner. At the location of test hole 3, the existing ground elevation is 368.90'. This hole was excavated 10' deep to a bottom of hole elevation of 359' elevation and a 4" perforated tube was installed for groundwater monitoring. The final pit floor will slope from south to north at approximately 0.5% with a minimum bottom of pit elevation of 368' at the northwestern most limit of extraction 4' above the bottom of test hole 1 and 9' above the bottom of test hole 3.

6. Comment: Explain the shaded driveway connection for the eastbound haul route shown on Sheet 2/6. Sheet 6/6 shows that trucks exiting east and west will use the same driveway, so the note is unclear.

Response: This was a hold over from a previous revision. This driveway connection has been removed.

7. Comment: Provide an estimated peak hour (1 hour within the day) and estimated traffic volume at the peak hour.

Response: Peak hour traffic is difficult to estimate as the pit will typically run a set quantity of trucks for the day for several hours and will be reduced due to travel time to and from the pit during high traffic times on the Palmer-Wasilla Highway. With this in mind it is estimated that the peak traffic hour will be 10:00 AM when the AM peak hour on PWH has subsided and is least restrictive to the truck haul.

That said, the operator will be limited onsite to how quickly they can load trucks. It is estimated that truck time at the pit will be 5 minutes minimum from entrance to load and back out. The operator will choose the amount of trucks hauling based on distance to the customer/project to keep maximum efficiency at the pit and not have trucks lined up, waiting to be loaded. This allows for a maximum of 12 trucks per hour.

8. Comment: Provided additional information concerning the retention basin.
a. How did you determine the size and placement of the basin?

Response: The site gravels are clean and low in silt content as such they accept and percolate stormwater readily. Percolation rates for this type of soil are typically faster than 1" per minute. Also, the pit extraction will grade the bottom of pit to drain north, into the site. The "retention basin" was incorrectly named, as "retention" assumes the basin was sized to retain a certain storm event. It has been renamed as a settling basin and is included in the design as a method for providing collection of sediment laden stormwater, providing opportunity for the sediment to drop out of the water and percolate into the ground. Primary stormwater abatement is through percolation into the pit floor. This basin is for "added protection" to avoid any offsite impacts. Also, the basin will serve to collect runoff from wheel washing or dust control, if used.

9. Comment: The reclamation sheet 4/6 shows the existing topographic contours. This is confusing because when reclamation is occurring, the topography will have changed.
a. This may be resolved with a phone call to require my understanding.

Response: The Final excavation and reclamation surface are the same with the exception of adding 4" of topsoil to stabilize the slopes. Due to this, the final ex topography will not appear any different than the reclaim surface.

10. Comment: Changes in use require updates to driveway permits for ADOT&PF roads just like the do for MSB permits.
a. Explain the status of the ADOT&PF driveway permit for access onto Palmer-Wasilla Highway for this operation.

Response: We have reapplied for the driveway permit with DOT. DOT has agreed that the existing approach is adequate for the proposed use. They have requested additional information regarding the maintenance/removal of sand and gravel tracked out onto Palmer Wasilla Highway. We have added language regarding sweeping of PSH and a trackout reduction BMP at the site entrance.

11. Comment: The reclamation plan provided with the application is lacking some information required per MSB 17.28.063 & 17.28.067.
- a. Address the removal of junk vehicles, parts, and trash.
 - b. All disturbed area shall be covered with a minimum compaction depth of four inches of topsoil.
 - c. Explain how the proposed hydraulically applied medium complies with MSB 17.28.067(G) & (H).

Response: Notes have been added addressing removal of debris and to address topsoiling of slopes. Use of hydraulically applied growth medium has been removed.

12. Comment: Provide a copy of qualifying documents for exemption from financial assurance for small operations, normally a letter from DNR that they received and accepted the exemption.

Response: The reclamation plan has been submitted to DNR we are awaiting their review/response. This project is not exempt from the reclamation requirements. Provided with this letter is the application fee receipt and the State Reclamation Bonding Pool application with a copy of the payment. The payment for the bonding pool has been sent by mail and a receipt from DNR has not yet been received.

13. Comment: The slopes proposed for the side of the excavation and for the visual and noise buffers appear to be very steep and may sluff material causing erosion of the buffers and slopes. Within the Borough, the normal angle of repose for sand and gravel has been 1.5:1 to 2:1.
- a. Provide a professional examination of material conditions that would allow an angle of repose to be 0.5:1 slope.

Response: Slopes have been redesigned to be a maximum steepness of 2:1. The visual and noise buffer berms will be composed of topsoil, roots and stumps and will be stabilized with seed. As such, the woody debris within the berms will provide additional stability to the soils and seeding will prevent erosion during gravel extraction. Furthermore, extraction will remain 30' from the property boundary until phase 6 and the final phase. It is intended that during these phases slopes will be excavated to their final limit and be reclaimed within the same year. In this way, any erosion of slopes will remain on property and will not damage neighboring lots until the slopes are completed and stabilized. The onsite materials are stable, temporarily at a 1.5:1 slope and could erode during spring thaw. With this in mind, we have added an option for removing gravel on side slopes up to 1.5:1 with the requirement that they be built out to a 2:1 prior to seasonal shutdown the same year.

14. Comment: Provide information on dust control measures and tracking of materials.

Response: A stabilized exit will be constructed at the driveway into the pit. This will either be cobbles to shake dirt loose from the trucks or pavement to provide a maintainable surface to collect track out before the palmer Wasilla highway. A settling pond is located next to the access to provide a location to accept sediment laden water from cleaning the stabilized exit. We have added notes to the plan requiring the pit operator to sweep PWH as needed and at minimum every 4 hours.

Mountain Gravel Pit
Permit for Earth Materials Extraction
Page 5 of 5

15. Comment: Within the narrative protecting the adjacent properties is mentioned, but in the application, no lighting plan is proposed.
a. Update narrative and form.

Response: Narrative and application have been updated as needed. While no site lighting is proposed for this pit, lighting from truck head lights may be a source of glare to the neighboring properties. This is the light source(s) that the protection is addressing.

16. Comment: If the operation does not require coverage under the MSGP, provide a professional opinion by a CESCL certified individual or a licensed engineer to comply with Page 3 of the application.

Response: See attached letter.

Please see the attached supporting documents for this submittal. Please feel free to contact me for with any questions or requests for additional information.

Sincerely,



Tim Alley, PE
Civil Engineer
The Boutet Company, Inc.
Office: (907) 357-6760
Mobile: (907) 830-2821
Email: talley@tbcak.com

From: [Tim Alley](#)
To: [Peggy Horton](#)
Subject: RE: Mountain Gravel Extraction CUP
Date: Friday, June 28, 2024 10:59:53 AM

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

Hi Peggy,

There is no plan to have a scale or scale house on the site. They will sell materials by the cubic yard.

Thank you,
Tim

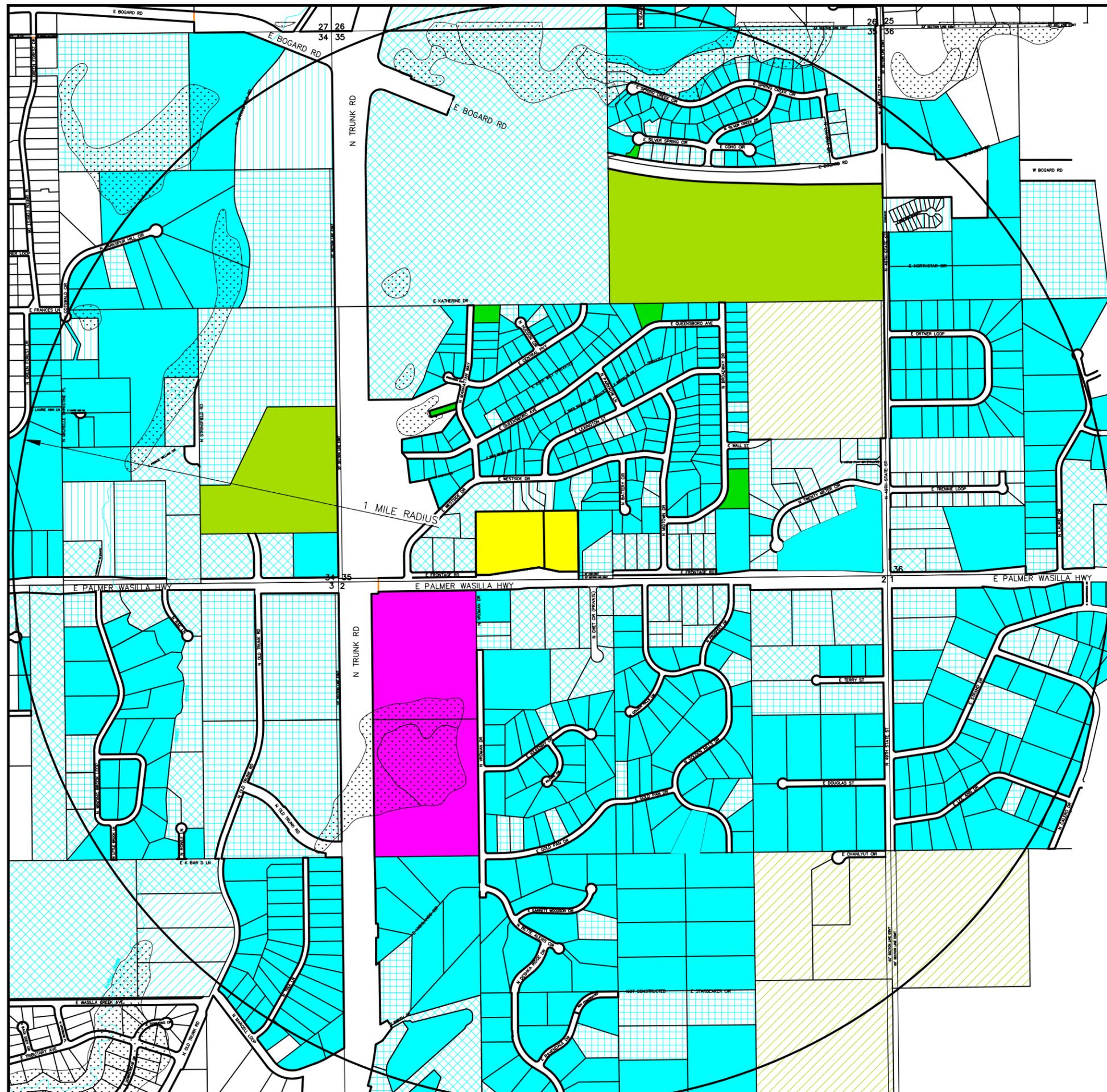
| | |
|--|---|
| TBC, Inc. Project Management & Development - Engineering - Surveying - Landscape Architecture | |
| Tim Alley, P.E. Principal/Vice President talley@TBCak.com visit us at www.TBCak.com | The Boutet Company, Inc. 1508 E. Bogard Rd., Unit 7 Wasilla, Alaska 99654 Direct: 907.357.6760 Mobile: 907.830.2821 Main: 907.357.6770 Fax: 907.357.6750 |

From: Peggy Horton <Peggy.Horton@matsugov.us>
Sent: Friday, June 28, 2024 10:28 AM
To: Tim Alley <talley@tbcak.com>
Subject: Mountain Gravel Extraction CUP

Hi Tim,

Can you provide me with a map showing where the scale and scale house will be? Can you confirm these items will be semi-permanent and not permanent structures? The setbacks need to be met for these types of structures, so that's why I'm asking.

Thank you,
Peggy Horton
Current Planner
907-861-7862

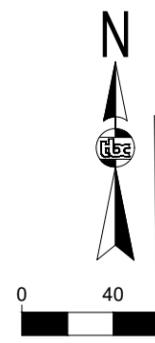


PROPERTY USE/OWNERSHIP LEGEND

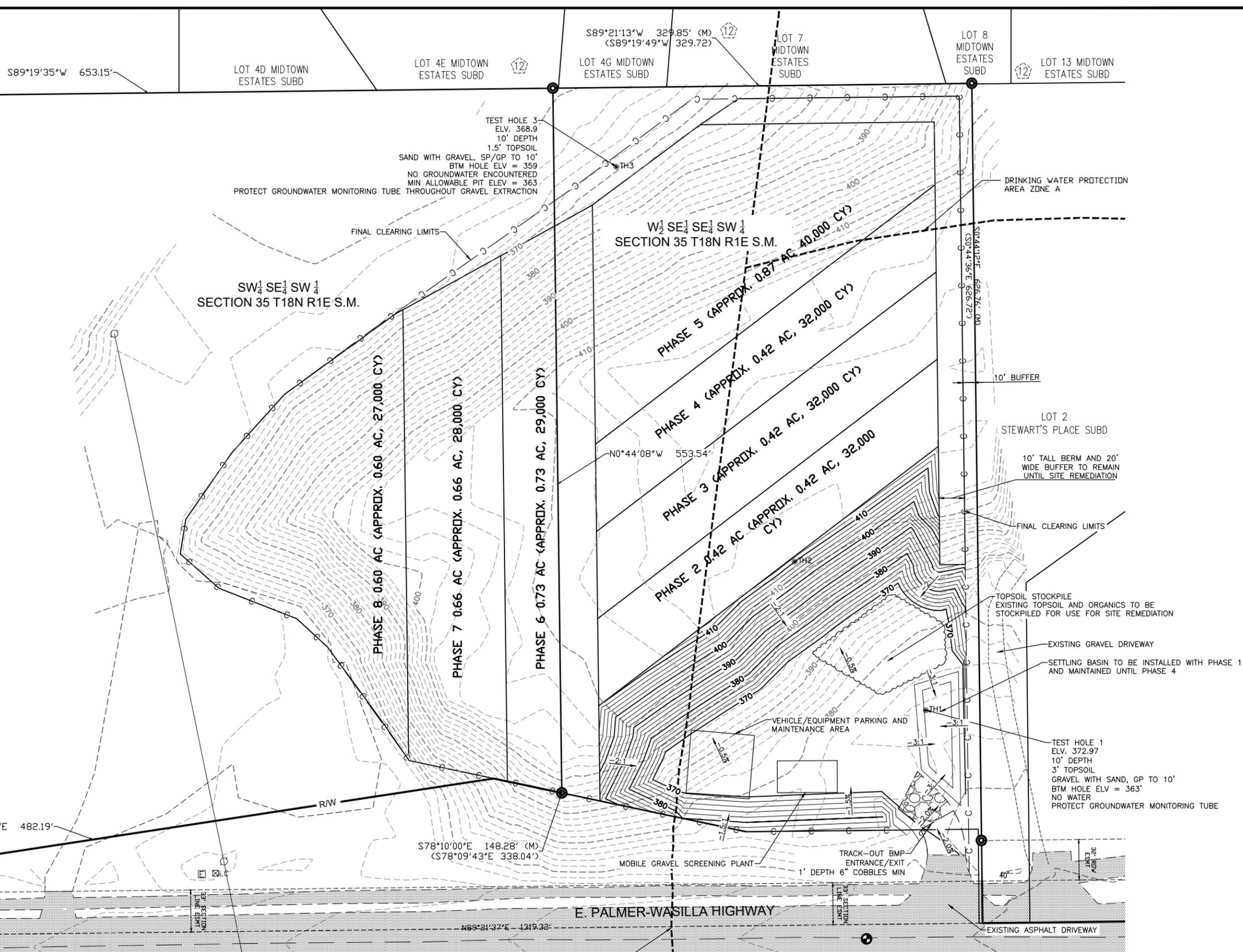
-  PRIVATE - SINGLE FAMILY RESIDENCE
-  PRIVATE - MULTIFAMILY
-  PRIVATE - UNDEVELOPED
-  PRIVATE - AGRICULTURAL
-  PRIVATE - COMMERCIAL
-  PRIVATE - MAT-SU HEALTH FOUNDATION
-  PRIVATE - ALASKA NATIVE CORPORATION
-  PUBLIC - SCHOOL
-  PUBLIC - MAT-SU BOROUGH
-  UTILITY
-  WETLAND
-  PROPOSED PIT AREA
(8751 & 8901 E PALMER WASILLA HWY)



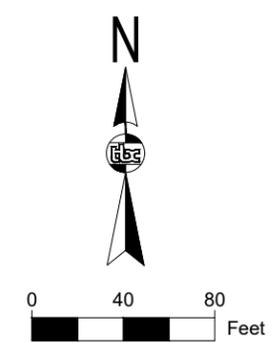
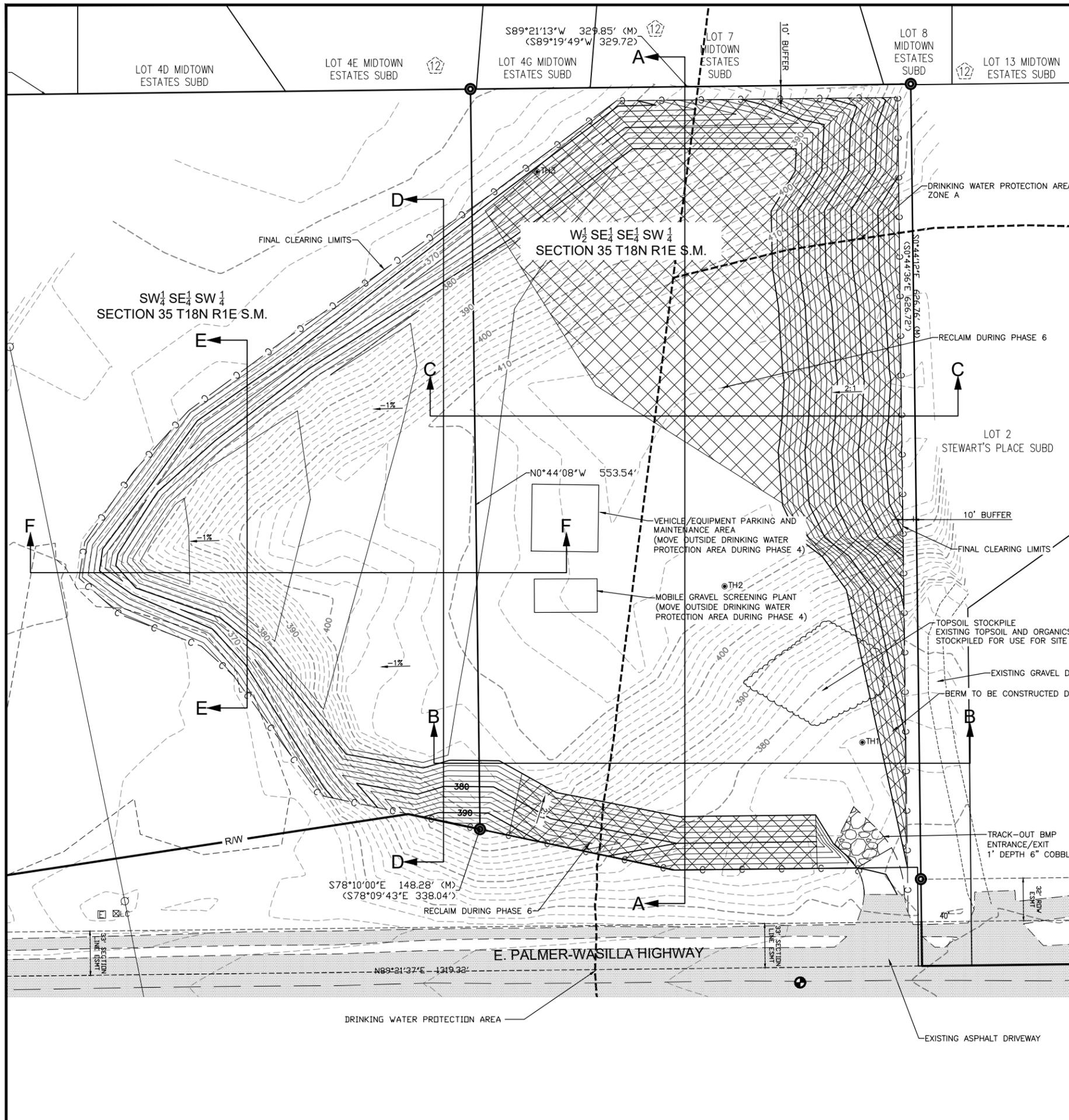
| | | |
|--|---|-------------|
|  The Boutet Company, Inc. 601 E. 57th Place #102 Anchorage, AK, 99518 Ph. 907-522-6776 License No. AECC957 CONSULTANT | MOUNTAIN GRAVEL PIT PALMER, ALASKA | |
| | 8901 E. PALMER WASILLA HWY. GRAVEL EXTRACTION | |
| | VICINITY MAP, PROPERTY OWNERSHIP AND USES EXHIBIT | |
| HORIZ SCALE: 1"=1000' VERT SCALE: N/A | DATE: 04/05/2024 | SHEET 1 / 7 |



- 400 --- MAJOR CONTOUR (EXISTING)
- 380 --- MINOR CONTOUR (EXISTING)
- 360 --- MAJOR CONTOUR (PROPOSED)
- 340 --- MINOR CONTOUR (PROPOSED)
- PHASE BOUNDARY
- TOP OF SLOPE (BREAKLINE)
- EDGE OF EXISTING PAVEMENT
- EDGE OF EXISTING GRAVEL ROAD
- PROPERTY LINE
- EASEMENT LINE
- C --- CLEARING LIMITS/EXCAVATION LIMITS
- DRINKING WATER PROTECTION AREA
- RECLAIM, 4" TOPSOIL AND SEED



| | | |
|--|---|------------------|
|  The Boutet Company, Inc. 601 E. 57th Place #102 Anchorage, AK, 99516 Ph. 907-522-6776 License No. AECC957 | MOUNTAIN GRAVEL PIT PALMER, ALASKA 8901 E. PALMER WASILLA HWY. GRAVEL EXTRACTION GRAVEL EXTRACTION SITE PLAN PHASE 1 EXTRACTION | |
| | HORZ SCALE: VERT SCALE: | DATE: 04/05/2024 |



- 400 ----- MAJOR CONTOUR (EXISTING)
- MINOR CONTOUR (EXISTING)
- 400 ----- MAJOR CONTOUR (PROPOSED)
- MINOR CONTOUR (PROPOSED)
- PHASE BOUNDARY
- TOP OF SLOPE (BREAKLINE)
- EDGE OF EXISTING PAVEMENT
- EDGE OF EXISTING GRAVEL ROAD
- PROPERTY LINE
- EASEMENT LINE
- c ----- c ----- CLEARING LIMITS/EXCAVATION LIMITS
- DRINKING WATER PROTECTION AREA
- RECLAIM, 4" TOPSOIL AND SEED

GRAVEL EXTRACTION NOTES:

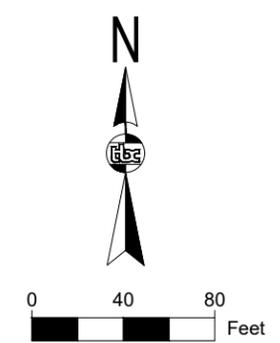
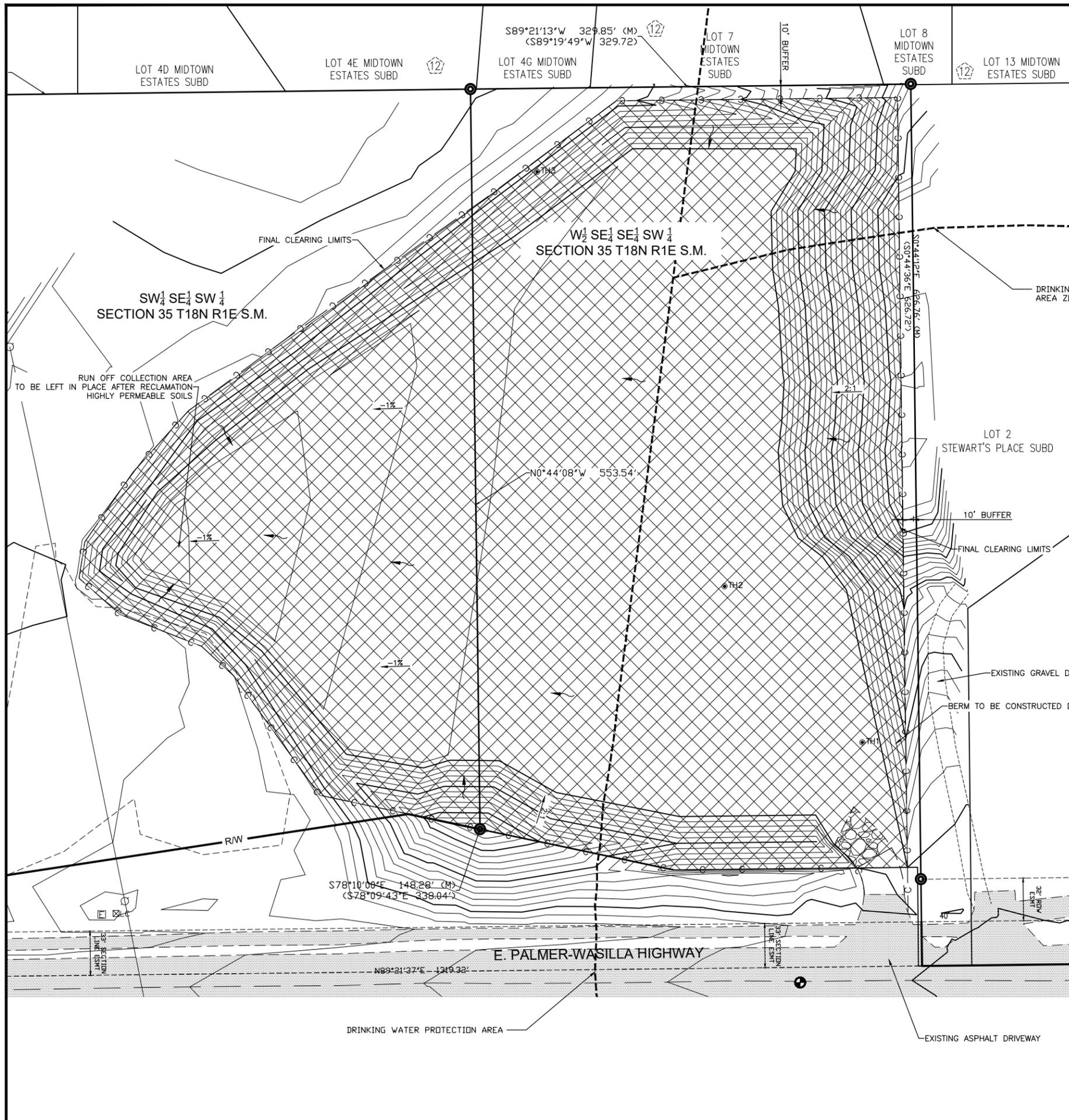
1. MOUNTAIN GRAVEL PIT LOCATED WITHIN T18N R1E SEC 35 LOT C6 AND C9 (8901 PALMER WASILLA HWY) WILL OPERATE YEARLY BETWEEN APPROXIMATELY JUNE 1 TO OCTOBER 31 DEPENDING ON SEASON WEIGHT RESTRICTIONS. HOURS OF OPERATION ARE TYPICALLY MONDAY THROUGH SATURDAY 7:00 AM TO 5:00 PM
2. LOT C6 AND C9 ARE 13.16 ACRES TOTAL AND GRAVEL EXTRACTION TO OCCUR OVER 5.98 ACRES
3. GRAVEL EXTRACTION TO OCCUR OVER 8-9 PHASES EXTRACTING APPROXIMATELY 30,000-40,000 CY PER PHASE. TOTAL EXTRACTION VOLUME IS ESTIMATED TO BE 285,000 CY. GRAVEL EXTRACTION ESTIMATED TO BE COMPLETED BY 2033.
4. CLEARING AND GRUBBING TO BE COMPLETED BY PHASE. EXISTING VEGETATION WILL BE MAINTAINED UNTIL PHASE IS DEVELOPED FOR EXTRACTION.
5. GRAVEL WILL BE SOLD TO CONTRACTORS FOR SELECT DEVELOPMENTS ONLY. PIT WILL NOT BE OPEN TO THE GENERAL PUBLIC.
6. EXISTING COMMERCIAL DRIVEWAY ONTO PALMER WASILLA HWY WILL BE USED AND MAINTAINED FOR ACCESS INTO THE SITE. ANTICIPATED TRAFFIC GENERATION IS ESTIMATED AT 20 VEHICLES PER HOUR MAXIMUM.
7. CLEARING LIMITS ALONG SHALL BE 10' FROM PROPERTY LINES MINIMUM. LIMITS SHALL BE RETAINED DURING THE DURATION OF PIT EXCAVATION AND RECLAMATION. THE TOP OF SLOPE IS PROVIDED TO PROTECT NEIGHBORING PROPERTIES FROM SLOPE EROSION.
8. A MINIMUM OF A 10' TALL BERM WILL BE CONSTRUCTED ALONG THE NEIGHBORING PROPERTIES AS THE PHASES ARE DEVELOPED. BERM WILL BE MAINTAINED WHERE EXCAVATED SLOPES ARE LESS THAN 10' UNTIL THE FINAL PHASE OF EXTRACTION AND RECLAMATION.
9. BERM ALONG WEST EDGE OF EXCAVATION SHALL REMAIN IN PLACE AFTER RECLAMATION TO PREVENT RUNOFF FROM LEAVING THE SITE
10. EXTRACTION WILL BE COMPLETED WITH A LOADER AND/OR EXCAVATOR. SITE GRADE WILL BE ESTABLISHED/MAINTAINED WITH A DOZER.
11. PROCESSING OF EXTRACTED MATERIAL TO INCLUDE SCREENING ONLY. NO CRUSHER, ASPHALT OR CONCRETE PLANTS ARE ANTICIPATED.
12. SITE SHALL BE KEPT CLEAR OF GARBAGE AND DEBRIS INCLUDING DERELICT/ABANDONED VEHICLES ENCOUNTERED DURING GRAVEL EXTRACTION OPERATIONS. HAUL TRASH AND DEBRIS TO MATANUKSA-SUSITNA CENTRAL LANDFILL FOR DISPOSAL.
13. SLOPES MAY BE EXCAVATED TO 1.5:1 MAXIMUM SLOPE BUT MUST BE BUILT BACK TO 2:1 AND RECLAIMED BEFORE SEASONAL CLOSURE.
14. PIT OPERATOR SHALL REDUCE TRACK-OUT MATERIAL ONTO PALMER-WASILLA HWY TO THE GREATEST EXTENT PRACTICABLE. DURING HAULING OPERATIONS SWEEP WITH WATER FOR DUST CONTROL, AS NEEDED TO REMOVE SILT, SAND AND GRAVEL FROM PALMER-WASILLA HWY. AT MINIMUM SWEEP EVERY 4 HOURS.

The Boutet Company, Inc.
601 E. 57th Place #102
Anchorage, AK, 99518
Ph. 907-522-6776
License No. AECC957
CONSULTANT

MOUNTAIN GRAVEL PIT
PALMER, ALASKA
**8901 E. PALMER WASILLA HWY.
GRAVEL EXTRACTION**
**GRAVEL EXTRACTION SITE PLAN
FINAL GRAVEL EXTRACTION**

| | |
|--------------|------------------|
| HORIZ SCALE: | DATE: 04/05/2024 |
| VERT SCALE: | |

SHEET **3 / 7**



- 400 ----- MAJOR CONTOUR (EXISTING)
- MINOR CONTOUR (EXISTING)
- 400 ----- MAJOR CONTOUR (PROPOSED)
- MINOR CONTOUR (PROPOSED)
- PHASE BOUNDARY
- TOP OF SLOPE (BREAKLINE)
- EDGE OF EXISTING PAVEMENT
- EDGE OF EXISTING GRAVEL ROAD
- PROPERTY LINE
- EASEMENT LINE
- C ----- CLEARING LIMITS/EXCAVATION LIMITS
- DRINKING WATER PROTECTION AREA
- RECLAIM, 4" TOPSOIL AND SEED
- PROPOSED DRAINAGE ARROW

SITE RECLAMATION NOTES:

1. USE EXISTING OVERBURDEN TO EMBANK THE SLOPES TO 2:1 MINIMUM NOT TO EXCEED THE STABILITY OF THE SOIL TYPE.
2. EXISTING OVERBURDEN, GRUBBING AND TOPSOIL SHALL BE RETAINED, STOCKPILED AND STABILIZED FOR USE FOR RECLAMATION. SLOPES SHALL BE COVERED WITH 4" MINIMUM THICKNESS OF TOPSOIL AND HYDRAULICALLY SEEDED WITH MULCH.
3. PHASES SHALL BE RECLAIMED TO THE GREATEST EXTENT PRACTICABLE DURING THE FOLLOWING PHASE. AT MINIMUM, RECLAMATION SHALL BE COMPLETED BY PHASE WITHIN 4 GROWING SEASONS AFTER COMPLETION OF GRAVEL EXTRACTION OF EACH PHASE. (I.E. PHASE 1 2023 TO BE RECLAIMED DURING PHASE 2 DEVELOPMENT BUT NO LATER THAN 2027). ESTIMATED FINAL SITE RECLAMATION COMPLETE NO LATER THAN 2033.
4. EQUIPMENT AVAILABLE FOR RECLAMATION:

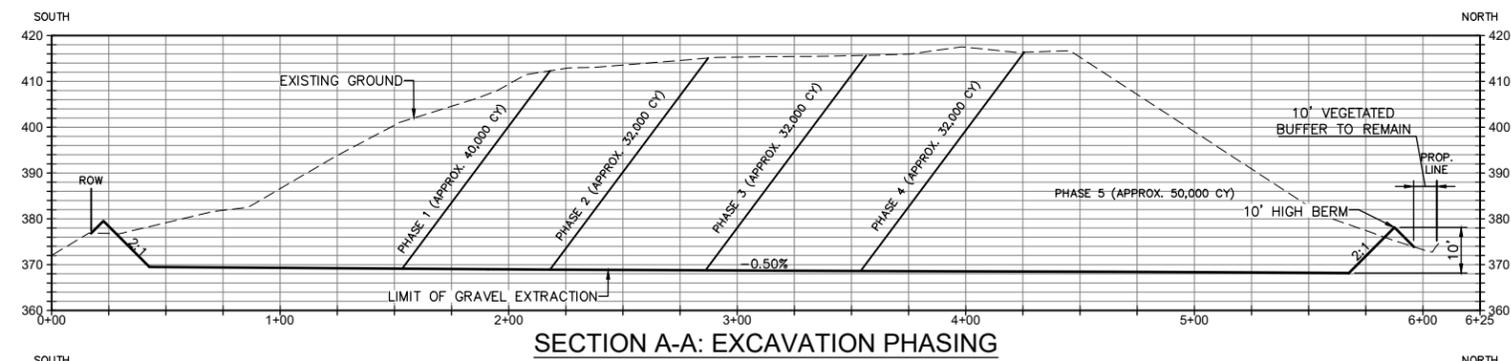
| TYPE | QUANTITY |
|---------------------------------|----------|
| SKID STEER LOADER (BOBCAT S770) | 1 |
| WIDEPAD DOZER (KOMATSU D51P) | 1 |
| LOADER (CAT 966) | 1 |
| EXCAVATOR (HITACH 300LC) | 1 |
| HYDROSEEDER | 1 |

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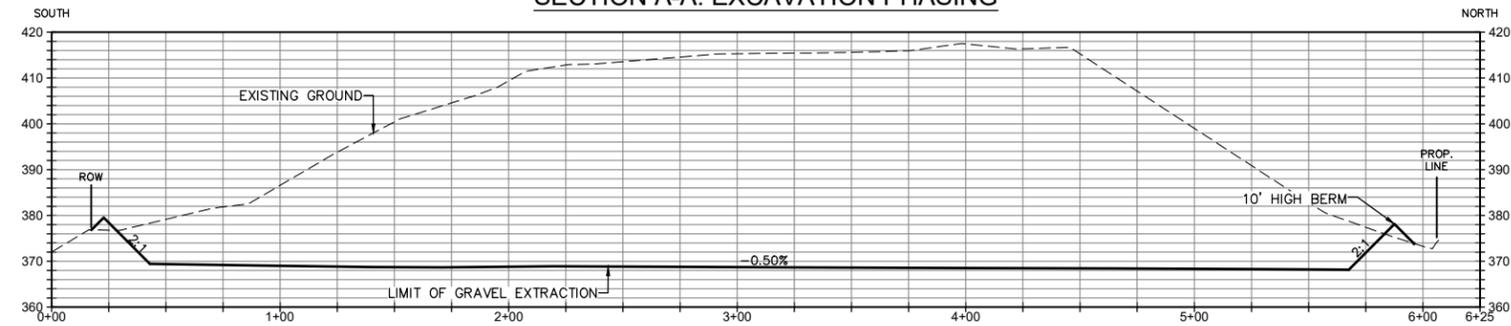
MOUNTAIN GRAVEL PIT
PALMER, ALASKA

**8901 E. PALMER WASILLA HWY.
GRAVEL EXTRACTION
GRAVEL EXTRACTION SITE PLAN
FINAL RECLAMATION**

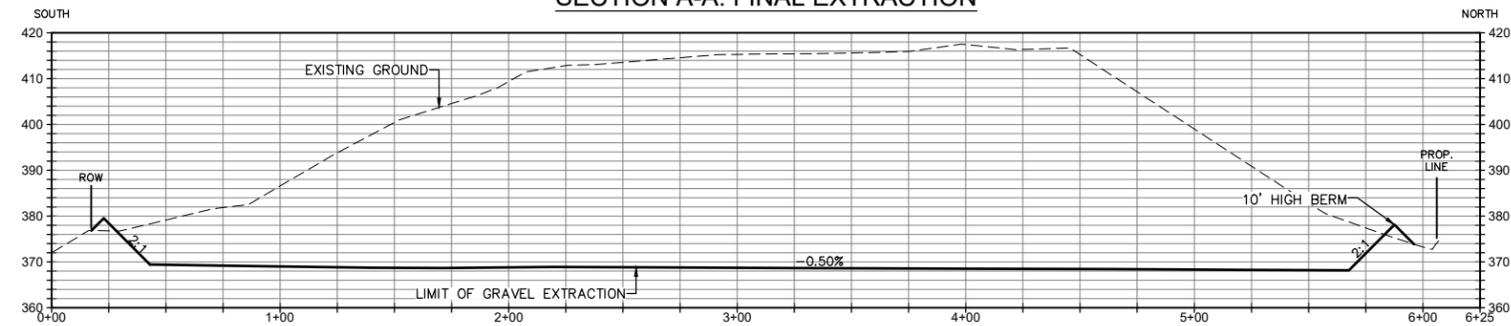
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| HORIZ SCALE: | DATE: 04/05/2024 | SHEET 4 / 7 |
| VERT SCALE: | | |



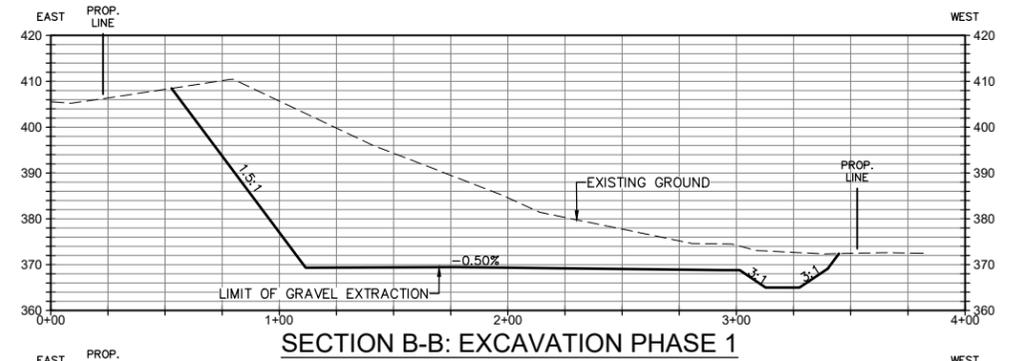
SECTION A-A: EXCAVATION PHASING



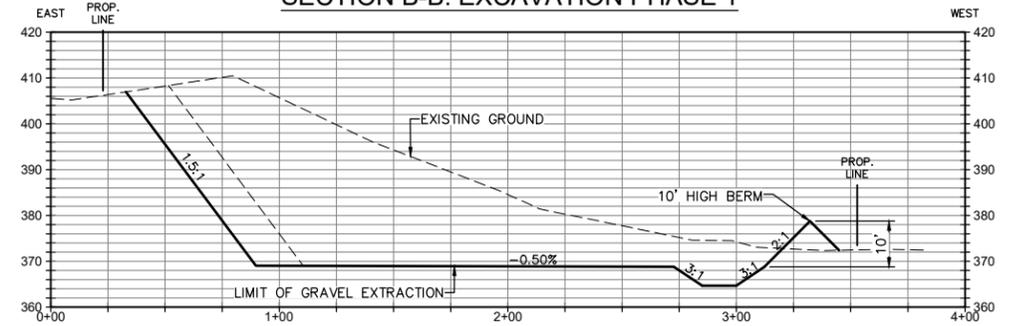
SECTION A-A: FINAL EXTRACTION



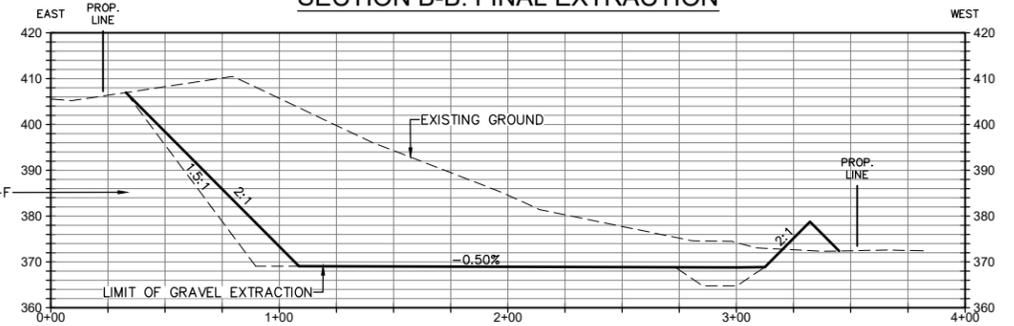
SECTION A-A: FINAL GRADE (AFTER RECLAMATION)



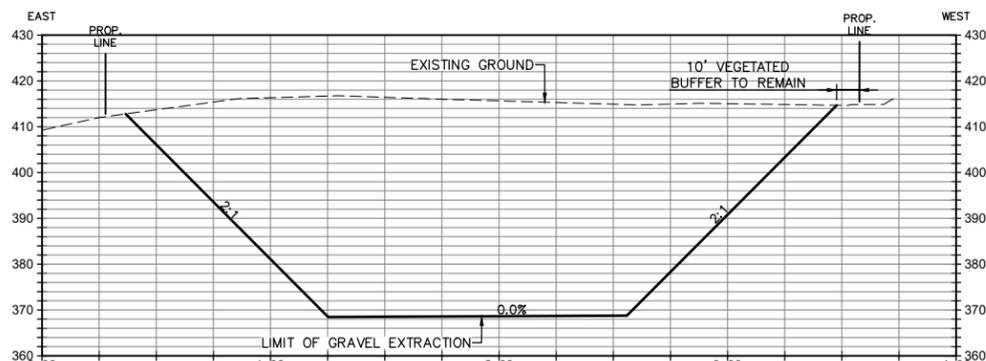
SECTION B-B: EXCAVATION PHASE 1



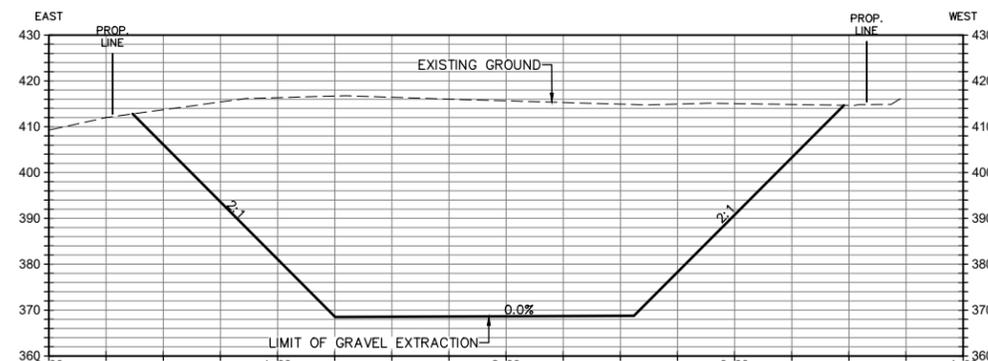
SECTION B-B: FINAL EXTRACTION



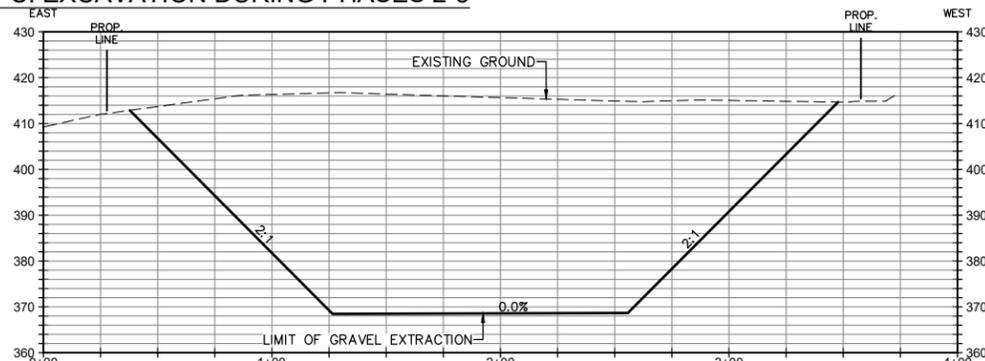
SECTION B-B: FINAL GRADE (AFTER RECLAMATION)



SECTION C-C: EXCAVATION DURING PHASES 2-5



SECTION C-C: FINAL EXTRACTION



SECTION C-C: FINAL GRADE (AFTER RECLAMATION)

The Boutel Company, Inc.
601 E. 57th Place #102
Anchorage, AK, 99516
Ph. 907-522-6776
License No. AECC957
CONSULTANT

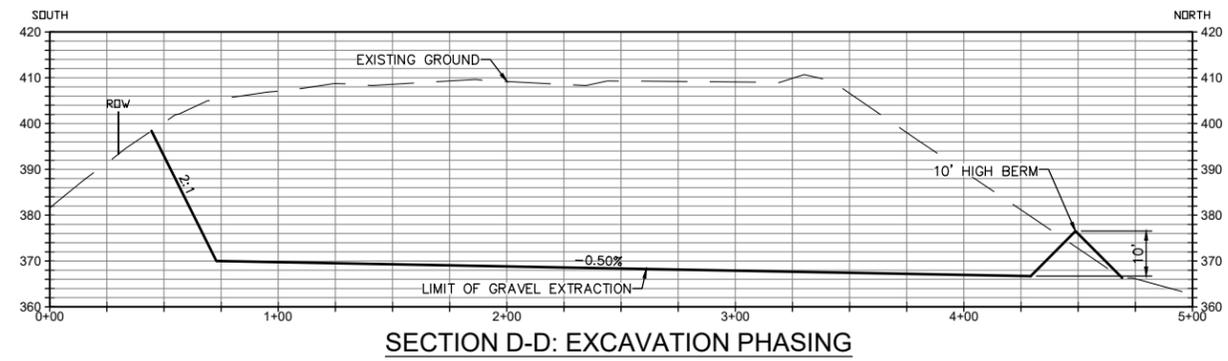
MOUNTAIN GRAVEL PIT
PALMER, ALASKA

8901 E. PALMER WASILLA HWY.
GRAVEL EXTRACTION
GRAVEL EXTRACTION
CROSS SECTIONS

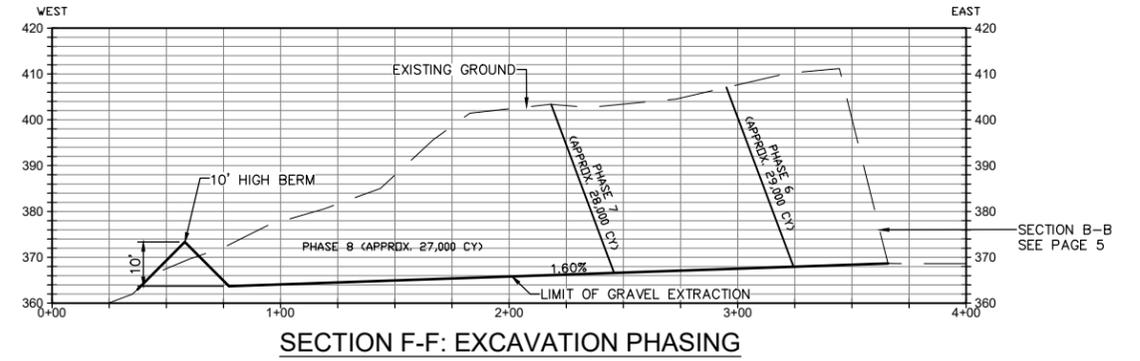
HORIZ SCALE: 1"=80'
VERT SCALE: 1"=40'

DATE: 04/05/2024

SHEET 5 / 7

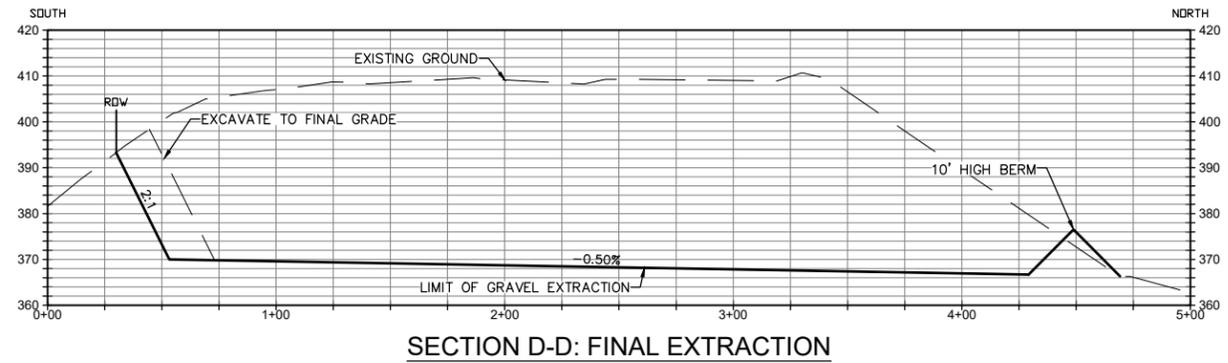


SECTION D-D: EXCAVATION PHASING

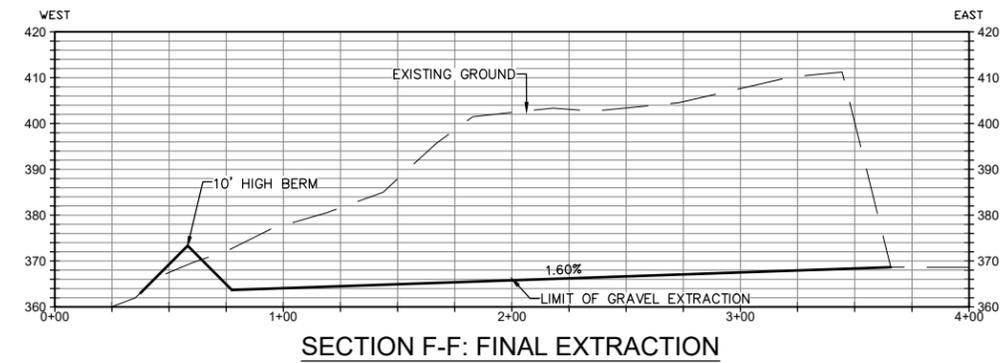


SECTION F-F: EXCAVATION PHASING

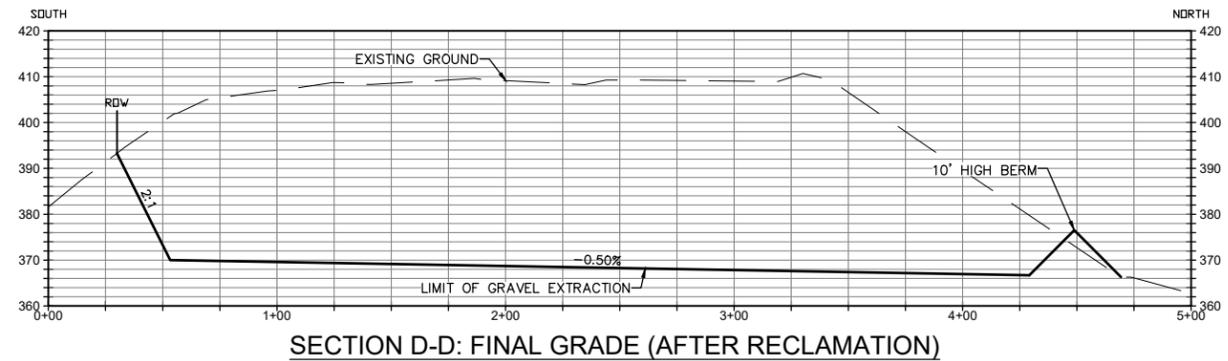
SECTION B-B
SEE PAGE 5



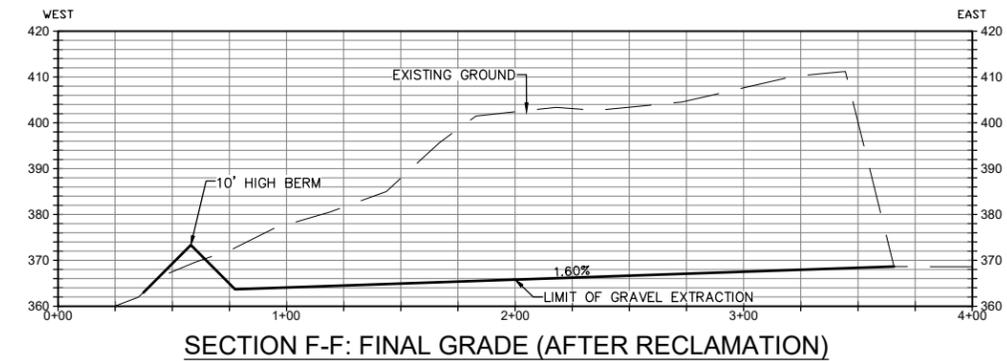
SECTION D-D: FINAL EXTRACTION



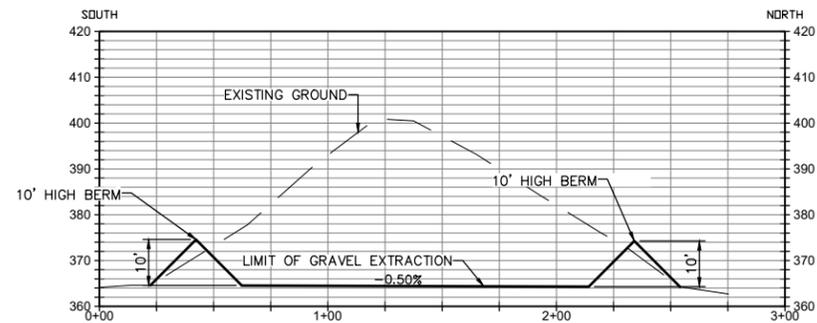
SECTION F-F: FINAL EXTRACTION



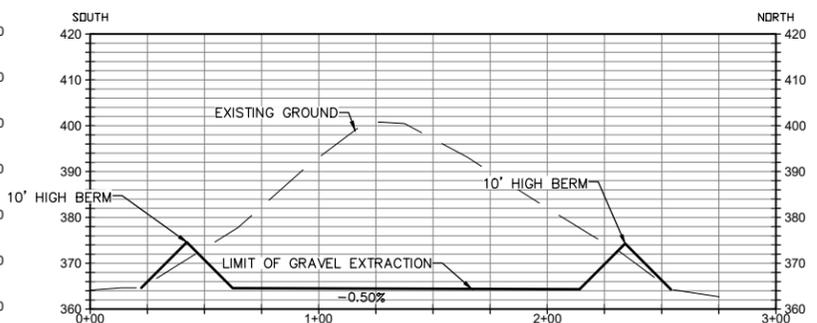
SECTION D-D: FINAL GRADE (AFTER RECLAMATION)



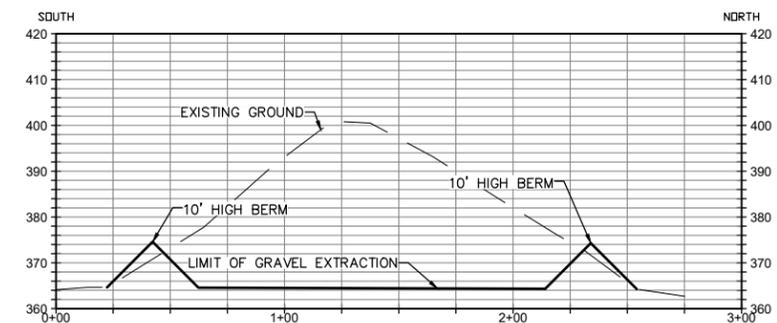
SECTION F-F: FINAL GRADE (AFTER RECLAMATION)



SECTION E-E: EXCAVATION PHASING



SECTION E-E: FINAL EXTRACTION



SECTION E-E: FINAL GRADE (AFTER RECLAMATION)



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601 E. 57th Place #102
Anchorage, AK, 99518
Ph. 907-522-6776
License No. AECC957

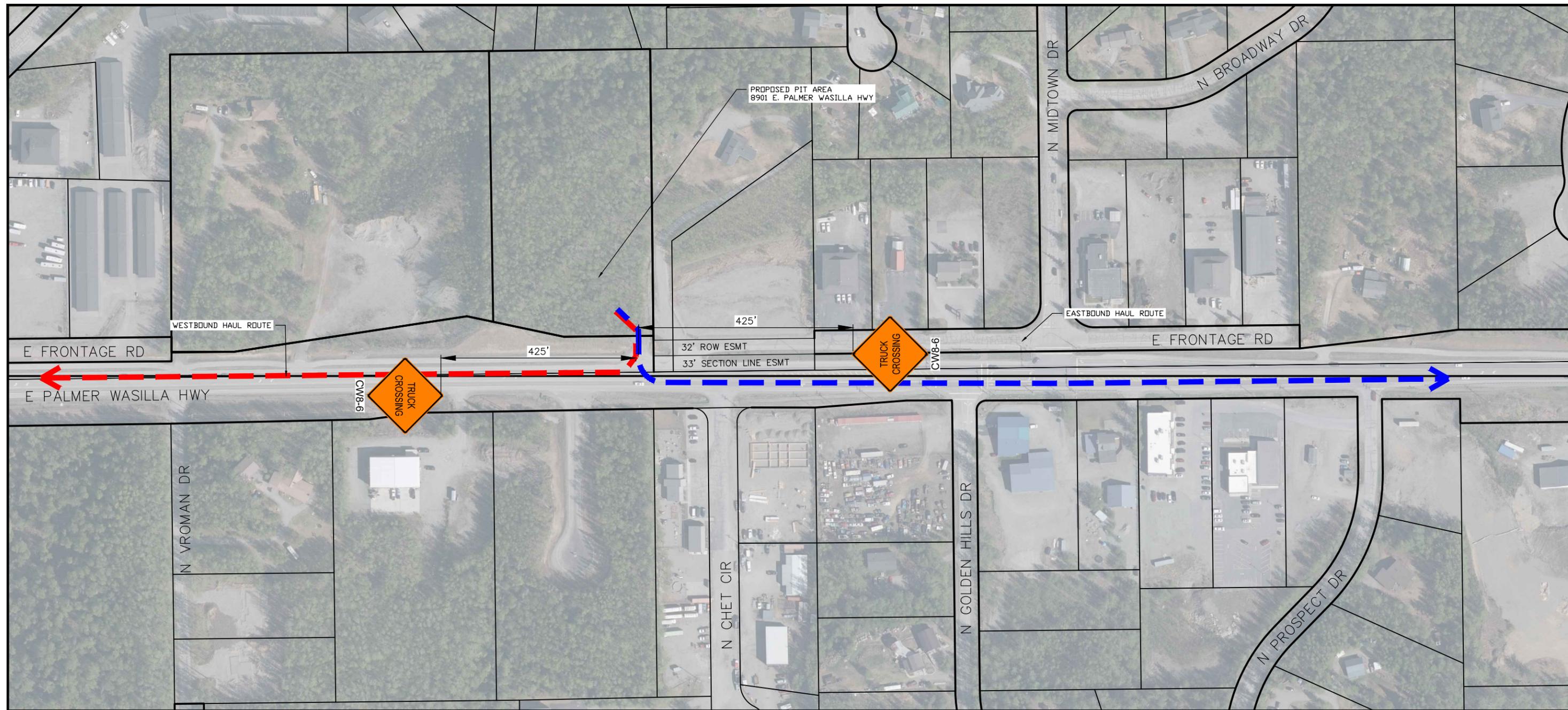
CONSULTANT

MOUNTAIN GRAVEL PIT
PALMER, ALASKA
**8901 E. PALMER WASILLA HWY.
GRAVEL EXTRACTION
GRAVEL EXTRACTION
CROSS SECTIONS**

HORIZ SCALE:
VERT SCALE:

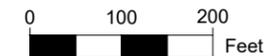
DATE: 04/05/2024

SHEET 6 / 7



HAUL ROUTE AND TRAFFIC CONTROL NOTES:

1. TRAFFIC GENERATION FROM GRAVEL PIT EXTRACTION NOT EXPECTED TO EXCEED 25 VPH AT ANY TIME.
2. PIT HOURS OF OPERATION ARE 0700-1700 MONDAY THROUGH SATURDAY. SEASONALLY BETWEEN JUNE 1 AND OCTOBER 31 OR AS ALLOWED BY ADOT & MSB SEASONAL ROAD WEIGHT RESTRICTIONS.
3. NO LEFT TURNS DIRECTLY FROM AND TO SITE DURING PEAK TRAFFIC HOURS (DAILY FROM 0600-0800 AND 1200-1800) AND WHEN TRUCK TRAFFIC DURING HAULING IS GREATER THAN 10 TRUCKS PER HOUR.
4. ADVANCE WARNING SIGNS (CW8-6: TRUCK CROSSING) SHALL BE INSTALLED BEFORE HAULING OPERATIONS OF MORE THAN 10 TRUCKS PER HOUR.
5. PIT OPERATOR SHALL MAINTAIN/SWEEP DRIVEWAY APPROACH AND HAUL ROUTES WHILE TRUCKS ARE HAULING TO/FROM PIT.



| | | |
|--|--|------------------|
|  <p style="font-size: 8px;">The Boutet Company, Inc. 601 E. 57th Place #102 Anchorage, AK, 99518 Ph. 907-522-6776 License No. AECC957</p> | MOUNTAIN GRAVEL PIT PALMER, ALASKA | |
| | 8901 E. PALMER WASILLA HWY. GRAVEL EXTRACTION | |
| | HAUL ROUTE AND TRAFFIC CONTROL | |
| CONSULTANT | HORZ SCALE: 1"=200' VERT SCALE: N/A | DATE: 04/05/2024 |
| | | SHEET 7 / 7 |

January 15, 2024

Mr. Tim Alley, P.E.
TBC, Inc.
1508 E. Bogard, Unit 7
Wasilla, Alaska 99654

RE: HYDROGEOLOGIC EVALUATION MOUNTAIN GRAVEL PIT, 8901 PALMER-
WASILLA HIGHWAY, ALASKA

We understand that you prepared a Conditional Use Permit (CUP) application to extract gravel from the above property. We understand that the delineated groundwater protection area for Rays Child Care Learning Center extends onto the planned mining area. The purpose of this letter is to address Item 4.b in the Matanuska-Susitna Borough's (MSB's) August 29, 2023 Request for Information letter. Specifically, the MSB requests that a hydrogeologist evaluate potential impacts to public water supply wells where mining activities will occur in the groundwater protection area for the public water supply well. This evaluation is recommended in the Alaska Department of Environmental Conservation's (ADEC's) Best Management Practices for Gravel/Rock Aggregate Extraction Projects.

We have reviewed the grading plans for the project dated June 7, 2023 and the well log for the nearby public water supply well which were both provided by you. We understand that the purpose of the gravel mining is to remove a hill on the subject property to establish a developable area at approximately the same elevation of the Palmer-Wasilla Highway and Rays Child Care Learning Center site.

Based on the well log for the public water supply well, groundwater is extracted through perforations in the casing located between 122 and 131 feet below ground surface (bgs). According to the log, the static water level on July 4, 1986 is 65 feet bgs. The drillers log

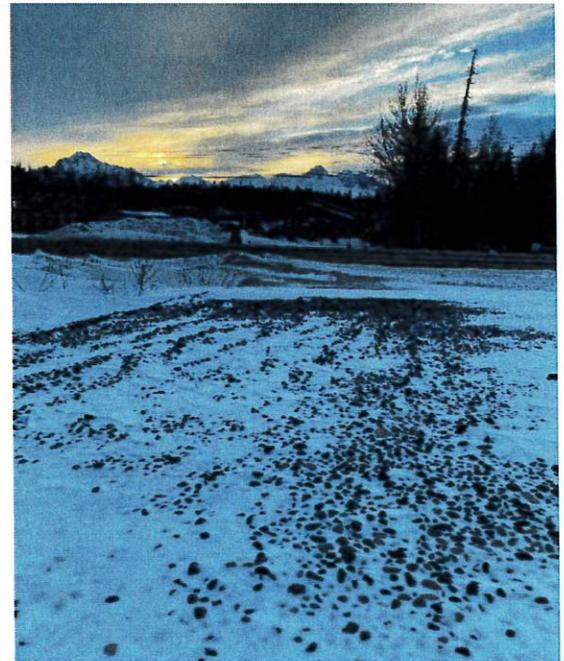


Photo 1. Looking south from approximate floor of the gravel pit towards Rays Child Care Center.

indicates sand and gravel was encountered to a depth of 23 feet bgs. Below this depth, layers of clayey sand or gravel are described to a depth of 120 feet bgs. A thin (less than 2 foot) layer of sand and gravel with water is identified at 58 feet bgs. Given where the aquifer was encountered, and the static water level approximately 40 feet higher, it appears that the aquifer is confined. Geologically these soils appear to be glacial or fluvial outwash materials in the upper 23 feet and glacial till to a depth of 120 feet bgs. The aquifer materials appear to be an outwash deposit on top of bedrock at 140 feet bgs.

Given the horizontal distance between the gravel extraction and the water supply well, and the presence of over 100 feet of relatively impermeable soil between the final elevation of the extraction area and the aquifer, in our opinion it is unlikely that normal gravel extraction activities will have a negative impact on the water quality in the well at Rays Child Care Learning Center.

While unlikely, it is possible that accidental releases of petroleum products (specifically diesel fuel) could impact the public water supply well if the release was large enough. To minimize this risk we recommend implementing the following BMPs.

- Do not store petroleum products in quantities larger than 55-gallons within the groundwater protection area.
- Store all petroleum products at the site within a secondary containment feature (duck pond, lined containment berms, double-wall tanks, etc.).
- Observe all maintenance and refueling activities, promptly clean up any drips, and report all spills to ADEC in accordance with their reporting requirements.

CLOSURE

This report was prepared for the exclusive use of TBC and its representatives in the study of this site. The findings we have presented within this report are based on the limited review that we conducted. They should not be construed as definite conclusions regarding the groundwater quality near the site. The interpretations can only provide you with our professional judgment as to the geotechnical characteristics of this site under the proposed gravel extraction operations. Changes in site conditions can occur over time, due to natural forces or human activity. Because of such changes beyond our control, our observations and interpretations may need to be revised.

Shannon & Wilson has prepared the documents in Attachment 1, "Important Information About Your Geotechnical/Environmental Report", to assist you and others in understanding the use and limitations of our report. We appreciate this opportunity to be of service and look forward to completing this project. If you have any questions or comments, please contact the undersigned.

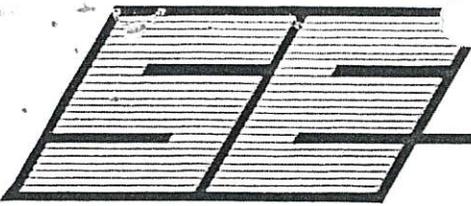
Sincerely,

SHANNON & WILSON
AEC C125



Stafford Glashan, P.E.
Senior Engineer III

Enc. Well log for Rays Child Care Center, Attachment 1



Silvers Engineering

ENGINEERS PLANNERS & SURVEYORS

P. O. BOX 2749 PALMER, ALASKA 99645

Alaska Dept. of Environmental Conservation
P.O. Box 871064
Wasilla, Alaska 99686-9998

Attn: Paul Pinard

Subject: Class B Public Water System and Septic System
Day Care Center Lot 1, Laura-A Subdivision

Dear Mr. Pinard:

The following information on the subject water system is submitted to you for your review and approval:

1. Well log (attached).
2. Twenty-four hour well test record (attached).
3. Pump and pressure tank information (attached).
4. Demand and storage computations (attached).
5. The system operating pressure range is 30 psi to 50 psi.
6. According to the owner/builder the waterline has at least 12 feet of cover.
7. There are no sources of possible contamination apparent within the 200 foot protective radius (see attached record drawing).
8. The 200 foot radius does not cause any adjacent lot to become unuseable due to loss of possible septic system or building sites.
9. The owner shall provide the results of chemical and physical analysis under separate cover.
10. A negative coliform test report is attached.
11. The system configuration is as follows: A 3 HP Grundfos model SP 4-26 pump is set at 111 feet below the top of casing. The water is routed via pitless adapter through a 2" copper waterline to the building. In the basement pressure regulation and necessary storage for pump cycling control are provided by 4 State model PMD96 hydropneumatic tanks. The total gross volume is 384 gal. and the useable volume is 96 gal. , assuming a 0.25 acceptance factor.
12. The well installation meets all applicable requirements of 18AAC 80.020 (b) (1-7).

$\frac{30}{50} = e = .31$ $V_c = .31 \times 384 = 119 \text{ gal}$

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In addition to the above a stamped lot as-built and a stamped septic system record drawing are provided. The septic system was designed by others with installation inspection provided by us.

Due to the simplicity of the systems involved we hope that the review may proceed rapidly and that an approval to operate will be issued in the near future.

If you have any questions please contact Mike Cutter at this office.

Sincerely,


Gary J. Silvers



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PALMER WASILLA HWY

L = 139.49'
R = 22853.31'

WAIVER 77-30 W

N00°05'10"W

589.99'

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LOT 1

154,355 ±
3.54 AC.

329.82'
N89°57'43"W

BIT OF ERIN SUB TR. A-1

COMMON DRIVEWAY

15' UTIL. ESMT.

3' BAY WINDOW

SINGLE

STORY FRAME BUILDING

- SEPTIC VENTS (TYPICAL)

160.00' FENCE ON R.

589°55'15"W

N07°37'58"W

231.28'

360.50'
N00°04'45"W

3' SCREENING ESMT.

6' HIGH CHAIN LINK FENCE

EST

HILLS

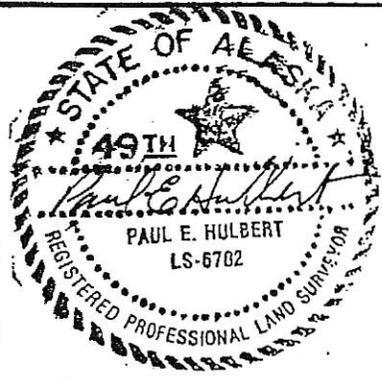
BLOCK 3

GOLDEN



1"=100'

NOTE: Under no circumstances should any data hereon be used for construction or for establishing boundary or fence lines.



AS-BUILT

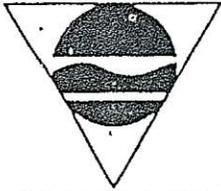


WO 86-05110 DATE 8-18-86 SCALE 1"=100' DRN. & CHKD BY

I hereby certify that I have performed a Mortgagee's inspection on the following described property: LOT 1 LAURA A SUBD. PLAT 86.77

Easements of record other than those shown on the recorded plat, are not shown hereon.

Dated at Wasilla, Alaska. This 18th day of August 1986



MAT-SU TEST LAB, INC.

Soils — Concrete — Water
Field and Laboratory Testing Services

COPIES
MADE

P.O. Box 871868 • Wasilla, Alaska 99687 • (907) 376-3005

DRINKING WATER ANALYSIS FOR TOTAL COLIFORM BACTERIA

APPLICANT INFORMATION:

Name: Chester B. Anderson

Mailing Address: PO Box 1149
Palmer, Ak. 99645

Phone: 376-5940

State I. D. No.: _____

Sample Information:

Legal Description: Laura A Anderson Subdivision, Lot 1

Date Collected: Aug. 12-86 Time Collected: 1:10 Collected By: Diana

Sample Type: Routine Check Sample Treated Untreated BAILED FROM WELL

THIS SECTION TO BE COMPLETED BY LAB

ANALYSIS RESULTS

- Satisfactory
 Unsatisfactory
 Sample Rejected: over 48 hours in transit. Please Resample.

Final Membrane Filter Results: 0 Colonies/100ml

No. of Positive Tubes from five 10 ml Portions: NA; MPN: NA per 100 ml

Date Analysis Completed: 8-13-86 Reported By: B. Quinterch

MICROBIOLOGY LABORATORY RECORD—COLIFORM ANALYSIS

Date Received: 8-12-86 Time Received: 1:25 pm Lab Number: 862164

Date Test Started: 8-12-86 Time Test Started: 1615 Analyst: Cra

| TEST METHOD | TEST RESULTS | | | | | DATE/TIME/ANALYST |
|----------------------|--|--|--|--|--|-------------------------|
| Membrane Filter (MF) | Direct Count: <u>0</u> Colonies/100 ml | | | | | <u>8-13-86 1610 BCQ</u> |
| | Verification: LTB _____, BGB: _____ | | | | | |
| Presumptive (LTB) | Tube # | | | | | |
| | 24 Hr. | | | | | |
| | 48 Hr. | | | | | |
| Confirmatory (BGB) | Tube # | | | | | |
| | 24 Hr. | | | | | |
| | 48 Hr. | | | | | |
| Completed Tested | Plate # | | | | | |
| | EMB 24 Hr. | | | | | |
| | Tube # | | | | | |
| | LTB 48 Hr. | | | | | |

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ronmental C. rivation

WATER WELL RECORD
STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
Division of Geological & Geophysical Surveys

LOCATION OF WELL (Please complete either 1a, 1b or 1c.)

Drilling Permit No. _____
A.D.L. No. _____

| | | | | | | | | | | |
|------------|--------------------------|-------------|-----|-------|------------|-------------------------------|-------------|-------------------------------------|----------------------------------|----------|
| 1a. | Borough <u>Mat-Su</u> | Subdivision | Lot | Block | 1b. | 1/4 qtrs. — of — of — of — | Section No. | Township N <input type="checkbox"/> | Range E <input type="checkbox"/> | Meridian |
| | | | | | | | | S <input type="checkbox"/> | W <input type="checkbox"/> | |

| | |
|---|---|
| 1c. DISTANCE AND DIRECTION FROM ROAD INTERSECTIONS | 3. OWNER OF WELL: <u>CHESTER ANDERSON</u> Address: <u>P.O. Box 1149</u> <u>Palmer, AK 99645</u> |
| Street Address and Area of Well Location | |

| 2. WELL LOG Material Type | Feet Below Surface | |
|------------------------------|--------------------|--------|
| | Top | Bottom |
| ROCKS & SAND | 0 | 23 |
| HARD PAN | 23 | 24 |
| GRAVEL & WATER | 24 | 26 |
| Clay & GRAVEL | 26 | 31 |
| HARD PAN | 31 | 34 |
| Clay & GRAVEL | 34 | 36 |
| Rock Shelf | 36 | 37 |
| HARD PAN | 37 | 58 |
| GRAVEL & Silty Sand & WATER | 58 | 60 |
| Clay & SAND | 60 | 80 |
| Clay | 80 | 105 |
| Clay & GRAVEL | 105 | 108 |
| Rock Shelf | 108 | 111 |
| Clay & GRAVEL | 111 | 113 |
| Rock Shelf | 113 | 114 |
| Clay & GRAVEL | 114 | 118 |
| Rock Shelf | 118 | 119 |
| Clay & GRAVEL | 119 | 120 |
| SAND & WATER | 120 | 122 |
| GRAVEL & WATER | 122 | 125 |
| GRAVEL & SAND & WATER | 125 | 128 |
| GRAVEL & WATER | 128 | 132 |
| Heavy GRAVEL & WATER | 132 | 140 |
| Bedrock | 140 | |

| | |
|--|--|
| 4. WELL DEPTH: (final) <u>134</u> ft. | 5. DATE OF COMPLETION <u>7 - 4 - 86</u> |
|--|--|

6. Cable tool Rotary Driven Dug
 Auger Jetted Bored Other:

7. USE: Domestic Public Supply Industry
 Irrigation Recharge Commercial
 Test Well Other:

8. CASING: Threaded Welded
diam. 6 in. to 134 ft. Depth Weight 17 lbs./ft.
diam. _____ in. to _____ ft. Depth Slickup 4 ft.

9. FINISH OF WELL:
Type: PERFORATIONS Diameter: 1/2" holes
Slot/Mesh Size: 30 SLOTS Length:
Set between 15 SLOTS ft. and 125 ft.
Backfilling 12.8 ft. Gravel 131 FT.

10. STATIC WATER LEVEL: 65 ft. 7/4/86
 Above or Below land surface Date
Equipment used: well sounder

11. PUMPING LEVEL below land surface and YIELD
129 ft. after 4 hrs. pumping 30 g.p.m.
_____ ft. after _____ hrs. pumping _____ g.p.m.

12. GROUTING Well Grouted: Yes No
Material: Neat Cement Other:

13. PUMP: (if available) HP _____
Length of Drop Pipe _____ ft. capacity _____ g.p.m.
 Subm. Jet Centrifical Other

14. REMARKS:

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16. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief;
Geo & Son WATER wells AA-5632 Environmental Commission
Registered Business Name Contract License Number
Address: JRA 6476 Palmer AK 99645
Signed: Terry Jones (Driller) Date: 7-4-86
Authorized Representative

USGS Local No.

MARTIN'S WATER WELLS
 SRA Box 6472-G
 PALMER, ALASKA 99645
 745-3888 - Lic. - AA5632

WELLS CARE AND LEASING

| Clock | Elapsed Time Since Pumps Started and Stopped, min. | Depth to water Ft. | Drawdown + Recovery | Pumping Rate, S.F.M. |
|----------|--|--------------------|---------------------|----------------------|
| 10:00 am | 4 1/2 Hrs. | 60 FT. | -0- | 40 Gals per min |
| 11:00 am | 5 1/2 Hrs. | 60 FT. | -0- | 40 Gals per min |
| 12:00 pm | 6 1/2 Hrs. | 70 FT. | 10- | 40 Gals |
| 1:00 pm | 7 1/2 Hrs. | 70 FT. | -0- | 40 Gals |
| 2:00 pm | 8 1/2 Hrs. | 70 FT. | -0- | 40 Gals |
| 3:00 pm | 9 1/2 Hrs. | 70 FT. | -0- | 40 " |
| 4:00 pm | 10 1/2 Hrs. | 70 FT. | -0- | 40 " |
| 5:00 pm | 11 1/2 Hrs. | 70 FT. | -0- | 40 " |
| 6:00 pm | 12 1/2 Hrs. | 70 FT. | -0- | 40 " |
| 7:00 pm | 13 1/2 Hrs. | 70 FT. | -0- | 40 " |
| 8:00 pm | 14 1/2 Hrs. | 69 FT. | 1+ | 40 " |
| 9:00 pm | 15 1/2 Hrs. | 69 FT. | -0- | 40 " |
| 10:00 pm | 16 1/2 Hrs. | 68 FT. | 1+ | 40 " |
| 11:00 pm | 17 1/2 Hrs. | 68 FT. | -0- | 40 " |
| 12:00 am | 18 1/2 Hrs. | 68 FT. | -0- | 40 " |
| 1:00 am | 19 1/2 Hrs. | 67 FT. | 1+ | 40 " |
| 2:00 am | 20 1/2 Hrs. | 67 FT. | -0- | 40 " |
| 3:00 am | 21 1/2 Hrs. | 67 FT. | -0- | 40 " |
| 4:00 am | 22 1/2 Hrs. | 65 FT. | 2+ | 40 " |
| 5:00 am | 23 1/2 | 64 FT. | 1+ | 40 " |
| 5:30 am | 2 1/2 | 64 FT. | -0- | 40 " |

Total 24 Hrs.
 15 min to Dew. Pump to 49 FT Sta. Lev.

Sig Owner: Martins
 Water wells.

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Environmental Commission

Environmental Commission

[Handwritten Signature]

WATER USE FOR CHESTER ANDERSON'S DAY CARE CENTER

BY TYPE - ASSUME EQUIVALENCY TO AN ELEMENTARY SCHOOL

RATE FROM DESIGN MANUAL IS 15 GAL/PERSON/DAY

50 CHILDREN = 750 GPD

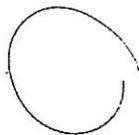
$750 \div 300 = 2.5$ RESIDENTIAL EQUIVALENT = 20 GPM PEAK

| BY FIXTURE | FIXTURE VALUE |
|--------------------------------|-------------------|
| FLUSH TANKS (4) | $4 \times 5 = 20$ |
| KITCHEN SINK | 2 |
| LAVATORY (3) | $3 \times 2 = 6$ |
| MOP SINK | 2 |
| WASHING MACHINE - 1/2" CONNECT | 5 |
| DRINKING FOUNTAIN | <u>2</u> |
| | 37 |

EQUIVALENT FLOW RATE = 31.5 GPM PEAK

THE FIGURE OF 29 GPM PEAK WAS USED AS A CONSERVATIVE COMPROMISE FIGURE.

Man



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CHESTER ANDERSON

PUMP / STORAGE COMPS

ASSUME PUMP DEPTH OF 130'
" SYSTEM PRESSURE OF 40 PSI

PUMP MODEL SP 4-26 3HP
OUTPUT @ 40 PSI AGAINST 240' = 25.1 GPM
" " 30 PSI " 200' = 27.05 GPM

ASSUME $E = .25$

$$V_t = \frac{15}{15 \times .25} \times 25.1 = 100.4 = 100 \text{ GAL PRESSURE TANK}$$

DEMAND BASIS

PEAK DEMAND FLOW MAINTAINED FOR 20 MIN

$$(29 - 25) \times 20 = 80 \text{ GAL}$$

$$80 \div 0.25 = 320 \text{ GAL GROSS PRESSURE TANK VOL}$$

OR 80 GAL USABLE STORAGE NON-PRESSURE

USE 20 MULTIPLIER RATHER THAN 150 AS BEING
MORE CHARACTERISTIC OF NEEDS OF THIS INSTALLATION

Mason

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SP 4 Selection Charts

RATINGS ARE IN GALLONS PER HOUR (GPH)

SP 4-19 (2 HP)

SP 4-26 (3 HP)

MODEL
SP 4

NOM. FLOW RATE
20 GPM
FLOW RANGE
11 to 28 GPM
PUMP OUTLET
1 1/2" NPT

| DEPTH TO WATER LEVEL (Feet) | PSI | | | | | | PSI | | | | | | | | |
|-----------------------------|------|------|------|------|------|------|-----|----|------|------|------|------|------|------|-----|
| | 0 | 20 | 30 | 40 | 50 | | 0 | 20 | 30 | 40 | 50 | | | | |
| 180 | | | | | 1659 | 180 | | | | | | | | | |
| 200 | | | | | 1666 | 171 | | | | | | | | | |
| 220 | | | | 1673 | 1626 | 1577 | | | | | | | | | |
| 240 | | | 1637 | 1632 | 1585 | 1521 | | | | 1669 | 227 | | | | |
| 260 | | 1643 | 1598 | 1540 | 1460 | 1360 | | | 1680 | 1674 | 1638 | 218 | | | |
| 280 | | | | | | | | | | 1610 | 1610 | 209 | | | |
| 300 | | 1605 | 1549 | 1472 | 1374 | 1263 | | | | 1647 | 1615 | 1578 | 211 | | |
| 320 | 1656 | 1557 | 1483 | 1388 | 1278 | 1162 | | | | 1651 | 1619 | 1583 | 1539 | 192 | |
| 340 | 1617 | 1494 | 1402 | 1293 | 1178 | 1063 | | | 1656 | 1623 | 1589 | 1545 | 1490 | 183 | |
| 360 | | | | | | | | | | | | | | | |
| 380 | 1573 | 1415 | 1308 | 1193 | 1078 | 966 | | | 1627 | 1594 | 1552 | 1498 | 1433 | 175 | |
| 400 | 1515 | 1323 | 1208 | 1093 | 981 | 867 | | | 1666 | 1598 | 1558 | 1506 | 1442 | 166 | |
| 420 | 1441 | 1224 | 1108 | 996 | 882 | 751 | | | 1636 | 1564 | 1514 | 1451 | 1379 | 157 | |
| 440 | | | | | | | | | | | | | | | |
| 460 | 1352 | 1124 | 1011 | 898 | 770 | | | | 1608 | 1521 | 1460 | 1389 | 1309 | 1226 | 148 |
| 480 | 1255 | 1026 | 913 | 789 | | | | | 1575 | 1469 | 1399 | 1320 | 1237 | 1152 | 140 |
| 500 | 1154 | 929 | 807 | | | | | | 1535 | 1409 | 1331 | 1248 | 1164 | 1080 | 132 |
| 520 | | | | | | | | | | | | | | | |
| 540 | 1055 | 825 | 674 | | | | | | 1486 | 1342 | 1259 | 1175 | 1091 | 1009 | 123 |
| 560 | 958 | 697 | | | | | | | 1428 | 1271 | 1186 | 1102 | 1020 | 938 | 114 |
| | 858 | | | | | | | | 1363 | 1197 | 1113 | 1030 | 949 | 864 | 106 |
| | | | | | | | | | | | | | | | |
| | 740 | | | | | | | | 1293 | 1124 | 1041 | 960 | 876 | 782 | 97 |
| | | | | | | | | | 1220 | 1052 | 971 | 887 | 795 | 683 | 88 |
| | | | | | | | | | 1147 | 981 | 899 | 809 | 699 | | 80 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | 1003 | 834 | 731 | | | | 62 |
| | | | | | | | | | 858 | | | | | | 45 |
| | | | | | | | | | 674 | | | | | | 28 |

Friction losses in discharge pipe and fittings are not included in tables.

SP 4-36 (5HP)

SP 4-42 (5 HP)

| DEPTH TO WATER LEVEL (in Feet) | PSI | | | | | | Static (PSI) | PSI | | | | | | Static (PSI) | |
|--------------------------------|------|------|------|------|------|------|--------------|-----|------|------|------|------|------|--------------|-----|
| | 0 | 20 | 30 | 40 | 50 | 60 | | 0 | 20 | 30 | 40 | 50 | 60 | | |
| 200 | | | | | | 1659 | 288 | | | | | | | | |
| 220 | | | | | | 1638 | 279 | | | | | | | | |
| 240 | | | | 1666 | 1641 | 1617 | 270 | | | | | 1676 | 333 | | |
| 260 | | | 1670 | 1644 | 1621 | 1596 | 262 | | | | 1679 | 1655 | 324 | | |
| 280 | | 1674 | 1647 | 1624 | 1599 | 1571 | 253 | | | | 1658 | 1637 | 315 | | |
| 300 | | 1650 | 1627 | 1603 | 1575 | 1542 | 244 | | | | 1661 | 1640 | 307 | | |
| 320 | | 1630 | 1606 | 1579 | 1547 | 1509 | 236 | | | 1664 | 1643 | 1623 | 1602 | 298 | |
| 340 | 1657 | 1609 | 1583 | 1552 | 1514 | 1471 | 227 | | 1667 | 1645 | 1625 | 1605 | 1582 | 289 | |
| 360 | 1636 | 1587 | 1556 | 1520 | 1477 | 1428 | 218 | | 1648 | 1628 | 1608 | 1585 | 1559 | 281 | |
| 380 | 1616 | 1561 | 1525 | 1483 | 1435 | 1382 | 210 | | 1674 | 1631 | 1611 | 1588 | 1563 | 1533 | 272 |
| 400 | 1594 | 1530 | 1489 | 1442 | 1389 | 1332 | 201 | | 1654 | 1613 | 1592 | 1567 | 1537 | 1503 | 264 |
| 420 | 1569 | 1495 | 1448 | 1396 | 1340 | 1281 | 193 | | 1636 | 1595 | 1570 | 1541 | 1508 | 1470 | 255 |
| 440 | 1540 | 1455 | 1404 | 1348 | 1289 | 1228 | 184 | | 1619 | 1574 | 1546 | 1513 | 1476 | 1434 | 246 |
| 460 | 1506 | 1411 | 1355 | 1297 | 1236 | 1175 | 175 | | 1601 | 1549 | 1517 | 1481 | 1440 | 1395 | 238 |
| 480 | 1468 | 1363 | 1305 | 1244 | 1183 | 1122 | 167 | | 1580 | 1522 | 1486 | 1445 | 1401 | 1353 | 229 |
| 500 | 1425 | 1313 | 1253 | 1191 | 1130 | 1070 | 158 | | 1557 | 1491 | 1451 | 1407 | 1360 | 1310 | 220 |
| 520 | 1378 | 1261 | 1200 | 1139 | 1078 | 1019 | 149 | | 1531 | 1457 | 1413 | 1366 | 1317 | 1265 | 212 |
| 540 | 1328 | 1208 | 1147 | 1086 | 1027 | 968 | 141 | | 1501 | 1419 | 1373 | 1323 | 1272 | 1220 | 203 |
| 560 | 1277 | 1155 | 1094 | 1035 | 976 | 916 | 132 | | 1468 | 1379 | 1330 | 1279 | 1227 | 1175 | 194 |
| 580 | 1224 | 1102 | 1043 | 984 | 924 | 863 | 123 | | 1431 | 1337 | 1286 | 1234 | 1182 | 1129 | 186 |
| 600 | 1171 | 1050 | 991 | 932 | 871 | 804 | 115 | | 1392 | 1293 | 1241 | 1188 | 1136 | 1085 | 177 |
| 620 | 1118 | 999 | 940 | 879 | 814 | 738 | 106 | | 1350 | 1248 | 1195 | 1143 | 1091 | 1040 | 168 |
| 640 | 1066 | 948 | 888 | 823 | 749 | | 97 | | 1306 | 1202 | 1150 | 1098 | 1047 | 997 | 160 |
| 660 | 964 | 841 | 770 | 686 | | | 80 | | 1216 | 1112 | 1061 | 1010 | 960 | 908 | 142 |
| 680 | | | | | | | | | | | | | | | |
| 700 | 858 | 710 | | | | | 63 | | 1126 | 1023 | 973 | 922 | 869 | 812 | 125 |
| 720 | 733 | | | | | | 45 | | 1037 | 936 | 884 | 828 | 766 | 695 | 108 |
| 740 | | | | | | | | | 949 | 843 | 783 | 715 | | | 90 |
| 760 | | | | | | | | | | | | | | | |
| 780 | | | | | | | | | 858 | 734 | | | | | 73 |
| 800 | | | | | | | | | 753 | | | | | | 56 |

Friction losses in discharge pipe and fittings are not included in tables.



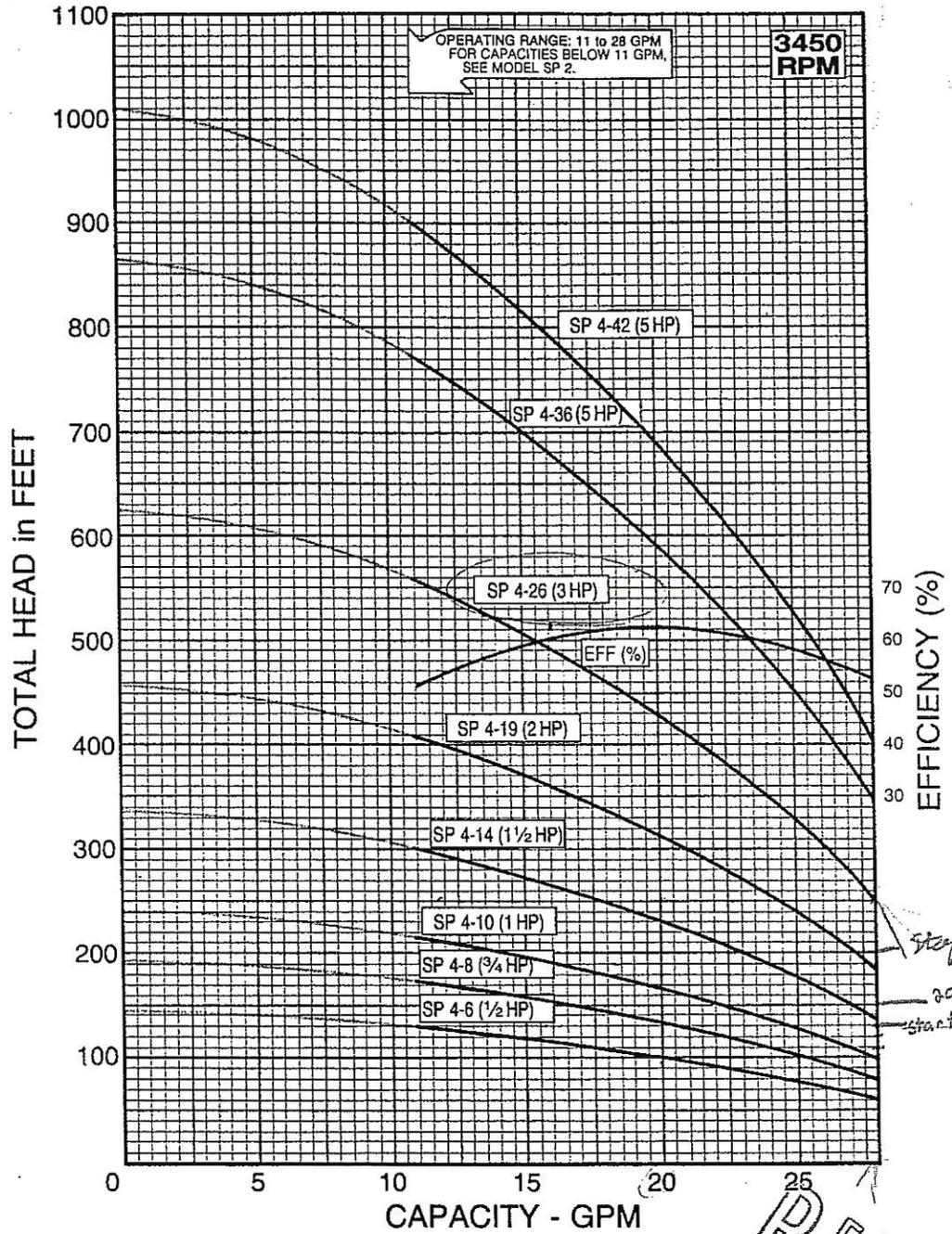
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12

MODEL
SP 4

NOM. FLOW RATE
20 GPM
FLOW RANGE
11 to 28 GPM
PUMP OUTLET
1 1/2" NPT



Performance Curves



DIMENSIONS AND WEIGHTS

| MODEL NO | HP | LENGTH (L) | APPROX UNIT SHIPPING WT (LBS.) |
|----------|-------|------------|--------------------------------|
| SP 4-6 | 1/2 | 22 7/8" | 28 |
| SP 4-8 | 3/4 | 25 3/4" | 33 |
| SP 4-10 | 1 | 28 1/2" | 38 |
| SP 4-14 | 1 1/2 | 34 3/8" | 47 |
| SP 4-19 | 2 | 43 1/2" | 59 |
| SP 4-26 | 3 | 51 3/4" | 78 |
| SP 4-36 | 5 | 65 1/2" | 104 |
| SP 4-42 | 5 | 65 1/2" | 116 |

Specifications are subject to change without notice.

RECEIVED

1986

Conservation

100-100-100-100
100-100-100-100
100-100-100-100

100-100-100-100
100-100-100-100

INVOICE
313908 PAGE 1

DELIVERY DATE
07-16-86

ACCOUNT NUMBER
CASH

100-100-100-100
100-100-100-100

100-100-100-100
100-100-100-100

CK 1165

100-100-100-100

DELIVERY TICKET # 369198

| DESCRIPTION | PRICE | DISC. | NET |
|---------------------|--------|-------|--------|
| GRUNDIGS | 957.57 | 0 | 957.57 |
| MERCHANDISE TOTAL = | | | 957.57 |
| PAY THIS AMOUNT | | | 957.5 |

GRUNDIGS

100-100-100-100

IF ORDERED BY TELEPHONE, YOU MAY INSPECT 8.00
 (A COPY OF THIS INVOICE)
 PAY BY 10 DAYS OF INVOICE DATE
 (NO CASH ON DELIVERY CHARGE)
 (SEE INSTRUCTIONS ON LABEL PUBLISHED BY MANUFACTURER)

Extra -
non included in
contract

RECEIVED
SEP 10 1986

Environmental Conservation

KENAI SUPPLY INC.
P. O. BOX 1729
KENAI, AK
99611

WHSE # 3
WASILLA BRANCH

INVOICE
315352 PAGE 1

DELIVERY DATE
07-19-86

ACCOUNT NUMBER
CASH

SOLD:
TO

Anderson

SHIP:
TO

Cash

OK# 1167

CUST. PO=
TERMS = NET

SLSMN =081

DELIVERY TICKET = 369733

| QTY ORD | QTY SHP | QTY B/O | STOCK NUMBER | DESCRIPTION | PRICE | DISC | NET |
|------------|------------|------------|-----------------|--------------------------------|--------|------|--------|
| 126 | 126 | | 9010180 | 2" X 21 GALV SCH 40 T&C A120 | 1.34 | 0 | 168.84 |
| 3 | 3 | | 9122302 | PMD-96 ST. 96G 29.7GDD EXP T5Y | 255.73 | 0 | 767.19 |

MERCHANDISE TOTAL = 936.03

PAY THIS AMOUNT 936.03

IF PAID WITHIN OUR TERMS, YOU MAY DEDUCT 0.00

(NO MAT'L MAY BE RETURNED WITHOUT OUR PRIOR APPROVAL & A COPY OF THIS INVOICE.)

(NO MATERIAL MAY BE RETURNED AFTER 30 DAYS OF INVOICE DATE)

(THERE WILL BE A 15% RESTOCKING CHARGE.)

(KENAI SUPPLY LIMITS WARRANTY OF MERCHANDISE TO THAT PUBLISHED BY MANUFACTURER)

RECEIVED
SEP 10 1986

Environmental Conservation

Attachment 1

Important Information about your Geotechnical/Environmental Report



Date: _____
To: Tim Alley
TBC

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland

RECEIVED
MAR 27 2024

Mat-Su Borough
Development Services

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER

- Northern Region
3700 Airport Way
Fairbanks, AK 99709
(907) 451-2740
- Southcentral Region
550 W 7th Ave., Suite 900C
Anchorage, AK 99501-3577
(907) 269-8552
- Southeast Region
400 Willoughby, #400
Juneau, AK 99801
(907) 465-3400

STATEWIDE BOND POOL FORM

ADL or LAS # LAS 34897

Know all people by these presents, that

Mountain Gravel Investment Group, LLC (Cameron Johnson, Managing Member)

Material Miner's Name

PO Box 260770

Mailing Address

Encino CA 91426 cjohnson@amgland.com
City State Zip E-Mail

agrees to meet the requirements of Alaska Statute 27.19 for reclamation of the material mining operation described below, as security for which the miner submits unto the State of Alaska, Department of Natural Resources, the sum of \$⁶⁷⁵_____ for payment into the Statewide Bond Pool. The material mining operation is located in Section(s) 35, Township 018N, Range 001E, Seward Meridian. The statewide bond pool contribution amount was calculated as follows:

Total number of acres in the mined area for the ~~XXXXX~~ calendar years 2024-2033 as presented in the reclamation plan: 5.96 Ac.

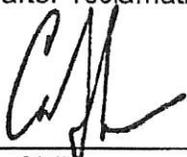
(Acreage must be rounded up to the next whole acre. This acreage must include all areas disturbed by the mining operation after October 15, 1991, and not yet reclaimed. If a mining operation disturbs a previously mined area on or after October 15, 1991, that area must be included in the acreage to be bonded.)

Refundable bond pool deposit: 6 acres X \$112.50 = \$⁶⁷⁵_____

Non-refundable bond pool fee: _____ acres X \$ 37.50 = \$ _____

Total \$⁶⁷⁵_____

Make checks payable to **Alaska Department of Revenue**. The refundable bond deposit will be refunded after reclamation has been approved by ADNR and the material miner has requested the refund.



Signature of Miner

3/26/24

Date

DNR - Division of Mining, Land and Water

Date

AS 38.05.035(a) authorizes the director to decide what information is needed to process an application for the sale or use of state land and resources. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(9) and confidentiality is requested). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210.



The Boutet Company, Inc.
 1508 E. Bogard Road, Unit #7
 Wasilla, AK 99654
 907-357-6770

10065

DATE 3/27/24

89-7202/3252

PAY TO THE ORDER OF ALASKA DEPARTMENT OF REVENUE

\$ 675⁰⁰

SIX HUNDRED SEVENTY FIVE +

DOLLARS Security Features listed on back.

AlaskaUSA
 Federal Credit Union

907-563-4567
 800-525-9094
 alaskausa.org

Valid for 90 Days

FOR Reclam Bonding Pool LAS 34897

⑈00010065⑈ ⑆32527202⑆ ⑆1700015702762⑈

RECEIVED
MAR 27 2024

Mat-Su Borough
Development Services

RECORD SUCCESSFULLY ADDED -AGMNT NOT BUILT- RECEIPT NUMBER: 5123489
NRB0100P DEPARTMENT OF NATURAL RESOURCES DATE 03/27/2024
NR01 RECEIPTING TIME 10:25:48

ACTION CODE: A RECEIPT NUMBER: _5123489

ADL/LOAN NUMBER: LAS__ 34897 __ RECEIPT DATE: _3 / 27 / 2024
RECEIPT AMOUNT: _____200.00 RECEIPT TYPE: 17
CASH AMOUNT: _____ FISCAL PERIOD: C
CHECK NUMBER: _____ CHECK DATE: __ / __ / ____
BANKCARD NUMBER: 3370 BRAND: VI

FUTURE PMT CODE: _
RETURN REASON: _

CASH DRAWER: 803
PRINT CODE: _

COMMENTS: CM- MATERIAL SALE APPLICATION FEE _____
AGREEMENT NAME: MOUNTAIN GRAVEL INVESTMENT GROUP, LLC
ADDRESS: PO BOX 260770 ENCINO CA 91426

REMITTER NAME: _____ MOUNTAIN GRAVEL INVESTMENT____
ADDRESS: PO BOX 260770 _____
: ENCINO _____ CA 91426 _____ ALTERNATE PRINTER: _____

NEXT CODE __ PF1=HELP PF4=Reset PF8=R&B Main Menu PF11=ADDITIONAL RECEIPT



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Natural Resources

DIVISION OF MINING, LAND & WATER
Southcentral Regional Land Office

550 West 7th Avenue, Suite 900C
Anchorage, Alaska 99501-3577
Main: 907.269.8503
TTY: 711 or 800-770-8973
Fax: 907.269.8913

June 6, 2024

Mountain Gravel Investment Group, LLC
Cameron Johnson, Managing Member
PO Box 260770
Encino, CA 91426

Re: LAS 34897– Non-State Land Material Site Reclamation Plan Approval

Dear Mr. Johnson,

The Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW), Southcentral Regional Land Office (SCRO), received your Non-State Land Reclamation Plan with attachments. The subject site is Lot C6 owned by Mountain Gravel Investments, and Lot C9 owned by Louis and Bryce W-Green, located in Section 35, Township 018 N, Range 001 E, Seward Meridian.

Thank you for submitting a Reclamation Plan for activities taking place from 2023 through 2033. After reviewing your reclamation plan, SCRO has determined the plan is acceptable, provided the operation is conducted in a manner that will prevent unnecessary and undue degradation of land and water resources, and the operation shall be reclaimed using current reclamation methods, leaving the site in a stable and safe condition.

Per Alaska Statute (AS) 27.19.040(a) financial assurance is required. Development of the proposed 6-acre site requires \$150 of financial assurance per acre of mined area for participation in the statewide bond pool, with \$112.50 per acre refundable and \$37.50 per acre nonrefundable; therefore, your bond on file in the amount of \$900.00 is acceptable. The performance bond will remain in effect until the mined area is reclaimed to standards outlined in AS 27.19 and according to the approved Reclamation Plan.

If you have any questions regarding this requirement, please do not hesitate to call. This acceptance letter does not alleviate the necessity to obtain authorizations required by other agencies and entities for this activity. If you have any questions, please feel free to contact Colleen Lowe at (907) 269-8555 or at colleen.lowe@alaska.gov.

Respectfully,

A handwritten signature in black ink that reads "Joni Sweetman".

Joni Sweetman,
Natural Resource Manager
Southcentral Regional Office

Cc: Louis and Bryce Green

Tim Alley

From: morris.beckwith@alaska.gov
Sent: Thursday, March 21, 2024 11:33 AM
To: Tim Alley
Subject: DOT Right of Way Permit Application Status Change Notification

The status of your Right of Way permit application has changed.

Application ID: 32677

Application Type: Driveway / Approach Road

Location: Palmer DW - 8901 Palmer Wasilla Hwy, C6 Seward 18N 1E 35 61.59952 -149.2259

New Status: Awaiting Payment

Sincerely,

Morris R Beckwith
(907) 269-0703

From: [DeCarli, Marcie A \(DOT\)](#)
To: [Tim Alley](#); [Beckwith, Morris R \(DOT\)](#); [Sean Jackson](#)
Subject: RE: Driveway Application 33234: Not in Property Owners Name
Date: Friday, March 22, 2024 11:32:28 AM

Hello,

Check 10064 for \$100. has been received for application 32677. Mail has already been sent for the day. It will be sent to finance next week. Monday is a state Holiday so the office is closed, it will be ready for Tuesday's mail.

*Sincerely,
Marcie DeCarli*

Marcie DeCarli, Right of Way Agent

State of Alaska DOT&PF, Central Region Right of Way

4111 Aviation Ave, Anchorage, AK 99502

Phone: 907.269.0709 | email: marcie.decarli@alaska.gov

"Keep Alaska Moving through service and infrastructure."

****I will be out of the office every Monday.****

Work Schedule

Tuesday – Thursday 6:00 am – 4:30pm Lunch 11:30- 12:30

Friday 6:00 am – 4:00pm Lunch 11:30 – 12:30

Out of Office Alerts:

March 25, 2024 Seward's Day

March 26 & 27 IRWA training

March 29, 2024

April 1, 2024

From: Tim Alley <talley@tbcak.com>

Sent: Thursday, March 21, 2024 1:16 PM

To: Beckwith, Morris R (DOT) <morris.beckwith@alaska.gov>; Sean Jackson <sjackson@tbcak.com>

Cc: DeCarli, Marcie A (DOT) <marcie.decarli@alaska.gov>

Subject: RE: Driveway Application 33234: Not in Property Owners Name

Thank you for the confirmation!

TBC, Inc.

Project Management & Development - Engineering - Surveying - Landscape Architecture

Tim Alley, P.E.
Principal/Vice President

talley@TBCak.com
visit us at www.TBCak.com

The Boutet Company, Inc.

1508 E. Bogard Rd., Unit 7
Wasilla, Alaska 99654

Direct: 907.357.6760

Mobile: 907.830.2821

Main: 907.357.6770

Fax: 907.357.6750

TO: TIM ALLEY

FROM: SHAWN TRASKY – CROUSE ENVIRONMENTAL COMPLIANCE, LLC

SUBJECT MSGP DETERMINATION FOR MOUNTAIN GRAVEL MATERIAL SITE

After review of the Mountain Gravel Material Site it is determined that, due to the drainage at the facility and the lack of discharge, coverage should not be required under the ADEC 2020 Multi Sector General Permit (MSGP.)

My recommendation would be to prepare a Storm Water Pollution Prevention Plan for this facility and complete quarterly inspections but not file a notice of intent under the MSGP. During these inspections, if it is determined that a discharge is occurring, permit coverage will be obtained, inspections will continue, and discharge samples will be completed as required for projects with coverage under the MSGP.

Please let me know if you have any questions or need additional information.



Shawn Trasky

CESCL Instructor

AK-CESCL Certification # AGC-22-0329

907-351-3566

Shawn@cecalaska.com