AGENDA

MATANUSKA-SUSITNA BOROUGH

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

PLATTING OFFICER
Fred Wagner

PLATTING CLERK
Kayla Smith

PLATTING TECHNICIANS
Matthew Goddard
Chris Curlin
Wheeler Nevels

PLATTING BOARD
Chris Chiavetta, District 1
Michael Liebing, District 2
Michael Gillson, District 3
Vice Chair Amanda Salmon, District 4
Chair Michelle Traxler, District 5
Sandra Kreger, District 6
Sidney Bertz, District 7
Karla McBride, Alternate A
Robert Hallford, Alternate B

PLATTING BOARD AGENDA
ASSEMBLY CHAMBERS
350 E DAHLIA AVENUE PALMER

PLATTING BOARD MEETING 1:00 P.M. August 7, 2025

Ways you can participate in Platting Board meetings:

IN PERSON

IN WRITING: You can submit written comments by email to platting@matsugov.us or by mail to Matanuska-Susitna Borough, Platting Division, 350 E. Dahlia Avenue, Palmer, AK 99645

TELEPHONIC TESTIMONY: (Audio only)
(We are having intermittent technical difficulties with our software; if you would like to submit comments, please submit comments to the email address above by the Wednesday before the meeting.)

- Dial 1-855-290-3803; you will hear "Joining conference" when you are admitted to the meeting.
- You will be automatically muted and able to listen to the meeting.
- When the Chair announces audience participation or a public hearing you would like to speak to, press *3; you will hear "Your hand has been raised."
- When it is your turn to testify you will hear "Your line has been unmuted."
- State your name for the record, spell your last name, and provide your testimony.

OBSERVE: You can observe the meeting via the live stream video at:

- https://www.facebook.com/MatSuBorough
- Matanuska-Susitna Borough – YouTube

1. CALL TO ORDER

A. Roll Call and Determination of Quorum (by Secretary)
B. Pledge of Allegiance
C. Approval of Agenda

2. APPROVAL OF MINUTES

A. July 17, 2025

3. AUDIENCE PARTICIPATION & PRESENTATIONS

A. **PERSONS TO BE HEARD (**Three minutes per person for Items not scheduled for public hearing)

4. UNFINISHED BUSINESS

A. **TERRA FINA MASTERPLAN:** The petitioner is requesting an extension of 6 to 8 years for the approved **TERRA FINA MASTERPLAN SUBDIVISION**, MSB Case# 2015-041. Located within Sections 6 & 7, Township 17 North, Range 02 East, Seward Meridian, Alaska. In the Greater Palmer Community Council and Assembly District #2. *(Petitioner/Owner: Red Dog Masonry, Staff: Fred Wagner, Case # 2015-041)*

B. **UTOPIA VIEW II:** The request is to bring the approved **UTOPIA VIEW II** before the board to modify Condition of Approval #4a. The request would remove the requirement to construct the proposed E. Joseb Drive. The plat is located directly West of N. Utopia View Circle, North of W. Wintergreen Drive, West of Church Road, and South of W. Spruce Avenue, located within the NW ¼ Section 6, Township 17 North, Range 01 West, Seward Meridian, Alaska; and in Assembly District #7. **This case was continued from the June 16th Platting Board Hearing.** *(Petitioner/Owner: Foxglove, LLC, Staff: Matthew Goddard, Case # 2025-061)*

C. **SMITH:** The request is to create 57 lots and one tract from Tax Parcel A1, created by US patent #50-88-0395/0396, to be known as **SMITH SUBDIVISION,** containing 474.893 acres +/-. The property is located north of E. Maud Road, southeast of E. Smith Road Extension, and east of N. Old Glenn Highway (Tax ID #17N03E06A001); within Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska. In the Butte Community Council and in Assembly District #1. **This case was continued from the July 3rd Platting Board Hearing.** *(Petitioner/Owner: Eklutna, Inc, Staff: Matthew Goddard, Case # 2025-065)*

5. RECONSIDERATIONS/APPEALS

(None)

6. PUBLIC HEARINGS

A. **HATCHER CREEK ESTATES:** The request is to create 36 lots and 1 tract by a four-phase master plan from Tax Parcel C1, (Tax ID# 18N01E03C001), to be known as **HATCHER CREEK ESTATES**, containing 39.00 acres +/-. The property is located directly east of N. Covington Street, directly south of N. Wasilla Fishhook Road, and directly west of N. New Hope Farm Road; within the SW ¼ Section 3, Township 18 North, Range 01 East, Seward Meridian, Alaska. In the Fishhook Community Council and in Assembly District #1. *(Petitioner/Owner: Ruvim Shevchuk & David Rudenkiy, Staff: Chris Curlin, Case # 2025-079)*

B. **THE ARCHES:** The request is to create 5 lots and one tract from Tract 2, MSB Waiver #2003-259-PWm, recorded at 2003-037481-0, to be known as **THE ARCHES,** containing 5.63 acres +/-. Proposed Tract A is to serve as a private road, providing access for all proposed lots. The property is located south of E. Pamela Drive, east of N. Wasilla Fishhook Road, and directly west of N. Ahina Circle (Tax ID #18N01E20B024); within the NW ¼ Section 20, Township 18 North, Range

01 East, Seward Meridian, Alaska. In the North Lakes Community Council and in Assembly District #6. *(Petitioner/Owner: Hanson Land Solutions / Draper LLC, Staff: Matthew Goddard, Case # 2025-080)*

C. **STEAM ROW:** The request is to create and dedicate a 60 foot by 3270 foot +/- Right of Way. Tax IDs of lots affected: 17N01W10A017, 8531000T00B, 8531000L001, 7622000L002, 9217000U001, 9217000U002, 9217000U003, 9217000U005, & 9217000L000. The proposed Right of Way is located directly west of S. Roberts Street, directly north of E. Palmer-Wasilla Highway, and south of E. Susitna Avenue; located within the SE ¼ Section 10, Township 17 North, Range 01 West, Seward Meridian, Alaska. In the City of Wasilla and Assembly District #4. *(Petitioner/Owner: Secon, Inc, Staff: Chris Curlin, Case # 2025-082)*

D. **LUNKER ESTATES:** The request is to create 4 lots from Tract A, Shaman Subdivision Phase I, Plat #80-97, to be known as **LUNKER ESTATES,** containing 104.17 acres +/-. The petitioner is proposing the dedication of a Public Use Easement approximately 60'X 662'+/- to provide legal access to tax parcel A3. The property is located east of S. Amundsen Avenue, north and west of Caswell Creek, and directly north and west of S. Shaman Road (Tax ID #1995000T00A); within the NE ¼ Section 02, Township 22 North, Range 04 West, Seward Meridian, Alaska. In the Susitna Community Council and in Assembly District #7. *(Petitioner/Owner: Bull Moose Surveying / Thomas Russell, Staff: Magtthew Goddard, Case # 2025-092)*

7. ITEMS OF BUSINESS & MISCELLANEOUS

(None)

8. PLATTING STAFF & OFFICER COMMENTS

A. Adjudicatory *(If needed)*
   - *Definition: Law. To hear and settle an issue or a question regarding code.*

B. Upcoming Platting Board Agenda *Items (Staff: Fred Wagner & Clerk: Kayla Smith)*
   - August 21, 2025, Platting Board Meeting, we have 3 cases to be heard:
     - Bear Street Agape
     - Shalom Acres
     - Dena'ina

9. BOARD COMMENTS

10. ADJOURNMENT

MINUTES

The regular meeting of the Matanuska-Susitna Borough Platting Board was held on July 17, 2025, at the Matanuska-Susitna Borough 350 E Dahlia Ave, Palmer, Alaska. Chair Traxler called the Meeting to order at 1:01 p.m.

1. CALL TO ORDER

A. ROLL CALL AND DETERMINATION OF QUORUM (by Administrative Specialist)

Platting Board members present and establishing a quorum:

Mr. Chris Chiavetta, District Seat #1
Mr. Michael Liebing, District Seat #2
Mr. Michael Gillson, District Seat #3
Ms. Amanda Salmon, District Seat #4
Ms. Michelle Traxler, District Seat #5
Ms. Sandra Kreger, District Seat #6
Mr. Sidney Bertz, District Seat #7

Platting Board members absent and excused were:

Ms. Karla McBride, Alternate A
Mr. Robert Hallford, Alternate B

Platting Board members absent were:

Staff in attendance:

Mr. Alex Strawn, Planning Director
Ms. Kayla Smith, Platting Board Clerk
Mr. Matthew Goddard, Platting Technician
Mr. Chris Curlin, Platting Technician

B. THE PLEDGE OF ALLEGIANCE

Platting Member Bertz led the pledge of allegiance.

C. APPROVAL OF THE AGENDA

Chair Traxler inquired if there were any changes to the agenda.

MOTION: Platting Member Liebing made motion to approve the Agenda. Platting Member Kreger seconded.

VOTE: The Agenda was approved unanimously.

2. APPROVAL OF MINUTES

- July 3, 2025.

MOTION: Platting Member Kreger made motion to approve July 3, 2025 Minutes. Platting Member Liebing seconded.

VOTE: The Minutes were approved unanimously.

3. AUDIENCE PARTICIPATION & PRESENTATIONS
PERSONS TO BE HEARD (Three minutes per person for items not scheduled for public hearing)
(None)

4. UNFINISHED BUSINESS

A. **COOPER WOODS PHASE II LOT 16B BLOCK 1:** The request is to vacate a portion (2.23' by 32.44') of R.O.W, on Lot 16A, Cooper Woods PH II Lots 16A, Block 1 & 8A, Block 2, (Plat #2022-134), (Tax ID 8334B01L016A), to be known as Cooper Woods PH.II Lot 16B, Block 1. The property is located directly south of E. Gemini Lane and directly west of N. Cavanaugh Circle; within the NE ¼ Section 09, Township 18 North, Range 01 East, Seward Meridian, Alaska. In the North Lakes Community Council and in Assembly District #6. **This case was continued from the June 5, 2025 meeting.** *(Petitioner/Owner: Marylu Lavine, Staff: Chris Curlin, Case #2025-051)*

Chair Traxler read the statement regarding Ex-Parte & Interest on quasi-judicial action into the record.

Kayla Smith provided the mailing report:

- Stating that 102 public hearing notices were mailed out on May 13, 2025.

Staff gave an overview of the case:

- Staff recommends denial or approval based on Platting Board determination.

Platting Members Chiavetta, Salmon, and Kreger had questions for staff.

Chair Traxler invited the petitioner/petitioner's representative to give an overview.

The petitioner's representative Craig Hanson chose not to speak.

Chair Traxler opened the public hearing for public testimony.

There being no one else to be heard Chair Traxler closed the public hearing and invited the petitioner and/or the petitioner's representative to further discuss and answer any questions from the Board.

The petitioner's representative spoke.

Platting Member Chiavetta and Liebing had questions for the petitioner's representative.

Discussion ensued.

Petitioner Marylu Lavine spoke.

Discussion ensued.

Deputy Borough Attorney John Aschenbrenner spoke.

MOTION: Platting Member Liebing made a motion to approve the preliminary plat of Cooper Woods Phase II Lot 16B Block 1. Platting Member Salmon seconded the motion.

Discussion ensued.

VOTE: The motion passed with Platting Members Chiavetta, Traxler, and Kreger in opposition.

5. RECONSIDERATIONS/APPEALS

(None)

6. PUBLIC HEARINGS

B. **DAVIDSON PUE VAC**: The request is to eliminate the 50-foot Public Use Easement on the southern boundary of Tax Parcel B3 (Tax ID#18N01E15B003). The property is located south of E. Tex-al Drive, east of N. Engstrom Road, north of E. Wolf Creek Road and directly north of N. Crested Butte Drive.; within the NW & NE ¼ Section 15, Township 18 North, Range 01 East, Seward Meridian, Alaska. In the Fishhook Community Council and in Assembly District #1. *(Petitioner/Owner: Harry Davidson, Staff: Chris Curlin, Case #2025-072)*

Chair Traxler read the statement regarding Ex-Parte & Interest on quasi-judicial action into the record.

Kayla Smith provided the mailing report:

- Stating that 123 public hearing notices were mailed out on June 25, 2025.

Staff gave an overview of the case:

- Staff recommends approval or denial based on Boards determination.

Platting Members Chiavetta and Salmon had questions for staff.

Deputy Borough Attorney John Aschenbrenner spoke.

Discussion ensued.

Chair Traxler invited the petitioner/petitioner's representative to give an overview.

The petitioner's representative, Tim Carmen spoke.

Discussion ensued.

Deputy Borough Attorney John Aschenbrenner spoke.

Chair Traxler opened the public hearing for public testimony.

There being no one to be heard Chair Traxler closed the public hearing and invited the petitioner and/or the petitioner's representative to further discuss and answer any questions from the Board.

The petitioner's representative spoke.

The petitioner John Davidson spoke.

Deputy Borough Attorney John Aschenbrenner spoke.

The petitioner Harry Davidson spoke.

MOTION: Platting Member Liebing made a motion to approve the preliminary plat and vacation of Davidson PUE VAC. Platting Member Salmon seconded the motion.

Discussion ensued.

MOTION: Platting Member Salmon made motion to table indefinitely, there was not a second.

VOTE: The Motion fails.

Platting Member Liebing called to question.

VOTE: The Main Motion fails with Platting Members Salmon and Bertz in favor.

7. ITEMS OF BUSINESS & MISCELLANEOUS

(None)

8. PLATTING STAFF & OFFICER COMMENTS

A. Adjudicatory (*if needed*)

B. Upcoming Platting Board Agenda Items

Planning Director, Alex Strawn informed the board that the presentation is still being worked on. Platting Clerk Kayla Smith informed the board of upcoming items:

- There are 7 cases scheduled for August 7, 2025 Platting Board.

- Terra Fina MSP
- Utopia View II
- Smith
- Hatcher Creek Estates
- The Arches
- Steam ROW
- Lunker Estates

9. BOARD COMMENTS.

- Platting Member Liebing – No comment
- Platting Member Bertz – No comment
- Plating Member Kreger – No comment
- Platting Member Traxler – No comment
- Platting Member Gillson – No comment
- Platting Member Chiavetta – No comment
- Platting Member Salmon – No comment

10. ADJOURNMENT

With no further business to come before the Platting Board, Chair Traxler adjourned the meeting at 2**:37** PM.

MICHELLE TRAXLER
Platting Board Chair

ATTEST:

KAYLA SMITH
Platting Board Clerk

DRAFT

UNFINISHED BUSINESS

4A

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 07, 2025

PRELIMINARY PLAT: TERRA FINA MSP

LEGAL DESCRIPTION: SEC 06 & 07, T17N, R02E, SEWARD MERIDIAN AK

PETITIONERS: RED DOG MASONRY

SURVEYOR/ENGINEER: FARMER SURVEYING, LLC/HOLLER ENGINEERING

ACRES: 58.1+/- PARCELS: 72

REVIEWED BY: FRED WAGNER CASE #: 2015-041, 042 & 043

REQUEST The petitioner is requesting an extension of 6 to 8 years for the approved **TERRA FINA MASTER PLAN SUBDIVISION**, MSB Case# 2015-041, originally approved 4/16/2015. Located within Sections 6 & 7, Township 17 North, Range 02 East, Seward Meridian, Alaska. In the Greater Palmer Community Council and Assembly District #2.

EXHIBITS:

SUPPORTING DOCUMETATION:

Vicinity Map	**PAGE** – 1
Request for Extension	**PAGE** – 2
March 13, 2023 Administrative Extension	**PAGE** – 3
February 1, 2021 Administrative Extension	**PAGE** – 4
April 21, 2015, Notice of Action Letter	**PAGES** – 5-9
April 16, 2015, Staff Report	**PAGES** – 10-99
PUBLIC COMMENTS	**PAGES** – 100-107

DISCUSSION: Terra Fina Masterplan was originally heard and approved during the April 16, 2015, Platting Board meeting. The petitioner has requested an extension f 6 to 8 years to allow time to complete the subdivision development. The petitioner has received two administrative extensions per MSB 43.15.016 (H) (2) & (3) ***(Exhibit pages 3 & 4)***. Staff is recommending an extension of 6 years.

Access: Legal and physical access to the proposed lots are required pursuant to MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Access requirements will be met once interior streets are constructed, and upgrades of existing access streets are completed.

Public Comments:

Danny Kost (**Exhibit Pages 100 & 101)** objects to the request for an extension. Citing noise disturbances, ATV and dirt-bikers accessing the undeveloped phases and unattended burning of construction debris.

Laurent Meiller (**Exhibit Pages 102 & 103**) has concerns related to property maintenance, erosion control, development schedule and habitat preservation and restoration.

Katrina Fisher (**Exhibit Pages 104 & 105**) has concerns about pedestrian safety and traffic.

H.H. Wilson (**Exhibit Pages 106 & 107**) has no objection.

CONCLUSION: The extension request for the Master Plan of Terra Fina is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There was one objection, one nonobjection, and two concerns received from the public in response to the Notice of Public Hearing. Legal and physical access will exist to the proposed lots once all construction/certification has been completed, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.218(A)(1), a revised report will be required once all regrading has been completed.

FINDINGS OF FACT

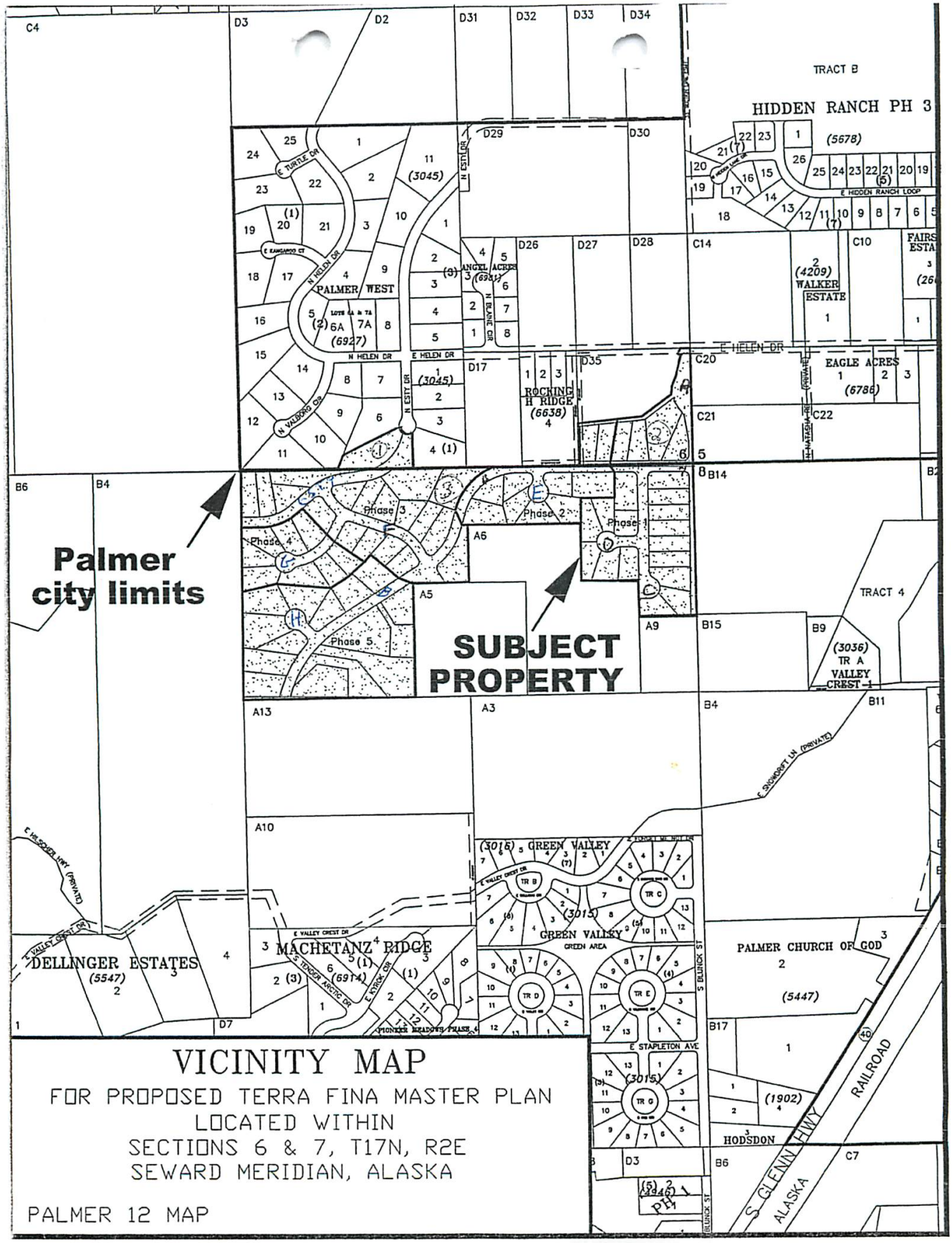
1. The Master Plan of Terra Fina was heard and approved by the Platting Board during the April 16, 2015, Preliminary Plat hearing.
2. The petitioner has received two administrative extensions per MSB 43.15.016 (H) (2) & (3).
3. The petitioner has requested an extension of 6 to 8 years in order to finish the remaining phases.
4. The Master Plan of Terra Fina is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
5. There were no objections from any federal or state agencies, Borough departments, or utilities.
6. At the time the staff report was written, there was one objection, one nonobjection, and two concerns received from the public in response to the Notice of Public Hearing.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the extension of 6 years to the Master Plan of Terra Fina, Sections 06 & 7, Township 17 North, Range 02 East, Seward Meridian, Alaska, contingent on staff recommendations

1. Conditions of approval approved by the Platting Board during the April 16, 2015, Platting Board meeting.
    1) Submit the mailing and advertising fees.
    2) Show or list all easements of record on the final phase plats per MSB 3.15.051(P).
    3) Install hydrants and obtain Palmer Fire Chief signoff on the installation.
    4) Extend the water system and obtain City of Palmer signoff on the installation. Obtain ADEC approval to operate the water system prior to recording the plat. Provide engineering plans, data and record drawings of the approved water system to Platting Staff.

5) Submit construction cost estimate, schedule pre-construction meeting with Capital Project's Engineer, pay inspection fee, obtain Notice to Proceed prior to any road or drainage construction in compliance with SCM, Section E.
6) Construct Road A and Road B to residential subcollector standard minimum to the intersection with Road F.
7) Construct other roads to residential standard minimum.
8) Provide paving within the City of Palmer on Etsy Drive and the intersection of Etsy and Helen Drives to connect to the existing pavement on Helen Dr per he Palmer Public Works Director's comments.
9) Provide final road inspection report from a civil engineer following the borough's No Engineer Left Behind format.
10) Provide verification from an RLS that the constructed roadways are located within the proposed right-of-ways per MSB 43.20.140
11) Obtain the borough's final acceptance of all road construction outside of the City of Palmer; or enter into a subdivision agreement prior to plat recordation Provide City of Palmer road signoff for those roads within city limits.
12) Obtain driveway permits for the driveway to be constructed within the flag portions of Lots 4 & 5, Block 7 in Phase 5.
13) Provide updated useable area report for Lot 15, Block 6 after recontouring and provide updated topographic contours of this lot.
14) Provide final utility for each phase to ensure lots have adequate access to utilities. Obtain MEA & MTA signoff on final plats for Phases 3, 4 & 5.
15) Place temporary cul-de-sacs so they do not fall on common lot lines or place a plat note that states "Utility facilities may only be placed within a temporary cul-de-sac, drainage easement or slope and maintenance with a borough utility permit."
16) Provide updated Certificate to Plat executed within 90 days, prior to recording the plat per MSB 43.15.053(E).
17) Submit an affidavit from any holders of beneficial interest, if any, to be recorded with the plat.
18) Submit recording fee, payable to the State of Alaska, DNR.
19) Taxes and special assessments must be current prior to recording of each phase plat, per MSB 43.15.053(F) and AS 40.15.120. Pay taxes and special assessments (LIDs) by certified funds or cash.
20) Submit final plat in full compliance with Title 43 bearing the signature of the property owner, surveyor, and the City of Palmer Finance Department.



VICINITY MAP

FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA

PALMER 12 MAP

Fred Wagner

From: reddogmasonry@aim.com
Sent: Monday, February 3, 2025 10:51 AM
To: Fred Wagner
Subject: Terra Fina Plat Master Plat Extension

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
Good morning. This is a formal request for the MatSU plating board to extend the Terra Fina Master Plat. We have been working on the development for several years now. Phase 1 is sold out and lived in. Phase 2 is completed with 4 houses under construction or lived in. The development process has been more challenging and time consuming than originally planned. Also, current economic conditions have slowed the sale of housing down. Our plat expires in April of this year. We would like to extend it for an additional 6-8 years if possible, to allow us to finish the next 2 phases.

Thank you

Bryan Aafedt
Owner of Red Dog Masonry
5412 Skylark Ave
Anch AK 99502

907.727.0828

MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department
Platting Division
350 East Dahlia Avenue • Palmer AK 99645
Phone (907) 861-7874 • Fax (907) 861-8407

March 13, 2023

Bryan Aafedt, President
Red Dog Masonry Inc.
8107 Frank Street
Anchorage AK 99518

Subject: Terra Fina Master Plan
Case # 2015-041

The Matanuska-Susitna Borough is notifying you that the Platting Officer granted your request for a 2-year administrative extension pursuant to MSB Title 43, which will expire April 16, 2025.

If you have any questions, you may contact me at 907-861-7870 or email at fred.wagner@matsugov.us

Sincerely,

Fred Wagner
Platting Officer

CC:

Farmer Surveying, LLC
9131 E. Frontage Rd.
Palmer, AK 99645

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Platting Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-1904 • Email: platting@matsugov.us

February 1, 2021

Bryan Aafedt, President
Red Dog Masonry Inc.
8107 Frank Street
Anchorage, AK 99518

Re: Case #2015-041
TERRA FINA MASTER PLAN

Dear Petitioner;

At this time we are notifying you that the request for a 2 year administrative extension has been granted pursuant to MSB 43.15.015(C)(2) and will expire April 21, 2023.

If you have any questions, you may contact the platting office at 861-1903.

Sincerely,

Fred Wagner, PLS
Platting Officer

sv
CC:
MSB/DPW

Farmer Surveying
9131 E. Frontage Rd, Ste. 21
Palmer, AK 99645

PH

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Platting Division
350 East Dahlia Avenue • Palmer AK 99645
Phone (907) 861-7874 • Fax (907) 861-8407

April 21, 2015

NOTIFICATION OF ACTION

Merit Homes, LLC
1920 W. Diamond Blvd, Ste. F
Anchorage, AK 99515

Secret Aafedt
8707 Frank St.
Anchorage, AK 99518

RE: TERRA FINA MSP **CASE: 2015-041**

Action taken by the Platting Board on April 16, 2015 is as follows:

THE PRELIMINARY PLAT FOR TERRA FINA MASTER PLAN, AND ELIMINATION OF PORTIONS OF THE 10' UTILIY EASEMENT AND 10' WIDE DRAINAGE EASEMENT WITHIN LOT 5, BLOCK 1, WAS APPROVED, AND WILL EXPIRE ON APRIL 21, 2021 CONTINGENT UPON THE FOLLOWING CONDITIONS / REASON (see attached).

ALL DECISIONS AS TO APPROVAL OR DISAPPROVAL BY THE PLATTING BOARD OR OFFICER SHALL BE FINAL UNLESS APPEALED TO THE BOARD OF ADJUSTMENT AND APPEALS, MSB 15.39. A PETITION WHICH IS TABLED BY THE BOARD SHALL BE DEEMED DENIED UNLESS THE APPLICANT BRINGS THE MATTER BACK BEFORE THE BOARD WITH ALL CONDITIONS MET WITHIN THE TIME ALLOWED BY THE BOARD OR BY LAW.

If this is in reference to a plat application, recordation at the appropriate District Recorder's Office of the plat is required before any transfer of title can occur. Should you have any questions or require a copy of the minutes of the meeting, please feel free to contact this office.

Kindest regards,

Diana Sorensen

Ms. Diana Sorensen
Platting Board Chairman

cc:
DCP/ENG
City of Palmer

Alaska Rim Engineering, Inc.
9131 E. Frontage Rd, Ste. 1
Palmer, AK 99645

Christine McCabe
600 N. Valborg Circle
Palmer, AK 99645

Robert Marcisak
2221 Muldoon Rd., Spc 147
Anchorage, AK 99504

Ross Kopperud
PO Box 201
Palmer, AK 99645

Danny Kost
11668 E. Helen Dr.
Palmer, AK 99645

Douglas Ott
12079 E. Drift Ln.
Palmer, AK 99645

Jerry Tokar
12000 E. Helen Dr.
Palmer, AK 99645

Hank Wilson
9601 Buddy Werner Dr.
Anchorage, AK 99516

Daniel Hanrahan
PO Box 3505
Palmer, AK 99645

John Beeson
PO Box 1714
Palmer, AK 99645

CONDITIONS of APPROVAL:
The Platting Board approved the Preliminary Plat for Terra Fina Master Plan, and elimination of portions of the 10' utility easement and 10' wide drainage easement within Lot 5, Block 1, contingent upon the following:

1. Submit the mailing and advertising fee.

2. Show or list all easements of record on the final phase plats per MSB 43.15.051(P).

3. Install hydrants and obtain Palmer Fire Chief signoff on the installation.

4. Extend the water system and obtain City of Palmer signoff on the installation. Obtain ADEC approval to operate the water system prior to recording the plat. Provide engineering plans, data and record drawings of the approved water system to Platting Staff.

5. Submit construction cost estimate, schedule pre-construction meeting with Capital Project's Engineer, pay inspection fee, and obtain Notice to Proceed prior to any road or drainage construction in compliance with SCM, Section E.

6. Construct Road A and Road B to residential subcollector standard minimum to the intersection with Road F.

7. Construct other roads to residential standard minimum.

8. Provide paving within the City of Palmer on Esty Drive and the intersection of Esty and Helen Drives to connect to existing pavement on Helen Dr per the Palmer Public Works Director's comments.

9. Provide final road inspection report from a civil engineer following the borough's No Engineer Left Behind format.

10. Provide verification from an RLS that the constructed roadways are located within the proposed right-of-ways per MSB 43.20.140.

11. Obtain the borough's final acceptance of all road construction outside of the City of Palmer; or enter into a subdivision agreement prior to plat recordation. Provide City of Palmer road signoff for those roads within city limits.

12. Obtain driveway permits for the driveway to be constructed within the flag portions of Lots 4 & 5, Block 7 in Phase 5.

13. Provide updated useable area report for Lot 15, Block 6 after recontouring and provide updated topographic contours of this lot.

14. Provide final utility design for each phase to ensure lots have adequate access to utilities. Obtain MEA & MTA signoff on final plats for Phases 3, 4 & 5.

15. Place temporary cul-de-sacs so they do not fall on a common lot or place a plat note that states "Utility facilities may only be placed within a temporary cul-de-sac, drainage easement or slope and maintenance easement with a borough utility permit."

16. Provide updated Certificate to Plat executed within 90 days, prior to recording the plat per MSB 43.15.053(E).

17. Submit an affidavit from any holders of beneficial interest, if any, to be recorded with the plat.

18. Submit recording fee, payable to the State of Alaska, DNR.

19. Taxes and special assessments must be current prior to recording of each phase plat, per MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs) by certified funds or cash.

20. Submit final plat in full compliance with Title 43 bearing the signature of the property owner, surveyor, and the City of Palmer Finance Department.

FINDINGS for MASTER PLAN:

1. The Master Plan of Terra Fina is consistent with AS 29.40.070 Platting Regulations; and MSB 43.15.015 Preliminary Plat.

2. A request for elimination of a portion of a 10' wide utility easement within Lot 5, Block 1, Palmer West was submitted for approval per MSB 43.15.032. There are no utilities constructed within this easement. The portion being eliminated is within the new right-of-way for the extension of Esty Dr.

3. Existing utility facilities will not be impacted by the elimination of the utility easement.

4. A request for elimination of a portion of a 10' wide drainage easement within Lot 5, Block 1, Palmer West was submitted for approval per MSB 43.15.032. The easement is not constructed and future drainage will be maintained within the proposed extension of Esty Dr.

5. A professional engineer stated the required amount of useable area is available for wastewater disposal on all but one lot, which will be recontoured to comply with MSB 43.20.280, *Area.*

6. Useable building area is not required as these lots will be served with public water by extension of the City of Palmer water main.

7. Fire hydrants are planned for the subdivision, a requirement for connecting to the City of Palmer water system.

8. Lot sizes are consistent with MSB 43.20.280(A)(2), the Platting Board may approve lots having at least 20,000 sq ft if served with an approved public or community water system.

9. Portions of this property are within the City of Palmer and those portions outside of city limits are within the Palmer Water Service Area.

10. The roads have been designed to best fit the hilly terrain, per the engineer. Plan & Profile drawings for the roads were provided. The roads will meet the subdivision construction manual standards for residential and residential subcollector standards.

11. Road A was approved by the City of Palmer as a paved road and the developer may pave the remaining roads as well.

12. The petitioner is providing access to adjoining unsubdivided parcels.

13. The petitioner is dedicating a 33' wide right-of-way adjoining the section line within Section 7 for the future extension of Hemmer Road, which is on the long range transportation plan. There is a 33' wide section line easement adjoining the section line within Section 8. Petitioner is not required to construct that extension.

14. The plat shows 15 ft utility easements along each side of the proposed rights-of-way. The engineer stated that with the possibility of using the existing utility placement and the unnecessary grading to fit utility easements where they will not be needed, they would like to create utility easements based on the final utility design for each phase and not on the basis of creating 15 foot easements adjacent to all rights-of-way.

15. Public concerns over the wildlife habitat, noise pollution, light pollution, air quality, and increased traffic are not addressed in Title 43.

16. All easements of record, public or private are required to be shown per MSB 43.15.015

17. There were no objections from any borough departments or outside agencies.

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
APRIL 16, 2015

PRELIMINARY PLAT:	**TERRA FINA MASTER PLAN**
LEGAL DESCRIPTION:	**SEC 6 & 7, T17N, R2E, SEWARD MERIDIAN, AK**
PETITIONER:	**MERIT HOMES, LLC**
SURVEYOR/ENGINEER:	**ALASKA RIM ENGINEERING**
ACRES: **58.1**	PARCELS: 72
REVIEWED BY:	PEGGY HORTON CASE: 2014-041, 042 & 043

REQUEST

The request is to subdivide Tax Parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as Terra Fina, containing 58.1 acres more or less. Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system. Located within Sections 6 & 7, Township 17 North, Range 2 East, Seward Meridian, Alaska.

EXHIBITS:

VICINITY MAP	**EXHIBIT A**
MSB LONG RNG TRANS PLAN	**EXHIBIT B**
UPDATED DESIGN	**EXHIBIT C**
UTIL ESMT ELIMINATION	**EXHIBIT D**
DRAIN ESMT ELIMINATION	**EXHIBIT E**
SOILS	**EXHIBIT F**
ROAD PROFILES & WATER SYS	**In Sleeve**
DRAINAGE PLAN	**EXHIBIT G**
CITY OF PALMER RD APPRVL	**EXHIBIT H**

COMMENTS:

CAPITAL PROJECTS	**EXHIBIT I**
PERMIT CENTER	**EXHIBIT J**
CODE COMPLIANCE	**EXHIBIT K**
LAND MANAGEMENT	**EXHIBIT L**
MSB O&M	**EXHIBIT M**
CULTURAL RESOURCES	**EXHIBIT N**

CITY OF PALMER	**EXHIBIT O**
SOA/DOT&PF	**EXHIBIT P**
MTA	**EXHIBIT Q**
GCI	**EXHIBIT R**
ENSTAR	**EXHIBIT S**
PUBLIC	**EXHIBIT T**

DISCUSSION

This Master Plan will be done in 5 phases. A portion of the property is within City of Palmer, the remainder is outside city limits. The subdivision is bounded on the north-east by several large waiver parcels and by the Rocking H Ridge Subdivision, on the east by large unsubdivided parcel, along the south by several unsubdivided waiver parcels, on the west a large unsubdivided parcel and on the northwest by the Palmer West Subdivision. The plat shows the roads extending to adjoining properties, creating interconnectivity.

An extension of Hemmer Road South to the Glenn Hwy is on the Borough's Long Range Transportation Plan **(Exhibit B)**. This property does not have a section line easement along the eastern side, but the petitioner has decided to dedicate 33' for that extension as there is a 33' section line easement within Section 8. This will create a full 66' wide dedication for Hemmer Road. The petitioner is not required to construct this road as it is not being used for lot access.

The lots within Block 5 were redesigned **(Exhibit C)** after the plat was submitted because Lots 1 & 2 did not meet the width to depth ratio allowed in MSB 43.20.300, which states, no lot under two acres shall have an average depth of more than three times the average width.

Elimination of utility and drainage easement: The petitioners are requesting elimination of a portion of the 10' wide utility easement on the south boundary of Lot 5, Block 1, Palmer West **(Exhibit D)**. That portion being eliminated is within the future right-of-way for the extension of Esty Dr. MSB 43.15.032 allows this if there currently no existing improvements within the subject easement and if necessary a substitute easement is provided on the plat. Staff notes the plat shows the extension of adjoining utility easements and supports this elimination as the borough needs to have unencumbered rights-of-way.

The petitioners are requesting elimination of a portion of the 10' wide drainage easement as shown on the north boundary of Lot 5, Block 1 Palmer West **(Exhibit E)**. This easement was never constructed and with the new road alignment, the drainage easement will no longer be needed in this location once the new road has been constructed. Staff supports this elimination as the drainage will be contained within the new extension of Esty Dr.

Soils: A majority of the lots are less than 40,000 sq ft. MSB 43.20.280(A)(2) states, "Lots containing at least 20,000 sq ft but less than 40,000 sq ft must be serviced by an approved public or community water or public or community septic system." These lots will be serviced by an extension of the Palmer municipal water system. A soils investigation report

was provided, 22 test holes were inspected **(Exhibit F)**. Water table was not encountered in any of the holes and the test holes were drilled to 13 to 16 feet. A majority of the lots have the required 10,000 sq ft of useable septic area as required in 43.20.280. However, Lot 15, Block 6 will need to be recontoured to meet this requirement, and the final topography will be submitted prior to recording the phase plat in which this lot is contained. Useable building area is not required as these lots will be served with public water by extension of the City of Palmer water main.

Drainage: Drainage designs will be in accordance with Best management practices as defined by the EPA including grass lines swales, infiltration ditches and/or basins to allow drainage to go to the gravel that underlays the entire project area, and rock energy dissipaters where erosion may be a concern **(Exhibit F & G)**. The preliminary plans include arrows indicating the general direction of drainage and the suggested location for culverts. At this time all culverts are planned to be 24-inch corrugated metal pipe culverts.

Road Construction: Construction of Road A and a portion of Road B will be to residential subcollector. The remaining road construction will be to residential standard minimum. The roads have been designed to best fit the hilly terrain. They provided Plan & Profile drawings for the roads **(In Sleeve)**. Road A was approved by the city of Palmer as a paved road **(Exhibit H)** and the developer may pave the remaining roads as well.

Water System: Preliminary water system distribution layout is attached in the plans located in **The Sleeve**. Mr. Gutcher stated the water system design and hydrant locations are preliminary. Per MSB 43.15.045(A)(2), "State of Alaska Department of Environmental Conservation review and approval is required for community water supply systems and community sewage disposal systems." Engineering plans, data and record drawings will be required prior to recording. Portions of this property are outside the city limits, but the City of Palmer requires fire hydrants installed when connecting up to the city water system.

COMMENTS:

Capital Projects Engineer defers to the City of Palmer concerning the water system **(Exhibit I)**. He applauded the subdivision design as it connects to adjacent properties. The Permit Center had no comment **(Exhibit J)**. Code Compliance stated the property is not located in a Special Flood Hazard Area and portions of the property are located within the City of Palmer and the remainder is located within the Core Area Special Land Use District **(Exhibit K)**. Land & Resource Management said no MSB land is affected and they have no objection to the subdivision **(Exhibit L)**. MSB O&M had no issue at this time **(Exhibit M)**. Cultural Resources found no recorded sites on the property and recommend a cultural resource survey because of its location and topography, especially in the vicinity of High Ridge Lake, wetlands, moraines, and creeks indicate that traces of prehistoric and/or historic activities are likely present **(Exhibit N)**.

The City of Palmer comments include the parcel located within the city limits is zoned R-1, Single Family Residential **(Exhibit O)**. This plat is scheduled to be reviewed at the April 16th

Planning and Zoning meeting. Palmer Public Works Director, Tom Healy, commented the subdivision contains some steep street grades that may be unavoidable given the terrain. The design shows a reasonable effort to reduce these grades, but they may present maintenance issues during periods of snow and ice. Because the subdivision is not in the city limits, city road maintenance will end where Esty Dr leaves the city limits. The subdivision's use of Esty Dr to access Helen Dr is appropriate, but will result in increased traffic on Esty Dr. The project should include paving of Esty Dr and the intersection of Esty and Helen Drives to connect to existing pavement on Helen Dr to eliminate road dust and increased street maintenance that will result from this increased traffic. Staff notes the petitioner's representative said they would comply with the city's requests. Staff also notes the city did not comment on the necessity to upgrade Helen Drive.

SOA/DOT&PF commented that the section line easements need to be verified in this area **(Exhibit P)**. Mr. Kemplen recommended the long-range MSB transportation plan be checked to ensure the right-of-way is adequate for a collector road. Staff notes the section line easement research was provided by Alaska Rim Engineering and the petitioner is dedicating 33' of right-of-way for the future extension of Hemmer Road.

MTA had easement recommendations which the petitioner's representative stated she has discussed these with MTA and would like to plan the utility placement as the phases are developed **(Exhibit Q)**. Staff recommends a utility plan be developed for each phase and submitted. Prior to Phase 3, 4 & 5, MTA and MEA should sign off on the final plat. GCI approved the plat as shown **(Exhibit R)**. Enstar has no comments, recommendations, or objections **(Exhibit S)**.

Christine McCabe responded to the public hearing notice with concerns about the utility easement and drainage easement eliminations as they concern their land **(Exhibit T-1)**. Staff notes the utility easement being eliminated is within the proposed right-of-way and will not affect the existing utilities providing service to Ms. McCabe's land. Also, the drainage easement being removed is currently unconstructed and the drainage will be routed along the proposed extension of Etsy Dr. They are also concerned about emergency response to Etsy Dr., wildlife habitat, noise pollution, light pollution and increased traffic, which are not addressed in Title 43. They also question whether the property will be annexed into the City of Palmer. Staff knows of no action to annex this property into the City of Palmer.

Robert Marcisak and Matt & Theresa Beck commented that this project is an overdevelopment of the land, the lots are smaller than other subdivisions in the area and there appears to be little thought to the topography and environmental issues **(Exhibit T-4)**. Staff notes the size of the lots complies with Title 43 and the engineer's report stated the roads and lots are designed for this topography. They also are concerned about the easements on the south ridge of A17 (one of the parcels being subdivided). Staff notes that all easements of record need to be shown, if plottable, or listed on the plat per MSB 43.15.015.

Ross Kopperud, Attorney for John & Chao Beeson (owners of Lot 3, Block 5, Palmer West), commented that his clients have been in litigation with the City of Palmer since their home

experienced repeated flooding beginning in 2006 **(Exhibit T)**. The Beesons oppose the subdivision and the vacation of any drainage easements until the borough receives assurances from merit Homes by way of a professional hydrological study stamped by a civil engineer that the proposed vacated drainage easement will not adversely affected the Beesons or any other property owner in the area. Staff notes the drainage easement being eliminated is not constructed and drainage will be contained within the right-of-way as described in the drainage plan.

Danny Kost (Owner of Tax Parcel D17), wrote in concerned that Phase I-III of the new development sits in a bowl where smoke sits in the low spot during winter inversions and the slopes all drain northward to existing properties. Staff notes air quality is not addressed in Title 43. Drainage is planned to be contained within the subdivision as described in the drainage plan.

CONCLUSION

The Master Plan for Terra Fina is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.015 Preliminary Plat.

This Master Plan is for 72 lots developed in 5-phases. A professional engineer stated the lots contain over 10,000 square feet of useable septic area and will be served by City of Palmer water system. One lot will need to be recontoured to meet the Useable Septic Area requirements. Roads will be constructed to residential or residential subcollector standard and fire hydrants are to be installed. A drainage plan was submitted which meets the Subdivision Construction Manual standards. Elimination of a portion of the 10' wide utility easement and drainage easement is requested as the proposed extension of Esty Dr will cross the utility easement and the drainage will be maintained within the new road system. There were no objections from any borough departments or outside agencies. There were concerns from the public, addressed in the body of the report.

RECOMMENDATIONS for MASTER PLAN

Recommended motion: **"I move to approve the Master Plan of Terra Fina, and elimination of portions of the 10' utility easement and 10' wide drainage easement within Lot 5, Block 1, Palmer West located within Sections 6 & 7, Township 17 North, Range 2 East, Seward Meridian, Alaska contingent on the following staff recommendations:"**

1. Submit the mailing and advertising fee.

2. Show or list all easements of record on the final phase plats per MSB 43.15.051(P).

3. Install hydrants and obtain Palmer Fire Chief signoff on the installation.

4. Extend the water system and obtain City of Palmer signoff on the installation. Obtain ADEC approval to operate the water system prior to recording the plat. Provide engineering plans, data and record drawings of the approved water system to Platting Staff.

5. Submit construction cost estimate, schedule pre-construction meeting with Capital Project's Engineer, pay inspection fee, and obtain Notice to Proceed prior to any road or drainage construction in compliance with SCM, Section E.

6. Construct Road A and Road B to residential subcollector standard minimum to the intersection with Road F.

7. Construct other roads to residential standard minimum.

8. Provide paving within the City of Palmer on Esty Drive and the intersection of Esty and Helen Drives to connect to existing pavement on Helen Dr per the Palmer Public Works Director's comments.

9. Provide final road inspection report from a civil engineer following the borough's No Engineer Left Behind format.

10. Provide verification from an RLS that the constructed roadways are located within the proposed right-of-ways per MSB 43.20.140.

11. Obtain the borough's final acceptance of all road construction outside of the City of Palmer; or enter into a subdivision agreement prior to plat recordation. Provide City of Palmer road signoff for those roads within city limits.

12. Obtain driveway permits for the driveway to be constructed within the flag portions of Lots 4 & 5, Block 7 in Phase 5.

13. Provide updated useable area report for Lot 15, Block 6 after recontouring and provide updated topographic contours of this lot.

14. Provide final utility design for each phase to ensure lots have adequate access to utilities. Obtain MEA & MTA signoff on final plats for Phases 3, 4 & 5.

15. Place temporary cul-de-sacs so they do not fall on a common lot line or place a plat note that states "Utility facilities may only be placed within a temporary cul-de-sac, drainage easement or slope and maintenance easement with a borough utility permit."

16. Provide updated Certificate to Plat executed within 90 days, prior to recording the plat per MSB 43.15.053(E).

17. Show or list all easements of record, public or private on the final plat.

18. Submit an affidavit from any holders of beneficial interest, if any, to be recorded with the plat.

19. Submit recording fee, payable to the State of Alaska, DNR.

20. Taxes and special assessments must be current prior to recording the plat, per MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs) by certified funds or cash.

21. Submit final plat in full compliance with Title 43 bearing the signature of the property owner, surveyor, and the City of Palmer Finance Department.

FINDINGS for MASTER PLAN

1. The Master Plan of Terra Fina is consistent with AS 29.40.070 Platting Regulations; and MSB 43.15.015 Preliminary Plat.

2. A request for elimination of a portion of a 10' wide utility easement within Lot 5, Block 1, Palmer West was submitted for approval per MSB 43.15.032. There are no utilities constructed within this easement. The portion being eliminated is within the new right-of-way for the extension of Esty Dr.

3. Existing utility facilities will not be impacted by the elimination of the utility easement.

4. A request for elimination of a portion of a 10' wide drainage easement within Lot 5, Block 1, Palmer West was submitted for approval per MSB 43.15.032. The easement is not constructed and future drainage will be maintained within the proposed extension of Esty Dr.

5. A professional engineer stated the required amount of useable area is available for wastewater disposal on all but one lot, which will be recontoured to comply with MSB 43.20.280, *Area.*

6. Useable building area is not required as these lots will be served with public water by extension of the City of Palmer water main.

7. Fire hydrants are planned for the subdivision, a requirement for connecting to the City of Palmer water system.

8. Lot sizes are consistent with MSB 43.20.280(A)(2), the Platting Board may approve lots having at least 20,000 sq ft if served with an approved public or community water system.

9. Portions of this property are within the City of Palmer and those portions outside of city limits are within the Palmer Water Service Area.

10. The roads have been designed to best fit the hilly terrain, per the engineer. Plan & Profile drawings for the roads were provided.

11. Road A was approved by the City of Palmer as a paved road and the developer may pave the remaining roads as well.

12. The petitioner is providing access to adjoining unsubdivided parcels.

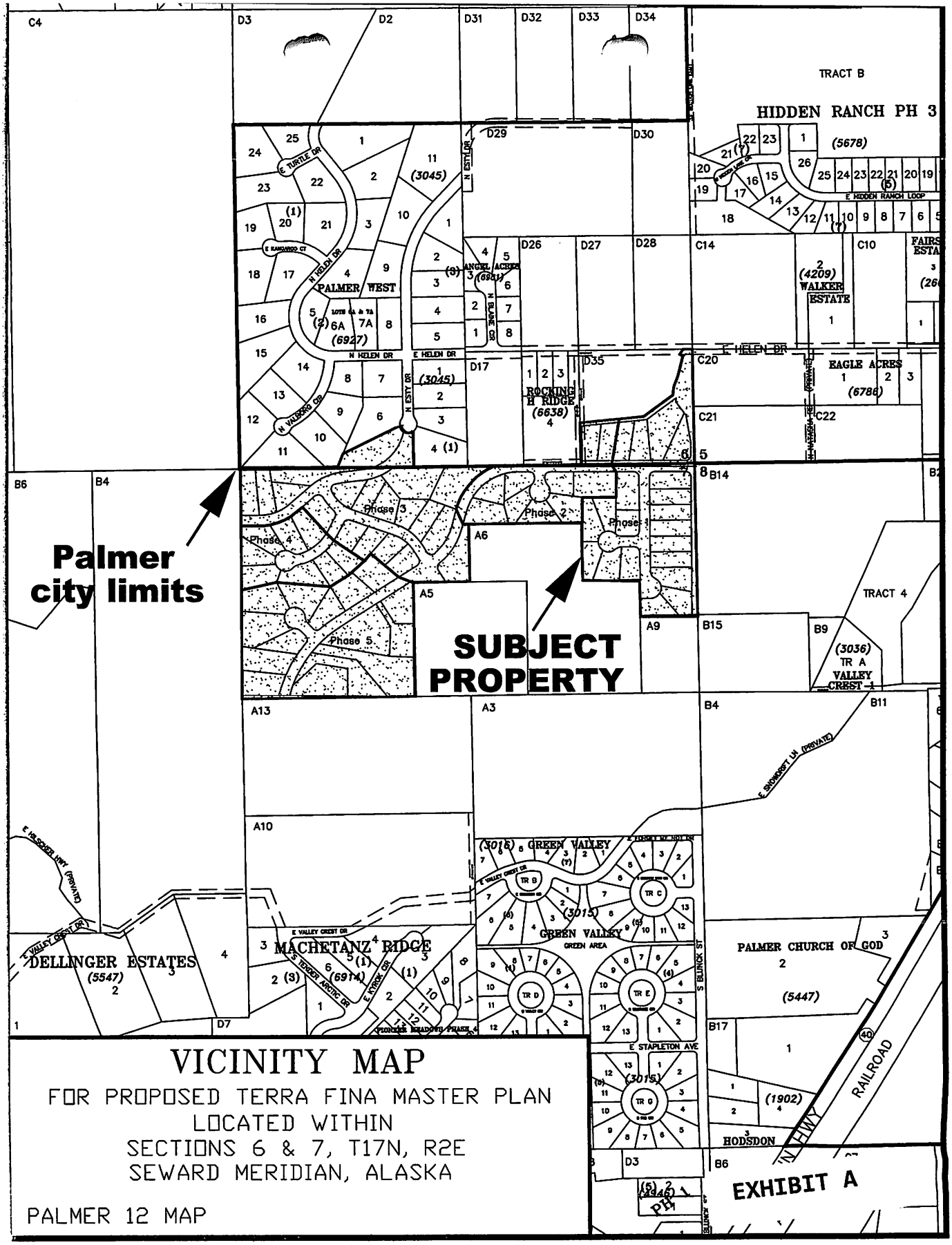
13. The petitioner is dedicating a 33' wide right-of-way adjoining the section line within Section 7 for the future extension of Hemmer Road, which is on the long range transportation plan. There is a 33' wide section line easement adjoining the section line within Section 8. Petitioner is not required to construct that extension.

14. The plat shows 15 ft utility easements along each side of the proposed rights-of-way. The engineer stated that with the possibility of using the existing utility placement and the unnecessary grading to fit utility easements where they will not be needed, they would like to create utility easements based on the final utility design for each phase and not on the basis of creating 15 foot easements adjacent to all rights-of-way.

15. Public concerns over the wildlife habitat, noise pollution, light pollution, air quality, and increased traffic are not addressed in Title 43.

16. All easements of record, public or private are required to be shown per MSB 43.15.015

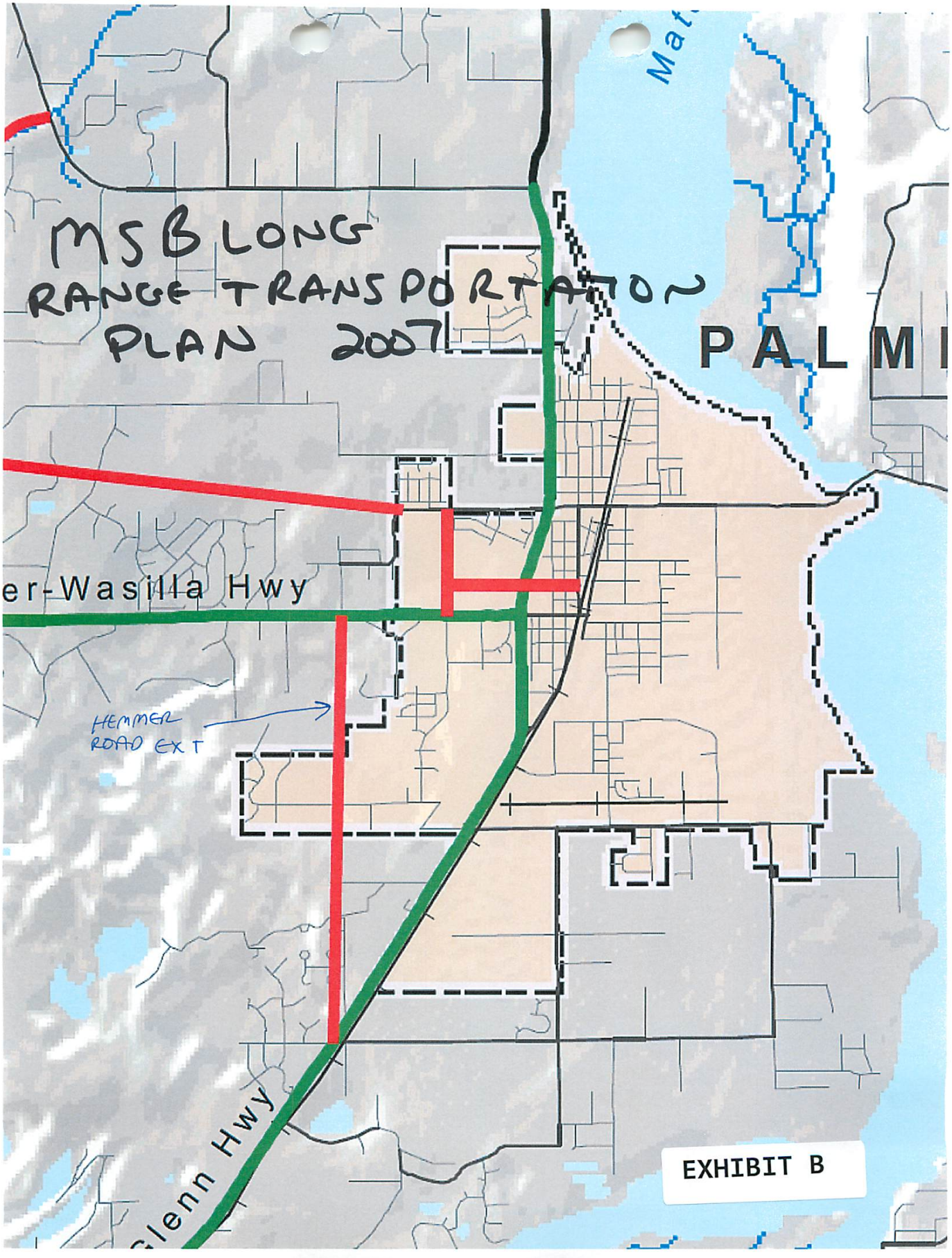
17. There were no objections from any borough departments or outside agencies.

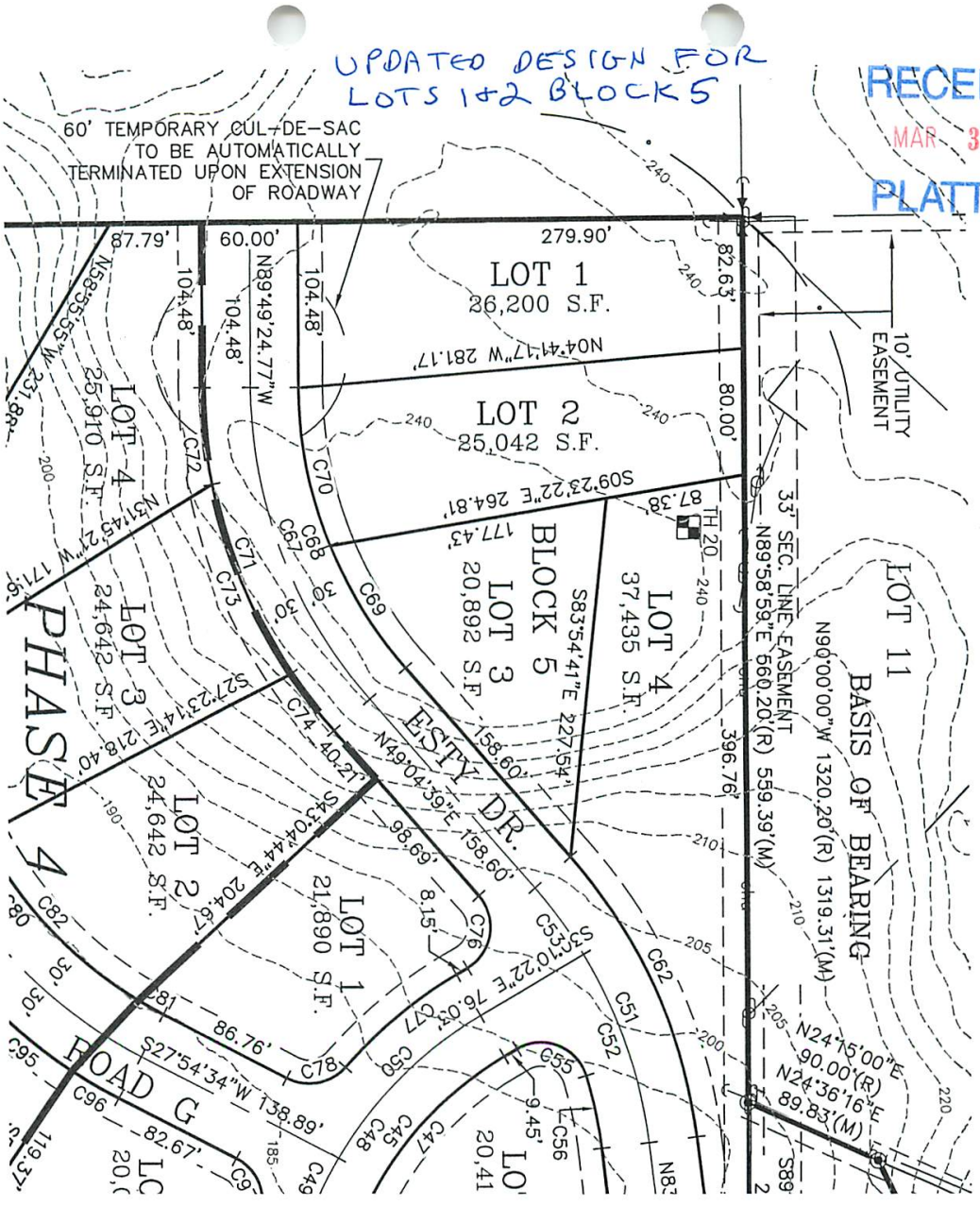


VICINITY MAP

FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA

PALMER 12 MAP


MSB LONG
RANGE TRANSPORTATION
PLAN 2007
PALMI
er-Wasilla Hwy
HEMMER
ROAD EXT
Glenn Hwy
EXHIBIT B



Curve Table						
CURVE #	RADIUS	DELTA	LENGTH	TANGENT	CORD LENGTH	CORD BEARING
C67	300.00'	41°05'56"	215.19'	112.46'	210.61'	N69°37'37"E
C68	270.00'	41°05'56"	193.67'	101.21'	189.55'	N69°37'37"E
C69	270.00'	19°19'23"	91.06'	45.97'	90.63'	N58°44'21"E
C70	270.00'	21°46'33"	102.62'	51.94'	102.00'	N79°17'19"E

EXHIBIT C

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

RECEIVED
FEB 17 2015
PLATTING

PETITION FOR ELIMINATION OR MODIFICATION OF UTILITY, DRAINAGE, SANITATION, AND SCREENING EASEMENTS

Comes now the undersigned, Secret L. Aafedt, and petitions the Matanuska-Susitna Borough to eliminate or modify the *utility, slope, snow storage, drainage, sanitation, buffers or screening easement(s)* lying within the following described property, to-wit:
a porion of a10 foot wide Utility easement as shown on the south boundary of Lot 5, Block 1, Palmer West Subdivision, and a portion of the adjoining 10 ft. utility easement per Bk-154 at page 318

Said easement(s) being more fully described as:
A portion of a 10' wide utility easement as shown on the south boundary of Lot 5, Block 1, Palmer West Subdivision. The portion to be eliminated is that portion which will be located within the future right-of-way for the extension of Esty Drive.

NOTE: Utility easement eliminations may require non-objection letters from the service area utility companies as a condition of approval, see MSB 43.15.032.

Submitted herewith are the following:

1. A copy of the as-built showing the *easement(s)* to be vacated/modified (if due to encroachment)
2. $300.00 Public Hearing Fee (no fee if submitted with Regular Plat)

The action sought by this petition is for the following reasons: ***(ATTACH PAGES, IF NEEDED)***

The right-of-way for Esty Drive will be extended through a portion of this existing easement which is located on the south boundary of Lot 5.

APPLICANT Name: Secret L. Aafedt Email:

OR Mailing Address: 8707 Frank St., Anchorage, AK Zip: 99518

OWNER Contact Person: Secret L. Aafedt Phone: (907) 522-6603

Joy@alaskarim.com

SURVEYOR Name (FIRM): Alaska Rim Engineering, Inc. Email: Bobf@alaskarim.com

Mailing Address: 9131 E. Frontage Road, Palmer, Alaska Zip: 99645

Joy Cypra, Platting Manager

Contact Person: Bob Farmer, PLS Phone: 745-0222

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

SIGNATURES OF PETITIONER(S):

_____ _____

_____ _____

THIS AREA TO BE COMPLETED BY THE MATANUSKA-SUSITNA BOROUGH

THE APPLICATION HAS BEEN REVIEWED AND FOUND TO MEET SUBMITTAL STANDARDS AS NOTED ABOVE.

3/3/15
DATE

Peggy Horton
PLATTING DIVISION REPRESENTATIVE

SCHEDULED FOR PUBLIC HEARING ON: 4/16/15

RECEIVED
FEB 17 2015
PLATTING

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

PETITION FOR ELIMINATION OR MODIFICATION OF UTILITY, DRAINAGE, SANITATION, AND SCREENING EASEMENTS

Comes now the undersigned, MERIT HOMES LLC/JOHN C. PETERSEN, and petitions the Matanuska-Susitna Borough to eliminate or modify the *utility, slope, snow storage, drainage, sanitation, buffers or screening easement(s)* lying within the following described property, to-wit:
a porion of a10 foot wide Utility easement as shown on the south boundary of Lot 5, Block 1, Palmer West Subdivision, and a portion of the adjoining 10 ft. utility easement per Bk. 154 at page 318

Said easement(s) being more fully described as:
A portion of a 10' wide utility easement as shown on the south boundary of Lot 5, Block 1, Palmer West Subdivision. The portion to be eliminated is that portion which will be located within the future right-of-way for the extension of Esty Drive.

NOTE: Utility easement eliminations may require non-objection letters from the service area utility companies as a condition of approval, see MSB 43.15.032.

Submitted herewith are the following:

1. A copy of the as-built showing the *easement(s)* to be vacated/modified (if due to encroachment)
2. $300.00 Public Hearing Fee (no fee if submitted with Regular Plat)

The action sought by this petition is for the following reasons: ***(ATTACH PAGES, IF NEEDED)***

The right-of-way for Esty Drive will be extended through a portion of this existing easement which is located on the south boundary of Lot 5.

APPLICANT Name: Merit Homes, LLC Email: CHRIS@MERITHOMESAK.COM

OR Mailing Address: 1920 W. DIMOND BLVD SUITE F ANCHORAGE Zip: 99515

OWNER Contact Person: CHRIS PETERSEN Phone: 907 727 9782

Joy@alaskarim.com

SURVEYOR Name (FIRM): Alaska Rim Engineering, Inc. Email: Bobf@alaskarim.com

Mailing Address: 9131 E. Frontage Road, Palmer, Alaska Zip: 99645

Joy Cypra, Platting Manager

Contact Person: Bob Farmer, PLS Phone: 745-0222

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

SIGNATURES OF PETITIONER(S):

_____ _____

_____ _____

THIS AREA TO BE COMPLETED BY THE MATANUSKA-SUSITNA BOROUGH

THE APPLICATION HAS BEEN REVIEWED AND FOUND TO MEET SUBMITTAL STANDARDS AS NOTED ABOVE.

3/3/15
DATE

PEGGY HOUTZ
PLATTING DIVISION REPRESENTATIVE

SCHEDULED FOR PUBLIC HEARING ON: 4/16/15

RECEIVED
FEB 17 2015
PLATTING

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

PETITION FOR ELIMINATION OR MODIFICATION OF UTILITY, DRAINAGE, SANITATION, AND SCREENING EASEMENTS

Comes now the undersigned, MERIT HOMES LLC / JOHN C. PETERSEN and petitions the Matanuska-Susitna Borough to eliminate or modify the *utility, slope, snow storage, drainage, sanitation, buffers or screening easement(s)* lying within the following described property, to-wit:
10 foot wide Drainage easement as shown on the north boundary of Lot 5, Block 1, Palmer West Subdivision.

Said easement(s) being more fully described as:
A 10' wide portion of a drainage easement as shown on the north boundary of Lot 5, Block 1, Palmer West Subdivision.

NOTE: Utility easement eliminations may require non-objection letters from the service area utility companies as a condition of approval, see MSB 43.15.032.

Submitted herewith are the following:

1. A copy of the as-built showing the *easement(s)* to be vacated/modified (if due to encroachment)
2. $300.00 Public Hearing Fee (no fee if submitted with Regular Plat)

The action sought by this petition is for the following reasons: ***(ATTACH PAGES, IF NEEDED)***

The drainage easement was never constructed. With the new road alignment, the drainage easement will no longer be needed in this location once the new road has been constructed.

APPLICANT
OR
OWNER

Name: Merit Homes, LLC Email: CHRIS@MERITHOMESAK.COM
Mailing Address: 1920 W. DIMOND BLVD STE F Zip: 99515 ANCHORAGE
Contact Person: CHRIS PETERSEN Phone: 907 727 9782

SURVEYOR

Name (FIRM): Alaska Rim Engineering, Inc. Email: Joy@alaskarim.com Bobf@alaskarim.com
Mailing Address: 9131 E. Frontage Road, Palmer, Alaska Zip: 99645
Contact Person: Bob Farmer, PLS Joy Cypra, Platting Manager Phone: 745-0222

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_____ _____

_____ _____

THIS AREA TO BE COMPLETED BY THE MATANUSKA-SUSITNA BOROUGH

THE APPLICATION HAS BEEN REVIEWED AND FOUND TO MEET SUBMITTAL STANDARDS AS NOTED ABOVE.

3/9/15
DATE

PEGGY HOLTON
PLATTING DIVISION REPRESENTATIVE

SCHEDULED FOR PUBLIC HEARING ON: 4/16/15

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

RECEIVED
FEB 17 2015
PLATTING

PETITION FOR ELIMINATION OR MODIFICATION OF UTILITY, DRAINAGE, SANITATION, AND SCREENING EASEMENTS

Comes now the undersigned, Secret L. Aafedt, and petitions the Matanuska-Susitna Borough to eliminate or modify the *utility, slope, snow storage, drainage, sanitation, buffers or screening easement(s)* lying within the following described property, to-wit:
10 foot wide Drainage easement as shown on the north boundary of Lot 5, Block 1, Palmer West Subdivision.

Said easement(s) being more fully described as:
A 10' wide portion of a drainage easement as shown on the north boundary of Lot 5, Block 1, Palmer West Subdivision.

NOTE: Utility easement eliminations may require non-objection letters from the service area utility companies as a condition of approval, see MSB 43.15.032.

Submitted herewith are the following:

1. A copy of the as-built showing the *easement(s)* to be vacated/modified (if due to encroachment)
2. $300.00 Public Hearing Fee (no fee if submitted with Regular Plat)

The action sought by this petition is for the following reasons: ***(ATTACH PAGES, IF NEEDED)***

The drainage easement was never constructed. With the new road alignment, the drainage easement will no longer be needed in this location once the new road has been constructed.

APPLICANT Name: Secret L. Aafedt Email:

OR Mailing Address: 8707 Frank St., Anchorage, AK Zip: 99518

OWNER Contact Person: Secret L. Aafedt Phone: (907)522-6603

Joy@alaskarim.com

SURVEYOR Name (FIRM): Alaska Rim Engineering, Inc. Email: Bobf@alaskarim.com

Mailing Address: 9131 E. Frontage Road, Palmer, Alaska Zip: 99645

Joy Cypra, Platting Manager

Contact Person: Bob Farmer, PLS Phone: 745-0222

Matanuska-Susitna Borough
Telephone (907) 861-7874

350 East Dahlia Avenue
Palmer, Alaska 99645-6488

SIGNATURES OF PETITIONER(S):

_____ _____

_____ _____

THIS AREA TO BE COMPLETED BY THE MATANUSKA-SUSITNA BOROUGH

THE APPLICATION HAS BEEN REVIEWED AND FOUND TO MEET SUBMITTAL STANDARDS AS NOTED ABOVE.

3/3/15
DATE

Peggy Horton
PLATTING DIVISION REPRESENTATIVE

SCHEDULED FOR PUBLIC HEARING ON: 4/16/15

ALASKA RIM ENGINEERING, INC.
ENGINEERS – PLANNERS – SURVEYORS
P.O. Box 2749 Palmer, Alaska 99645
9131 E. Frontage Road
Telephone (907) 745-0222
Fax (907) 746-0222
Online at: www.alaskarim.com

RECEIVED
MAR 2 2015
PLATTING

March 2, 2015

Mr. Paul Hulbert
Matanuska-Susitna Borough
Platting Department
350 East Dahlia
Palmer, Alaska 99645

RE: Terra Fina Master Plan, a subdivision of Lot 5, Block 1, Palmer West Subdivision, Parcel No. 2, MSB Waiver Resolution Serial No. 2006-156-PWm, Recording Serial No 2007- 002735-0, and Deed Parcel per Recording No. 2008-001990-0, located within S1/2 SE1/4, Sec 6 & the N1/2 NE1/4, Sec 7, T17N, R2E, S.M., Alaska

Master Plan Engineering Report

Dear Mr. Hulbert:

The owner of the above referenced 58.1 Acre parcel proposes to develop this property in 5 phases. Phase 1 will contain 20 lots. Phase 2 will contain 10 lots. Phase 3 will contain 19 lots and one remainder tract. Phase 4 will contain 8 lots. Phase 5 will contain 15 lots.

A portion of this subdivision is located within the City of Palmer and will create 7 lots within the city limits. The remainder of the property is located outside of the city limits and will create the remaining 65 lots.

This subdivision is bounded on the north-east portion by several large waiver parcels and by the Rocking H Ridge Subdivision, on the east by a large un-subdivided parcel, along the south by several un-subdivided waiver parcels, on the west by a large un-subdivided parcel, and on the north-west by the Palmer West Subdivision.

USEABLE AREA

The lots will be served by City of Palmer's water system and individual onsite wastewater disposal systems. The lots all have 20,000 or greater square feet of total area and meet the minimum lot size as required by MSB Code 43.20.280.

A majority of the lots have the required 10,000 square feet of usable septic area on each lot for onsite wastewater disposal as required by MSB 43.20.280. However, lot 15, Block 6 will need to be re-contoured to meet this requirement and the final topography will be submitted prior to recording the phase plat in which this lot is contained.

EXHIBIT F-1

We have provided a drawing that shows the location of 18 test holes that were dug to a depth of 13 to 16 feet in order to evaluate the subsurface soil conditions and the water table. Some were logged by Mike Schwochert in February of 2006, and some by Tyler Perron in January of 2015, both of whom are with this firm. The soils information supplied is presented to satisfy the soils requirements of MSB Code 43.20.280. The soils generally consisted of surface organics over silts ranging from 1' to 5' feet, underlain by sandy gravel. No ground water was encountered or impermeable layers encountered in the test holes. The Gravelly soils are suitable for onsite disposal of septic tank effluent. Monitoring tubes were installed in the test holes.

DRAINAGE AND TOPOGRAPHY

The terrain through the subdivision is generally hilly with some high and low areas, and contains slopes that are greater than 25% which have been shown on the usable area map attached.

The roads have been designed to best fit the hilly terrain. We have provided Plan & Profile drawings which show the general drainage plan for the subdivision. Drainage designs will be in accordance with Best Management Practices as defined by the EPA including grass lined swales, infiltration ditches and/or basins to allow drainage to go to the gravel that underlays the entire project area, and rock energy dissipaters where erosion may be a concern. The preliminary plans include arrows indicating the general direction of drainage and the suggested location for culverts. At this time all culverts are planned to be 24-inch corrugated metal pipe culverts. Individual drainage areas are of a size that large pipes are not justified.

The property is primarily vegetated with trees and brush. There are no water bodies or wetlands located within or adjacent to this subdivision.

SUBDIVISION DESIGN CRITERIA

The subdivision is designed on the criteria found in the MSB Title 43. The access into this subdivision will be via the City of Palmer's road system. In 2006 an access road was designed and presented to the City of Palmer for review and approval. This road access which is currently designated as ROAD "A" will give access into the subdivision along the common section line between sections 5 and 6 from Helen Drive to the section corner of sections 5, 6, 7 and 8. There is a 33 foot section line easement located along each side of the section line in this location and additional ROW is being dedicated west of the section line. ROAD 'A' from Helen Drive to ROAD 'B' is located within the City of Palmer and has been designed to meet City of Palmer's sub-collector standards. Please refer to the previous submittal and approval concerning this access.

There is a 33 ft. section line easement within the adjoining portion of section 8. That portion of section 7 being subdivided does not have section line easements adjoining the section lines. The section line easement documentation is being provided with this submittal. DOT's long range transportation plan is showing the future Hemmer Road Extension to run along the section line between sections 5 and 6, and between sections 7 and 8. Due to this future north-south extension, the easterly 33 feet of section 7 will be dedicated as right-of-way within this subdivision but will not be constructed as access to the lots. The subdivision will create additional ROW which will give access to the residential lots within Block 2.

EXHIBIT F-2

A second access into the subdivision will also be through the City of Palmer and is being created by the extension of Esty Drive through Lot 5, Block 1 of the Palmer West Subdivision. An access road has been designed through this parcel and will give the needed second access into the subdivision.

The Esty access will divide Lot 5 into two segments. The westerly segment will have 49,387 sq. ft. of total area and will remain as a residential lot to be served by city water. The easterly portion will contain 7,969 sq. ft. and will remain as right-of-way.

The southern portion of Block 7 contains a large low area. A private access easement will be created within the flag pole portions of Lots 4 and 5, of Block 7 and will give access to Lots 4, 5 and 6 of Block 7. This driveway access will be constructed to these parcels.

Fifteen foot utility easements are being shown along each side of the proposed rights-of-way. There are existing utility easements along the southern boundary of the Palmer West Subdivision which is adjoining and will be a part of the Terra Fina Subdivision, and there are also areas where the topography will need to be re-contoured to include utility easements. With the possibility of using the existing utility placement and the unnecessary grading to fit utility easements where they will not be needed, we would like to create utility easements based on the final utility design for each phase and not on the basis of creating 15 foot easement adjacent to all rights-of-way.

If there are any questions or additional information is required, please call us.

Sincerely,

ALASKA RIM ENGINEERING, INC.



Norman K. Gutcher, P.E.,
Project Engineer

ENCL: Test Hole Location map.
Soil Logs (22)
Septic Design

CC: Merit Homes, LLC
Alaska Rim Engineering File No. 14-00031

EXHIBIT F-3

SOIL LOG

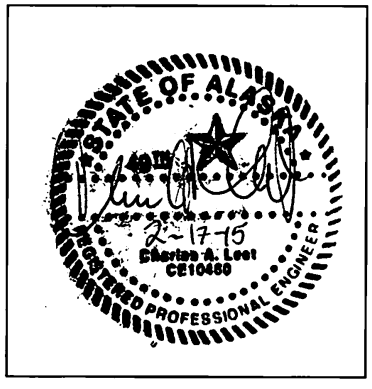
Project: **T17 R2E Sec 17 TP A15**

Date: **02/20/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 1

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt, brown, moist
2	
3	
4	
5	
6	
7	Water Seeps
8	Sand, Gravel, Cobbles (SP)
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:

Water seep at 7; Test hole 1 See site location for GPS reading.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

EXHIBIT F-4

SOIL LOG

Project: **T17 R2E Sec 17 TP A15**

Date: **02/20/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 2

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	
5	Sand, Gravel, Cobbles (SP)
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-5

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

Project: **T17 R2E Sec 17 TP A15**

Date: **02/20/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 3

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	Sand, Gravel, Cobbles (SP)
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-6

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

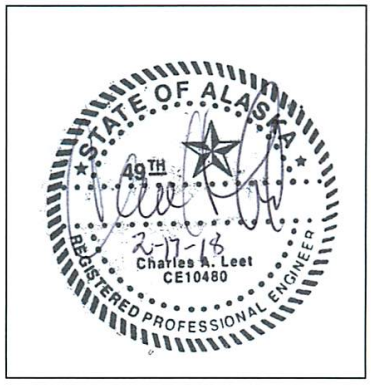
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 4

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	Sand, Gravel, Cobbles (SP)
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

EXHIBIT F-7

SOIL LOG

Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 5

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt, brown moist
2	
3	
4	
5	
6	
7	Sand, Gravel, Cobbles (SP)
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-8

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

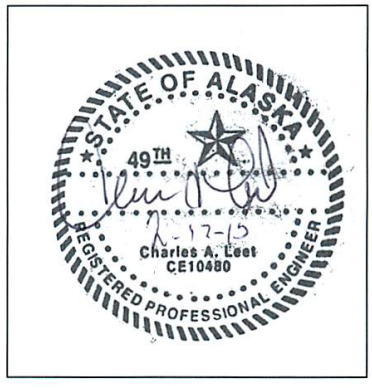
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 7

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	Sand, Gravel, Cobbles (SP)
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-9

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 8

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	Sand, Gravel, Cobbles (SP)
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-10

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

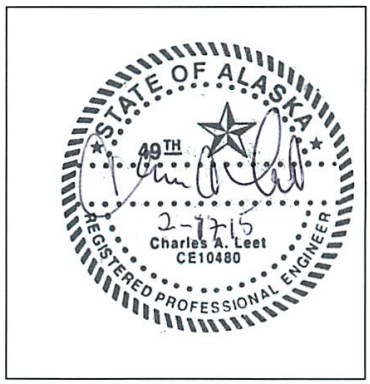
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 9

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	Sand, Gravel, Cobbles (SP)
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-11

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 10

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	Sand, Gravel, Cobbles (SP)
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-12

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

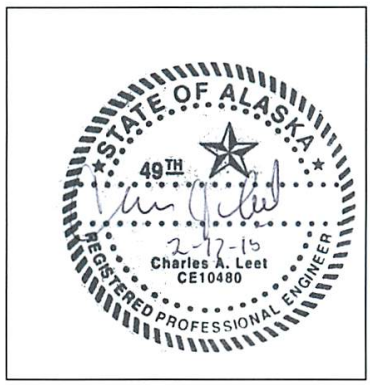
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 11

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	
5	
6	Sand, Gravel, Cobbles (SP)
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-13

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 13

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt, brown moist
2	
3	
4	
5	
6	Sandy gravel, hard compacted brown, (SP)
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-14

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

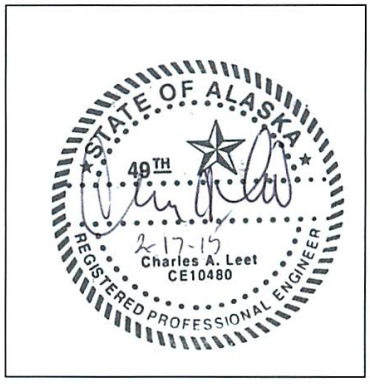
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 14

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt, brown moist
2	
3	
4	
5	
6	Sandy gravel, hard compacted brown, (SP)
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-15

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

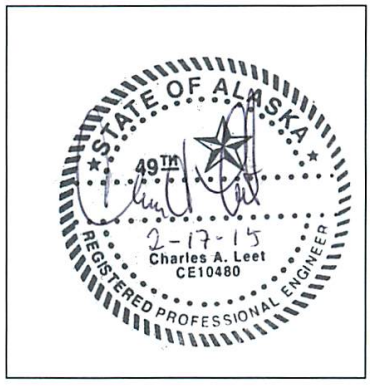
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 15

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	Sand, Gravel, Cobbles (SP)
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
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TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-16

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

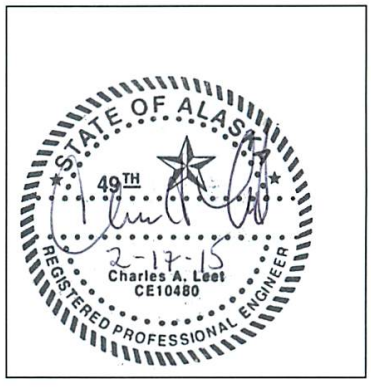
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 16

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	
5	Sand (SP)
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-17

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

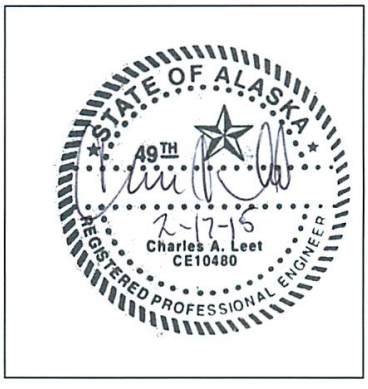
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 17

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	
3	
4	Sand, Gravel, Cobbles (SP)
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-18

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

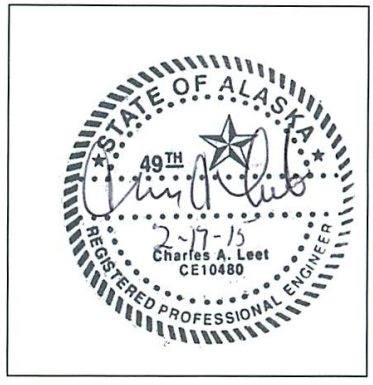
Project: **T17 R2E Sec 17 TP A15**

Date: **02/21/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 18

AK Rim File No. 05-001458

Depth (feet)	Description
1	Silt
2	Brown, moist
3	
4	
5	
6	
7	Sand, Gravel, Cobbles (SP)
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-19

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

Project: **T17N R2E Section 7, Lot A17**

Date: 01/15/2015 Logged By: **Tyler Perron**

TEST HOLE NO. 19

AK Rim File No. 14-00031

Depth (feet)	Description
1	Frozen 0-1.5' Top Soil /Organics, Black
2	
3	1.5-16' Sand, Gravel, Cobbles (SP)
4	Brown, Loosely packed, Damp Some boulders
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	MT Installed 16' Bottom of Test Hole
17	
18	
19	
20	

Callout, Color, Density, Moisture Continent, USC



TEST HOLE LOCATION:
Within 25' of proposed SAS.

COMMENTS:
No water or impermeable layers were encountered.
4' of fill to be placed over septic field and tank.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk

EXHIBIT F-20

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645

SOIL LOG

Project: **T17N R2E Section 7, Lot A17**

Date: 01/15/2015 Logged By: **Tyler Perron**

TEST HOLE NO. 20

AK Rim File No. 14-00031

	Depth (feet)	Description
	1	0-3' Top Soil /Organics, Black
	2	Top 1' Frozen
	3	
	4	3-16'
	5	Sand, Gravel, Cobbles (SP) Brown, Loosely packed, Damp
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	
	16	MT Installed 16' Bottom of Test Hole
	17	
	18	
	19	
	20	

Callout, Color, Density, Moisture Continent, USC

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER Norman K. Gutcher CE - 4919

2/17/15

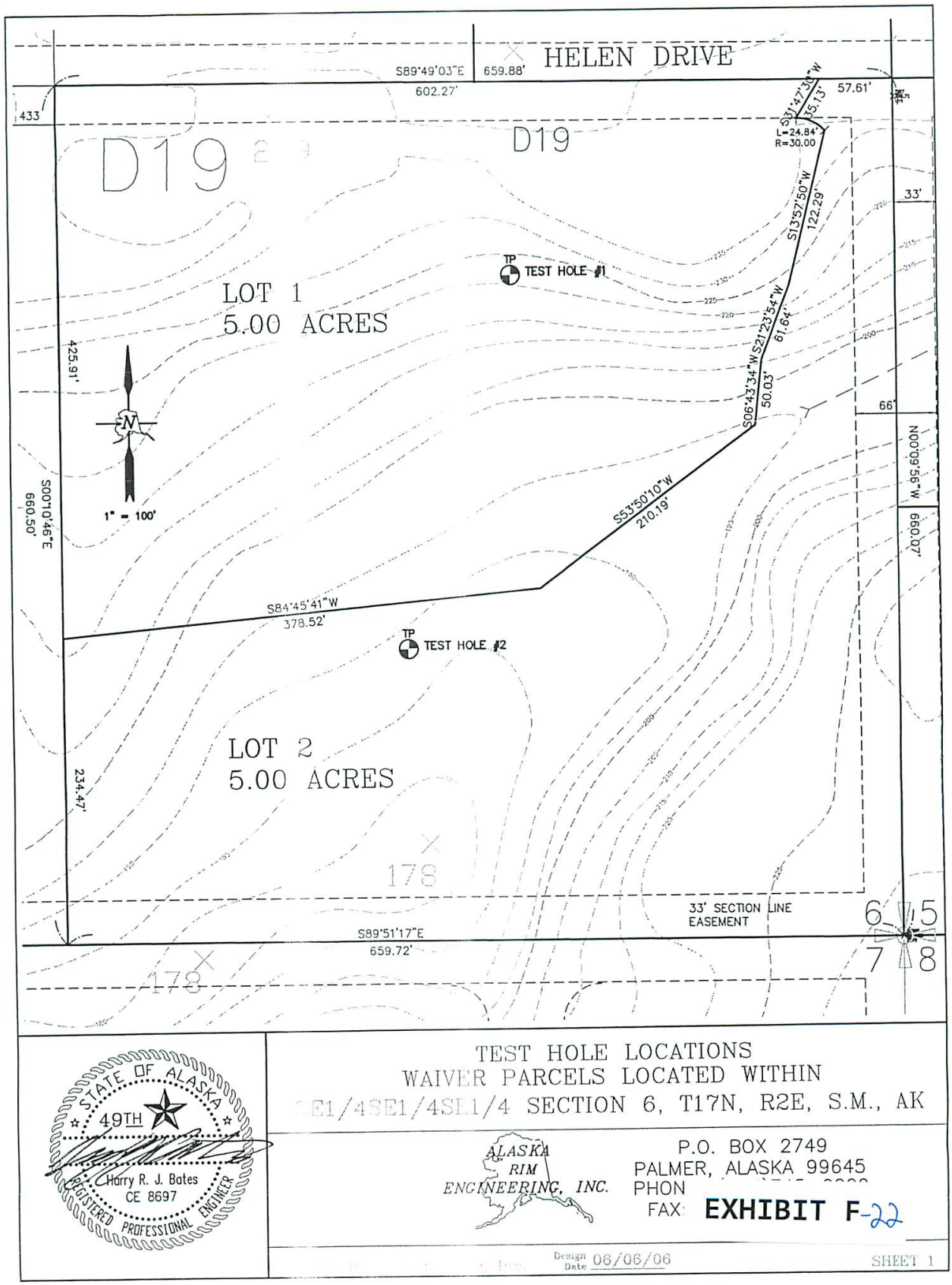
TEST HOLE LOCATION:
Within 25' of proposed SAS.

COMMENTS:
No water or impermeable layers were encountered.
4' of fill to be placed over septic field and tank.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk

EXHIBIT F-21

Alaska Rim Engineering, Inc.
PO Box 2749, Palmer, AK 99645



STATE OF ALASKA
49TH
Harry R. J. Bates
CE 8697
REGISTERED PROFESSIONAL ENGINEER

TEST HOLE LOCATIONS
WAIVER PARCELS LOCATED WITHIN
E1/4SE1/4SE1/4 SECTION 6, T17N, R2E, S.M., AK

ALASKA RIM ENGINEERING, INC.

P.O. BOX 2749
PALMER, ALASKA 99645
PHON
FAX:

EXHIBIT F-22

Design Date 06/06/06

SHEET 1

SOIL LOG

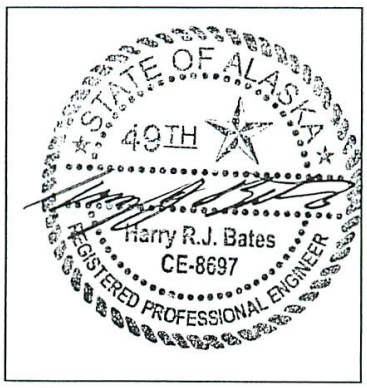
Project: **Sec. 6 T17N R2E TP D19**

Date: **3/31/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 1

AK Rim File No. 05-001458

Depth (feet)	Description
1	silt
2	Sand, Gravel (SP)
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-23

Alaska Rim Engineering, Inc.

SOIL LOG

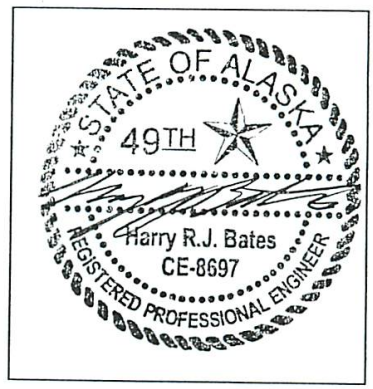
Project: **Sec. 6 T17N R2E TP D19**

Date: **3/31/06** Logged By: **Mike Schwochert**

TEST HOLE NO. 2

AK Rim File No. 05-001458

Depth (feet)	Description
1	silt
2	
3	
4	
5	Sand, Gravel, Cobbles (SP)
6	
7	
8	
9	
10	
11	
12	
13	Bottom of Test Hole
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	



TEST HOLE LOCATION:
See Test Hole Location Map

COMMENTS:
No water or bedrock layer were encountered.

This soil log was prepared for the sole purpose of determining the feasibility of constructing an onsite wastewater disposal system at the location of the test hole. Soil type ratings are based on visual observation and have not been verified with laboratory analyses. These soils have not been analyzed for structural properties, structural stability, and seismic stability or for any purpose other than wastewater absorption field construction. Anyone relying on the information in this log for any use other than wastewater absorption field development shall do so at his or her own risk.

EXHIBIT F-24

Alaska Rim Engineering, Inc.

Douglas & Susan Ott
Box 901
Palmer, Alaska 99645

File #82-661

LEGAL DESCRIPTION

That portion of the NE¼ NE¼ Section 7, Township 17 north, Range 2 east Seward Meridian, Alaska, commencing at the section corner common to sections 5, 6, 7 and 8, T17N, R2E, thence due south 1320 feet more or less along the section line common to sections 7 and 8 to the north 1/16 corner, the true point of beginning; thence west 330 feet more or less to the C-E-E-NE 1/256 corner; thence north 454.58 feet; thence east 330 feet, more or less, to the section line common to secions 7 and 8; thence south 454.58 feet to the point of beginning.

RECEIVED
MAR 17 1983
SCRO
WASILLA

EXHIBIT F-25

Date Received

RECEIVED
MAR 17, 1983
SCRO
WASILLA

83-2-2-DS-754

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR ON-SITE WATER AND SEWER SYSTEM APPROVAL

I. GENERAL INFORMATION

Legal Description of the Location (SEE ATTACHMENT)
Portion of NE¼ NE¼ S7 T17N R2E SM TPA9

Applicant Name: Douglas C. Ott	Applicant is: (Check one) ☐ Bank ☐ Certified Installer No. ☒ Owner/Builder
Address (Street or P. O. Box): PO Box 901	Type of Residence: ☒ Single Family ☐ Multi-Family; Total No. of Bedrooms: 3
City, State and Zip Code: Palmer, Alaska 99645	Telephone: 745-6391 (Wish to reach by phone to request copy of AS-built. Sewer design by PE received PCP 17 Mar 83)
Send Approval to: ☒ Applicant ☒ Other (Give Name & Address): Home Savings Loan, 535 D STREET Pouch 7008, Anchorage, AK 99510	

II. WATER SUPPLY SYSTEM

Source of Water and Containment (Check all that Apply)	Type of Water Supply System	Treatment of Water (Check all that Apply)
☒ Well (Drilled or Driven) ☐ Surface (Identify)	☒ Private	☒ None ☐ Chlorination
☐ Roof Catchment ☐ Other (Identify)	☐ Public (Serves more than one family)	☐ Filtration ☐ Mineral Removal
☐ Holding Tank		☐ Other

Well Data

Is the Height of the Well Casing more than 12" above the Ground?	☒ Yes ☐ No
Is a sanitary seal installed on the well casing?	☒ Yes ☐ No
Is drainage directed away from or around the casing within a radius of 10 feet of the well casing?	☒ Yes ☐ No

Date Drilled	Depth of Well (Feet)	Static Water Level (Feet)	Yield (If Available)	Pump Rate (If Available)
12/21/82	197	133	2 Gal/Min	5 Gal/Min

Separation Distances from the Well Casing to each of the Following Sources of Contamination:

Septic/Holding Tank on Lot: 114 feet	Sewer Lines on Lot: 78 feet (Service Alt from House to Septic Tank)	Absorption Area on Lot: 134 feet
Closest Septic/Holding Tank on Adjacent Lot: ~650 feet	Closest Sewer Lines on Adjacent Lot: 630 feet	Closest Edge of an Absorption Area on Adjacent Lot: 680 feet
If toxic materials are stored on the property, including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides, indicate distance from contaminants to well casing:	On Lot: N/A	On Adjacent Lot: N/A

Water Sample Taken by: Name: Douglas C. Ott	Sampler is: ☒ Buyer/Builder ☐ Engineer
Address: Same	☐ Banker ☐ Government Official

Water Sample Results: Attach Copy ☒ Satisfactory Date: 3/15/83 ☐ Unsatisfactory Date: PCP 17 Mar 83

Comments/Recommendations: Water tastes good. TDS ≈ 910ppm, Iron ≈ 1.0ppm. No problems. Secondary Stds PWS, TDS = 500; Iron 0.3

I certify that the above information is correct:

Signature	Typed/Printed Name	Title	Date
Douglas C. Ott	Douglas C. Ott	Registered Prof. Engineer, AK CE-5509	3/15/83

NOTE: Must be signed by a Certified Installer, Professional Engineer, Department of Environmental Con

EXHIBIT F-26

III. WASTEWATER DISPOSAL

☒ Septic Tank/Absorption System | ☐ Package Treatment: (Specify Brand Name or Process)

Holding Tank - Specify: | Capacity of Tank | Where Waste is Disposed | Frequency of Pumping

Septic Tank Outfall Discharged To | ☐ Other (Specify) (Outhouse, Incinerator, etc.)

☒ **New System**

Name of Installer: Douglas C. Ott		Date Installed: 10/28/82
☒ Owner/Builder ☐ Certified Installer No. ☐ Other:	Type/Manufacturer: Anchorage Tank - Steel	
Septic Tank Size (Gallons): 1,000	Number of Compartments: 2	Soil Type or Rating: GW-
Type Soil Absorption System: Deep Trench	Dimensions/Size Soil Absorption System: 4½' depth x 30' length	Type/Quantity Backfill Material used for Soil Absorption System: 15 yd³ washed leachrock
Percolation Test Results: WELL-GRADED GRAVEL BASED WATER AT >6"/min after 24 hours testing	Percolation Test By (Name): Douglas C. Ott	

Minimum Ground Cover over Absorption area	Minimum Ground Cover over Septic Tank	Cleanout Pipes/Caps Installed on Septic Tank	Cleanout Pipes/Caps Installed on Absorption System
7 Feet	6 Feet	☒ Yes ☐ No	☒ Yes ☐ No

Separation Distance to:	Water Supply Source on Lot	Nearest Water Supply Source on Adjacent Lot	Nearest Body of Water	Water Table/Bedrock	Lot Line
	114 Feet	730 Feet	15,000 Feet	129 Feet	45 Feet

Comments/Recommendations: The sewer service line from the house, the septic tank, and the leachfield trenches are all covered with 2" of Styrofoam (blueboard), then native backfill to ground surface. SEE ATTACHED PICTURES.

I certify that the above information is correct:

Signature	Typed/Printed Name	Title, Reg. /Cert. No., Inst. No.	Date
Douglas C. Ott	Douglas C. Ott	AK. Reg. Professional Engineer CE-5509	3/15/83

NOTE: Must be signed by a certified installer, professional engineer or DEC Staff.

☐ **Existing System**

Name of Installer:		Date Installed:
☐ Owner/Builder ☐ Certified Installer No. ☐ Other:	Type/Manufacturer:	
Septic Tank Size (Gallons):	Number of Compartments:	Soil Type or Rating:
Type Soil Absorption System:	Dimensions/Size Soil Absorption System:	Type/Quantity Backfill Material used for Soil Absorption System:
Adequacy Test Results: ☐ Pass ☐ Fail	Adequacy Test Performed By: (Attach Copy of Report)	Date Septic Tank Pumped (Attach Copy of Receipt)

Minimum Ground Cover over Absorption Area	Minimum Ground Cover over Septic Tank	Cleanout Pipes/Caps Installed on Septic Tank	Cleanout Pipes/Caps Installed on Absorption System
Feet	Feet	☐ Yes ☐ No	☐ Yes ☐ No

Separation Distance to:	Water Supply Source on Lot	Nearest Water Supply Source on Adjacent Lot	Nearest Body of Water	Water Table/Bedrock	Lot Line
	Feet	Feet	Feet	Feet	Feet

Comments/Recommendations:

I certify that the above information is correct:

Signature	Typed/Printed Name	Title, Reg. /Cert. No., Inst. No.	Date

NOTE: Must be signed by a professional engineer.

STATE OF ALASKA 49TH
Douglas C. Ott
Douglas C Ott
CE - 5509
Registered Professional Engineer
SEAL
Registered Professional Engineer

EXHIBIT F-27

IV. DIAGRAM OF SYSTEM(S)

INSTRUCTIONS FOR DIAGRAM

1. In a plan view, locate and identify each of the following:
   a) Well ✓ b) All Structures ✓ c) Septic Tank ✓ d) Soil Absorption System ✓ (Include Dimensions)
   e) Surface Water ✓ f) Sources of Contamination ✓ g) Property Line ✓
   h) Closest well on an adjacent property ✓ i) Closest septic tank on an adjacent property ✓
   j) Closest edge of an absorption field on an adjacent property
2. Show distances between the well and each of the other items listed in 1.
3. Show distances between water bodies and each of the other items listed in 1.
4. In a cross section view of the soil absorption area, identify each component and show the depth (thickness) of the following:
   a) Soil Cover b) Absorption Material c) Water Table d) Bedrock e) Discharge Pipes

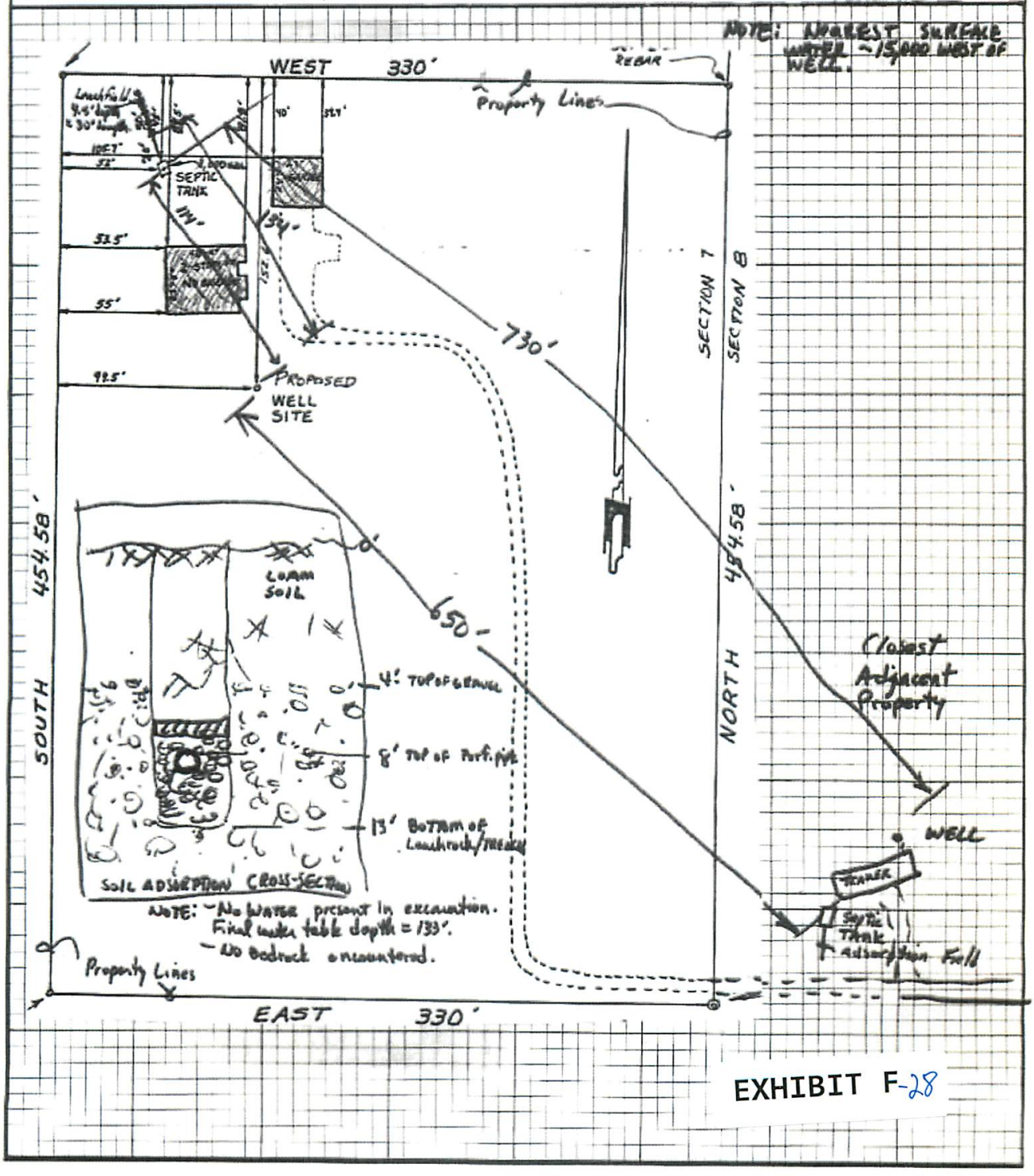


EXHIBIT F-28

WELL LOG

Wheaton Water Wells, Inc.

Box 1218 · Wasilla, Alaska 99687 · 376-2041

OWNER Doug Ott
ADDRESS Box 901 Palmer, AK
WELL – SITE Driftwood Lane 1.5 mi.
~~LOT~~ Township 17 N. Range 2E. SEC. 7
BLOCK
DATE 12-21-82

DEPTH OF WELL 210'
STATIC LEVEL 90'
GALS. PER MIN. 10
SCREENED —
PERFORATED —
SIZE OF CASING 6"

KIND OF FORMATION:

FROM 0 Ft.	to 6 Ft.	Top Soil	FROM Ft.	to Ft.			
FROM 6 Ft.	to 48 Ft.	Sand-Gravel	FROM Ft.	to Ft.			
FROM 48 Ft.	to 137 Ft.	Hard Pan	FROM Ft.	to Ft.			
FROM 137 Ft.	to 180 Ft.	Clay-Gravel	FROM Ft.	to Ft.			
FROM 180 Ft.	to 205 Ft.	Silt-Clay	FROM Ft.	to Ft.			
FROM 205 Ft.	to 210 Ft.	Sand-Gravel-Water	FROM Ft.	to Ft.			
FROM Ft.	to Ft.		FROM Ft.	to Ft.			

DRILLER Charles Pickens

RECEIVED
SCRO
WASILLA

EXHIBIT F-29

3/15/83

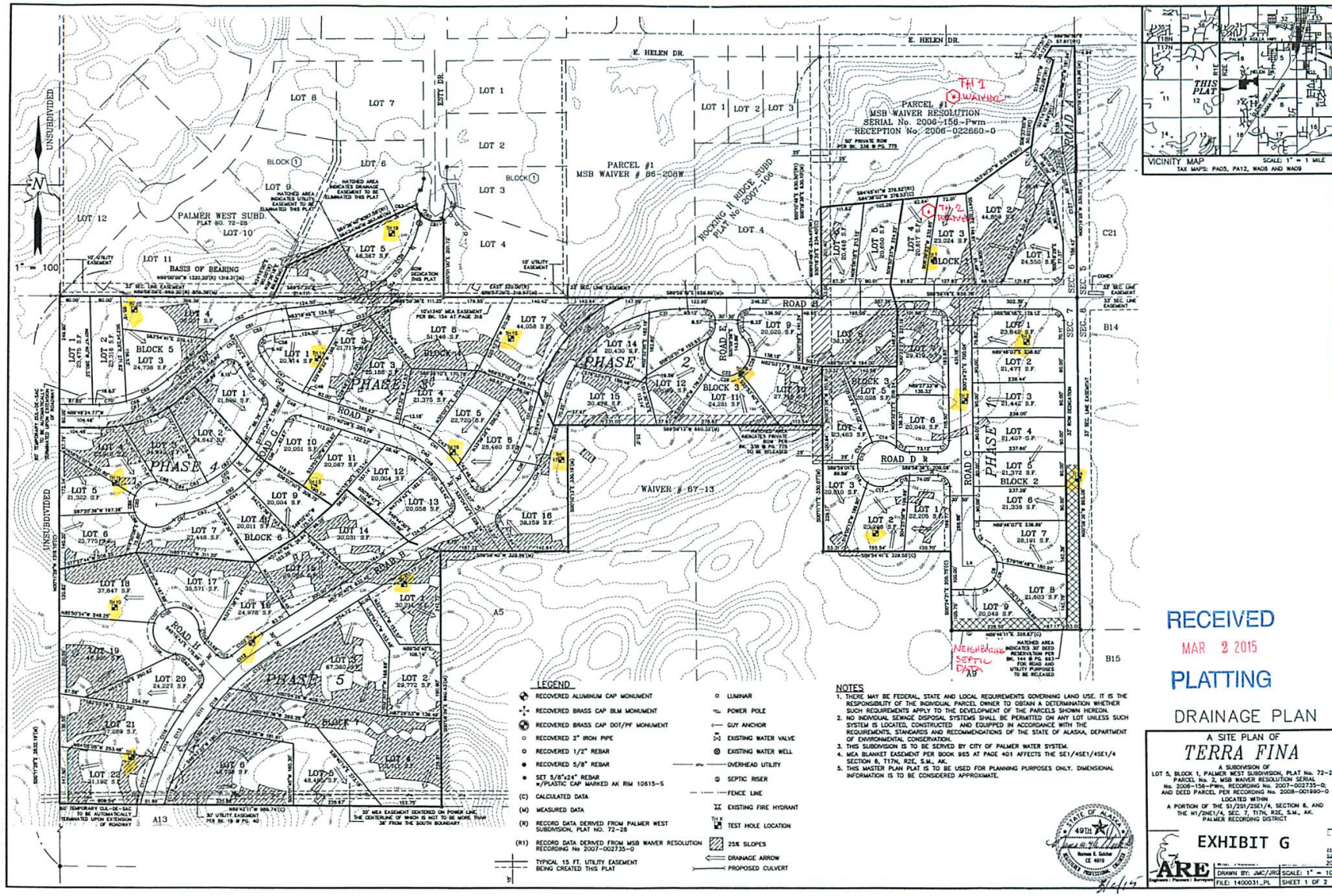
'Modified' Well Log

Doug Ott
Box 901
Drifty Lane, Palmer

- Encountered salty water (TDS > 5,000 mg/l) at depth 205-210'.
- Cemented bottom of casing to new depth = 197'.
- Hired Statewide Blasting of Chugiak to perforate casing between 155-165'. Found good water at this level.
- Hired Sullivan Pump of Chugiak to ~~perfo~~ develop perforations in new formation by surging. Set pump at 178'. Was able to pump ~ 2gpm. Water quality greatly improved to TDS ~ 5,000 ppm.
900 per test results

RECEIVED
17
STRO
WASHITA

EXHIBIT F-30


E. HELEN DR.
PALMER WEST SUBD. PLAT NO. 72-28
PARCEL #1 MSB WAIVER # 06-206W
PARCEL #1 MSB WAIVER RESOLUTION SERIAL No. 2006-156-Pwm RECEPTION No. 2006-022660-0
ROCKING H RIDGE SUBD. PLAT No. 2007-106
BASIS OF BEARING
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 5
WAIVER # 67-13
ROAD A
ROAD B
ROAD C
ROAD D
ROAD E
ROAD F
ROAD G
ROAD H
UNSUBDIVIDED
VICINITY MAP
SCALE: 1" = 1 MILE
TAX MAPS: PA05, PA12, WA08 AND WA09
THIS PLAT
LEGEND
RECOVERED ALUMINUM CAP MONUMENT
RECOVERED BRASS CAP BLM MONUMENT
RECOVERED BRASS CAP DOT/PF MONUMENT
RECOVERED 2" IRON PIPE
RECOVERED 1/2" REBAR
RECOVERED 5/8" REBAR
SET 5/8"x24" REBAR w/PLASTIC CAP MARKED AK RIM 10615-S
(C) CALCULATED DATA
(M) MEASURED DATA
(R) RECORD DATA DERIVED FROM PALMER WEST SUBDIVISION, PLAT NO. 72-28
(R1) RECORD DATA DERIVED FROM MSB WAIVER RESOLUTION RECORDING No 2007-002735-0
TYPICAL 15 FT. UTILITY EASEMENT BEING CREATED THIS PLAT
LUMINAR
POWER POLE
GUY ANCHOR
EXISTING WATER VALVE
EXISTING WATER WELL
OVERHEAD UTILITY
SEPTIC RISER
FENCE LINE
EXISTING FIRE HYDRANT
TEST HOLE LOCATION
25% SLOPES
DRAINAGE ARROW
PROPOSED CULVERT
NOTES
1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL PARCEL OWNER TO OBTAIN A DETERMINATION WHETHER SUCH REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN HEREON.
2. NO INDIVIDUAL SEWAGE DISPOSAL SYSTEMS SHALL BE PERMITTED ON ANY LOT UNLESS SUCH SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
3. THIS SUBDIVISION IS TO BE SERVED BY CITY OF PALMER WATER SYSTEM.
4. MEA BLANKET EASEMENT PER BOOK 965 AT PAGE 401 AFFECTS THE SE1/4SE1/4SE1/4 SECTION 6, T17N, R2E, S.M., AK.
5. THIS MASTER PLAN PLAT IS TO BE USED FOR PLANNING PURPOSES ONLY. DIMENSIONAL INFORMATION IS TO BE CONSIDERED APPROXIMATE.
RECEIVED
MAR 2 2015
PLATTING
DRAINAGE PLAN
A SITE PLAN OF
TERRA FINA
A SUBDIVISION OF LOT 5, BLOCK 1, PALMER WEST SUBDIVISION, PLAT No. 72-28, PARCEL No. 2, MSB WAIVER RESOLUTION SERIAL No. 2006-156-PWm, RECORDING No. 2007-002735-0, AND DEED PARCEL PER RECORDING No. 2008-001990-0 LOCATED WITHIN A PORTION OF THE S1/2S1/2SE1/4, SECTION 6, AND THE N1/2NE1/4, SEC. 7, T17N, R2E, S.M., AK. PALMER RECORDING DISTRICT
EXHIBIT G
ARE
DRAWN BY: JMC/JRG
SCALE: 1" = 100'
FILE: 1400031_PL
SHEET 1 OF 2

City of Palmer, Alaska

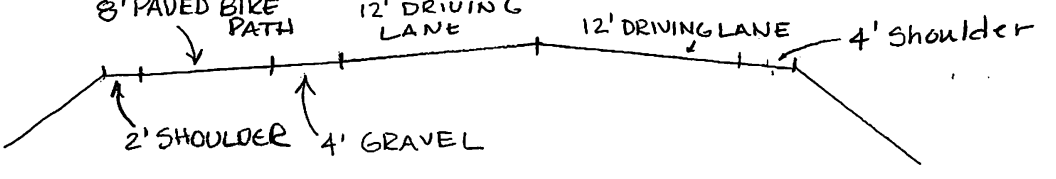
231 West Evergreen Ave.
Palmer, AK 99645
Phone 761-1311
Fax 745-0930

MEMORANDUM

TO: Mayor and Council
Thru: Tom Healy, City Manager
FROM: Jane Dale, Airport Manager
DATE: May 2, 2006
SUBJECT: Variance Request

Merritt Homes proposes to construct a subdivision south of Helen Drive. The subdivision is located outside of Palmer City limits however; access to the subdivision is located within the city.

Merritt Homes has request a variance to the provisions of 12.12.030, 12.12.035, and 12.12.060. The developer proposes the following road cross section:



PMC 12.12.030 Streets
The 1985 Palmer Development Standards and 1998 Standard Specifications require collector streets to be 2- 16' driving lanes with side slopes of 2:1. In addition, the existing right of way must accommodate expansion to four lanes.

LANE WIDTH

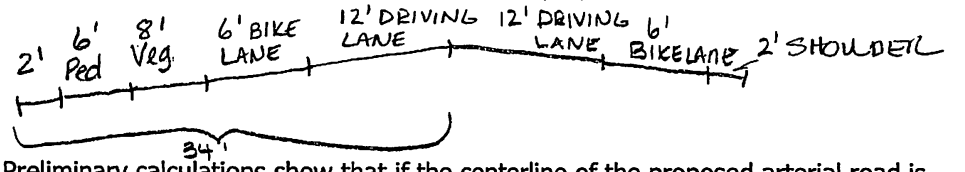
- For projected traffic volumes between 401-600 ADT, ADOT requires a minimum lane wide width of 10' and minimum shoulder width of 5'. The total width is 15'.
- The Municipality of Anchorage (MOA) design manual shows a minimum of 24' street widths and 2' shoulders. The total width is 14'.
- Meritt Homes proposes a 12' driving lane and 4' shoulder. The total proposed width is 16'.

Agenda Item # F.1. (on table)
Meeting Date 5/2/06

EXHIBIT H-1

FUTURE RIGHT OF WAY

The proposed road alignment is identified on the transportation plan as a future arterial corridor. A conceptual roadway section for this proposed arterial road shown below:



Preliminary calculations show that if the centerline of the proposed arterial road is moved onto the section line, the right of way provided by the developer on the west side would accommodate the west 34' of the proposed 54' road section.

SIDE SLOPES

The developer has provided justification to reduce roadway side slope from 2:1 to 1.5:1. The developer would need to vegetate the side slopes to prevent erosion.

PMC 12.12.035 Curb and Gutters

The 1985 Palmer Development Standards require collector and arterial streets be constructed with curb and gutter. The developer proposes to construct a separated bike path without curb and gutter.

For projected traffic volumes of 1000 ADT, the ADOT does not require bike paths be incorporated into the design. When a bike path is incorporated into the design, a minimum 5' of separation between the pavement edge and bike path is standard.

The MOA also does not require separation between bike paths and roads when ADT is less than 1000 unless there are **steep grades** or higher amounts of bike traffic is anticipated.

The City proposes to require a five foot minimum separation distance between the edge of the roadway and the bike path. Merrit Homes engineer believes this will provide adequate room for installation of a guardrail.

PMC 12.12.060 Sidewalks

The 1985 Palmer Development standards for collector and arterial roads required sidewalks. Merritt Homes is proposing one separated bike path 8' wide, in lieu of sidewalks.

For traffic between 300 to 1,000 ADT the MOA require a minimum of one sidewalk on one side of the road. Traffic estimates proposed by Merritt Homes is 600 ADT. The standard bike trail width in MOA is 8'.

Guard Rails.

Merritt Homes engineer has not completed the calculations for a guard rail however, they believe guard rails will be required on both sides of the constructed road. The engineer is proposing metal I beams with metal cables. The engineer believes this design will reduce the potential for drifting snow.

The intersection design. The borough standards allow for maximum grades of 5% within 50' of a T intersection. The MOA requires a maximum of 4% 30' back from the stop sign on the subordinate street and 6% on the dominant street.

EXHIBIT H-2

City of Palmer

231 W. Evergreen Avenue
Palmer, Alaska 99645
Phone 907-745-3271
Fax 907-745-0930

"Alaska at its Best!"

SPECIAL CITY COUNCIL MEETING
TUESDAY, MAY 2, 2006
6 P.M. PALMER CITY COUNCIL CHAMBERS
231 W. EVERGREEN AVENUE, PALMER

EXHIBIT H-3

RECEIVED
FEB 23 2015
PLATTING

A. CALL TO ORDER

A special meeting of the Palmer City Council was held on May 2, 2006, at 6 p.m. in the council chambers, Palmer, Alaska.

Mayor Combs called the meeting to order at 6 p.m.

B. ROLL CALL

Comprising a quorum of the Council, the following were present:

John Combs	Brad Hanson
Jim Wood	Kathrine Vanover
Tony Pippel	Ken Erbey

Also in attendance were the following:

Tom Healy, City Manager
Jack Snodgrass, City Attorney
Janette Bower, City Clerk

C. PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Council Member Erbey.

D. APPROVAL OF THE AGENDA

The council consented to remove item G.1.

E. AUDIENCE PARTICIPATION

Heidi Tokar-Haggart spoke to action memorandum 06-050, voicing her resignation with a road in her backyard and asked the council to ensure the road is planned correctly. She voiced concern regarding the lack of curb and gutter on Helen Drive. Ms. Tokar-Haggart described the 30 mile per hour speed limit as excessive for that type of road. She voiced concern regarding drainage and stated the possibility of the drainage being directed to her backyard. Ms. Tokar-Haggart spoke of area growth and identified herself as a taxpayer. She stressed the need to make the area safe.

F. UNFINISHED BUSINESS

Item 1 – Action Memorandum 06-050: Authorize a Variance from the Provisions of PMC 12.12.030, 12.12.035 and 12.12.060 for Construction of an Access Road to a Proposed Subdivision Development on Parcels 17N02E07A015 and 17N02E07A016

EXHIBIT H-4

RECEIVED
FEB 23 2015
PLATTING

MOVED BY:	Pippel	To authorize a variance from the provisions of PMC 12.12.030, 12.12.035 and 12.12.060 for construction of an access road to a proposed subdivision development on parcel 17N02E07A015 and 17N02E07A016 Clerk's note: After reviewing all documents and holding discussions regarding the variance request, the city council took into account the nature of the proposed use of the land and the existing use of land in the vicinity, the number of persons to reside or work in the proposed subdivision, and the probable effect of the proposed subdivision upon conditions in the vicinity and hereby granted the variance request subject to the provisions of primary amendment no. one.
SECONDED BY:	Hanson	

City Manager Healy explained the meeting held with the engineer and highlighted the following items:

- Design standards for collector streets;
- Appropriateness of the proposed road design in an urban setting;
- Engineering standards analysis;
- City standards for streets and the proposal a two 12 foot driving lanes, a four foot gravel shoulder on both sides and an eight foot paved bike path with two shoulders outside of the path;
- Commitment by the developer for installation of a guard rail should it be required;
- Municipality of Anchorage and State standards in comparison to the proposal;
- Variance from the road width, curb and gutter standards and sidewalk standards;
- Examination of the proposal by his office from a planning point of view;
- Alignment and the road improvement plan; stated that the alignment would be constructed as an arterial and spoke of the increased speed limits;
- Impacts of fill slope and properties to the west;
- Lack of need to obtain additional property at this time.

Council Member Pippel asked of drainage paths and the direction of the drainage if curb and gutter were installed. City Manager Healy stated that if curb and gutter were installed, the water would be directed to the low point and could be channeled by the installation of a catch basis or by a curb.

Council Member Wood spoke of the contour lines and the drainage as flowing downward towards the lots opposite of C-21.

Council Member Pippel spoke of the water flowing to the low spot and the necessity of a stipulation which would designate where the water would go.

Council Member Wood spoke of the two different drainage sections of the road with fill between them which would cause two different pools of water asked of the adequate drainage system contemplated by the engineers.

Mayor Combs voiced concern regarding the direction of the drainage and impact on the area.

EXHIBIT H-5

Council Member Pippel spoke of curb and gutters as a way to manage the water. He voiced the need to gain knowledge from the engineers regarding their plan for the water system.

City Manager Healy stated that even with the installation of curb and gutter, the water would continue to drain to the low spot. He stated that the issue may be addressed through the drainage easements.

Council Member Pippel asked of the ability to set standards for guard rails. City Manager Healy referred to the state standards. Discussion ensued regarding the road grades and the placement of guard rails in the area of the bike paths.

Mayor Combs voiced concern regarding the drainage, the guard rails and safety issues for pedestrians.

Council Member Wood spoke of the area on Helen Drive which does not have a guard rail and the evidence of repeated accidents.

Primary Amendment #1 to Main Motion		
Moved by:	Pippel	To require the following provisions: 1. Adequate drainage plan 2. Guard rails for both sides of the roadway to address pedestrian safety
Seconded by:	Erbey	

Council Member Erbey spoke of the hole on C-20 which drains water over to D-19 and stated that if a road were to be put through the area; the hole would be dammed up, causing ponding. He asked that a culvert be considered from C-20 to D-19 to stop the affects of ponding in the area.

Attorney Snodgrass spoke of the developer's ownership of D-19 and voiced concern regarding the installation and expense of a culvert.

Council Member Erbey voiced concern of a pond being formed in the area of construction which had not previously been there.

Attorney Snodgrass clarified that the variance request did not contain a variance from the drainage provisions.

Vote: Motion carried by unanimous voice vote.			
	Yes:		No:
Pippel	Erbey	Vanover	
Wood	Hanson	Combs	

Council Member Hanson asked if the area outside of the road easement would become a permanent part of the road easement. He voiced concern regarding the future upgrade of the easement. He spoke of the need for a retaining wall on C-20.

The council addressed the following items required by PMC 12.12.080 for granting a variance:

A. That there are such circumstances or conditions affecting said property that the strict application of the provisions of this chapter would clearly be impractical, unreasonable or

EXHIBIT H-6

undesirable to the general public. In such cases, the subdivider shall first state his reasons in writing to the specific provision or requirement involved and submit them to the city council. The subdivider bears the burden of proof.

Council Member Hanson spoke of the reasonableness to waive the curb and gutter requirement due to the rural nature of the area and the lack of access on and off the highway.

The council voiced concurrence with Council Member Hanson and the findings in section A.

B. That the granting of the specific variance will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.

The council voiced a 5-1 (Wood) concurrence with the findings in section B.

C. That the granting of the specific variance will not have the effect of nullifying the intent and purpose of this title or the comprehensive plan.

The council voiced unanimous concurrence with the findings in section C.

VOTE ON MAIN MOTION: Motion passed by unanimous voice vote.			
	Yes:		No:
Pippel	Erbey	Vanover	
Wood	Combs	Hanson	

F. NEW BUSINESS

Item 1 – Action Memorandum 06-052: Authorize City Manager to Negotiate and Amend the Professional Service Agreement with Hattenburg, Dilley and Linnell Engineering Consultants for South Chugach Street Water Main Design to include Construction Administration and Inspection Services

Clerk's note: Action memorandum 06-052 was removed from the agenda.

Item 2 – Review and Discussion of the Matanuska-Susitna Borough's Historic District Design Guidelines Project (Action may be taken by the Council following the Committee of the Whole)

MOVED BY:	Vanover	To enter into the committee of the whole to review and discussion the Matanuska-Susitna Borough's Historic District Design Guidelines Project
SECONDED BY:	Erbey	

The council entered into the committee of the whole at 7:10 p.m. and exited at 8:49 p.m.

Fran Seger-Boss, Vicki Cole and Bonnie Allen addressed the council regarding the Borough grant concerning the historic district design guidelines.

VOTE ON MAIN MOTION: Motion carried by unanimous voice vote.			
	Yes:		No:
Pippel	Erbey	Vanover	
Wood	Hanson	Combs	

EXHIBIT H-7

G. ADJOURNMENT

With no further business before the Council, the meeting adjourned at 8:50 p.m.

APPROVED THIS 9th day of May, 2006.

/s/

John C. Combs, Mayor

/s/

Janette M. Bower, City Clerk

EXHIBIT H-8

\\Server\akrim\PROJECTS\2004\
\dwg\0400884_SP.DWG 3/24/2005 8:54:04 AM AST
REV
DATE
DESCRIPTION
BY
SCALE: AS NOTED FILE: 0501458_SP
W.O. 0501458_SP TAB: P&P-3
DRAWN BY: VP DATE: 04/05/06
CHECKED BY: HB DATE:
ISSUED 3SX DATE:
CALL BEFORE YOU DIG!
ALASKA RIM ENGINEERING, INC.
ENGINEERS-PLANNERS-SURVEYORS
P O BOX 2749 PALMER, ALASKA 99645 (907) 745-0222 FAX (907) 746-0222
T.P. D-19, SEC. 5 & 6, T17N, R2E,S.M. AK
MERIT HOMES LLC
EXHIBIT H
SHEET C 3.0
1" = 60'
HELEN DRIVE
D19
C20
C21
B14
PROPOSED ROW
33' SECTION LINE EASEMENT
BVCS: 0+75.43
BVCE: 238.19
EVCS: 1+35.43
EVCE: 235.49
BVCS: 1+40.67
EVCE: 235.12
EVCS: 3+40.67
EVCE: 228.15
LOW POINT ELEV. = 223.00
LOW POINT STA. = 4+07.01
PVI STA. = 3+40.67
PVI ELEV. = 227.12
K = 38.05
400' VC
ROAD X-SECTION
1"=5'
H:V
NTS
ROW
ROW
VARIES FROM
VARIES 5' FROM
REMOVE ALL ORGANICS BELOW ROAD
3" MINUS
12" D-1
24" MTS GRAVEL (TOP 12" OF GRAVEL TO BE NATURAL)
* = SLOPE OVER 3' MAY BE 1.5 : 1

EXHIBIT H-9

RECEIVED

MAR 11 2015

PLATTING

MATANUSKA-SUSITNA BOROUGH

• PLATTING DIVISION •

350 EAST DAHLIA AVENUE, PALMER, ALASKA 99645-6488
PHONE 861-7874 • FAX 861-8407

Comments Due: April 3, 2015 **March 4, 2015**

Master Plan Request for Comments

AK Dept. of Transportation – Anchorage	**MSB – Emergency Services**
AK Dept. of Transportation – Palmer	**MSB – Community Development**
AK Dept. of Transportation – Aviation	**MSB – Cultural Resources**
AK DNR, Division of Mining/Land/Water	**MSB – Capital Projects, Engineering**
AK DNR, Public Access Defense	**MSB – Public Works, O&M**
AK DNR, Division of Agriculture	**MSB – Assessments**
AK DF&G, Habitat Mgmt. & Permitting	**MSB – Code Compliance**
AK DF&G, Division of Sport Fish	**MSB – Planning Division**
AK Railroad, Engineering Department	**MSB – Pre-Design Division**
Corp of Engineers	**MSB – Permit Center**
U.S. Postmaster	**M.E.A.**
City of: Palmer	**M.T.A.**
Community Council:	**Enstar**
Fire Service Area: ##132 Greater Palmer	**GCI**
Road Service Area: #16 South Colony	**Assembly District #2**
MSB – Borough Attorney	

Title:	Terra Fina Master Plan
Location:	Sec 6 & 7, T17N, R2E, S.M, AK
Petitioner:	Merit Homes, LLC
Address:	1920 W. Dimond Blvd, Ste F, Anchorage AK 99515
Petitioner:	Secret Aafedt
Address:	8707 Frank St, Anchorage AK 99518
Surveyor:	Alaska Rim Engineering, Inc.
Address:	9131 E. Frontage Rd, Ste 1, Palmer AK 99645

The request is to subdivide Tax Parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as Terra Fina, containing 58.1 acres more or less. Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system. Located within Sections 6 & 7, Township 17 North, Range 2 East, Seward Meridian, Alaska.

Please submit your comments in writing, specifying any easements or other requirements that your department or agency may need or any data which you feel should be incorporated on the Master Plan to help us more effectively enforce our subdivision regulations. All comments, existing files and correspondence that you may have relating to this case must be submitted to the Platting Division by **April 3, 2015** so that we may incorporate this information into our recommendations to the Platting Board, for the public hearing to be held on **April 16, 2015.**

Kindest Regards,
Peggy Horton
Platting Technician
peggy.horton@matsugov.us

- CPD 2015-03-10
- CONNECT ESTY DR.
- REQUEST JARVIS ACE 100' TANGENTS ✓
- KUDOS FOR ROADS CONNECTING TO ADJACENT PROPERTY
- DEFER CITY OF PALMER FOR H2O

Providing Outstanding Borough Services to the Matanuska-Susitna Community.

Case #: 2015-041, 42 & 43 Tax ID: 17N02E07A017, 17N02E06D036, 3045B01L005 Tax Map # PA 12 Pre-App Date: 8/26/2014

EXHIBIT I

Sloan VonGunten

From: Michelle Olsen on behalf of Permit Center
Sent: Thursday, March 12, 2015 11:37 AM
To: Platting
Subject: RE: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton

RECEIVED
MAR 12 2015
PLATTING

No Comment

Michelle Olsen, CFM
Permit Technician
Matanuska-Susitna Borough
350 E Dahlia Ave
Palmer, AK 99645
(907) 861-7871

From: Peggy Horton **On Behalf Of** Platting
Sent: Wednesday, March 04, 2015 8:06 AM
To: cepoa-rd-s@usace.army.mil; Kemplen, Allen (DOT); kevin.vakalis@alaska.gov; Tucker Hurn (tucker.hurn@alaska.gov); steven.banse@alaska.gov; holly.zafian@alaska.gov; mark.fink@alaska.gov; Shane M. McCoy (shane.m.mccoy@usace.army.mil); brian.young@usps.gov; Kimberly McClure; Sandra Garley; 'akers@mtaonline.net' (akers@mtaonline.net); edstrabelak@gmail.com; Jill Irsik; John Aschenbrenner; John Mcnutt (jmcnutt@palmerak.org); Elizabeth Weiant; Eric Phillips; Heather Ralston; Capital Projects; Cindy Corey; Pierre Stragier; Brad Sworts; Sheila Armstrong; Jennifer Ballinger; Terry Dolan; Jim Jenson; Cheryl Scott; Theresa Taranto; Susan Lee; Eileen Probasco; Lauren Driscoll; Frankie Barker; Permit Center; Andy Dean; mearow@matanuska.com; Becky Glenn (rglenn@mta-telco.com); Jennifer Ballinger; Robin L. Leighty; 'ospdesign@gci.com' (ospdesign@gci.com); dblehm@gci.com; matthewb@mtaonline.net
Cc: Platting
Subject: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton

Good Morning,

Attached is a request for comments for Terra Fina Master Plan. Portions of this proposed subdivision are within the City of Palmer and the lots will be served by city water. Road A and the first portion of Road B are designed as the main access roads and are designed as residential sub-collector standards and Esty is designed as a residential road.

15' wide utility easements are shown along each side of proposed rights-of-way. The engineer would like to create utility easements based on the final utility design for each phase and not on the basis of creating 15 foot easements adjacent to all rights-of-way. Their idea is to provide utility easements to all lots and perhaps some pocket easements on those sides of the right-of-way where there are topographic constraints. See soils report which includes discussion about utility, drainage, topography, and road design for further information.

Please review and provide your comments no later than April 3, 2015.

Regards,

Peggy Horton
Platting Technician
Matanuska-Susitna Borough
(907) 861-7881 direct
(907) 861-8407 fax
peggy.horton@matsugov.us (email)

EXHIBIT J

RECEIVED
MAR 23 2015
PLATTING

MATANUSKA-SUSITNA BOROUGH

• PLATTING DIVISION •

350 EAST DAHLIA AVENUE, PALMER, ALASKA 99645-6488
PHONE 861-7874 • FAX 861-8407

Matanuska - Susitna Borough Development Services
MAR 04 2015

Comments Due: April 3, 2015

March 4, 2015
RECEIVED

Master Plan Request for Comments

AK Dept. of Transportation – Ai	Open Cases **Y** or **N** (Y) SpUD (Y) or **N**
AK Dept. of Transportation – Pa	City of Palmer
AK Dept. of Transportation – Avia	
AK DNR, Division of Mining/Land/	
AK DNR, Public Access Defense	FIRM # 8135 Zone X Core Area
AK DNR, Division of Agriculture	
AK DF&G, Habitat Mgmt. & Perm	Comments: Parcel D036 and lot 5 are located within city limits. Parcel A017 in Core Area
AK DF&G, Division of Sport Fis	
AK Railroad, Engineering Departr	
Corp of Engineers	
U.S. Postmaster	Date: 3/20/15 By: Theresa Taranto
City of: Palmer	
Community Council:	
Fire Service Area: ##132 Greater Palmer	**GCI**
Road Service Area: #16 South Colony	**Assembly District #2**
MSB – Borough Attorney	

Title:	Terra Fina Master Plan
Location:	Sec 6 & 7, T17N, R2E, S.M, AK
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The request is to subdivide Tax Parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as Terra Fina, containing 58.1 acres more or less. Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system. Located within Sections 6 & 7, Township 17 North, Range 2 East, Seward Meridian, Alaska.

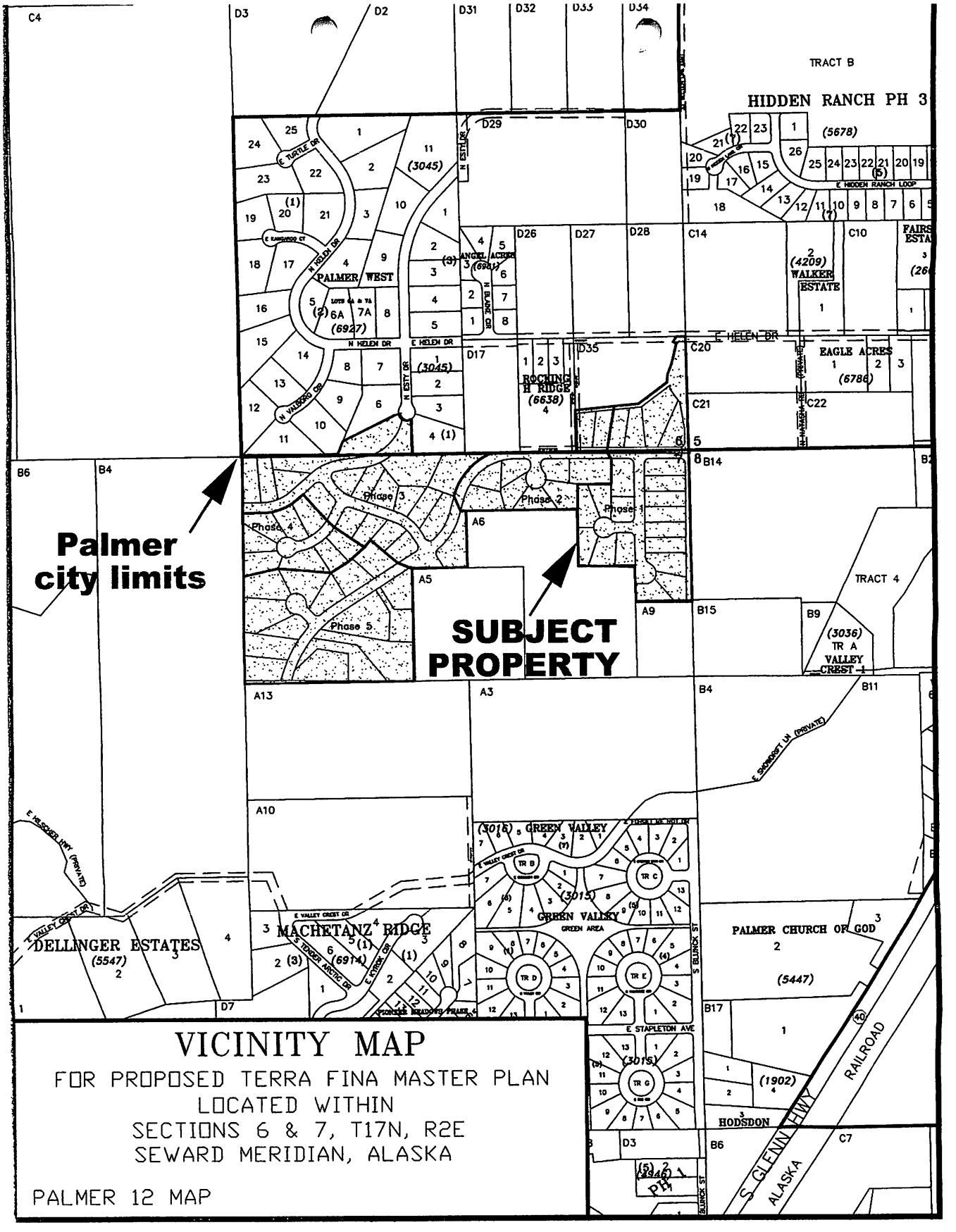
Please submit your comments in writing, specifying any easements or other requirements that your department or agency may need or any data which you feel should be incorporated on the Master Plan to help us more effectively enforce our subdivision regulations. All comments, existing files and correspondence that you may have relating to this case must be submitted to the Platting Division by **April 3, 2015** so that we may incorporate this information into our recommendations to the Platting Board, for the public hearing to be held on **April 16, 2015.**

Kindest Regards,
Peggy Horton
Platting Technician
peggy.horton@matsugov.us

EXHIBIT K

Providing Outstanding Borough Services to the Matanuska-Susitna Community.

Case #: 2015-041, 42 & 43 Tax ID: 17N02E07A017, 17N02E06D036, 3045B01L005 Tax Map #: PA 12 Pre-App Date: 8/26/2014



VICINITY MAP

FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA

PALMER 12 MAP

MATANUSKA-SUSITNA BOROUGH
Community Development
Land & Resource Management
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 745-9869 • Fax (907) 745-9635

MEMORANDUM

RECEIVED
MAR 5 2015
PLATTING

DATE: March 5, 2015

TO: Paul Hulbert, Platting Officer

FROM: Land & Resource Management

SUBJECT: Preliminary Plat Comments / Case #2015-041, 42 & 43

Platting Tech:	Peggy Horton
Public Hearing:	April 16, 2015
Applicant / Petitioner:	Merit Homes, LLC
TRS:	17N02E06 and 07
Tax ID:	17N02E06D036, 17N02E07A017 & 3045B01L005
Subd:	Terra Fina Master Plan
Tax Map:	PA 12

Comments:

- No MSB land affected.
- No objection to platting proposal.

EXHIBIT L

RECEIVED
MAR 4 2015
PLATTING

Peggy Horton

From: Will Barickman
Sent: Wednesday, March 04, 2015 10:31 AM
To: Peggy Horton
Cc: Jim Jenson; Terry Dolan
Subject: RE: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton

No issue from O&M at this time.

Will Barickman
Road Maintenance Superintendent 1
PH: (907) 745-9816
Cell :(907) 355-9816
Fax (907) 746-5769
E- mail: will.barickman@matsugov.us

From: Jim Jenson
Sent: Wednesday, March 04, 2015 9:02 AM
To: Will Barickman
Subject: FW: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton

Pretty big subdivision

From: Peggy Horton **On Behalf Of** Platting
Sent: Wednesday, March 04, 2015 8:06 AM
To: cepoa-rd-s@usace.army.mil; Kemplen, Allen (DOT); kevin.vakalis@alaska.gov; Tucker Hurn (tucker.hurn@alaska.gov); steven.banse@alaska.gov; holly.zafian@alaska.gov; mark.fink@alaska.gov; Shane M. McCoy (shane.m.mccoy@usace.army.mil); brian.young@usps.gov; Kimberly McClure; Sandra Garley; 'akers@mtaonline.net' (akers@mtaonline.net); edstrabelak@gmail.com; Jill Irsik; John Aschenbrenner; John Mcnutt (jmcnutt@palmerak.org); Elizabeth Weiant; Eric Phillips; Heather Ralston; Capital Projects; Cindy Corey; Pierre Stragier; Brad Sworts; Sheila Armstrong; Jennifer Ballinger; Terry Dolan; Jim Jenson; Cheryl Scott; Theresa Taranto; Susan Lee; Eileen Probasco; Lauren Driscoll; Frankie Barker; Permit Center; Andy Dean; mearow@matanuska.com; Becky Glenn (rglenn@mta-telco.com); Jennifer Ballinger; Robin L. Leighty; 'ospdesign@gci.com' (ospdesign@gci.com); dblehm@gci.com; matthewb@mtaonline.net
Cc: Platting
Subject: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton

Good Morning,

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15' wide utility easements are shown along each side of proposed rights-of-way. The engineer would like to create utility easements based on the final utility design for each phase and not on the basis of creating 15 foot easements adjacent to all rights-of-way. Their idea is to provide utility easements to all lots and perhaps some pocket easements on those sides of the right-of-way where there are topographic constraints. See soils report which includes discussion about utility, drainage, topography, and road design for further information.

Please review and provide your comments no later than April 3, 2015.

EXHIBIT M

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Cultural Resources Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 745-9859 • Fax (907) 745-9876

RECEIVED
MAR 12 2015
PLATTING

MEMORANDUM

DATE: 12 March 2015
TO: Peggy Horton, Platting Technician, Platting Division
FROM: Heather Ralston, Archaeological Site Supervisor
SUBJECT: Master Plat Distribution List
TITLE: Terra Fina Master Plan
LEGAL: Sec. 6 & 7, T17N, R02E, SM
TAX MAP: PA 12

SPECIAL NOTE: CULTURAL RESOURCES SURVEY ADVISED

MSB Cultural Resources Division staff has reviewed the above application and finds that there are no known recorded sites on said property. This conclusion was derived through research of the documented sites on file in the Cultural Resources Division of the Matanuska-Susitna Borough and sites documented in Alaska Heritage Resource files at the State Office of History and Archaeology.

While we have no objection to the proposed Planning Action, we advise a cultural resources survey for this parcel because of its location and topography, especially in the vicinity of High Ridge Lake, wetlands, moraines, and creeks indicate that traces of prehistoric and/or historic activities are likely present. The purpose of the survey is to locate, document and photograph cultural resources for a confidential inventory of reported historic and prehistoric sites within the Borough. This helps archaeologists understand and interpret settlement patterns and lifeways of our area for current and future generations. In addition, we will provide a survey report to the property owner if cultural resources are found on their parcel.

The survey will not affect ownership of sites or artifacts located within the property (they belong to the property owner) nor will it obstruct or delay the application process. The survey will be conducted by our office at no cost to the property owner.

Please ask the property owner to contact our office at (907) 861-8655 to arrange for us to conduct the survey. We appreciate your assistance in helping us document our borough's past.

Sincerely,

Heather Ralston

Heather Ralston

NOTE §A.S.11.46.482 (a) of the Alaska Statutes states that

(a) A person commits the crime of criminal mischief in the third degree if, having not right to do so or any reasonable ground to believe the person has such a right …
(3) If a person knowingly
(A) defaces, damages or desecrates a cemetery or the contents of a cemetery or a tomb, grave, or memorial regardless of whether the tomb, grave, or memorial is in a cemetery or whether the cemetery, tomb, grave, or memorial appears to be abandoned, lost, or neglected; (B) removes human remains or associated burial artifacts from a cemetery, tomb grave, or memorial regardless of whether the cemetery, tomb, grave, or memorial appears to be abandoned, lost or neglected.

EXHIBIT N

DEPARTMENT OF COMMUNITY DEVELOPMENT

Sandra Garley
Director

David Meneses
Building Inspector

Beth Skow
Library Director

RECEIVED
APR 06 2015
PLATTING

MEMORANDUM

TO: Paul Hulbert, Chief of Platting
FROM: Kimberly McClure, Planning Technician
DATE: April 3, 2015
SUBJECT: Master Plan Review – Lot 5, Block 1, Palmer West; Tax Parcel D36, Section 6, Township 17 North, Range 2 East, Seward Meridian; and Tax Parcel A17, Section 7, Township 17 North, Range 2 East, Seward Meridian

☑ Inside City Limits ☑ Outside City Limits

We have distributed the abbreviated plat for the subject project and have received the following comments from the following departments:

1. City Manager: No changes necessary.
2. Building Inspector: Cul-de-sacs should meet Fire Chief's required radius.
3. Community Development: The re-design of this subdivision reflects two access points, as requested. Tax Parcel D36 located inside Palmer city limits is zoned R-1, Single-family Residential and the proposed lots in this parcel exceed the required minimum lot area of 8,400 sf. The required minimum lot width is 60'. The proposed lots for this subdivision will be served by City of Palmer water.
4. Fire Chief: See Building Inspector's comments.
5. Public Works: **Please see attached comments.**
6. Planning and Zoning Commission: The March 19 P & Z meeting was cancelled. This plat is scheduled to be reviewed at the April 16 P & Z meeting. Any additional comments will be forwarded.

EXHIBIT O -(

RECEIVED
APR 06 2015
PLATTING
17

Kimberly McClure

From: Tom Healy
Sent: Friday, April 03, 2015 11:10 AM
To: Kimberly McClure
Cc: Greg Wickham; Joe Hannan
Subject: Terra Fina Master Plan

Below are Palmer Public Works' comments on the proposed Terra Fina Subdivision master plan. The property is adjacent to but not within the City limits except for the road connection at Esty Drive.

The subdivision contains some steep street grades that may be unavoidable given the terrain. The design shows a reasonable effort to reduce these grades, but they may present maintenance issues during periods of snow and ice. Because the subdivision is not in the City limits, City road maintenance will end where Esty Drive leaves the City limits.

The subdivision's use of Esty Drive to access Helen Drive is appropriate, but will result in increased traffic on Esty Drive. The project should include paving of Esty Drive and the intersection of Esty and Helen Drives to connect to existing pavement on Helen Drive to eliminate road dust and increased street maintenance that will result from this increased traffic.

Thank you for the opportunity to comment on this proposed subdivision. Please contact me if you have any questions.

Tom Healy
Palmer Public Works Director
(907) 761-1350
(907) 863-0741 (c)
thealy@palmerak.org

EXHIBIT O-2

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Transportation
and Public Facilities

DESIGN & ENGINEERING SERVICES
CENTRAL REGION RIGHT OF WAY

4111 Aviation Avenue
PO Box 196900
Anchorage, Alaska 99519-6900
Phone: 907.269.0700
Toll Free: 800.770.5263
TDD: 907.269.0473
TTY: 800.770.8973
Fax: 907.269.0828

RECEIVED
APR 03 2015
PLATTING

April 1, 2015

Paul Hulbert, Platting Officer
Matanuska-Susitna Borough
350 East Daliah Avenue
Palmer, Alaska, 99645

RE: Plat Review

Dear Mr. Hulbert:

The Alaska Department of Transportation and Public Facilities (ADOT&PF) has reviewed the following plats:

Discovery Hill Phase II RSB Lot 4
- Apply for driveway permits when developing.

Michael's Mesa, Lot 1
- No comment

Wasilla West Subdivision, Lot 16-A-1, Block 1
- No comment

Terra Fina Master Plan
- Verify section line easements. If vacation required, follow formal vacation process.
- Recommend be verified per long-range MSB transportation plan if right of way is adequate for a collector road.

Meadow Valley Add 1L/ 11A
- Right of Way dedication should be to MSB as DOT&PF will not accept.

Tahoe Ridge
- The surveyor needs to check sight distance per ADOT&PF requirements, and verify and provide right of way sufficient for clear visibility.
- No direct access to Fairview Loop from any lot.

The Bluffs of Summer 1
- No direct access to Church Road from any lot.

EXHIBIT P

Amy Otto-Buchanan

From: Becky Glenn <rglenn@mta-telco.com>
Sent: Wednesday, March 04, 2015 3:58 PM
To: Platting
Subject: RE: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton
Attachments: terra_fina.pdf

RECEIVED
MAR 4 2015
PLATTING

Peggy,

MTA has reviewed the Master Plan of Terra Fina. MTA requests easements as shown on the attached.

Thank you for the opportunity to review and comment.
Becky Glenn
MTA

From: Peggy Horton [mailto:Peggy.Horton@matsugov.us] **On Behalf Of** Platting
Sent: Wednesday, March 04, 2015 8:06 AM
To: cepoa-rd-s@usace.army.mil; Kemplen, Allen (DOT); kevin.vakalis@alaska.gov; Tucker Hurn (tucker.hurn@alaska.gov); steven.banse@alaska.gov; holly.zafian@alaska.gov; mark.fink@alaska.gov; Shane M. McCoy (shane.m.mccoy@usace.army.mil); brian.young@usps.gov; Kimberly McClure; Sandra Garley; 'akers@mtaonline.net' (akers@mtaonline.net); edstrabelak@gmail.com; Jill Irsik; John Aschenbrenner; John Mcnutt (jmcnutt@palmerak.org); Elizabeth Weiant; Eric Phillips; Heather Ralston; Capital Projects; Cindy Corey; Pierre Stragier; Brad Sworts; Sheila Armstrong; Jennifer Ballinger; Terry Dolan; Jim Jenson; Cheryl Scott; Theresa Taranto; Susan Lee; Eileen Probasco; Lauren Driscoll; Frankie Barker; Permit Center; Andy Dean; mearow@matanuska.com; Becky Glenn; Jennifer Ballinger; Robin L. Leighty; 'ospdesign@gci.com' (ospdesign@gci.com); dblehm@gci.com; matthewb@mtaonline.net
Cc: Platting
Subject: Request for Comments for Terra Fina Master Plan Case #2015-041, 042, & 043 Tech: PHorton

Good Morning,

Attached is a request for comments for Terra Fina Master Plan. Portions of this proposed subdivision are within the City of Palmer and the lots will be served by city water. Road A and the first portion of Road B are designed as the main access roads and are designed as residential sub-collector standards and Esty is designed as a residential road.

15' wide utility easements are shown along each side of proposed rights-of-way. The engineer would like to create utility easements based on the final utility design for each phase and not on the basis of creating 15 foot easements adjacent to all rights-of-way. Their idea is to provide utility easements to all lots and perhaps some pocket easements on those sides of the right-of-way where there are topographic constraints. See soils report which includes discussion about utility, drainage, topography, and road design for further information.

Please review and provide your comments no later than April 3, 2015.

Regards,

Peggy Horton
Platting Technician
Matanuska-Susitna Borough
(907) 861-7881 direct
(907) 861-8407 fax
peggy.horton@matsugov.us (email)

EXHIBIT Q-1

TOPOGRAPHY NOTE
SURVEYOR'S CERTIFICATE
NOTES
LEGEND
PLANNING & LAND USE DIRECTOR'S CERTIFICATE
NOTARY ACKNOWLEDGEMENT
NOTARY ACKNOWLEDGEMENT
CERTIFICATE OF OWNERSHIP & DEDICATION
VICINITY MAP
A MASTER PLAN OF
TERRA FINA
Agenda Copy
PLATTING
RECHARTER
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 5
ROAD A
ROAD B
ROAD C
ROAD D
ROAD E
ROAD F
ROAD G
ESTY DR.
E. HELEN DR.
UNSUBDIVIDED
PALMER WEST SUBD.
ROCKING R RIDGE SUBD PLAT NO. 2007-100
PARCEL #1 MSB WAIVER RESOLUTION SERIAL No. 2006-156-Pam
PARCEL #1 MSB WAIVER # 85-003M
PARCEL #2 MSB WAIVER # 85-3
SEC. 6
SEC. 7
SEC. 8
SEC. 9
T14N
T15N
R1E
R2E
EXHIBIT Q -2

Peggy Horton

From: Joy Cypra <joy@alaskarim.com>
Sent: Friday, March 06, 2015 4:28 PM
To: Peggy Horton
Subject: RE: Terra Fina MSP comments

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MAR 6 2015
PLATTING

Thanks Peggy

I will contact Becki at MTA to discuss some of these locations. Obviously putting a UE in the ROW being dedicated on the east boundary will not work. And don't understand the easement along the west boundary either. But we will work this out with MTA.

Thanks,
Joy

From: Peggy Horton [mailto:Peggy.Horton@matsugov.us]
Sent: Friday, March 06, 2015 3:41 PM
To: Joy Cypra
Subject: Terra Fina MSP comments

Hi Joy,

See attached,

Have a nice weekend,

Peggy Horton
Platting Technician
Matanuska-Susitna Borough
(907) 861-7881 direct
(907) 861-8407 fax
peggy.horton@matsugov.us (email)

EXHIBIT Q -3

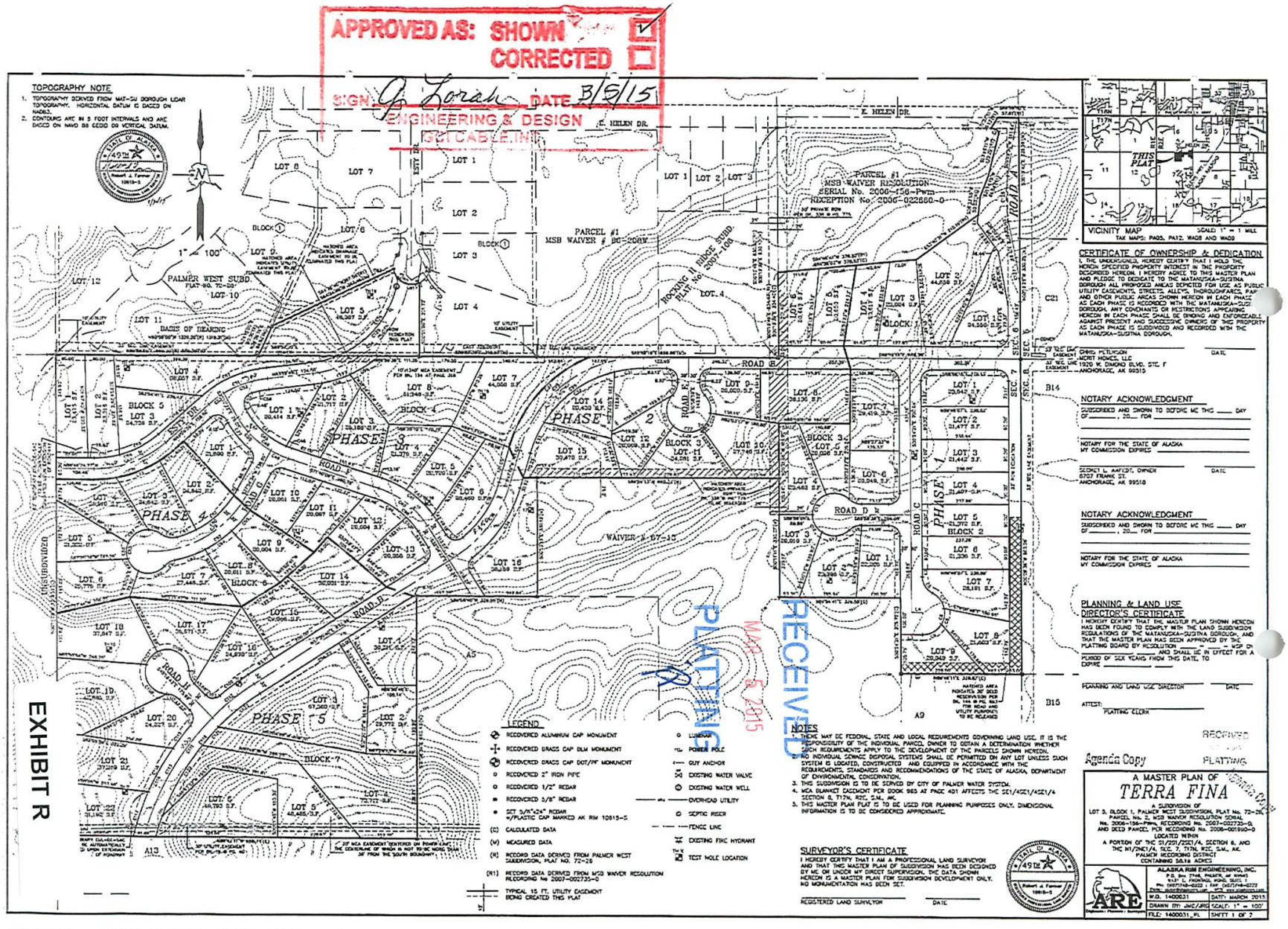


EXHIBIT R

TERRA FINA MSP 2015-041
EXHIBIT Page 82 of 107

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APR 3 2015
PLATTING

ENSTAR Natural Gas Company
A DIVISION OF SEMCO ENERGY
Engineering Department
Right of Way Section
401 E. International Airport Road
P. O. Box 190288
Anchorage, Alaska 99519-0288
(907) 334-7743
FAX (907) 334-7798

April 3, 2015

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

Subject: Request for Comments – Terra Fina Master Plan

Dear Ms. Horton:

ENSTAR Natural Gas Company has reviewed the subject Master Plan and has no comments, recommendations of objections.

If you have any questions regarding, please feel free to contact me at 907-334-7953 or by email at robin.leighty@enstarnaturalgas.com.

Sincerely,

Robin Leighty
Right-of-Way and Permitting Agent
ENSTAR Natural Gas Company

EXHIBIT S

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645
PHONE 861-7874 FAX 861-8407

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FIRST CLASS

Faxed 4/7/15
3 pages

53045B01L012 55
MCCABE CHRISTINE A
600 N VALBORG CIR
PALMER AK 99645-9382

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER: MERIT HOMES LLC & SECRET AAFEDT (owners/petitioners)

REQUEST: The request is to subdivide Tax parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as **TERRA FINA.** Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system.
LOCATION: Located within S ½ S ½ SE ¼ Sec 06 (City of Palmer) & portion of N ½ NE ¼ Sec 07 (outside of city), T17N, R02E, S.M. AK., lying south of E. Helen Drive.
Community Council: Outside of Area & Portion in City of Palmer
Assembly District: #2: Matthew Beck **Area:** 58.1 Acres +/-

The Matanuska-Susitna Borough **Platting Board** will hold a public hearing in the **Assembly Chambers** of the **Dorothy Swanda Jones Building**, 350 E. Dahlia Avenue, Palmer, Alaska on the proposed **Subdivision Master Plan, Drainage Easement Eliminations and Utility Easement Vacations** on ***April 16, 2015.*** The meeting begins at 8:30 a.m. We are sending you this notice as required by State Law and Borough Ordinances because your property is within the subdivision or within 1200' of the petition area. This will be heard before the **PLATTING BOARD** and you are invited to attend.
If you would like to send comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mailing this notice to the Matanuska-Susitna Borough, Platting Division, 350 E. Dahlia, Palmer, Alaska 99645 or Fax (907) 746-7407. Comments received prior to ***April 8, 2015*** will be included in the Platting Board packet for the Platting Board's review and information. Please be advised that comments received from the public after that date will not be included in the staff report to the Platting Board, but will be provided as "Hand-Outs" to the Platting Board. To request additional information please contact the Platting Technician, ***Peggy Horton*** at (907) 861-7881 or the Platting Secretary at (907) 861-8573. **In order to be eligible to file an appeal from a decision of the Platting Board, a person must be designated an *interested party*. See MSB 15.39.010 for definition of "*interested Party*". The procedures governing appeals to the Board of Adjustment & Appeals are contained in MSB 15.39.010-250, which is available on the Borough internet home page, (www.matsugov.us), in the Borough Clerk's office, or at various libraries within the borough**

Please do not send comments or questions directly to the Platting Board members. Board members may not receive or engage in ex-parte contact with the applicant, other parties interested in the application, or members of the public concerning the application or issues presented in the application.

Name: C. McCabe *Address:* 600 N. Valborg Circle, Palmer

Comments: See attached 2-page letter.

Case #15-041 & 042, 043 PH *Note: Vicinity Map Located on Reverse Side*

EXHIBIT T-1

April 7, 2015

Public comments for Platting Board review for 4/16/15 hearing
Sent via fax to 907-746-7407

Matanuska-Susitna Borough
Platting Division
350 E. Dahlia Ave.
Palmer, AK 99645

RE: Notification of Public Hearing for the Proposed Subdivision Master Plan, Drainage Easement Eliminations and Utility Easement Vacations (Case #15-041 & 042, 043 PH)

Dear Sir or Madam,

In response to your Notification of Public Hearing (Case #15-041 & 042, 043 PH), we are pleased to provide you with our comments regarding the petition made by Merit Homes LLC & Secret AAFEDT (Merit Homes). Merit Homes has requested that the Matanuska-Susitna Borough Platting Board (MSB) subdivide Tax parcel A17, Parcel 2, and Lot 5, Block 1, Palmer West into a 72-lot, 5-phase Master Plan to be known as **TERRA FINA.** Merit Homes has also requested that the MSB eliminate a 10' drainage easement along the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the proposed future extension of Esty Drive.

We are the current residents and homeowners of 600 N. Valborg Circle and live within 1200' of the petition area. As such, the removal of the two utility easements is of great concern to us, as the primary electrical service feeder for our residence, along with most residences in the corridor of homes between Esty Drive and Valborg Circle, is currently occupying said easements. Our concern is that Matanuska Electrical Association (MEA) would be required to relocate the lines and obtain new easements. As homeowners, we are concerned with the following potential issues, which are currently unaddressed.

1. Where would the new 10' electrical utility easements be located? Would the easements be on the new subdivision land?
2. Who would pay for MEA to relocate the utility lines? Would Merit Homes pay MEA, or would MEA pass the cost off to residents who are currently using the electrical utilities in question?

Since removing the two electrical utility easements does not make sense and could potentially cause numerous problems for the existing homeowners in the petition area, we respectfully ask the MSB to deny the request to eliminate the two utility easements.

Not only are we homeowners in the petition area, but we are both engineers with surveying experience. Drainage easements are located and included with property boundary surveys for a reason. Has a watershed study been performed by a licensed Civil Engineer within the State of Alaska to ensure that no drainage issues will occur for the neighboring properties with said easement removal? With our engineering backgrounds, we have serious concerns with future drainage issues arising on or near our property if the drainage easement is removed, and we respectfully ask the MSB to deny the request to eliminate the drainage easement.

Additionally, we are concerned with the proposed extension of Esty Drive. We note that there is a N. Esty Drive, accessible off of S. Felton Street, which is shown on some maps as going through the property owned by Spinell Homes, aka **Hidden Ranch Phase III, Tract B.** This tract

EXHIBIT T-2

of property has been cleared for future building, but does not appear to have had any construction activity in the past two years. It appears that the road is supposed to create a loop of sorts between S. Felton Street and Helen Drive, which cannot be constructed due to land ownership issues. Furthermore, continuing the street under the same name (N. Esty Drive) is likely going to cause some confusion with emergency response crews. It has been well publicized that the Municipality of Anchorage (MOA) has been renaming streets within its jurisdiction to prevent this situation, and it may be worthwhile for the MSB to consider this action.

Perhaps of lesser concern to the MSB, but of significant importance to us, and likely our neighbors, as homeowners in the petition area, are the following potential issues:

1. Wildlife Habitat;
2. Noise Pollution;
3. Light Pollution; and
4. Increased Traffic.

As homeowners in the petition area, we would like to know if the MSB and Merit Homes have considered and addressed the aforementioned issues. Many forms of wildlife, including moose, bald eagles, chickadees, and nuthatches, to name a few, live in the proposed development area, and the proposed 72-lot development likely will have negative effects on the local wildlife population. Additionally, a significant increase in noise and light pollution and traffic flow will come with the proposed 72-lot development, both during and after construction. We bought our house in the current location specifically because we did not want to feel like we live in Anchorage. We enjoy the wildlife viewing, star gazing, and quiet evenings and weekends. We also enjoy looking out our windows and seeing trees and vegetation and only a very few neighbors. We recognize that Merit Homes may be permitted by the MSB to develop the petition area, but we respectfully request that the MSB require Merit Homes to consider and address the abovementioned concerns satisfactorily (i.e., no orange sodium lights on streets, no cutting down all the vegetation and trees in the drainage easements, etc.).

Finally, a general question that we would like answered and placed into the minutes is this: Will the properties/lots that Merit Homes proposes to develop and build, that are currently outside the City of Palmer limits, be annexed into said limits prior to construction, so that the new homes are properly paying for the services they will be receiving per the Notification?

We respectfully request that the MSB take our comments under consideration, and acknowledge that the proposed development will have a significant impact upon all homeowners and residents near the petition area. We are willing to provide further comments and suggestions to assist the MSB and Merit Homes if the MSB is interested.

Sincerely,

Christine McCabe, EIT
Billy Brookins, PE
600 N. Valborg Circle
Palmer, AK 99645

EXHIBIT T-3

RECEIVED
APR 8 2015
PLATTING

APRIL 3, 2015

ROBERT MARCISAK
2221 MULDOON RD. SPC 147
ANCHORAGE, AK 99504

MATT & TERESA BECK
1150 S COLONY WAY
STE 3 PMB 133
PALMER, AK 99645

TO: MATTHEW BECK, ASSEMBLYMAN
DISTRICT 2, PALMER AND SOUTH PALMER

SUBJECT: CASE# 15-041 & 042, 043 PH

I NEED TO EXPRESS MY CONCERNS WITH THE PLANS TO SUBDIVIDE PARCELS IDENTIFIED IN THE CASES NOTED ABOVE. I KNOW THE TOPOGRAPHY OF THIS AREA VERY WELL.

MY CONCERNS:

- THE PROJECT IS OVERDEVELOPMENT OF THE LAND. THIS AREA CANNOT SUPPORT THE NUMBER OF LOTS. I AM NOT SURPRISED THAT THE DEVELOPERS HAVE REQUEST THE PALMER MUNICIPAL WATER SYSTEMS FOR SERVICES. THE AVAILABLITY OF QUALITY WATER ON THE NORTH RIDGE OF A17 IS LIMITED. I WONDER WHERE THE CITY OF PALMER PLANS ON GETTING AND HOW TO TRANSPORT THE WATER. THERE IS NO MENTION OF SEWER SERVICES, ANOTHER SERVICE TO BE PROVIDED BY PALMER. THE CITY OF PALMER WILL HAVE TO ANNEX PROPERTIES IN THE AREA TO SUPPORT THESE SERVICES.

- IN COMPARISION TO OTHER SUBDIVISIONS IN THE AREA, THE LOTS ARE SMALLER, OVERCROWED AND ARE NOT LOGICAL (MARK WITH X). THERE APPEARS TO BE LITTLE THOUGHT TO THE TOPOGRAPHY AND ENVIRONMENTAL ISSUES.

- THERE ARE ENVIRONMENTAL ISSUES OF CONCERN. THERE ARE KETTLES IN THE AREA (MARKED WITH OVALS). HOW CAN LOTS AND ROADS BE DEVELOPED AND ENVIRONMENTALY SAFE? THERE IS A WELL ON A5, WILL THE DEVELOPMENT IMPACT THIS SUPPLY OF WATER?

- CONCERNING EASEMENTS ON THE SOUTH RIDGE OF A17, IT IS NOT NOTED. THE E DRIFT LANE/ TRIAL RIDGE LANE IS AN UTILITY AND PROPERTY OWNER ACESS RIGHT OF WAY. THERE MAYBE AN HISTORIC VALUE TO PRESERVING THIS EASEMENT. FRED MACHETANZ BUILT THIS TRAIL, HIS FIRST ACESS TO THE HOMESTEAD.

I AM NOT AGAINST DEVELOPMENT, IT WILL HAPPEN, IT MUST BE DONE IN A REASONABLE, PRUDENT AND ENVIRONMENTALY SAFE MANNER.

THANKS FOR YOUR ASSISTANCE IN THIS MATTER.

R Marcisak

ROBERT MARCISAK, OWNER
117N02E07A005

EXHIBIT T-4

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645
PHONE 861-7874 FAX 861-8407

U.S. POSTAGE PITNEY BOWES
ZIP 99645 $ 000.48
02 1W
0001399405 MAR 26 2015

FIRST CLASS

117N02E07A005 53
MARCISAK ROBERT J
147
2221 MULDOON RD
ANCHORAGE, AK 99504-3645

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

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LOCATION: Located within S ½ S ½ SE ¼ Sec 06 (City of Palmer) & portion of N ½ NE ¼ Sec 07 (outside of city), T17N, R02E, S.M. AK., lying south of E. Helen Drive.
Community Council: Outside of Area & Portion in City of Palmer
Assembly District: #2: Matthew Beck **Area:** 58.1 Acres +/-

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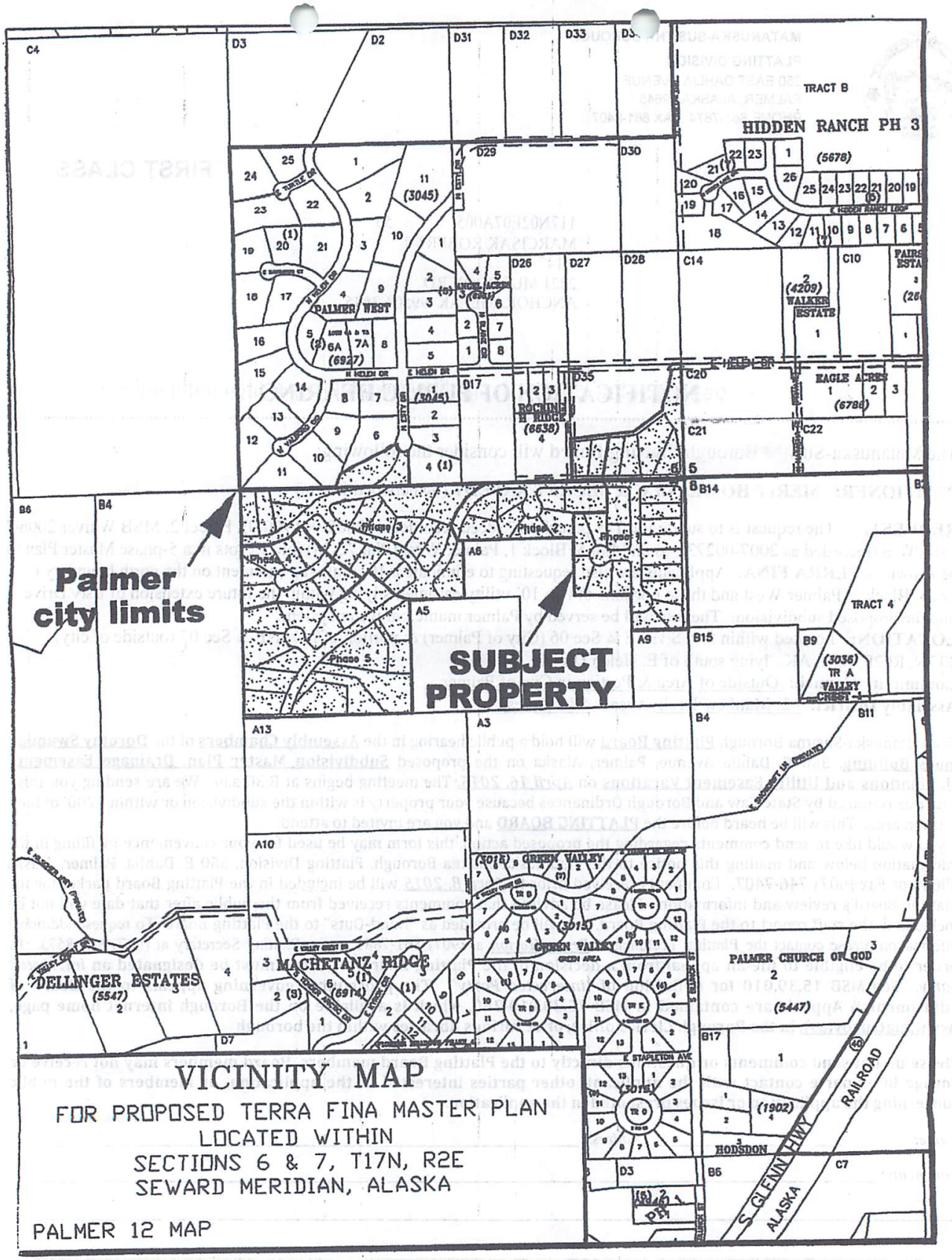
Please do not send comments or questions directly to the Platting Board members. Board members may not receive or engage in ex-parte contact with the applicant, other parties interested in the application, or members of the public concerning the application or issues presented in the application.

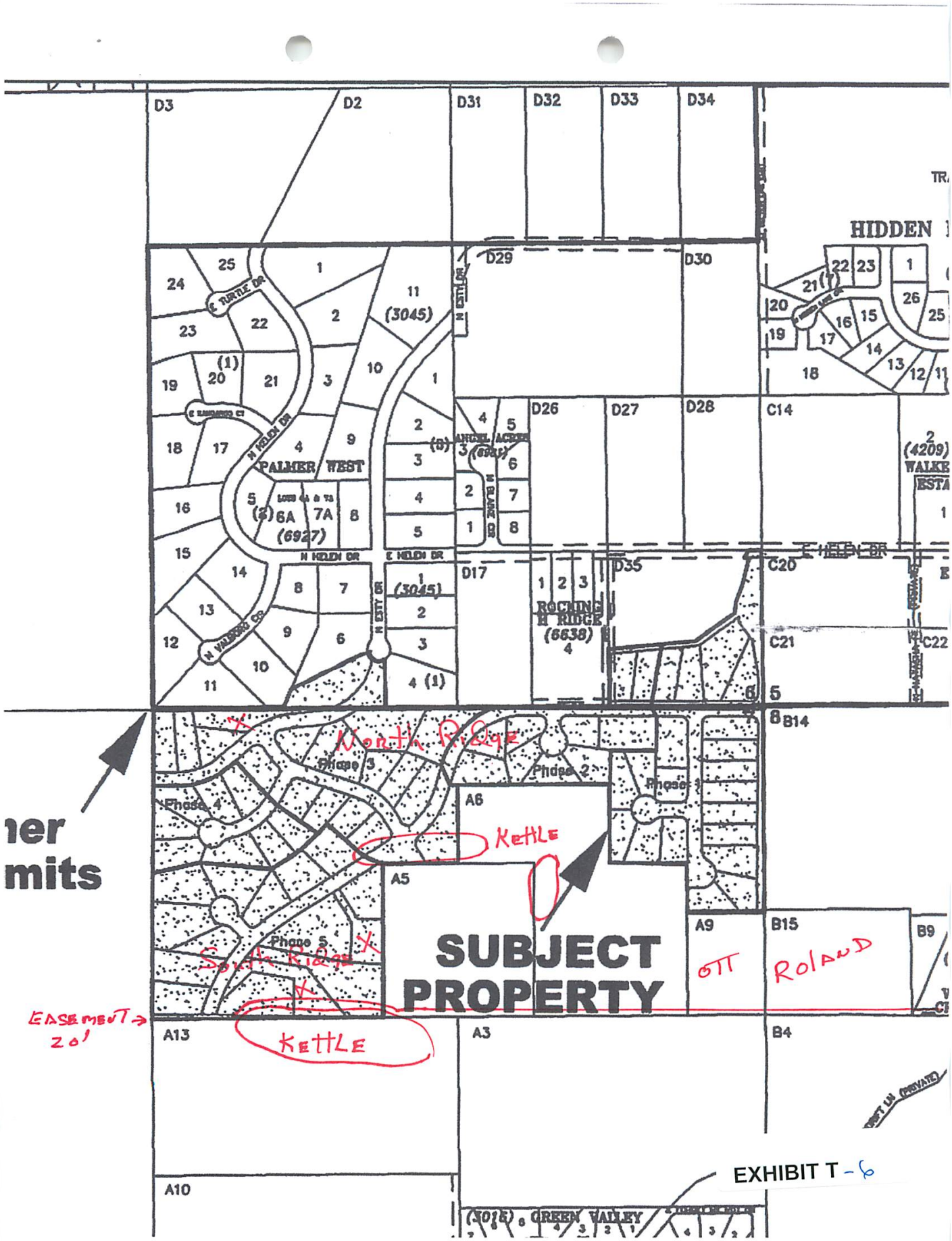
*Name:*_____ *Address:*_____

*Comments:*_____

EXHIBIT T-5

Case #15-041 & 042, 043 PH *Note: Vicinity Map Located on Reverse Side*

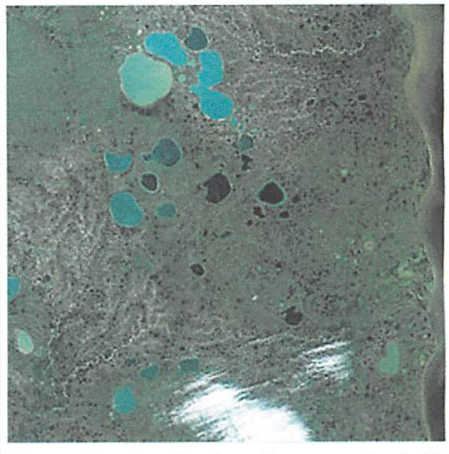

Palmer city limits
SUBJECT PROPERTY
TRACT B
HIDDEN RANCH PH 3
PALMER WEST
WALKER ESTATE
EAGLE ACRES
TRACT 4
GREEN VALLEY
MACHETANZ RIDGE
DELLINGER ESTATES
PALMER CHURCH OF GOD
HODSDON
S GLENN HWY
ALASKA RAILROAD
VICINITY MAP
FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA
PALMER 12 MAP


D3
D2
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A6
A5
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Kettle
SUBJECT PROPERTY
OTT
ROLAND
EASEMENT 20'
A13
A3
B4
A10
GREEN VALLEY
EXHIBIT T - 6

Kettle (landform)

From Wikipedia, the free encyclopedia

A **kettle** (**kettle hole, pothole**) is a shallow, sediment-filled body of water formed by retreating glaciers or draining floodwaters.



Kettle lakes in Siberia, adjacent to the Gulf of Ob (right). The lake colors indicate amounts of sediment or depth; the deeper or clearer the water, the bluer the lake.

Contents

- 1 Overview
- 2 Kettle bogs
- 3 Examples of kettles
- 4 See also
- 5 References
- 6 External links

Overview

Kettles are fluvioglacial landforms occurring as the result of blocks of ice calving from the front of a receding glacier and becoming partially to wholly buried by glacial outwash. Glacial outwash is generated when streams of meltwater flow away from the glacier and deposit sediment to form broad outwash plains called sandurs. When the ice blocks melt, kettle holes are left in the sandur. When the development of numerous kettle holes disrupt sandur surfaces, a jumbled array of ridges and mounds form, resembling kame and kettle topography.[1] Kettle holes can also occur in ridge shaped deposits of loose rock fragments called till.[2]

Kettle holes can form as the result of floods caused by the sudden drainage of an ice-dammed lake. These floods, called jökulhlaups, often rapidly deposit large quantities of sediment onto the sandur surface. The kettle holes are formed by the melting blocks of sediment-rich ice that were transported and consequently buried by the jökulhlaups. It was found in field observations and laboratory simulations done by Maizels in 1992 that ramparts form around the edge of kettle holes generated by jökulhlaups. The development of distinct types of ramparts depends on the concentration of rock fragments contained in the melted ice block and on how deeply the block was buried by sediment.[3]

Most kettle holes are less than two kilometres in diameter, although some in the U.S. Midwest exceed ten kilometres. Puslinch Lake in Ontario, Canada, is the largest kettle lake in Canada spanning 160 hectares (400 acres). Fish Lake in the north-central Cascade Mountains of Washington State, USA, is 200 hectares (490 acres).[4]

EXHIBIT T-7

The depth of most kettles is less than ten meters.[5] In most cases, kettle holes eventually fill with water, sediment, or vegetation. If the kettle is fed by surface or underground rivers or streams, it becomes a **kettle lake**. If the kettle receives its water from precipitation, the groundwater table, or a combination of the two, it is termed a **kettle pond** or **kettle wetland**, if vegetated. Kettle ponds that are not affected by the groundwater table will usually become dry during the warm summer months, in which case they are deemed ephemeral.[6]



A kettle in the Isunngua highland, central-western Greenland

Kettle bogs

If water in a kettle becomes acidic due to decomposing organic plant matter, it becomes a kettle bog; or, if underlying soils are lime-based and neutralize the acidic conditions somewhat, it becomes a kettle peatland. Kettle bogs are closed ecosystems because they have no water source other than precipitation. Both acidic kettle bogs and fresh water kettles are important ecological niches for some symbiotic species of flora and fauna.[7]

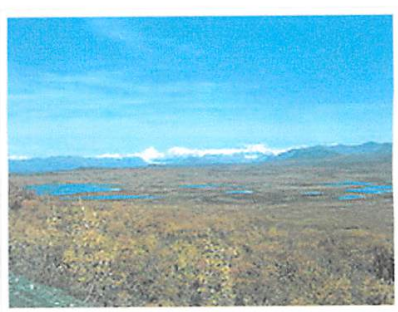
The Kettle Moraine, a region of Wisconsin covering an area from Green Bay to south-central Wisconsin, has numerous kettles, moraines and other glacial features. It has many kettle lakes, some of which are 100 to 200 feet (61 m) deep. Kettle Point, Ontario, Canada, has rock concretions locally named 'kettles', but there are no kettle lakes in this region.



A kettle pond in the Hossa hiking area, Suomussalmi, Finland

Examples of kettles

The Prairie Pothole Region extends from northern Alberta, Canada to Iowa, United States and includes thousands of small sloughs and lakes.



Numerous kettle lakes border the Denali Highway in Alaska

- Austria
- United States
- New York

EXHIBIT T – 8

MATANUSKA-SUSI BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645
PHONE 861-7874 FAX 861-8407

U.S. POSTAGE PITNEY BOWES
ZIP 99645 $ 000.48
02 1W
0001399405 MAR 26 201

FIRST CLASS

53045B03L005 7
BEESON JOHN C & XONG CHAO
PO BOX 1714
PALMER, AK 99645-1714

Objection
RECEIVED
APR 08 2015
PLATTING

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER: MERIT HOMES LLC & SECRET AAFEDT (owners/petitioners)

REQUEST: The request is to subdivide Tax parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as **TERRA FINA.** Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system.
LOCATION: Located within S ½ S ½ SE ¼ Sec 06 (City of Palmer) & portion of N ½ NE ¼ Sec 07 (outside of city), T17N, R02E, S.M. AK., lying south of E. Helen Drive.
Community Council: Outside of Area & Portion in City of Palmer
Assembly District: #2: Matthew Beck **Area:** 58.1 Acres +/-

The Matanuska-Susitna Borough **Platting Board** will hold a public hearing in the **Assembly Chambers** of the **Dorothy Swanda Jones Building**, 350 E. Dahlia Avenue, Palmer, Alaska on the proposed **Subdivision Master Plan, Drainage Easement Eliminations and Utility Easement Vacations** on ***April 16, 2015.*** The meeting begins at 8:30 a.m. We are sending you this notice as required by State Law and Borough Ordinances because your property is within the subdivision or within 1200' of the petition area. This will be heard before the **PLATTING BOARD** and you are invited to attend.
If you would like to send comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mailing this notice to the Matanuska-Susitna Borough, Platting Division, 350 E. Dahlia, Palmer, Alaska 99645 or Fax (907) 746-7407. Comments received prior to ***April 8, 2015*** will be included in the Platting Board packet for the Platting Board's review and information. Please be advised that comments received from the public after that date will not be included in the staff report to the Platting Board, but will be provided as "Hand-Outs" to the Platting Board. To request additional information please contact the Platting Technician, ***Peggy Horton*** at (907) 861-7881 or the Platting Secretary at (907) 861-8573. **In order to be eligible to file an appeal from a decision of the Platting Board, a person must be designated an *interested party*. See MSB 15.39.010 for definition of "*interested Party*". The procedures governing appeals to the Board of Adjustment & Appeals are contained in MSB 15.39.010-250, which is available on the Borough internet home page, (www.matsugov.us), in the Borough Clerk's office, or at various libraries within the borough**

Please do not send comments or questions directly to the Platting Board members. Board members may not receive or engage in ex-parte contact with the applicant, other parties interested in the application, or members of the public concerning the application or issues presented in the application.

Name: John Beeson *Address:* PO Box 1714, Palmer, AK 99645

Comments: See attached letter from my attorney

Case #15-041 & 042, 043 PH *Note: Vicinity Map Located on Revers*

EXHIBIT T-9

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KOPPERUD LAW OFFICES, LLC

PO Box 201
Palmer, Alaska 99645

Phone 907-745-2318
Fax 907-746-2318
Email Kopperud@mtaonline.net

April 6, 2015

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

Re: Petitioner Merit Homes et al.
Case No. 15-041,042 &043

Subject: Application to Vacate Drainage Easement

Dear platting Board Members and staff:

I represent John and Chao Beeson who have their home at the northeast corner of Esty Drive and Helen Drive and whose street address is 755 N. Esty Drive, Palmer, Alaska. The Beesons have been in litigation with the City of Palmer since their home experienced repeated flooding beginning in 2006 as a result of the blockage of the drainage on Helen Drive. The Beesons are concerned that the vacation of the drainage easements near their home may exacerbate the already bad drainage in the area.

The Beesons oppose the subdivision and the vacation of any drainage easements until the borough receives assurances from Merit Homes by way of a professional hydrological study stamped by a civil engineer that the proposed vacated drainage easement will not adversely affected the Beesons or any other property owner in the area. Further, any such study should address whether the subdivision as proposed and constructed will adversely affect the drainage of the existing homes in the area or the homes to be built.

Sincerely,

Ross A. Kopperud
Attorney for John and Chao Beeson

EXHIBIT T-10

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645
PHONE 861-7874 FAX 861-8407

U.S. POSTAGE PITNEY BOWES
ZIP 99645 $ 000.48
02 1W
0001399405 MAR 26 201

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117N02E06D017 46
KOST DANNY W
11668 E HELEN DR
PALMER, AK 99645

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER: MERIT HOMES LLC & SECRET AAFEDT (owners/petitioners)

REQUEST: The request is to subdivide Tax parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as **TERRA FINA.** Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system.
LOCATION: Located within S ½ S ½ SE ¼ Sec 06 (City of Palmer) & portion of N ½ NE ¼ Sec 07 (outside of city), T17N, R02E, S.M. AK., lying south of E. Helen Drive.
Community Council: Outside of Area & Portion in City of Palmer
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If you would like to send comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mailing this notice to the Matanuska-Susitna Borough, Platting Division, 350 E. Dahlia, Palmer, Alaska 99645 or Fax (907) 746-7407. Comments received prior to ***April 8, 2015*** will be included in the Platting Board packet for the Platting Board's review and information. Please be advised that comments received from the public after that date will not be included in the staff report to the Platting Board, but will be provided as "Hand-Outs" to the Platting Board. To request additional information please contact the Platting Technician, ***Peggy Horton*** at (907) 861-7881 or the Platting Secretary at (907) 861-8573. **In order to be eligible to file an appeal from a decision of the Platting Board, a person must be designated an *interested party.* See MSB 15.39.010 for definition of *"interested Party".* The procedures governing appeals to the Board of Adjustment & Appeals are contained in MSB 15.39.010-250, which is available on the Borough internet home page, (www.matsugov.us), in the Borough Clerk's office, or at various libraries within the borough**

Please do not send comments or questions directly to the Platting Board members. Board members may not receive or engage in ex-parte contact with the applicant, other parties interested in the application, or members of the public concerning the application or issues presented in the application.

Name: DANNY KOST ***Address:*** 11668 E. HELEN DR., PALMER, AK

Comments: SEE ATTACHED DOCUMENT WITH A LIST OF OUR CONCERNS.

EXHIBIT T-11

Case #15-041 & 042, 043 PH *Note: Vicinity Map Located on Reverse Side*

Concern
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Matanuska-Susitna Borough Platting Board
Case #15-041 & 042, 043 PH
Terra Fina Master Plan Housing Development by Merit Homes LLC & AAFEDT
Subdivision Master Plan, Drainage Easement Eliminations and Utility Easement Vacations on April 16, 2015

From: 117N02E06D017
Danny and Victoria Kost
11668 E. Helen Drive
Palmer, AK 99645

Concerns:

We understand that development of the greater Palmer area is inevitable. But we ask for responsible development during construction and planning for the development itself. And that the developer and contractors/sub-contractors be respectful of the neighbors and their rights.

Our concerns/comments are based upon current and past experience with developments in the nearby areas along Helen Drive, Felton Avenue, and vicinity. Also, most of Phase I-III of the new development area sits in a bowl where smoke sits in the low spot during winter inversions, and the slopes all drain northward to existing properties. The house in lot D35 installed a wood boiler/furnace two summers ago and the smoke from this house sits in this basin all winter. I am not sure if Merit Homes is aware of this, nor would I think future residents are going to be that happy about it. With the increasing development and growth of Palmer and Matsu areas, the issue related to air quality from smoke and emissions is something to consider addressing now before it becomes a problem like the Fairbanks area is going through. I see this first hand on my commute daily with an ever-increasing gray smoke haze across the valley in winter, which is often accentuated by a slash and burn fire from land clearing for development, grass/brush burning, wood boilers, recreational fires, or trash burning. Encouraging use of low emissions wood boilers/furnaces and lower emissions heating is something to consider along with elimination of slash and burn land clearing practices for more responsible methods of development.

Removal of existing vegetation, and changing the topography will impact neighboring property. Drainage will be forced to the north onto existing properties where we have not experienced any issues in the past. If access is only via Esty Drive, then pedestrians, bikers, walkers will inevitably create trespass shortcuts to Helen Drive. The existing utility right of way to the west of our property is just that, and is not a public trail or right of way. (72) new homes down Helen Drive is probably going to double the demand on existing services and drastically increase traffic along with the related issues and dangers.

It seems ill advised to eliminate the drainage and utility easements on the Palmer lots for the benefit of a subdivision lying outside of the Palmer city limits solely for the benefit of the development. They are using some Palmer services already. So will the subdivision abide by Palmer municipal codes or Matsu? This could be a concern if the Matsu codes are less restrictive than the Palmer codes for the neighboring property owners. Especially for trash collection, burning, etc. For the utility easement, if it is eliminated then how will power and utilities be accessible for other properties on the other side of the Terra Fina development later on? Seems like they bought these lots specifically for access from Esty instead of Helen Drive merely for their personal gain to squeeze in more lots in Phase I instead of using those Palmer City lots for access. They should have to adhere to the lot restrictions that came with the purchase.

EXHIBIT T-12

Construction Concerns:

- Removal of all trees and brush by bulldozing and burning.
- Removal of all trees eliminates the windbreak, and the replacement of natural vegetation with lawns and pavement creates drainage issues and blowing snow issues.
- Construction trash/debris both burning and windblown.
- Traffic on Helen Drive will double based on the number of new homes. Vehicle speed, driveway exit/entrance access limitations, increased danger, mud, debris, blowing trash from vehicles, noise.
- Construction gravel/dirt/cement trucks noise, mud, parking, debris, banging gates to clean.
- Noise from construction bulldozers, diggers, generators, trucks, equipment, nailing, radios, talking/yelling. Palmer has noise ordinances, so will they be adhered with?
- Property fence damage.
- Drainage/flooding from water, and snow melting.
- Snow removal pushed onto nearby properties.

Long-term Development Concerns:

- Drainage/flooding from water, snow melting. Also, it will carry trash and pet fecal matter.
- Snow removal pushed onto nearby properties with fence damage and later flooding.
- Trees removed, wind funnel at times so will take away protection barrier. Wind storms in fall from north and other times of year from east.
- Road location next to our fence, damage, trespass, snow removal, debris. *Install a fence along north boundary maybe to mitigate.*
- Wood stove/fire place installations, smoke. Property is in a sink hole during temperature inversions.
- Recreational smoke from campfires, trash burning, grass clearing.
- Traffic will double on Helen Drive, speed, increased danger, noise, debris, will also limit access in/out of existing driveways.
- Request installation of permanent speed humps by city to slow traffic, and create bike lanes on Helen Drive.
- Blowing trash.
- Noise from neighborhood, cars, pets, lawnmowers, snow/leaf blowers, radios, etc. from (72) homes.
- Why no entrance on Helen Drive vs. Esty, or two entrances? Or pedestrian access to Helen Drive from Phase I?
- Pedestrian/bicycle/ATV trespass to shortcut to Helen Drive. *Install a fence along north boundary to mitigate.*
- Trespass through utility easement. *Install a fence along north boundary to mitigate.*
- Sits in a bowl facing north with all drainage to other properties and temperature inversions in winter
- What is the targeted home buyers? What is the price range of homes? Concerns with cookie cutter/low budget homes with high turnover versus high-quality, higher budget homes with longer term residents. Impact on neighboring home prices, home maintenance/yard upkeep, and impacts on neighborhood.

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645
PHONE 861-7874 FAX 861-8407

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sv03220 102
CASE # 2015-041 & 042, 043
TERRA FINA MSP (UE & DRAINAGE)
3/23/2015 11:03:56 AM

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER: MERIT HOMES LLC & SECRET AAFEDT (owners/petitioners)

REQUEST: The request is to subdivide Tax parcel A17 (deed recorded as 2008-001990-0), Parcel 2, MSB Waiver 2006-156-PWm (recorded as 2007-002735-0) and Lot 5, Block 1, Palmer West (Plat 72-28) into 72 lots in a 5-phase Master Plan to be known as **TERRA FINA.** Applicants are also requesting to eliminate a 10' drainage easement on the north boundary of Lot 5, Block 1, Palmer West and those portions of two 10' utility easements lying within the future extension of Esty Drive into the proposed subdivision. The lots will be served by Palmer municipal water system.
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Community Council: Outside of Area & Portion in City of Palmer
Assembly District: #2: Matthew Beck **Area:** 58.1 Acres +/-

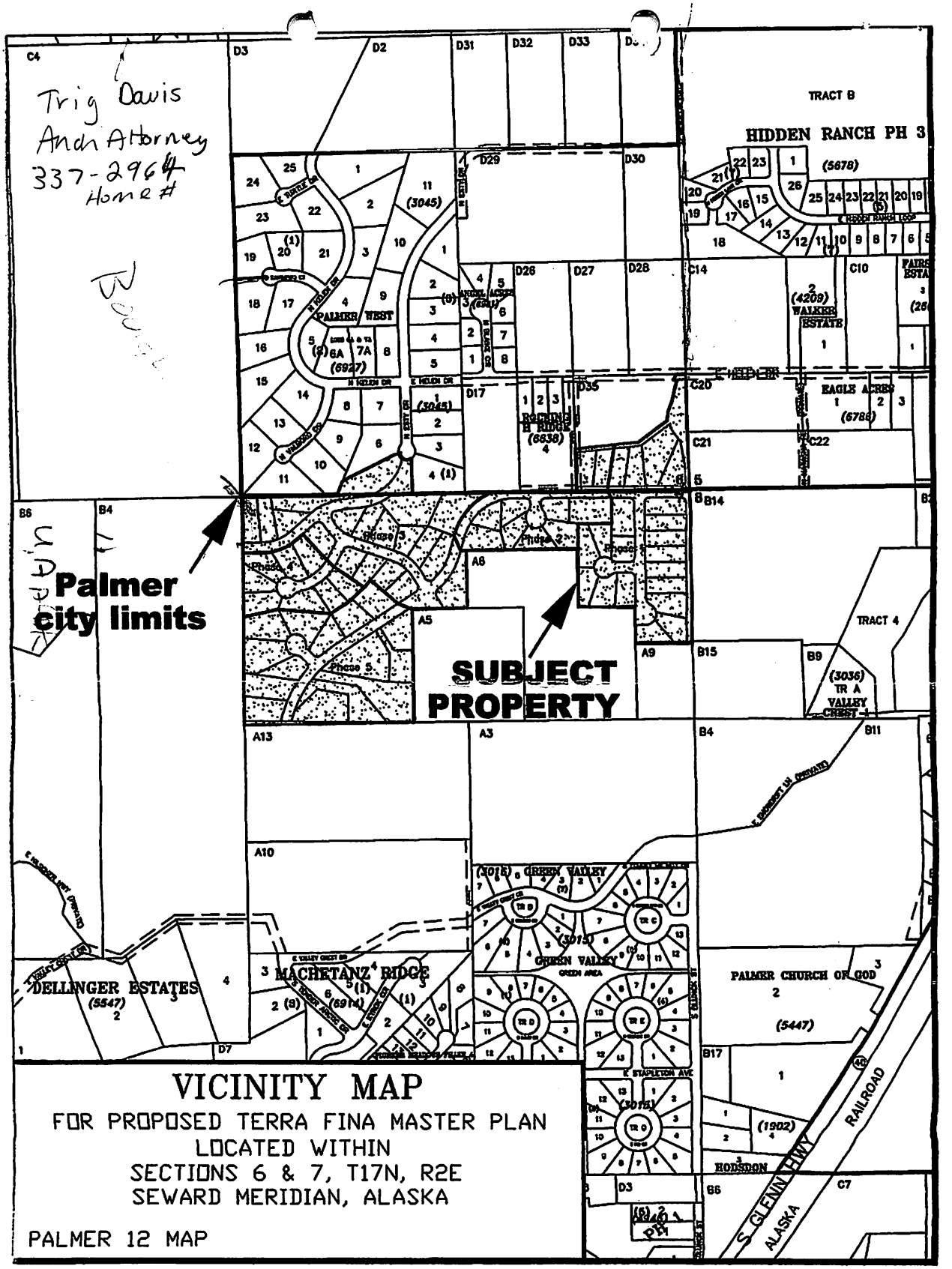
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Name: DANIEL J HANRAHAN *Address:* 1085 N. Esty Dr Palmer Alask 99645
PO Box 3505 " " "

Comments:
Please See Att Sheet.

Case #15-041 & 042, 043 PH *Note: Vicinity Map Located on Reverse Side*



VICINITY MAP

FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA

PALMER 12 MAP

Matthew Goddard

From: DANNY KOST <dkost@mtaonline.net>
Sent: Thursday, July 17, 2025 2:26 PM
To: Platting
Subject: Terra Fina Master Plan Subdivision (owner Red Dog Masonry) - Extension MSB Case# 2015-041 - August 7, 2025 Public Hearing

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

Objection to Extension for Terra Fina Master Plan
Hopefully our objection will be considered by the Platting Board.

Exactly how long is the extension? 6 or 8 years, or will it turn out to be longer? It should be specific if granted. Additionally, they should have a detailed project plan showing when each phase will be completed. They should be held to that commitment as the dates come due. To date, it doesn't appear that anyone held them to their commitment in the original Master Plan. If your case number is accurate, it has been ten years so far they have been playing around with this development, and they aren't very far along. We really don't think this developer has sufficient resources nor a desire to execute the development plan in a timely manner.

This whole development seems haphazard from Day 1. For the first few years only one person was here in winter to bulldoze and burn trees and debris for a week or so, then they would disappear for months. Most of the time it was one operator who worked, or two counting a chainsaw person. They would show up for a couple weeks to knock down trees and burn debris, then they disappear for months and months. After five years or so, there seemed to be some immediacy to build a few of the Phase 1 homes. Maybe because the original approved master plan timeline was running out. MyProperty shows deeds for these Phase 1 homes in 2021. After this flurry on Phase 1, there was a lull, then they did some work on Phase 2 off and on with a couple of unfinished homes still sitting there. But they have been gone again a couple months. Even Phase 2 is not completed.

The recent development of Green Acres down the street was done in such a short period of time and they put in three dozen homes in about two years. I bet they had a project development plan, schedule and committed resources to meet their timeline.

The house contractors are noisy with the hammering, equipment, music playing, and burning their trash. One contractor started a trash fire every day for weeks even though they had a debris dumpster right at the site. Other contractors have burned junk and plastic putting out black smoke and noxious fumes.

The developer leaves the access road to Phase 3-5 open to anyone. Four-wheel ATV's, and dirt-bikers are racing through there at all hours now. They are there so often they have worn a track up and down the hillsides in places. We recently noticed someone starting to dump used tires and stuff. Other people drive down there to cut down trees and haul away firewood at all hours. It seems like the word got out that there is no one out this road to watch what goes on.

How long will we have to put up with the noise, smoke, equipment fumes, and disruption from all the construction activity? We have called into the emergency line at least once or twice per year due to the debris burning, then leaving the debris pile smoldering after they leave, which violates burning permit requirements. They leave it burning unattended often, but it seems like a waste of time to call it in if there are no consequences to their negligence. This spring they twice left debris piles smoldering when the emergency fire restrictions about low snow cover were put in place. This was extremely worrisome for us living close by. The fire department was called to put them out. Yet they still are allowed to burn again and again. This bulldoze and burn is such an antiquated

construction technique that should not be allowed. Especially so close to so many homes nearby. Not only that, but this developer has shown time and again their negligence with burning. This development borders the Palmer City limits and there are so many homes with families nearby.

Thank you for considering our comments to the extension of the Master Plan for this development.

Matthew Goddard

From:	Laurent Meillier <zapotal@mac.com>
Sent:	Wednesday, July 16, 2025 4:54 PM
To:	Platting
Subject:	Property Owner Comments on Red Dog Masonry Petition
Attachments:	Red Dog Petition 071625.pdf

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
To Whom It May Concern,

As the property owner of 11950 E Kingdom in Palmer, I am writing to share my concerns with the Red Dog Masonry's petition for a 6- to 8-year development extension:

Developer

- Property Maintenance: The petitioner's property should improve upkeep, including the removal of refuse, used tires, barrels of unknown contents, particularly those without secondary containment.

- Erosion Control: Improve erosion control measures are needed for existing soil piles on the site.

- Public Disclosure of Master Plan: The City and the developer should publicly disclose the general master plan for the subdivision. This should include connectivity to the Crevasse Moraine trail system and any roadway extensions. For example:
  - Will Kingdom Avenue connect to a new road adjacent to the powerline right-of-way?
  - Will Terra Fina Avenue extend south beyond its current dead end?

- Vicinity Map Improvements: The submitted vicinity map should be updated to clearly show the names of both existing and proposed roads and streets within the subdivision.

- Development Schedule:
  - How many parcels are expected to be developed each year during the proposed extension period?
  - How many parcels remain undeveloped as of this petition?

- Habitat Preservation and Restoration: Will the developer take steps to minimize habitat loss by reducing clear-cutting practices on individual parcels or by replanting vegetation to serve as wildlife habitat and windbreaks?

City of Palmer

- Wastewater Management:
  - Will newly built homes be connected to the municipal wastewater treatment system, particularly if they fall within the Palmer city limits?
  - Are there plans to convert septic systems to municipal sewer connections? Septic systems produce unpleasant odors and negatively impact water quality, even when designed to discharge into the groundwater especially considering the proximity to

water bodies used for numerous beneficial uses and an active waste disposal site about a mile away crossgradient. Treated wastewater can be recycled for groundwater recharge, irrigation and discharge to the numerous aquatic systems.

- City Incorporation and Incentives:
  - Will there be a motion to incorporate the subdivision into the City of Palmer?
  - Are there tax or permitting incentives for remaining within the Borough but outside the city limits?

Thank you for the opportunity to comment on the proposed subdivision extension. I look forward to your written response via email.

Sincerely,
Laurent Meillier.

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

RECEIVED
JUL 24 2025
PLATTING

3045B02L002 220
FISHER DANIEL & KATRINA
955 N HELEN DR
PALMER, AK 99645-9397

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER/OWNER: RED DOG MASONRY

REQUEST: The petitioner is requesting an extension of 6 to 8 years for the approved **TERRA FINA MASTERPLAN SUBDIVISION**, MSB Case# 2015-041. Located within Sections 6 & 7, Township 17 North, Range 02 East, Seward Meridian, Alaska. In the Greater Palmer Community Council and Assembly District #2.

The Matanuska-Susitna Borough **Platting Board** will hold a public hearing in the **Assembly Chambers** at the **Dorothy Swanda Jones Building**, 350 E. Dahlia Avenue, Palmer, Alaska on the proposed **Subdivision.** The public hearing is scheduled for **August 7, 2025,** starting at 1:00 p.m. We are sending you this notice as required by State Law and Borough Ordinances.

For comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mail this notice to the MSB Platting Division, 350 E. Dahlia Avenue, Palmer, Alaska 99645 or e-mail: platting@matsugov.us. Comments received from the public after the platting packet has been written will be given to the Platting Board in a "Hand-Out" the day of the meeting. **All public comments are due one (1) day prior, by 12:00 p.m.**
To request additional information please contact the Platting Technician, ***Fred Wagner*** at (907) 861-7870.
To view the agenda or meeting packet please go to the following link: www.matsugov.us/boards/platting.

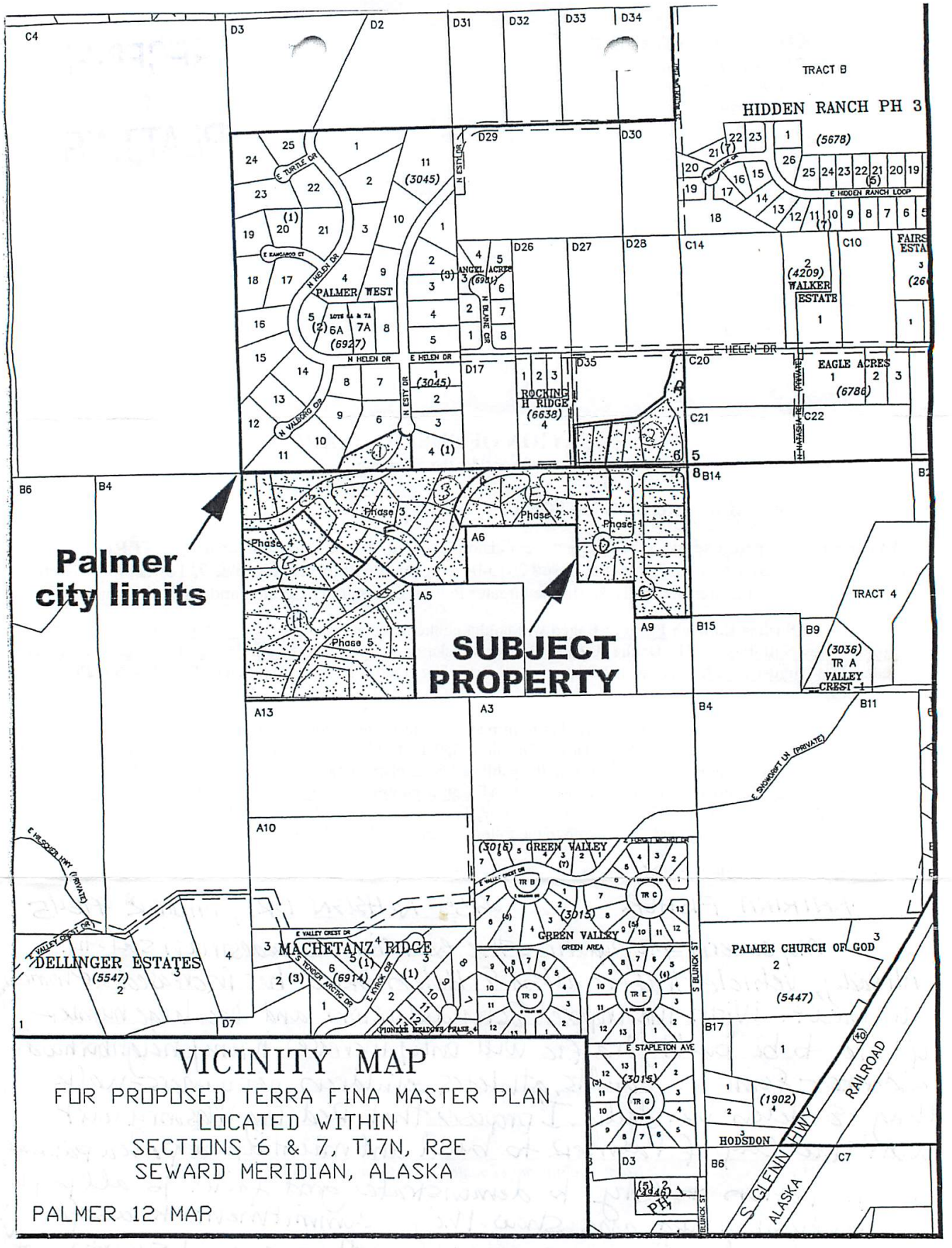
[ ] No Objection [ ] Objection [X] Concern

Name: KATRINA FISHER *Address:* 955 N. HELEN DR., PALMER 99645

Comments: My concern for approving the extension is pedestrian safety. Already, vehicle traffic along E. Helen DRIVE has increased as homes are built. With the proposed Esty extension and the large number of homes to be built, traffic will only increase. Many neighborhood residents - families, adults, athletes, children, pet owners - walk along E. Helen DR. daily. I propose that Red Dog Masonry work with the City of Palmer to build and maintain a paved pathway from Felton to Esty to demonstrate good faith to all people in the neighborhood and show their commitment to a safe, thriving, and active community. If a path goes in, I support the extension.

Katrina Fisher

Case # 2015-041 FW *Note: Vicinity map Located on Reverse Side*



VICINITY MAP

FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA

PALMER 12 MAP

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

RECEIVED
JUL 24 2025
PLATTING

17N02E07A006 221
WILSON-MORAN AK COMM TR
WILSON HENRY H TRE WILSON GLADYS MORAN T
9601 BUDDY WERNER DR
ANCHORAGE, AK 99516-1050

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER/OWNER: RED DOG MASONRY

REQUEST: The petitioner is requesting an extension of 6 to 8 years for the approved **TERRA FINA MASTERPLAN SUBDIVISION**, MSB Case# 2015-041. Located within Sections 6 & 7, Township 17 North, Range 02 East, Seward Meridian, Alaska. In the Greater Palmer Community Council and Assembly District #2.

The Matanuska-Susitna Borough **Platting Board** will hold a public hearing in the **Assembly Chambers** at the **Dorothy Swanda Jones Building**, 350 E. Dahlia Avenue, Palmer, Alaska on the proposed **Subdivision.** The public hearing is scheduled for **August 7, 2025,** starting at 1:00 p.m. We are sending you this notice as required by State Law and Borough Ordinances.

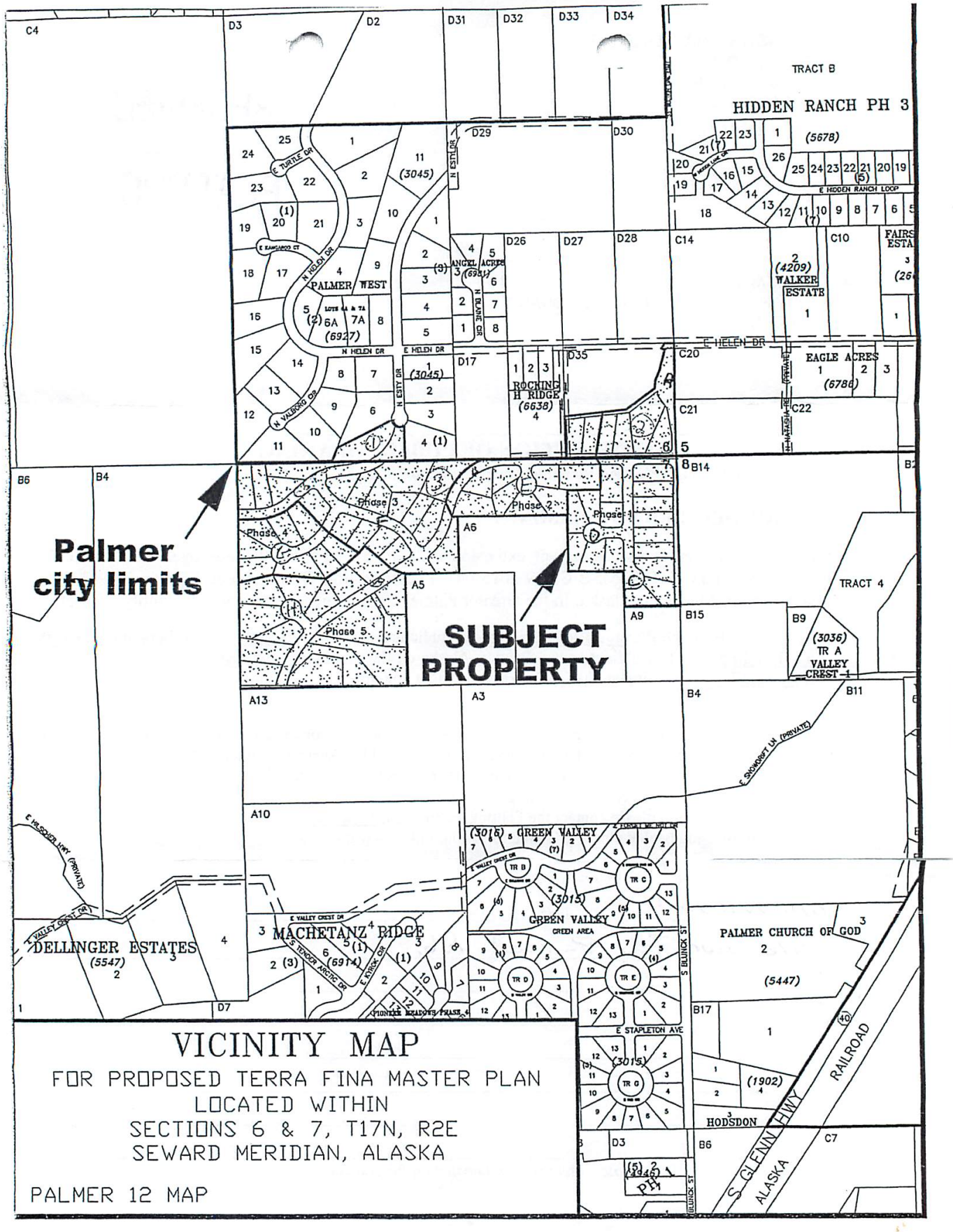
For comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mail this notice to the MSB Platting Division, 350 E. Dahlia Avenue, Palmer, Alaska 99645 or e-mail: platting@matsugov.us. Comments received from the public after the platting packet has been written will be given to the Platting Board in a "Hand-Out" the day of the meeting. **All public comments are due one (1) day prior, by 12:00 p.m.** To request additional information please contact the Platting Technician, ***Fred Wagner*** at (907) 861-7870.
To view the agenda or meeting packet please go to the following link: www.matsugov.us/boards/platting.

[✓] No Objection [ ] Objection [ ] Concern

Name: H.H. WILSON *Address:* _____

Comments: We own Tax Parcel A6,

Case # 2015-041 FW *Note: Vicinity map Located on Reverse Side*



VICINITY MAP

FOR PROPOSED TERRA FINA MASTER PLAN
LOCATED WITHIN
SECTIONS 6 & 7, T17N, R2E
SEWARD MERIDIAN, ALASKA

PALMER 12 MAP

4B

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 07, 2025

PRELIMINARY PLAT:	UTOPIA VIEW II
LEGAL DESCRIPTION:	SEC 06, T17N, R01W, SEWARD MERIDIAN AK
PETITIONERS:	FOXGLOVE, LLC.
SURVEYOR/ENGINEER:	ACUTEK GEOMATICS
ACRES: 62.049 ±	PARCELS: 42
REVIEWED BY:	MATTHEW GODDARD CASE #: 2025-061

REQUEST: The request is to bring the approved **UTOPIA VIEW II** before the board to modify Condition of Approval #4a. The request would remove the requirement to construct the proposed E. Joseb Drive. The plat is located directly West of N. Utopia View Circle, North of W. Wintergreen Drive, West of Church Road, and South of W. Spruce Avenue, located within the NW ¼ Section 6, Township 17 North, Range 01 West, Seward Meridian, Alaska; and in Assembly District #007.

EXHIBITS:

SUPPORTING DOCUMETATION:

Vicinity Map	**PAGE** – 1
Request to Modify COA #4 a)	**PAGE** – 2
June 19, 2025, Platting Authority Action Letter	**PAGES** – 3-5
June 19, 2025, Staff Report Packet & Handouts	**PAGES** – 6-194

AGENCY COMMENTS

MSB DPW Pre-Design and Engineering Division	**PAGE** – 195
MSB Development Services	**PAGES** – 196-197
Utilities	**PAGES** – 198-207

DISCUSSION: Utopia View II was originally heard and approved during the June 19, 2025, Platting Board meeting. The petitioner is requesting the modification of Condition of Approval #4 a) Construct the extension of N. Jack Nicklaus Drive, the extension of N. Utopia View Circle, E. Joseb Drive and N. Jimmys Way to Residential Subcollector standards per the 2022 SCM. If approved the request would remove the requirement to construct E. Joseb Drive. If the removal of the construction requirement of E. Joseb Drive is approved, all lots would still meet access requirements as seen at MSB 43.20.100 Access Required, 43.20.140 Physical Access, and 43.20.320 Frontage. The condition was originally added due to MSB DPW Pre-Design and Engineering comments received for the June 19th meeting. PD&E had no objections to the removal of this condition.

Access: Legal and physical access to the proposed lots are required pursuant to MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Access requirements will be met once interior street is constructed, and upgrades of existing access streets are completed.

Soils Report: A geotechnical report was submitted with the June 19, 2025, case submittal **(Exhibit Pages 17-74)**, pursuant to MSB 43.20.281(A).

Drainage Report: A drainage report was submitted with as a part of the June 19, 2025, case submittal **(Exhibit Pages 77- 164)** pursuant to the 2022 Subdivision Construction Manual Section D submittal requirements.

Average Daily Traffic Calculation (ADT): An ADT was submitted as a part of the June 19, 2025, case submittal **(Exhibit Pages 165-166)** pursuant to the 2022 Subdivision Construction Manual Section A15.

Comments:

MSB DPW Pre-Design and Engineering Division **(Exhibit Page 195)** does not object to removing the requirement to construct E. Joseb Drive, as physical access is provided to all lots by the adjoining streets.

MSB Development Services **(Exhibit Pages 196-197)** has no objection to removing the requirement to construct the proposed E. Joseb Drive.

Comments received for the June 19, 2025, case hearing can be found at **Exhibit Pages 167-190 & 194.**

Utilities: **(Exhibit Pages 198-207)** ENSTAR requests a note be added which refers to an ENSTAR 15' wide natural gas easement recorded under recording number 2022-011389-0. *Platting staff notes that all recorded easements will be shown on the final plat.* GCI has no comments or objections. MEA did not respond. MTA did not respond.

At the time of staff report write-up, there were no responses to the Request for Comments from USACE; ADF&G; City of Wasilla; Meadow Lakes Community Council; Fire Service Area #130 Central Mat-Su; Road Service Area #27 Meadow Lakes; MSB Emergency Services, Community Development, Assessments, or Planning; MEA or MTA.

CONCLUSION: The modification to Condition of Approval #4 of the preliminary plat of Utopia View II is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There was one objection to the plat from the public in response to the Notice of Public Hearing. Legal and physical access will exist to the proposed lots once all construction/certification has been completed, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.218(A)(1), a revised report will be required once all regrading has been completed.

FINDINGS OF FACT

1. The preliminary plat of Utopia View II was heard and approved by the Platting Board during the June 19, 2025, Preliminary Plat hearing.
2. The petitioner has requested the modification of Condition of Approval #4 a) to remove the requirement to construct E. Joseb Drive.
3. The construction of E. Joseb Drive is not required to meet the access requirements of Title 43.
4. The plat of Utopia View II is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
5. A soils report was submitted, pursuant to MSB 43.20.281(A)(1)
6. All lots will have the required frontage pursuant to MSB 43.20.320.
7. At the time of staff report write-up, there were no responses to the Request for Comments from USACE; ADF&G; City of Wasilla; Meadow Lakes Community Council; Fire Service Area #130 Central Mat-Su; Road Service Area #27 Meadow Lakes; MSB Emergency Services, Community Development, Assessments, or Planning; MEA or MTA.
8. There were no objections from any federal or state agencies, Borough departments, or utilities.
9. At the time the staff report was written, there were no objections from the public in response to the Notice of Public Hearing.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

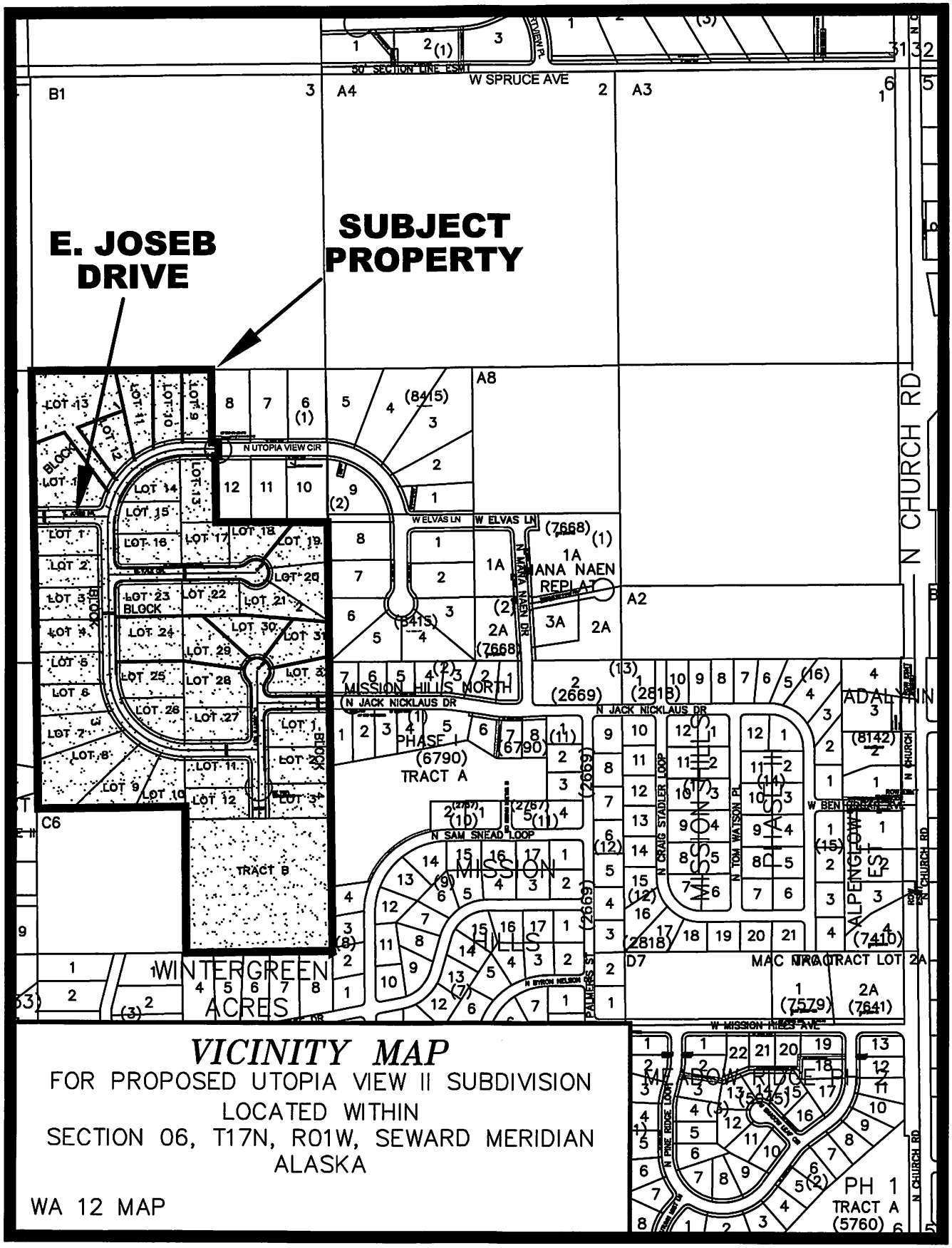
Suggested motion: I move to approve the modification of the preliminary plat of Utopia View II, Section 06, Township 17 North, Range 01 West, Seward Meridian, Alaska, contingent on staff recommendations

1. Construct internal streets and cul-de-sacs to Borough Street Standards according to the 2022 Subdivision Construction Manual (SCM):
   a) Construct the extension of N. Jack Nicklaus Drive, the extension of N. Utopia View Circle, and N. Jimmys Way to Residential Subcollector standards per the 2022 SCM.

2. Conditions of approval approved by the Platting Board during the June 19, 2025, Platting Board meeting excluding Condition of Approval 4 a).
   1) Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
   2) Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
   3) Pay postage and advertising fees.
   4) Construct internal streets and cul-de-sacs to Borough Street Standards according to the 2022 Subdivision Construction Manual (SCM):
      ~~a. Construct the extension of N. Jack Nicklaus Drive, the extension of N. Utopia View Circle, E. Joseb Drive and N. Jimmys Way to Residential Subcollector standards per the 2022 SCM.~~
      b. Construct remaining cul-de-sac roads to Residential Street Standards per the 2022 SCM.
      c. Move the 60' temporary turnaround south to provide frontage for Tract B.
      d. Dedicate and construct a cul-de-sac at the north end of Utopia View Circle within the RSA 27 Boundary.
      e. Submit drainage report and other construction plans to Department of Public Works (DPW) per SCM F01.2;

f. Arrange preconstruction conference with DPW per SCM F01.3, sign Subdivision Construction Plan, pay inspection fee, and obtain Notice to Proceed from Platting staff;
g. Arrange Pre-Final and Final Inspections with DPW per SCM F01.6 and F01.7 and submit Final Report to Platting per F01.8;
h. Obtain Certificate of Construction Acceptance from DPW per F01.9.
i. Submit as-built of streets and drainage improvements to Platting staff once construction is complete.
j. Obtain approval of street names from Platting Assistant.

5) Coordinate with the City of Wasilla to upgrade/certify that N. Jack Nicklaus Drive meets City of Wasilla Residential Collector Street standards. Should traffic mitigation be required to utilize a lower standard, provide proposed traffic mitigation measures to the City of Wasilla for their approval prior to commencement of upgrades/alterations. Provide platting staff certificate from the City of Wasilla that all City of Wasilla roads used to access the subdivision meet City of Wasilla Street standards for the anticipated traffic volume.
6) Submit a revised soils report once all regrading has been completed certifying all lots being created meet the minimum useable area requirements of MSB Title 43.20.281 Area. Include all applicable supporting information in the revised soils report, i.e. test hole logs, sieve analysis for test holes containing GM and SM soils, ground water monitoring results (where applicable), as well as updated soils and useable area information post-regrading.
7) Show all easements of record on final plat.
8) Submit recording fees, payable to Department of Natural Resources (DNR).
9) Submit plat in full compliance with Title 43.



VICINITY MAP

FOR PROPOSED UTOPIA VIEW II SUBDIVISION
LOCATED WITHIN
SECTION 06, T17N, R01W, SEWARD MERIDIAN
ALASKA

WA 12 MAP

acutek geomatics llc

5099 E. Blue Lupine Dr., Ste. 104
Wasilla, Alaska 99654
Phone (907) 376-8800
E-Mail admin@acuteksurvey.com

RECEIVED
JUL 0 1 2025
PLATTING

June 27, 2025

Fred Wagner, PLS
Platting Officer
Matanuska-Susitna Borough
Platting Department
350 E. Dahlia Ave.
Palmer, Alaska 99645

Reference: Utopia View II
Acutek Job # 19-10.2
MSB Case # 2025-061

Mr. Wagner,

We request to be reheard at the next available Platting Board meeting to remove the wording/requirement to construct "E. Joseb Drive" from Condition No. 4(a) for the following reasoning:

- E. Joseb Drive is Right-of-Way dedicated to the public for future connectivity and not dedicated to access any lots being created by Utopia View II.
- Currently there exists other means to access the adjoining property on the west boundary that E. Joseb Drive dedication is intended to provide access to (S17N01W06, 1201 N. Stanley Rd.) with legal and physical access from North Stanley Road and Section Line Easements.
- Constructing E. Joseb Drive would only be necessary if the property adjoining the West boundary has no such means of access.
- The adjoining property of 1201 N. Stanley Rd. is owned by the State of Alaska Mental Health Trust and undeveloped. There is no practical reason to construct a road to abruptly end at a large parcel of undeveloped property, inevitably leading to increased miscreant and vagrant behavior of individuals looking to dump unwanted trash or find a property that is not overseen to trespass onto.
- No current MSB code requires the construction of roads that are solely dedicated for inter-connectivity.
- The dedication of E. Joseb Drive is intended to provide a second point of access to the property on the west boundary in the anticipation of that parcel being subdivided or developed. Those developers are responsible for building that road should they want to utilize it, and is feasible to construct should they choose to do so.
- The Matanuska-Susitna Borough has a precedent for not requiring streets being dedicated to provide future connectivity to be constructed.

If you should have any questions, please feel free to contact me.

Kindest Regards,

Terry L Nicodemus
Acutek Geomatics LLC

MATANUSKA-SUSITNA BOROUGH

Platting Division
350 East Dahlia Avenue • Palmer AK 99645
Phone (907) 861-7874 • Email: platting@matsugov.us

PLATTING BOARD ACTION LETTER

June 19, 2025

Foxglove, LLC
3275 E. Tamarak Ave
Wasilla, AK 99654

Case #: **2025-061**

Case Name: **UTOPIA VIEW II**

Action taken by the Platting Board on June 19, 2025 is as follows:

THE PRELIMINARY PLAT FOR UTOPIA VIEW II WAS APPROVED AND WILL EXPIRE ON JUNE 19, 2031 SUBJECT TO THE ATTACHED CONDITIONS OF APPROVAL. FINDINGS OF FACT SUPPORTING THIS DECISION ARE ALSO INCLUDED.

ALL DECISIONS OF APPROVAL OR DISAPPROVAL BY THE PLATTING AUTHORITY SHALL BE FINAL UNLESS APPEALED TO THE BOARD OF ADJUSTMENT AND APPEALS, MSB 15.39. A PETITION WHICH IS TABLED BY THE BOARD SHALL BE DEEMED DENIED UNLESS THE APPLICANT BRINGS THE MATTER BACK BEFORE THE BOARD WITH ALL CONDITIONS MET WITHIN THE TIME ALLOWED BY THE BOARD OR BY LAW.

If this is in reference to a plat application, recordation at the appropriate District Recorder's Office of the plat is required before any transfer of title can occur. Should you have any questions or require a copy of the minutes of the meeting, please feel free to contact this office.

Kindest regards,

Mr. Fred Wagner, PLS
Platting Officer

ks
cc:

Acutek Geomatics, LLC
5099 E. Blue Lupine Dr. #104
Wasilla, AK 99654

Walden Construction Consulting and Engineering
2422 W. James T Cir
Wasilla, AK 99654

Additional Plat Reviews After 2nd Final are $100.00 Each

FINDINGS of FACT:

1. The plat of Utopia View II is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
2. A soils report was submitted, pursuant to MSB 43.20.281(A)(1)
3. The lot has the required frontage pursuant to MSB 43.20.320.
4. At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; MSB Community Development, Assessments, or Planning; MEA or MTA.
5. There were no objections from any federal or state agencies, Borough departments, or utilities.
6. There were no objections from the public in response to the Notice of Public Hearing.

CONDITIONS of APPROVAL:

The Platting Board approved the preliminary plat for Utopia View II contingent upon the following:

1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Construct internal streets and cul-de-sacs to Borough Street Standards according to the 2022 Subdivision Construction Manual (SCM):
    a) Construct the extension of N. Jack Nicklaus Drive, the extension of N. Utopia View Circle, E. Joseb Drive and N. Jimmys Way to Residential Subcollector standards per the 2022 SCM.
    b) Construct remaining cul-de-sac roads to Residential Street Standards per the 2022 SCM.
    c) Move the 60' temporary turnaround south to provide frontage for Tract B.
    d) Dedicate and construct a cul-de-sac at the north end of Utopia View Circle within the RSA 27 Boundary.
    e) Submit drainage report and other construction plans to Department of Public Works (DPW) per SCM F01.2;
    f) Arrange preconstruction conference with DPW per SCM F01.3, sign Subdivision Construction Plan, pay inspection fee, and obtain Notice to Proceed from Platting staff;
    g) Arrange Pre-Final and Final Inspections with DPW per SCM F01.6 and F01.7 and submit Final Report to Platting per F01.8;
    h) Obtain Certificate of Construction Acceptance from DPW per F01.9.
    i) Submit as-built of streets and drainage improvements to Platting staff once construction is complete.
    j) Obtain approval of street names from Platting Assistant.
5. Coordinate with the City of Wasilla to upgrade/certify that N. Jack Nicklaus Drive meets City of Wasilla Residential Collector Street standards. Should traffic mitigation be required to utilize a lower standard, provide proposed traffic mitigation measures to the City of Wasilla for their approval prior to commencement of upgrades/alterations. Provide platting staff certificate from the City of Wasilla that all City of Wasilla roads used to access the subdivision meet City of Wasilla Street standards for the anticipated traffic volume.

6. **Submit a revised soils report once all regrading has been completed certifying all lots being created meet the minimum useable area requirements of MSB Title 43.20.281 Area. Include all applicable supporting information in the revised soils report, i.e. test hole logs, sieve analysis for test holes containing GM and SM soils, ground water monitoring results (where applicable), as well as updated soils and useable area information post-regrading.**
7. **Show all easements of record on final plat.**
8. **Submit recording fees, payable to Department of Natural Resources (DNR).**
9. **Submit plat in full compliance with Title 43.**

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
JUNE 19, 2025

PRELIMINARY PLAT: UTOPIA VIEW II

LEGAL DESCRIPTION: SEC 06, T17N, R01W, SEWARD MERIDIAN AK

PETITIONERS: FOXGLOVE, LLC.

SURVEYOR/ENGINEER: ACUTEK GEOMATICS

ACRES: 62.049 ± PARCELS: 42

REVIEWED BY: MATTHEW GODDARD CASE #: 2025-061

REQUEST: The request is to create 42 lots and internal roads from Tract A, Utopia View Subdivision, Plat 2023-129, (8415000T00A) to be known as **UTOPIA VIEW II**, containing 62.05 acres +/-. The plat is located directly West of N. Utopia View Circle, North of W. Wintergreen Drive, West of Church Road, and South of W. Spruce Avenue, located within the NW ¼ Section 6, Township 17 North, Range 01 West, Seward Meridian, Alaska; and in Assembly District #007.

EXHIBITS:

SUPPORTING DOCUMETATION:

Vicinity Map and Aerial Photos	**PAGES** – 1-5
Geotechnical Report	**PAGES** – 6-65
Drainage Plan	**PAGES** – 66-153
Average Daily Traffic (ADT) Calculations	**PAGES** – 154-155

AGENCY COMMENTS

USACE	**PAGE** – 156
MSB DPW Pre-Design and Engineering Division	**PAGES** – 157-160
City of Wasilla	**PAGES** – 161-166
MSB Development Services	**PAGES** – 167-168
RSA #27 Meadow Lakes	**PAGES** – 169
Meadow Lakes Community Council	**PAGES** – 170
Public Comments	**PAGES** – 171
Utilities	**PAGES** – 172-179

DISCUSSION: The proposed subdivision is creating 42 lots and one tract. Access for the proposed subdivision is from N. Utopia View Circle and N. Jack Nicklaus Drive. N. Utopia View Circle is a privately maintained road. N. Jack Nicklaus Drive is owned and maintained by the City of Wasilla. The petitioner is proposing the dedication and construction of internal streets to serve as access for all proposed lots. Based on the provided ADT, the City of Wasilla has stated that upgrades will be required for N. Jack Nicklaus

Drive. Approval of Jack Nicklaus Drive will need to be obtained from the City of Wasilla certifying that it meets City of Wasilla Street standards prior to recordation (**Recommendation #5**).

Access: Legal and physical access to the proposed lots are required pursuant to MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Access requirements will be met once interior street is constructed, and upgrades of existing access streets are completed.

Soils Report: A geotechnical report was submitted (**Exhibit Pages 6-65**), pursuant to MSB 43.20.281(A). Robert Walden, Registered Professional Engineer, notes that on the Topography Map Block 1, Lot 11, 12, 13, & 14 were adjusted to just 11 & 12. Block 3, Lot 29, 30, & 31 were adjusted to just 29 & 30. The rough new lines were drawn in red. 10 of the proposed lots need regrading to meet the 10,000 square feet of usable area 50 feet away from a slope steeper than 25%. Block 2, Lots 24, 29, 31 and 32, Block 3, Lots 3, 7, 8, 9, 10, and 11 will be regraded this spring to contain 10,000 square feet or more of usable area. Recommended re-grading of three other lots due to access and the results of the usable areas in kettle low areas, will be regraded, Block 2, Lot 26, Block 3, Lots 2 and 5. Re-survey will be provided as continued roads are being constructed and an updated report will show usable area achieved with the 10,000 square feet of useable building area and 10,000 square feet of contiguous useable septic area. Block 1, Lot 11, a section approximately bound by elevation 395 have been classified as freshwater emergent wetlands. Tract B has water issues over the entire middle of the 9.2 acres and is classified as a freshwater forested / shrub wetland. It has been deemed not economically developable at this time. All other lots in Phase II meet the usable area of 10,000 square feet of usable building area and 10,000 square feet of contiguous useable septic area. *Platting staff notes that an updated geotechnical report will be required once all regrading has been completed certifying that all lots being created meet the minimum code requirements of 10,000 square feet of usable building area and an additional 10,000 square feet of contiguous usable septic area pursuant to MSB 43.20.281 Area (**Recommendation #6**). Platting staff further notes that the supplied report notes only 38 lots being created, per conversation with the surveyor 42 lots are being proposed by this platting action. The revised soils report will need to certify all 42 lots meet the usable area requirements.*

Drainage Report: A drainage report was submitted (**Exhibit Pages 66-153**) pursuant to the 2022 Subdivision Construction Manual Section D submittal requirements.

Average Daily Traffic Calculation (ADT): An ADT was submitted (**Exhibit Pages 154-155**) pursuant to the 2022 Subdivision Construction Manual Section A15. Based on the supplied ADT and comments received from the City of Wasilla, N. Jack Nicklaus Drive will require improvements to meet City of Wasilla Street standards. The petitioner will need to work with the City of Wasilla to perform the required upgrades and obtain certification that the access roads are constructed to City of Wasilla Street Standards (**Recommendation #5**).

Comments:

US Army Corps of Engineers (**Exhibit Page 156)** Notes that Department of the Army authorization from USACE is required for placement of dredged and/or fill material into waters of the U.S., including wetlands and/or performing work in waters protected by the Rivers and Harbors Act.
The parcel where the development would occur contains two areas mapped by the Mat-Su Borough as wetlands- the entirety of a .07-acre wetland and a portion of a 2.93 acre wetland. Upon review of the Borough's data, other information and recent aerial imagery, neither of these mapped wetlands appear to

have a continuous surface connection with a relative permanent water such as a tributary or a navigable water. Hence, it appears that even if wetlands are present at the property (presuming that the mapping is accurate), the wetlands would not be considered waters of the U.S. subject to regulation under the Clean Water Act. Please note that this assessment is unofficial and does not serve as an approved or preliminary jurisdictional determination.

Department of Public Works Operations & Maintenance (**Exhibit Pages 57-60**) has the following comments:

1. Soils: (**Recommendation #6**)
   The soils report appears to be incomplete:
   - Of the test holes shown on the test hole location map, sieve analysis results were not provided for test holes 2, 11, 14, 23, 24, and 41.
     - It was noted on the test hole logs for test holes 23 and 24 that samples were not taken but the soils types reported require sieve analysis or percolation tests per 43.20.281(A)(1)(f).
   - Of the test holes shown on the test hole location map, test hole logs were not provided for test holes 1, 12, 26, 28, 31, 36, and 40.
   - According to the test hole log for test hole 35, ground water seeps were found at 7 feet below ground on 4/28/2021 – per 43.20.281(A)(1)(a) "where water is encountered at ten feet or less below the surface, the seasonal subsurface water is to be determined between May 1st and October 30th".

   PD&E recommends a condition of approval to submit a complete soils report containing all necessary and pertinent information, including test hole logs, sieve analysises, and ground water monitoring results, as well as updated soils and useable area information post regrading. Soils information outside the boundary of the subdivision should not be included in the report.
2. Jack Nicklaus Drive: (**Recommendation #5**)
   ADT estimate shows potential traffic volumes as high as 1300 on Jack Nicklaus Drive. This is over the allowed traffic volume for a local road per the 2022 Subdivision Construction Manual. Since Jack Nicklaus Drive is a City of Wasilla owned and maintained road, the developer should coordinate with the City to determine if this is allowable and/or what upgrades or traffic impact mitigation measures will be required.
   PD&E recommends the developer coordinate with the City of Wasilla to determine if a permanent turnaround is needed where jack Nicklaus Drive exits the City of Wasilla and enters RSA 27. The existing cul-de-sac is located within a temporary turnaround easement which will automatically terminate when the road is extended.
3. Internal Subdivision Roads: (**Recommendation #4**)
   PD&E recommends the extension of Jack Nicklaus Drive, the extension of Utopia View Circle, Joseb Drive,and Jimmys Way be constructed to Residential Subcollector standard and the remaining cul-de-sac roads be constructed to Residential standard.
   Access must be constructed to Proposed Tract B. The temporary cul-de-sac on Jimmys Way should be relocated to give Tract B constructed frontage.
   A Permanent turnaround is needed at the north end of Utopia View Circle within the RSA 27 boundary.

City of Wasilla (**Exhibit Pages 61-66**) has the following comments:

- The drainage report is important to the city and the system should be built to the report to prevent drainage issues within the city.
- It does not appear that the impacts to the existing neighborhood have been adequately addressed, and the applicant did not identify the new traffic forecast at W. Ben Hogan Avenue.
  Platting staff notes that W. Ben Hogan Avenue is classified as a Minor Collector/Residential Collector. Per the 2022 SCM A15(C)(2) an ADT needs to extend until it intersects with a Residential Collector or higher, as W. Ben Hogan Avenue is classified as a Residential Collector, the intersection of W. Ben Hogan Avenue and Church Road was not required.
- N. Jack Nicklaus Drive will need to be upgraded due to the increase in traffic. The current traffic load from just the contractors has forced the city to make the intersection of N. Jack Nicklaus and N. Arnold Palmer a 3-way stop (which is often ignored).
- This is important due to a lack of connection to W. Youngtree Drive.
- For N. Jack Nicklaus Drive, the City will require the certification to Residential Collector to match Ben Hogan Avenue. If certification to Residential Collector is not possible due to ROW width or geometry, then the applicant may propose other traffic mitigation measures, to be approved by the City of Wasilla Public Works (**Recommendation #5)**.

Development Services (**Exhibit Pages 67-68**) has no objections to the proposed design.

RSA 27 Meadow Lakes(**Exhibit Pages 69**) has the following comments:

- Suggest altering the design to allow connectivity to adjacent parcels for future connectivity. Road maintenance costs are lower when equipment can flow thru from one subdivision to the next without backtracking.
- Cul-de-sacs are more difficult (expensive) to maintain than strait roads.
- Suggest requiring snow storage pocket on each in the best location for drainage.
- Include drainage easement to prevent water accumulation in ditches resulting in damage to the roadbed.
  Platting staff notes that any drainage concerns will be addressed during the pre-construction conference with MSB DPW Pre-Design and Engineering Division.

Community Council #1 Meadow Lakes (**Exhibit Pages 70**) has the following comments:

- We would like to see additional roads with temporary turnarounds to the north and south sides for future development and connectivity.
- Key concerns were:
  - We are aware of future development in the area.
  - Emergency vehicle access.
  - Snow plowing efficiency.

Public Comments: (**Exhibit Page 71**) Ardie Buechner, a homeowner in Mission Hills Phase I, objects to the proposed subdivision. Ardie's objection is due to a lack of additional roadway outlet for the subdivision.

Utilities: (**Exhibit Pages 72-79**) ENSTAR notes that there is an existing 15FT wide natural gas easement located within Utopia View II and requests the addition of a plat note which refers to the ENSTAR 15FT wide natural gas easement, said easement can be found under recording number 2022-011389-0.

*Platting staff notes that all recorded easements will be shown/noted on the final plat (**Recommendation #7).***

GCI has no comments or objections to the plat.

MEA did not respond.

MTA did not respond.

At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; MSB Community Development, Assessments, or Planning; MEA or MTA.

CONCLUSION: The preliminary plat of Utopia View II is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There was one objection to the plat from the public in response to the Notice of Public Hearing. Legal and physical access will exist to the proposed lots once all construction/certification has been completed, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.218(A)(1), a revised report will be required once all regrading has been completed.

FINDINGS OF FACT

1. The plat of Utopia View II is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
2. A soils report was submitted, pursuant to MSB 43.20.281(A)(1)
3. The lot has the required frontage pursuant to MSB 43.20.320.
4. At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; MSB Community Development, Assessments, or Planning; MEA or MTA.
5. There were no objections from any federal or state agencies, Borough departments, or utilities.
6. There were no objections from the public in response to the Notice of Public Hearing.

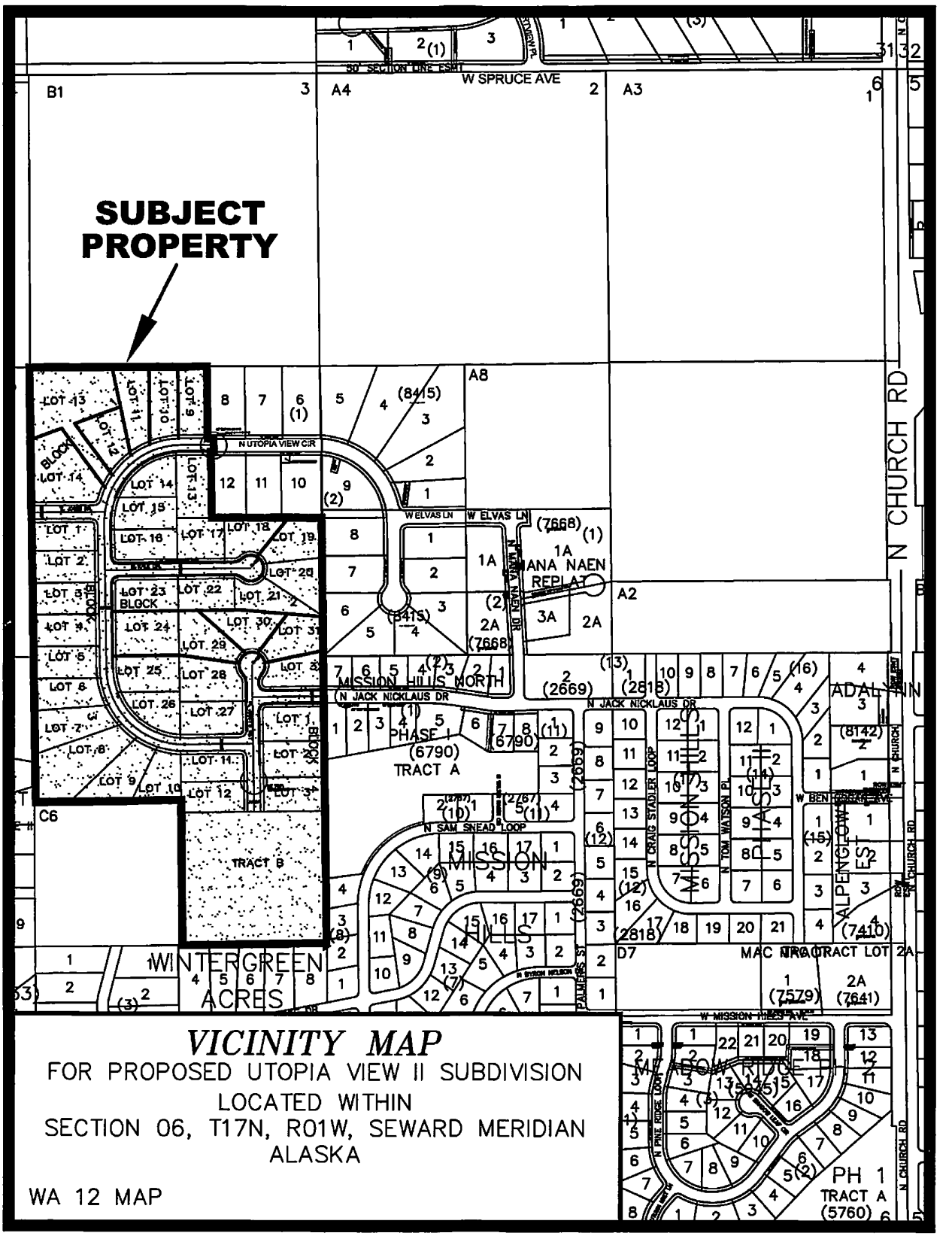
RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the preliminary plat of Utopia View II, Section 06, Township 17 North, Range 01 West, Seward Meridian, Alaska, contingent on staff recommendations

1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Construct internal streets and cul-de-sacs to Borough Street Standards according to the 2022 Subdivision Construction Manual (SCM):
   a) Construct the extension of N. Jack Nicklaus Drive, the extension of N. Utopia View Circle, E. Joseb Drive and N. Jimmys Way to Residential Subcollector standards per the 2022 SCM.
   b) Construct remaining cul-de-sac roads to Residential Street Standards per the 2022 SCM.
   c) Move the 60’ temporary turnaround south to provide frontage for Tract B.

d) Dedicate and construct a cul-de-sac at the north end of Utopia View Circle within the RSA 27 Boundary.
e) Submit drainage report and other construction plans to Department of Public Works (DPW) per SCM F01.2;
f) Arrange preconstruction conference with DPW per SCM F01.3, sign Subdivision Construction Plan, pay inspection fee, and obtain Notice to Proceed from Platting staff;
g) Arrange Pre-Final and Final Inspections with DPW per SCM F01.6 and F01.7 and submit Final Report to Platting per F01.8;
h) Obtain Certificate of Construction Acceptance from DPW per F01.9.
i) Submit as-built of streets and drainage improvements to Platting staff once construction is complete.
j) Obtain approval of street names from Platting Assistant.

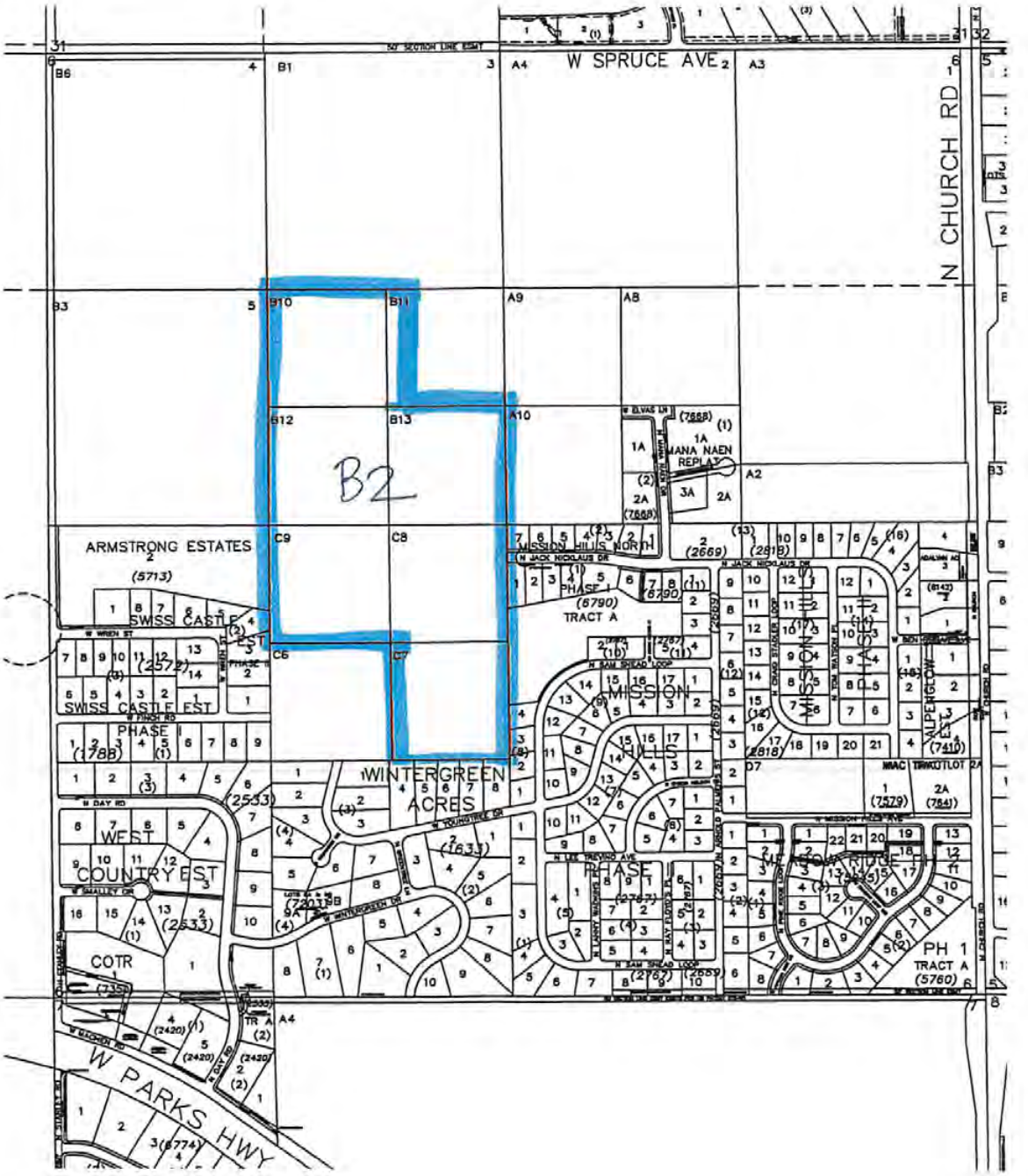
5. Coordinate with the City of Wasilla to upgrade/certify that N. Jack Nicklaus Drive meets City of Wasilla Residential Collector Street standards. Should traffic mitigation be required to utilize a lower standard, provide proposed traffic mitigation measures to the City of Wasilla for their approval prior to commencement of upgrades/alterations. Provide platting staff certificate from the City of Wasilla that all City of Wasilla roads used to access the subdivision meet City of Wasilla Street standards for the anticipated traffic volume.
6. Submit a revised soils report once all regrading has been completed certifying all lots being created meet the minimum useable area requirements of MSB Title 43.20.281 Area. Include all applicable supporting information in the revised soils report, i.e. test hole logs, sieve analysis for test holes containing GM and SM soils, ground water monitoring results (where applicable), as well as updated soils and useable area information post-regrading.
7. Show all easements of record on final plat.
8. Submit recording fees, payable to Department of Natural Resources (DNR).
9. Submit plat in full compliance with Title 43.

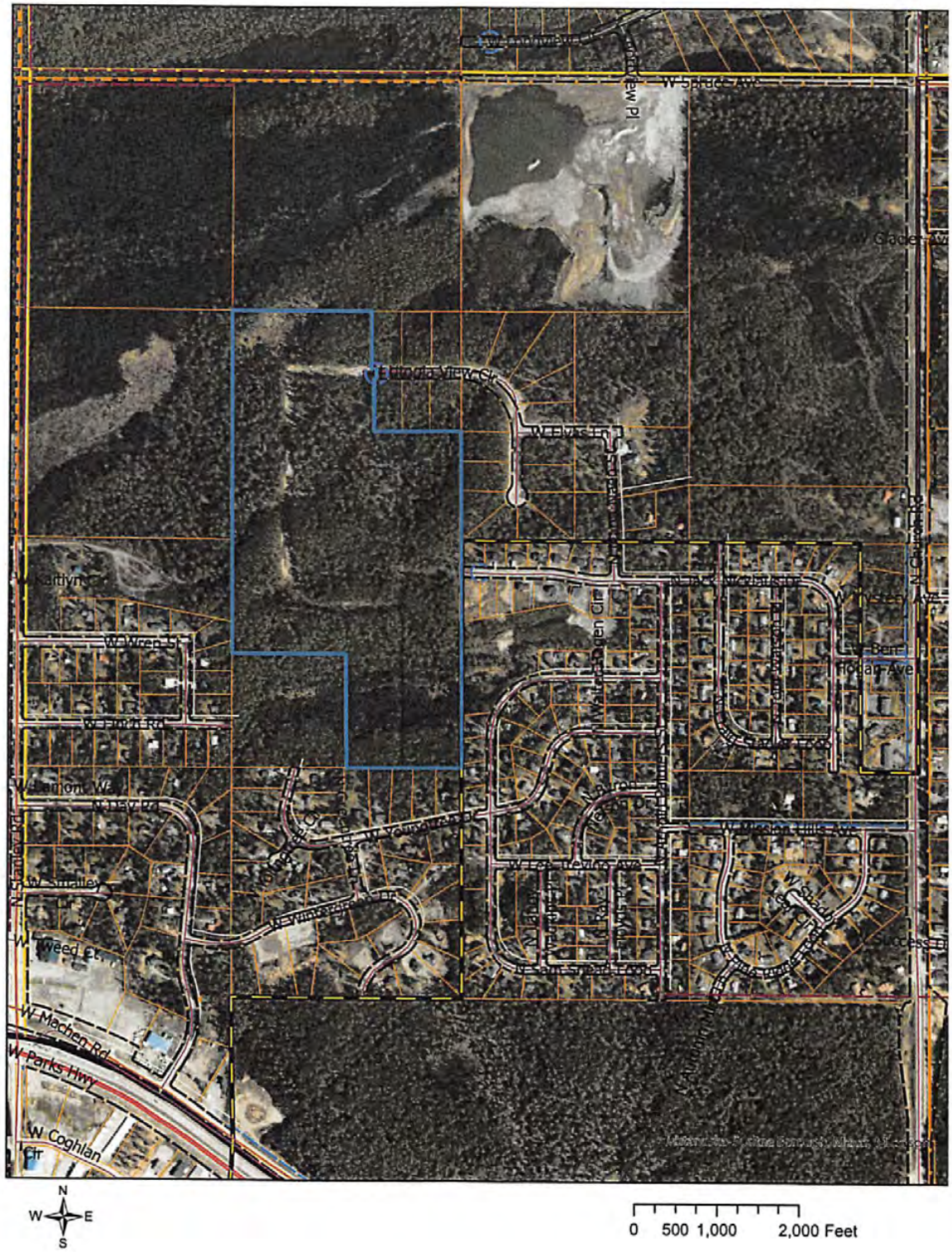


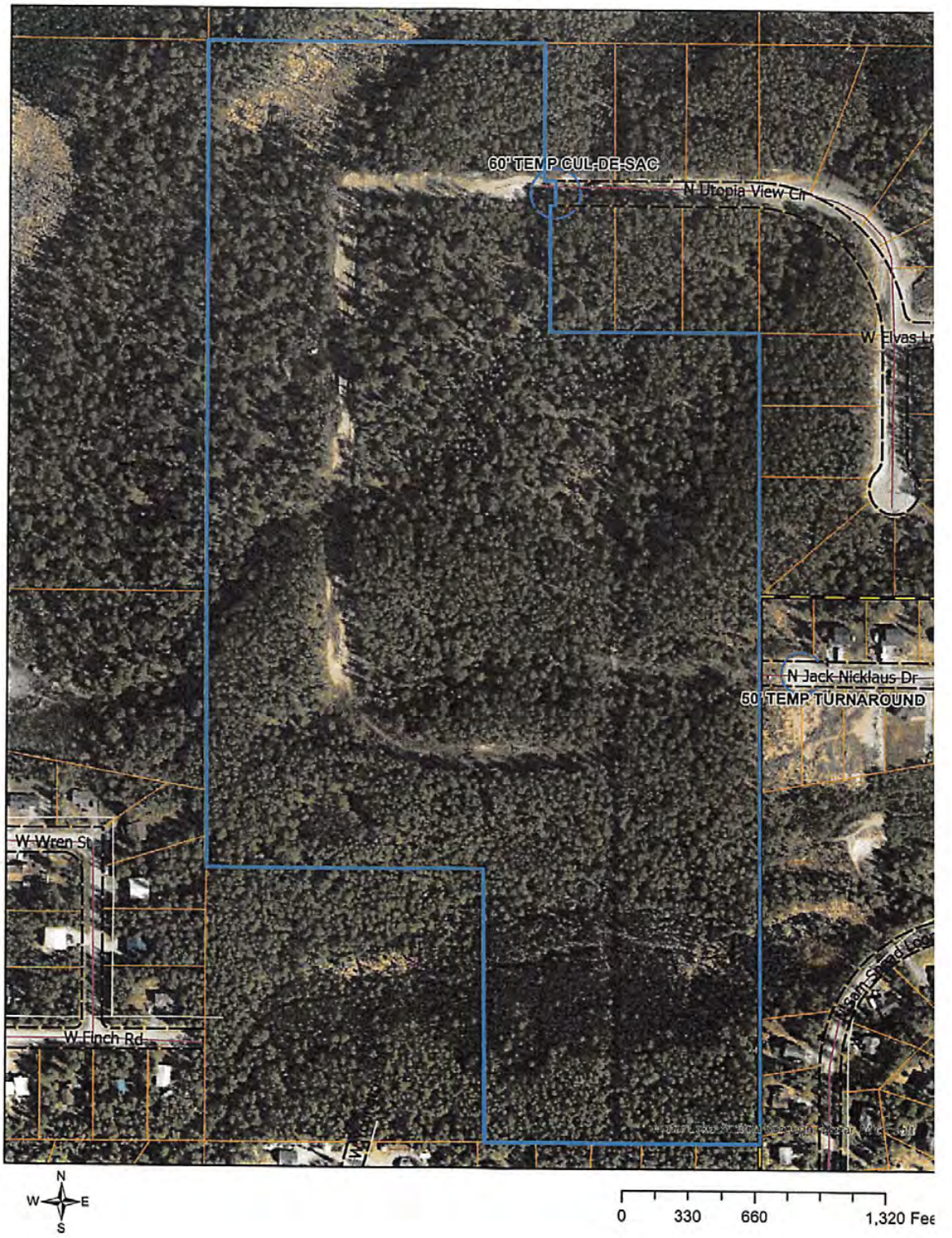
VICINITY MAP

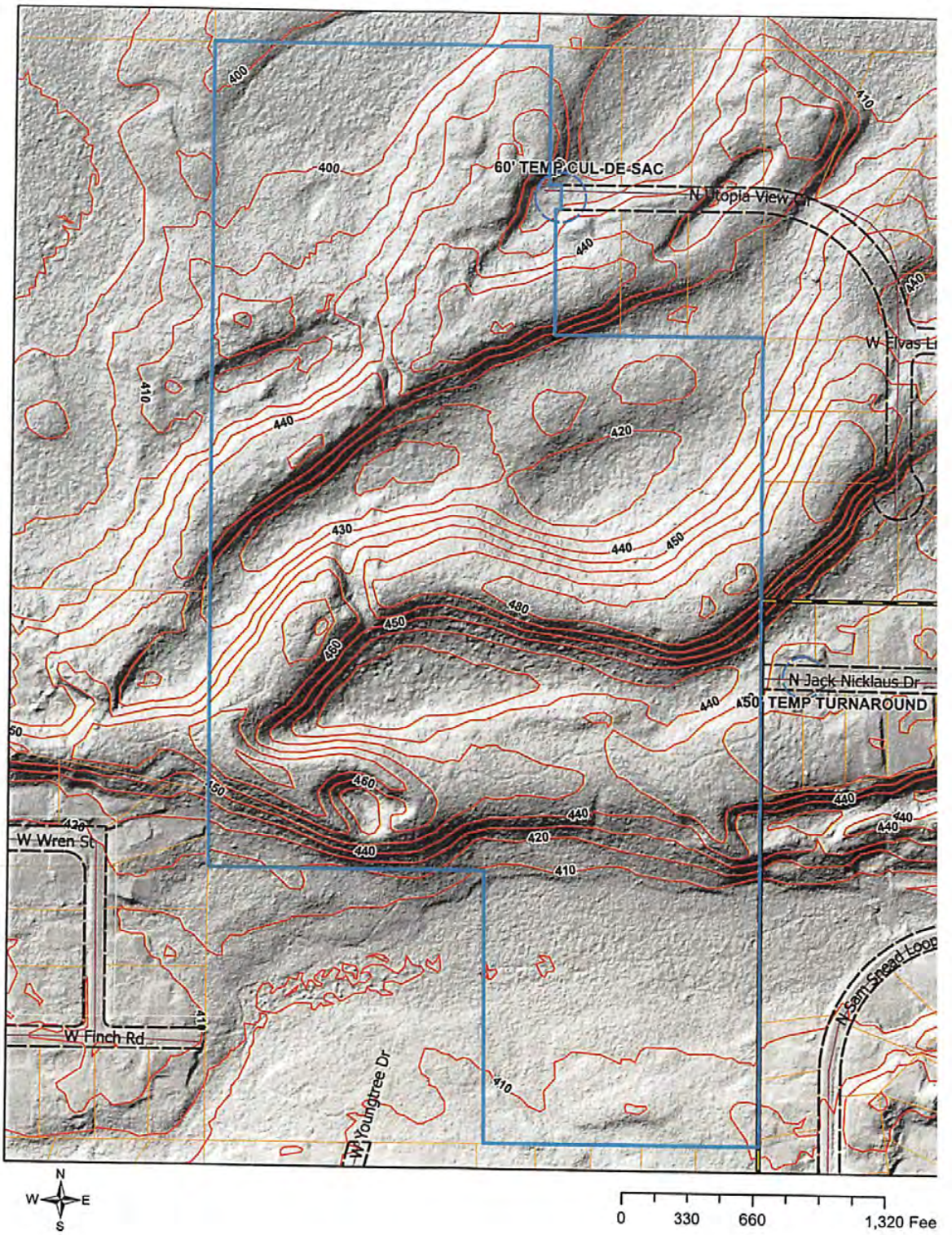
FOR PROPOSED UTOPIA VIEW II SUBDIVISION
LOCATED WITHIN
SECTION 06, T17N, R01W, SEWARD MERIDIAN
ALASKA

WA 12 MAP


W SPRUCE AVE
N CHURCH RD
B2
ARMSTRONG ESTATES
(5713)
SWISS CASTLE EST
(2572)
PHASE I
(1788)
WINTERGREEN ACRES
(2533)
WEST COUNTRY EST
(2533)
COTR
(7359)
MISSION HILLS NORTH
(2669)
PHASE I
(6790)
TRACT A
MISSION HILLS
(2669)
PHASE II
(2767)
(2659)
(2818)
(7579)
(7841)
(7410)
ALPENGLOW EST
PH 1
TRACT A
(5760)
MANA NAEN REPLAT
1A
2A
3A
(7858)
(7868)
W PARKS HWY


W Shadow Ave
W Glacier Ave
W Wrep St
W Finch Rd
W Tamron Way
N Dew Rd
W Smalley
W Weed St
W Machen Rd
W Parks Hwy
W Coghlan Cir
N Stanley Rd
W Bent Holder Ave
N Aurora Dr
0 500 1,000 2,000 Feet
N
W
E
S


60' TEMP CUL-DE-SAC
N Utopia View Cir
W Elvas Ln
N Jack Nicklaus Dr
50' TEMP TURNAROUND
W Wren St
W Finch Rd
N
W
E
S
0
330
660
1,320 Fee


60' TEMP CUL-DE-SAC
N Utopia View Dr
W Elvas Ln
N Jack Nicklaus Dr
TEMP TURNAROUND
W Wren St
W Finch Rd
W Youngtree Dr
N Sam Snead Loop
400
410
420
430
440
450
460
480
N
W
E
S
0
330
660
1,320 Fee

WALDEN Construction Consulting and Engineering, LLC
2422 W James T Cir, Wasilla, AK 99654

6/2/2025 Utopia View Subdivision Phase II, Wasilla, AK

Platting, Wyatt Anderson
Matanuska-Susitna Borough
350 E. Dahlia Avenue
Palmer, Alaska 99645

Per the original Phase I studies and addition of 20 each lots with access off N Mana Naen from the Mission Hills subdivision, this Phase II will be added 38 lots with a loop connection to N Jack Nicklaus Drive. The topography would be called hilly with elevations ranging from 395 up to 490. With this topography variation there will be some very nice view lots produced and some areas of kettle lows with trapped surface water during high rain events and freeze thaw times of the year. Also taking those conditions into development I have added some conservative notes on some of those kettle low areas for septic leach field and foundation development. Attached one page charted summary by lot of findings due to slopes greater than twenty five percent, ground water table, and potential seasonal runoff.

Usable area topography map with test holes plotted is attached. Note this map was from early March and three lots were removed due to early findings. On the Topography map Block 1 Lot 11, 12, 13, 14 were adjusted to just 11, 12. Block 3 Lot 29, 30, 31 were adjusted to just 29 and 30. Rough new lines drawn in red. 10 of the new 38 lots need re-grading to meet the 10,000 sft of usable area 50 feet away from a slope steeper than 25%. Blk 2 Lots 24, 29, 31, and 32; Block 3 Lot 3, 7, 8, 9, 10, and 11 will be regraded this spring to contain 10,000 square feet or more of usable area. Recommended re-grading of 3 other lots due to access and the results of the usable areas in kettle low areas, will be regraded, Block 2 Lot 26, Block 3 Lot 2 and 5. Re-survey will be provided as continued roads are being constructed and an updated report will show usable area achieved with the 10,000 square feet of useable building area and 10,000 square feet of contiguous useable septic area.

Block 1 Lot 11 a section approximately bound by elevation 395 have been classified as freshwater emergent wetlands. I added a recommended septic leach field and foundation elevation be constructed above the 402 elevation. There are a few other lots that are in kettle pond surface low areas and recommended elevations have been noted on the attached usable area summary chart for developers as a guide. Tract B has water issues over the entire middle of the 9.2 acres and classified as a freshwater forested/shrub wetland. It has been deemed not economically developable at this time. No other water table issues are present per the attached test holes and gradations.

ADT map on the interior intersections of Utopia View and northern part of Mission Hills. Upgrades were already done in 2023 to W Elvas Lane and N Mana Naen to Residential sub collector street standards and W Ben Hogan Ave to Residential Collector, signed off by Public Works, Jamie Taylor.

All other lots in Phase II meet the usable area criteria (10,000 square feet of useable building area and 10,000 square feet of contiguous useable septic area) for this preliminary plat to proceed.

Sincerely,

Robert L Walden

Robert L Walden, PE
Cell #907-354-6661
robertlwcce@gmail.com



Attached: Topo-Test Hole Map 3/4/25, Usable area summary chart, Test holes, gradations, ADT PH II Map 2

WALDEN Construction Consulting and Engineering, LLC
2422 W James T Cir, Wasilla, AK 99654

4/17/2025 Utopia View Subdivision Phase II, Wasilla, AK

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PLATTING

Platting, Wyatt Anderson
Matanuska-Susitna Borough
350 E. Dahlia Avenue
Palmer, Alaska 99645

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Revised ADT map only changed by 30 ADT from the original submittal from the first phase with a total of 560 to now 590 ADT. Upgrades were already done prior to W Elvas Lane and N Mana Naen to Residential subcollector street standards and signed off by Public Works, Jamie Taylor.

All other lots in Phase II meet the usable area criteria (10,000 square feet of useable building area and 10,000 square feet of contiguous useable septic area) for this preliminary plat to proceed.

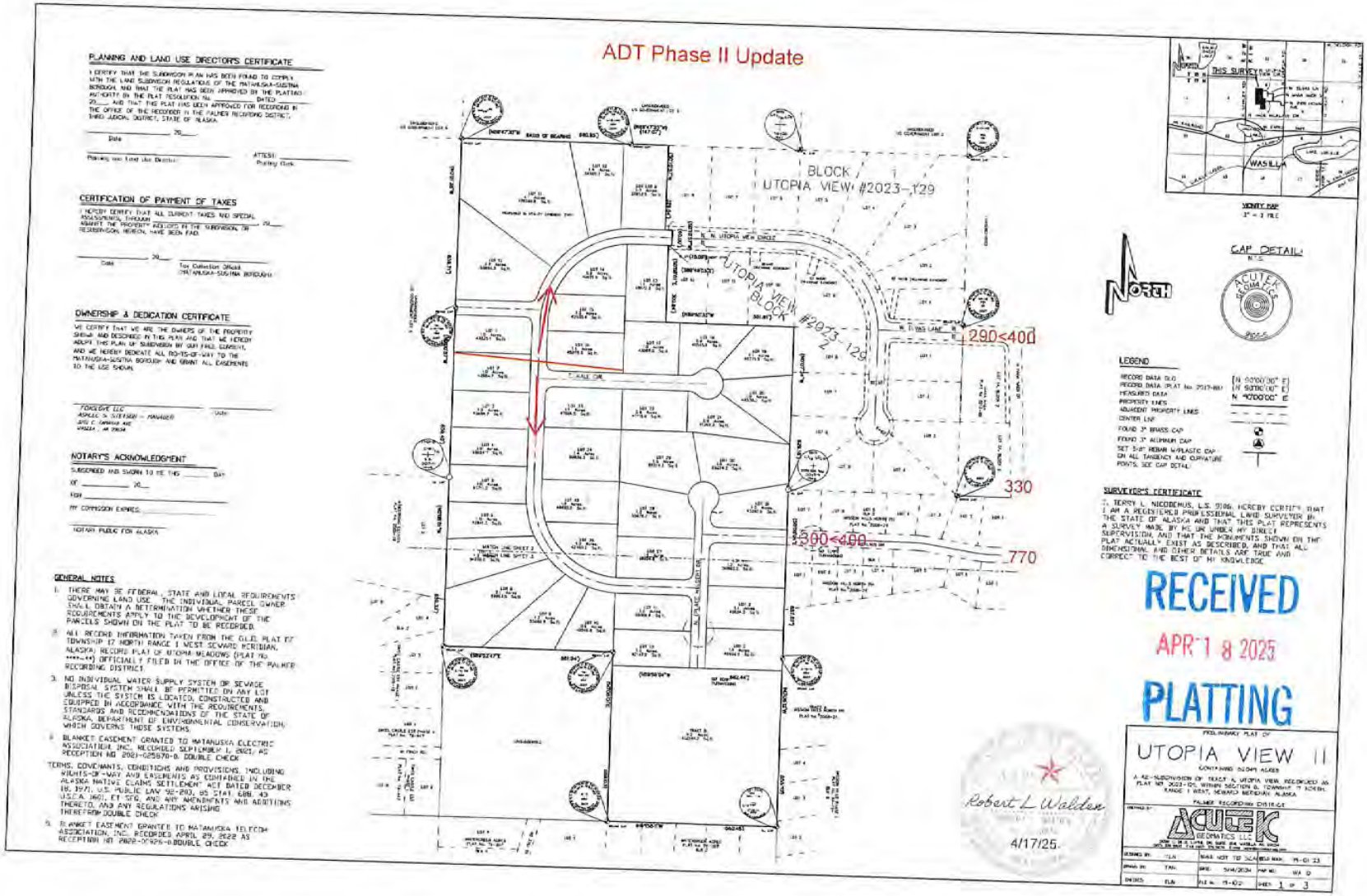
Sincerely,

Robert L Walden

Robert L Walden, PE
Cell #907-354-6661
robertwcce@gmail.com

Robert L Walden
4/17/25

Attached: Topo-Test Hole Map 3/4/25, Usable area summary chart, Test holes, gradations, ADT PH II Map


ADT Phase II Update
PLANNING AND LAND USE DIRECTOR'S CERTIFICATE
CERTIFICATION OF PAYMENT OF TAXES
OWNERSHIP & DEDICATION CERTIFICATE
NOTARY'S ACKNOWLEDGMENT
GENERAL NOTES
1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. ALL RECORD INFORMATION TAKEN FROM THE G.L.O. PLAT OF TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA; RECORD PLAT OF UTOPIA MEADOWS (PLAT NO. ****-**) OFFICIALLY FILED IN THE OFFICE OF THE PALMER RECORDING DISTRICT.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THESE SYSTEMS.
4. BLANKET EASEMENT GRANTED TO MATANUSKA ELECTRIC ASSOCIATION, INC., RECORDED SEPTEMBER 1, 2021, AS RECEPTION NO. 2021-025870-0. DOUBLE CHECK.
TERMS, COVENANTS, CONDITIONS AND PROVISIONS, INCLUDING RIGHTS-OF-WAY AND EASEMENTS AS CONTAINED IN THE ALASKA NATIVE CLAIMS SETTLEMENT ACT DATED DECEMBER 18, 1971, U.S. PUBLIC LAW 92-203, 85 STAT. 688, 43 U.S.C.A. 1601, ET SEQ. AND ANY AMENDMENTS AND ADDITIONS THERETO, AND ANY REGULATIONS ARISING THEREFROM. DOUBLE CHECK
5. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-009216-0. DOUBLE CHECK
BLOCK 1
UTOPIA VIEW #2023-129
UTOPIA VIEW BLOCK A #2023-129
S. KALE DR.
290<400
330
300<400
770
VICINITY MAP
CAP DETAIL
NORTH
LEGEND
SURVEYOR'S CERTIFICATE
RECEIVED
APR 18 2025
PLATTING
Robert L Walden
4/17/25
PRELIMINARY PLAT OF
UTOPIA VIEW II
CONTAINING 20.041 ACRES
A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA
PALMER RECORDING DISTRICT
ACUTEK GEOMATICS LLC
SHEET 1 OF 3

WALDEN Construction Consulting and Engineering, LLC
2422 W James T Cir, Wasilla, AK 99654

4/6/2025 **Utopia View Subdivision Phase II, Wasilla, AK**

Fred Wagner
Platting
Matanuska-Susitna Borough
350 E. Dahlia Avenue
Palmer, Alaska 99645

To whom this may concern,

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All other lots in Phase II meet the usable area criteria to continue certification of this preliminary platting process.

Please contact me for any additional information as needed.

RECEIVED
APR 15 2025
PLATTING

Sincerely,

Robert L Walden

Robert L Walden, PE

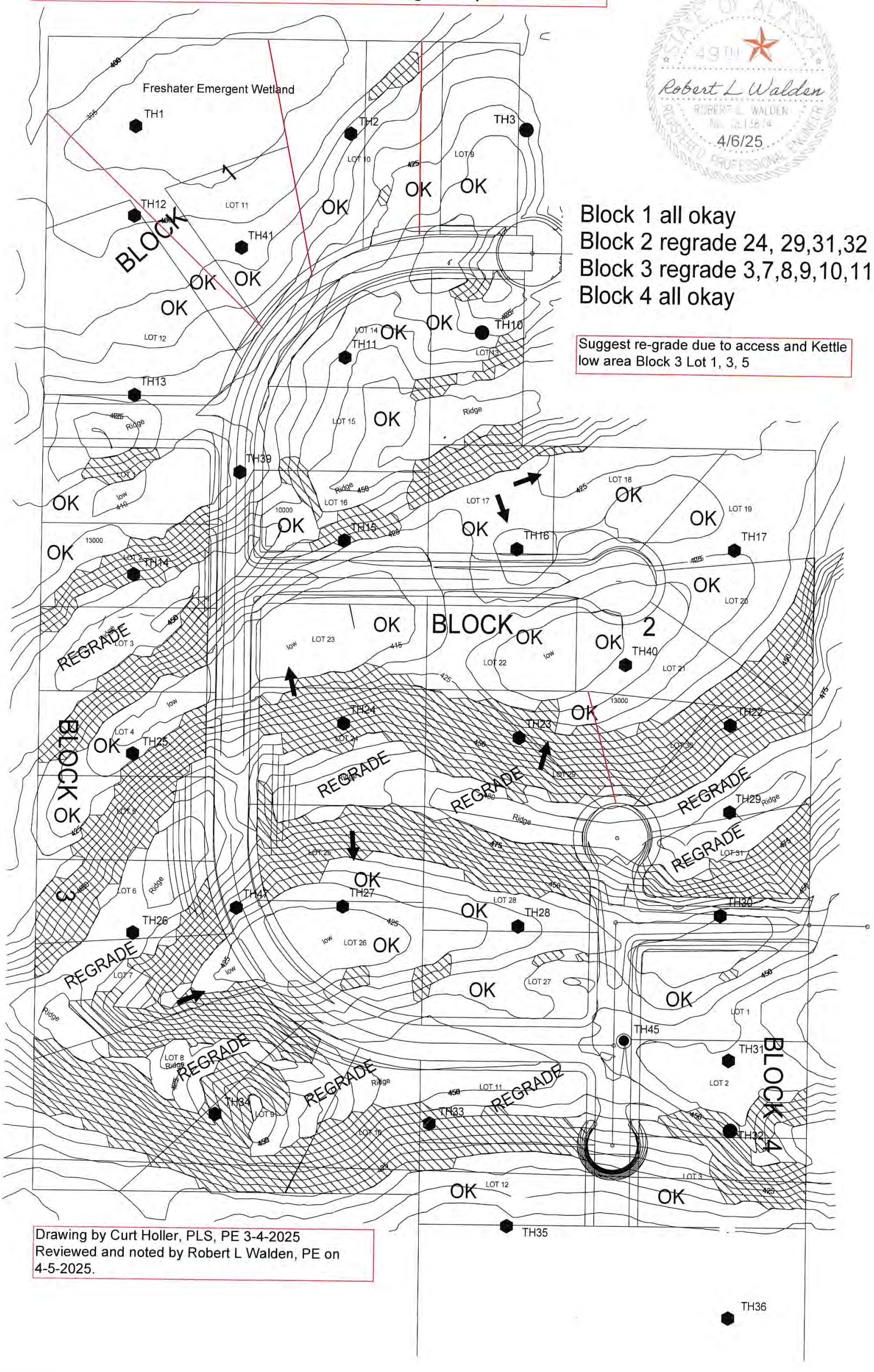
Cell #907-354-6661

robertwcce@gmail.com



Attached:
Topography-Test Hole Map 3/4/25, Usable area summary chart, Test holes, gradation.

Utopia Subdivision Phase II soils, drainage, slope evaluation





Block 1 all okay
Block 2 regrade 24, 29,31,32
Block 3 regrade 3,7,8,9,10,11
Block 4 all okay

Suggest re-grade due to access and Kettle low area Block 3 Lot 1, 3, 5

Drawing by Curt Holler, PLS, PE 3-4-2025
Reviewed and noted by Robert L Walden, PE on 4-5-2025.

Phase II Utopia Lots usable area chart with Test hole data & building recommendation

Block	Lot	Test hole	TH Elev	Lot EL range	Water Elev	Slopes>25%	Usable area Usable Elev	Building notes
1	9	3	425	435-410	N/A	OK	Drains N	Build on S View N
1	10	2, 3	408, 425	435-397	393.5	OK	Drains NW	Build on S View N
1	11	1, 41	394, 403	415-395	393.5	OK	Above 402 Elev	Build on S
1	12	41, 13	403, 419	420-398	393.5	OK	Above 402 Elev	Build on S View N
2	13	10	430	455-420	N/A	OK	Drains N	Build on S View 360
2	14	11	442	450-430	N/A	OK	Drains NW	Build on SE View 360
2	15	11,39	442, 417	457-420	N/A	OK	Drains W	Build on E View 360
2	16	39, 15	417, 427	452-420	N/A	OK	Drains SE	Build on SW View S
2	17	15, 16	427, 420	455-418	407	OK	Above 419 Elev	Build on SW
2	18	16, 17	420, 425	427-418	407	OK	Above 419 Elev	Build on NW
2	19	16, 17	420, 425	428-418	Kettle Low	OK	Above 419 Elev	Build on SE
2	20	40, 17	417, 425	475-418	407	OK	Above 419 Elev	Build middle
2	21	40	417	475-413	Kettle Low	OK	Above 419 Elev	Build on W
2	22	40	417	430-413	Kettle Low	OK	Above 419 Elev	Build on W
2	23	15, 40	427, 417	430-413	Kettle Low	OK	Above 419 Elev	Build on E
2	24	24	450	477-420	N/A	Re-grade	Drains N	Build on SE View 360
2	25	24, 27	450, 425	475-427	N/A	OK	Drains S	Build on SE
2	26	27	425	445-423	Kettle Low	Re-grade	Above 428 Elev	Build on SE
2	27	28	433	450-427	N/A	OK	Drains NW	Build on S
2	28	28	433	480-427	N/A	OK	Drains SW	Build on SE
2	29	23	438	480-420	N/A	OK	Drains N	Build on S View 360
2	30	22	460	490-450	N/A	Re-grade	Drains NW	Build on SE View 360
2	31	30	440	485-450	N/A	Re-grade	Drains SE	Build on N View 360
3	1	13, 39	419, 417	425-409	Kettle Low	OK	Above 415 Elev	Build on W
3	2	14	440	450-414	N/A	Re-grade	Drains NW	Build on SE
3	3	14	440	450-414	N/A	Re-grade	Drains SE	Build on W View 360
3	4	25	418	455-414	Kettle Low	OK	Above 420 Elev	Build on SW
3	5	25	418	470-425	N/A	Re-grade	Drains NW	Build on E View 360
3	6	47	437	470-430	N/A	OK	Drains NW-SE	Build middle View 360
3	7	47	437	480-425	N/A	Re-grade	Drains E	Build on W View 360
3	8	34	450	475-420	N/A	Re-grade	Drains N-SW	Build middle View 360
3	9	34	450	465-420	N/A	Re-grade	Drains NE-SW	Build middle View 360
3	10	33	438	460-410	N/A	Re-grade	Drains S	Build on N View S
3	11	33	438	455-425	N/A	Re-grade	Drains S	Build on N View S
3	12	35	403	425-403	396	OK	Above 408 Elev	Build on NE
4	1	30, 45	440, 447	465-440	N/A	OK	Drians NW	Build on SE View S
4	2	45, 32	447, 445	460-435	N/A	OK	Drians S	Build middle View S
4	3	32, 35	445, 403	430-405	396	OK	Above 408 Elev	Build on NW

TESTHOLE LOG #2

Legal Description: T17N R1E Sec 6 B10 Date: 4/22/2021

Inspected By: Robert L Walden, PE

Ground level EL408

1ft	ML
2ft	
3ft	GW-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:
GW-GM; Well graded gravel w/Silt & Sand
#200-9.4%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden
3/22/25

Form revised 2/2016

TESTHOLE LOG #3

Legal Description: T17N R1E Sec 6 B11 Date: 4/22/2021

Inspected By: Robert L Walden, PE

Ground level EL425

1ft	ML
2ft	
3ft	
4ft	
5ft	
6ft	
7ft	
8ft	GP-GM
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GP-GM; Poorly graded gravel w/Silt & sand

#200-5.7%

Great area for road sub base and to blend with TH area 4, Goal #200 0-10%.

Total Depth of Testhole 13 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

2/12/22

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/24/2021
PROJECT NO.:	20-401	**DATE TESTED:**	4/30/2021
CLIENT:	WCC&E	**TESTED BY:**	NP
SAMPLE NO.:	21P94	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 3-2

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	97
1"	25.4	81
3/4"	19.0	70
1/2"	12.7	58
3/8"	9.5	51
#4	4.75	34
#10	2.00	22
#20	0.85	16
#40	0.425	11
#60	0.25	8
#100	0.15	7
#200	0.075	5.7

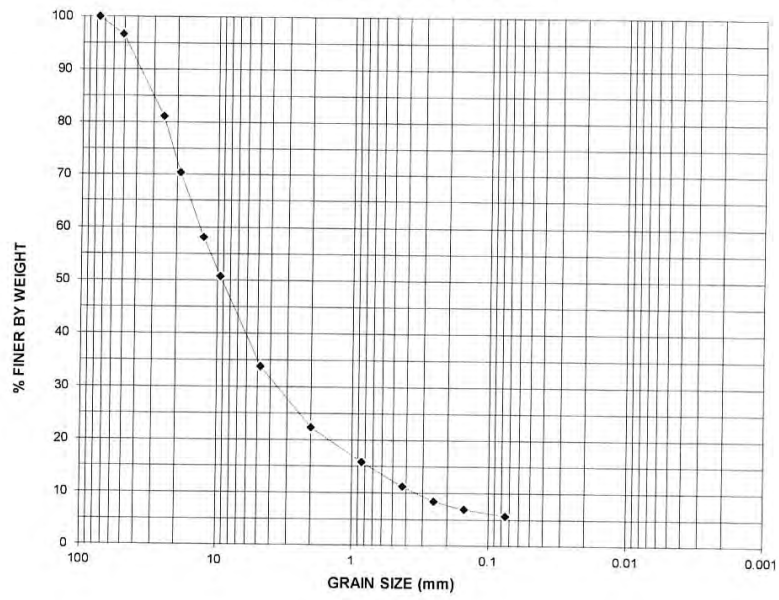
HYDROMETER TEST

(ASTM D422)

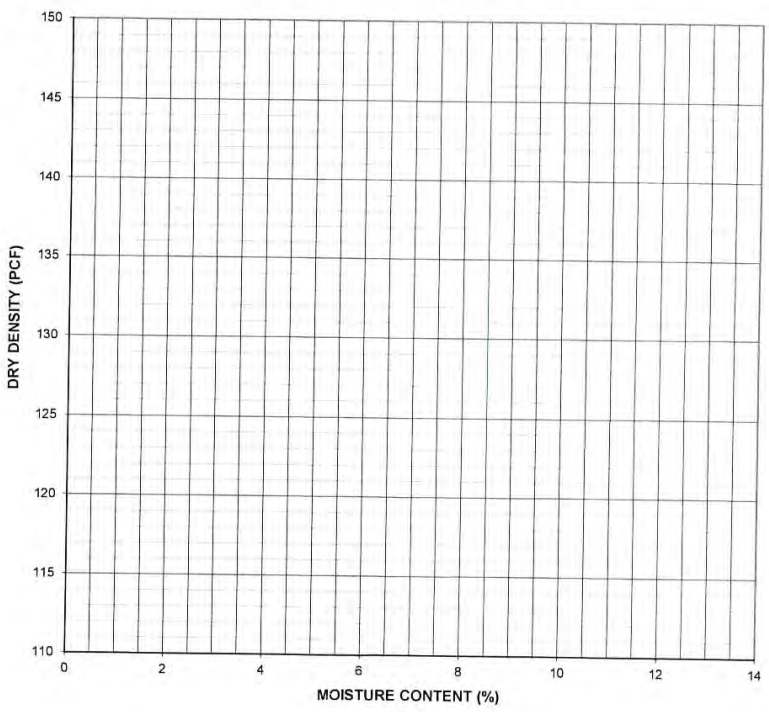
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1459		
2750		

% Gravel:	66.2
%Sand:	28.1
% Fines:	5.7
D60:	13.65
D30:	3.83
D10:	0.35
Cu:	39.5
Cc:	3.1
% .02 mm:	
% Moisture:	2.0
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Poorly Graded Gravel w/Silt & Sand

USC: GP-GM

FROST CLASS:

Remarks:



JOHN A. BUZDOR, P.E. 5/3/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #10

Legal Description: T17N R1E Sec 6 B11 Date: 4/22/2021

Inspected By: _____

Ground level EL430

1ft	ML
2ft	
3ft	GW-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GW-GM; Well graded gravel w/Silt & Sand
#200-9.6%
Good area to blend with TH 42
Goal #200 gradation 0-10%

Total Depth of Testhole 13 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden
2/12/22

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD
PROJECT NO.:	20-401
CLIENT:	WCC&E
SAMPLE NO.:	21P101
LOCATION:	UKN

DATE TAKEN:	4/24/2021
DATE TESTED:	4/30/2021
TESTED BY:	NP
REVIEWED BY:	JAB
DESCRIPTION:	TH 10-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	96
1"	25.4	75
3/4"	19.0	68
1/2"	12.7	60
3/8"	9.5	55
#4	4.75	43
#10	2.00	33
#20	0.85	24
#40	0.425	18
#60	0.25	14
#100	0.15	12
#200	0.075	9.6

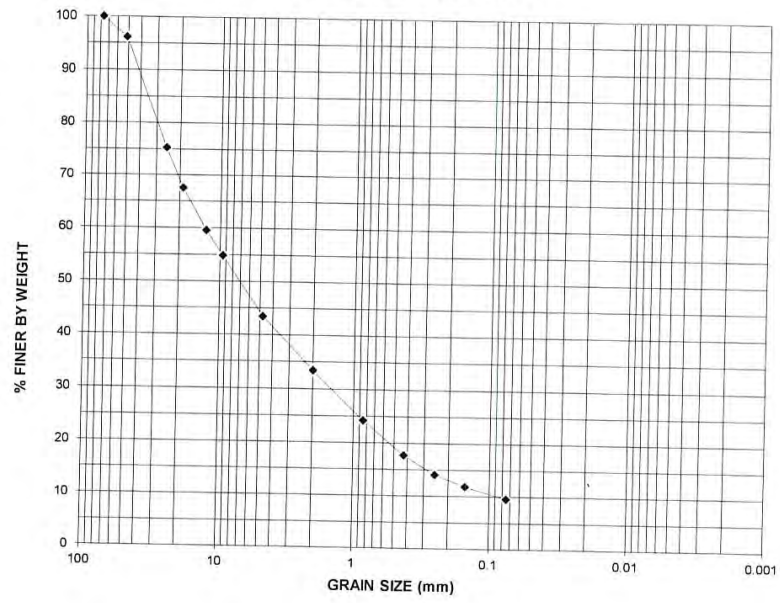
HYDROMETER TEST

(ASTM D422)

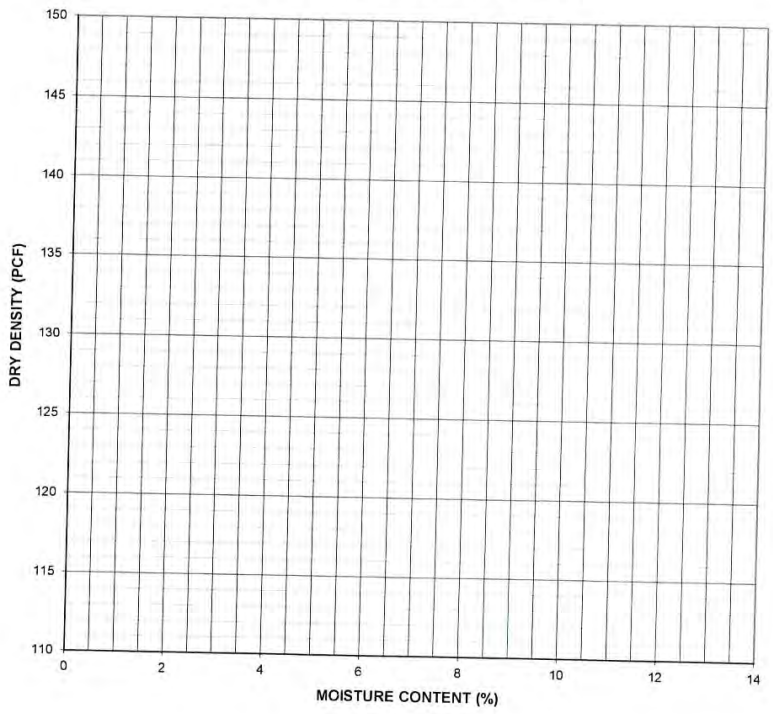
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1459		
2750		

% Gravel:	56.6
%Sand:	33.8
% Fines:	9.6
D60:	13.04
D30:	1.57
D10:	0.09
Cu:	147.4
Cc:	2.1
% .02 mm:	
% Moisture:	3.4
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Well Graded Gravel w/Silt & Sand
USC:	GW-GM
FROST CLASS:	

Remarks:



JOHN A. BUZDOR, P.E. 5/3/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #11

Legal Description: T17N R1E Sec 6 B10 Date: 4/22/2021

Inspected By: Robert L Walden, PE

Ground level EL442

1ft	ML
2ft	
3ft	SM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

SM; Silty sand w/gravel

#200 13.9%

Total Depth of Testhole 12 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden
3/22/25

Form revised 2/2016

TESTHOLE LOG #13

Legal Description: T17N R1E Sec 6 B10 Date: 4/23/2021

Inspected By: Robert L Walden, PE

Ground level EL419

1ft	ML
2ft	
3ft	GW
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GW; Well graded Gravel w/sand

#200 3.8%

Total Depth of Testhole 12 ft.

Groundwater/Seeps Encountered? Y [N] At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y [N] At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

TESTHOLE LOG #14

Legal Description: T17N R1E Sec 6 B12 Date: 4/23/2021

Inspected By: Robert L Walden, PE

Ground level EL437

1ft	ML
2ft	
3ft	GP-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GP-GM; Poorly graded gravel w/Silt & sand

#200-8.9%

Total Depth of Testhole 12 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

TESTHOLE LOG #15

Legal Description: T17N R1E Sec 6 B12 Date: 4/26/2021

Inspected By: Robert L Walden, PE

Ground level EL427

1ft	ML
2ft	
3ft	SP-SM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	GW
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:
SP-SM; Poorly graded sand w/Silt & gravel
#200-6.3%
9.5-14; GW Well graded gravel with sand

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

STATE OF ALASKA
Robert L Walden
ROBERT L. WALDEN
3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P127	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 15-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	97
1"	25.4	85
3/4"	19.0	81
1/2"	12.7	74
3/8"	9.5	69
#4	4.75	57
#10	2.00	44
#20	0.85	31
#40	0.425	21
#60	0.25	14
#100	0.15	9
#200	0.075	6.3

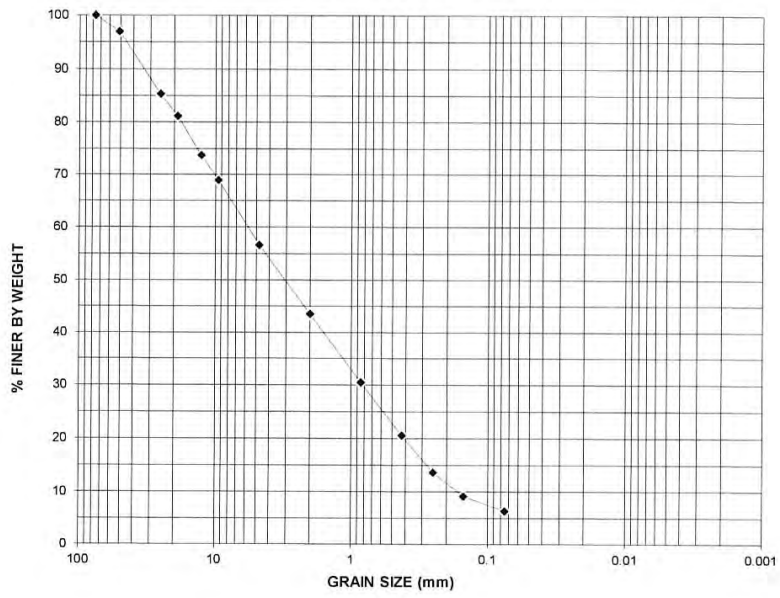
HYDROMETER TEST

(ASTM D422)

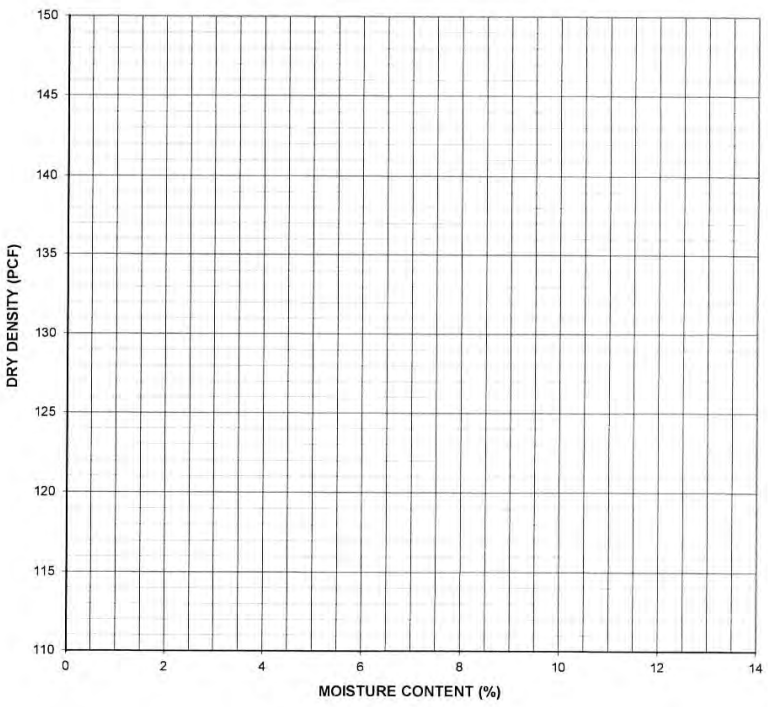
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	43.4
%Sand:	50.3
% Fines:	6.3
D60:	6.06
D30:	0.83
D10:	0.17
Cu:	35.8
Cc:	0.7
% .02 mm:	
% Moisture:	1.9
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Sand w/Silt & Gravel
USC:	SP-SM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #16

Legal Description: T17N R1E Sec 6 B13 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL419

1ft	ML
2ft	
3ft	GW-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	SW-SM
10ft	
11ft	
12ft	
13ft	V
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GW-GM; Well graded gravel w/Silt & Sand

#200 10.4%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At 13 ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P133	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 16-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	86
1"	25.4	80
3/4"	19.0	71
1/2"	12.7	65
3/8"	9.5	53
#4	4.75	47
#10	2.00	38
#20	0.85	29
#40	0.425	21
#60	0.25	17
#100	0.15	14
#200	0.075	10.4

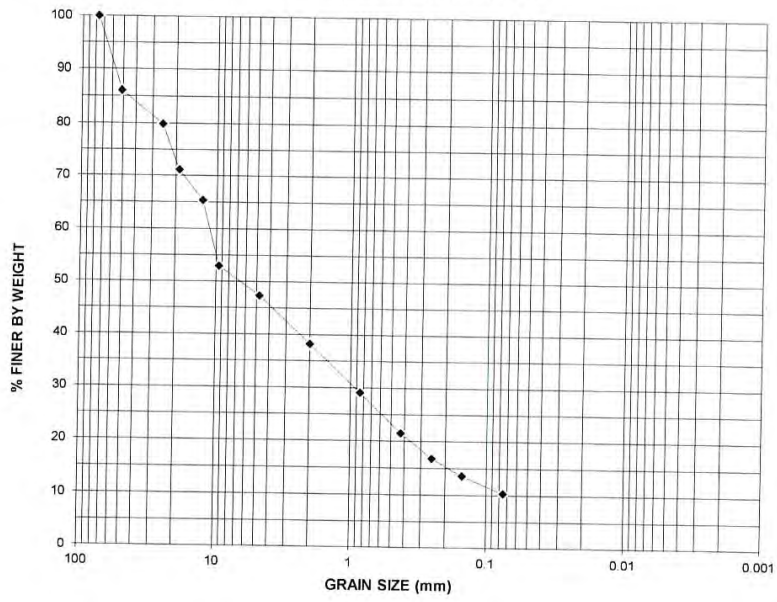
HYDROMETER TEST

(ASTM D422)

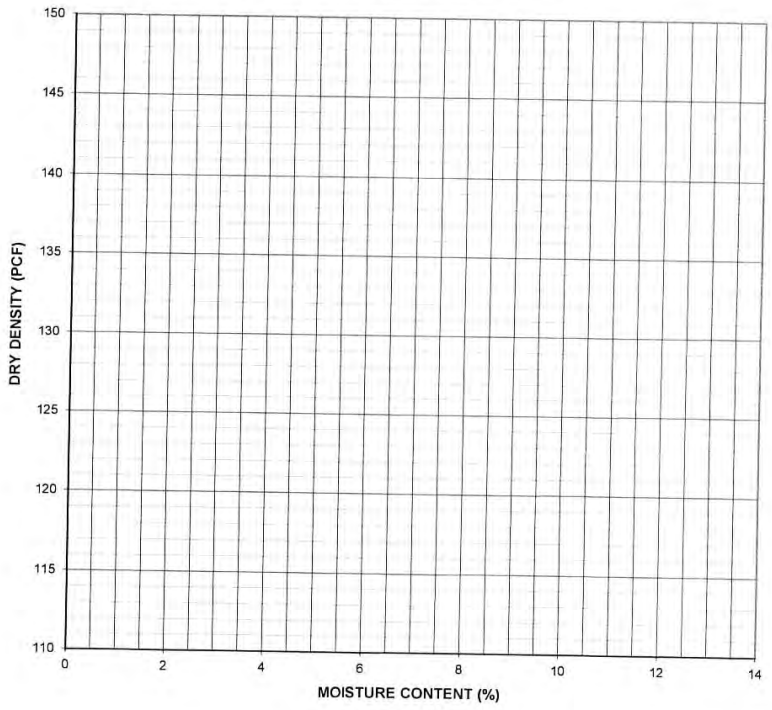
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	52.7
%Sand:	37.0
% Fines:	10.4
D60:	11.32
D30:	0.96
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	5.6
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Well Graded Gravel w/Silt & Sand

USC: GW-GM

FROST CLASS:

Remarks:

STATE OF ALASKA
49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #17

Legal Description: T17N R1E Sec 6 B13 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL425

1ft	ML
2ft	
3ft	GP
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GP; Poorly graded Gravels

#200 1.6%

Total Depth of Testhole 13 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

STATE OF ALASKA
Robert L Walden
ROBERT L. WALDEN
3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P128	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 17-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	96
1"	25.4	79
3/4"	19.0	71
1/2"	12.7	59
3/8"	9.5	53
#4	4.75	40
#10	2.00	30
#20	0.85	21
#40	0.425	11
#60	0.25	5
#100	0.15	2
#200	0.075	1.6

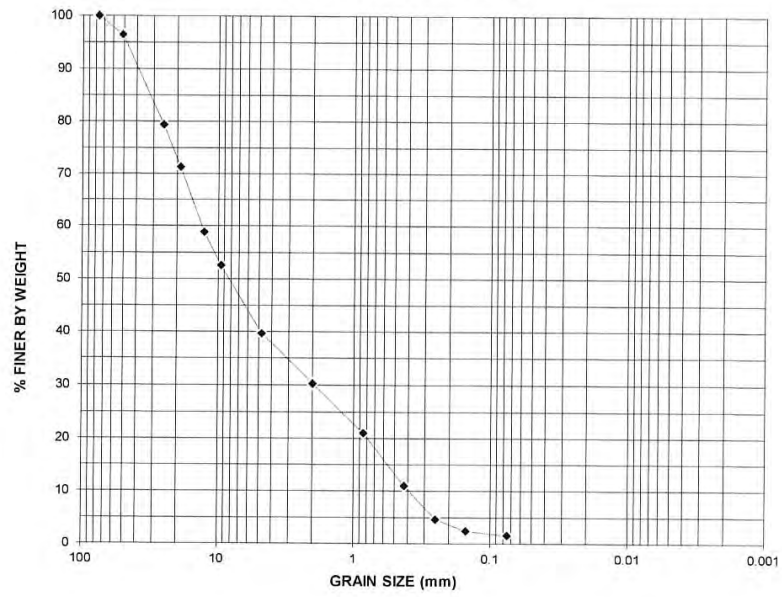
HYDROMETER TEST

(ASTM D422)

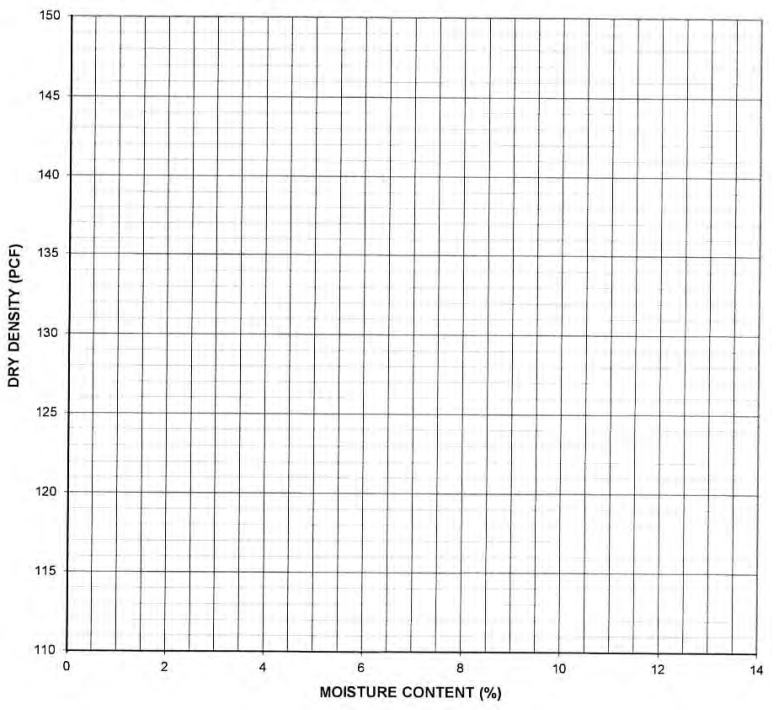
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	60.3
%Sand:	38.1
% Fines:	1.6
D60:	13.31
D30:	1.96
D10:	0.40
Cu:	33.5
Cc:	0.7
% .02 mm:	
% Moisture:	2.7
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Sand
USC:	GP
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P123	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 18-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	98
1"	25.4	88
3/4"	19.0	81
1/2"	12.7	69
3/8"	9.5	62
#4	4.75	46
#10	2.00	38
#20	0.85	29
#40	0.425	19
#60	0.25	12
#100	0.15	8
#200	0.075	5.2

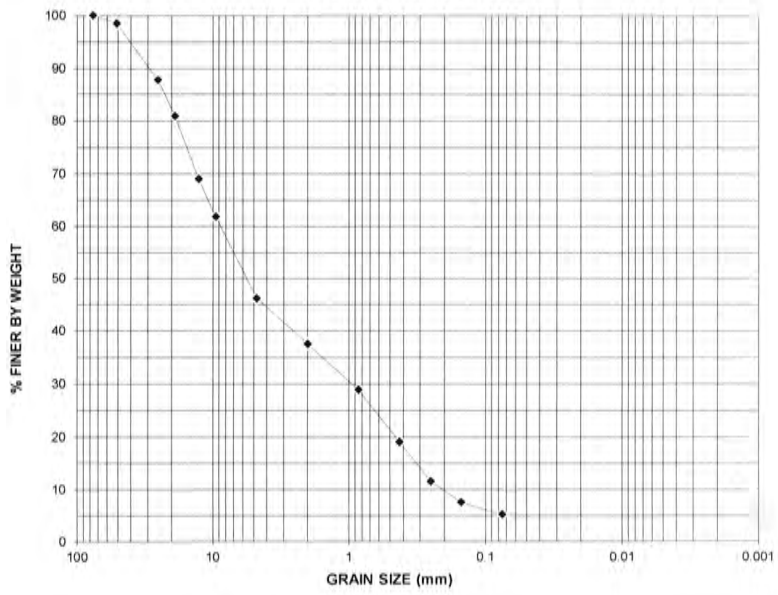
HYDROMETER TEST

(ASTM D422)

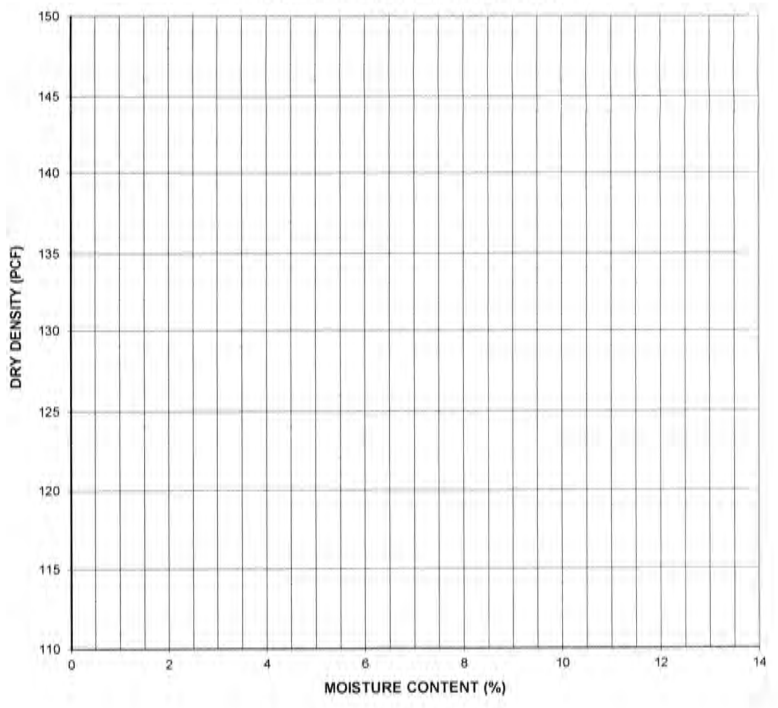
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	53.9
%Sand:	40.9
% Fines:	5.2
D60:	8.92
D30:	1.00
D10:	0.21
Cu:	42.3
Cc:	0.5
% .02 mm:	
% Moisture:	2.0
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Poorly Graded Gravel w/Silt & Sand

USC: GP-GM

FROST CLASS:

Remarks:



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REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD
PROJECT NO.:	20-401
CLIENT:	WCC&E
SAMPLE NO.:	21P141
LOCATION:	UKN

DATE TAKEN:	4/29/2021
DATE TESTED:	5/4/2021
TESTED BY:	DEM
REVIEWED BY:	JAB
DESCRIPTION:	TH 21-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	95
1"	25.4	73
3/4"	19.0	65
1/2"	12.7	54
3/8"	9.5	49
#4	4.75	38
#10	2.00	31
#20	0.85	22
#40	0.425	13
#60	0.25	7
#100	0.15	4
#200	0.075	2.7

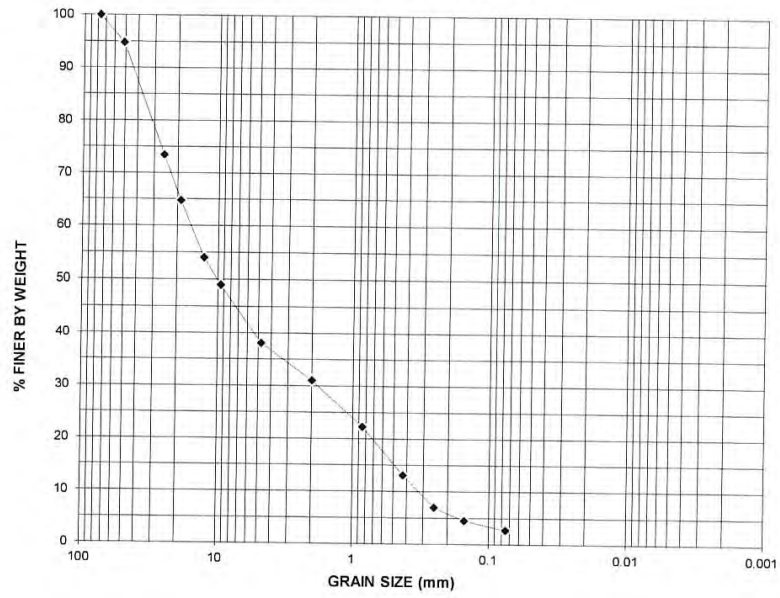
HYDROMETER TEST

(ASTM D422)

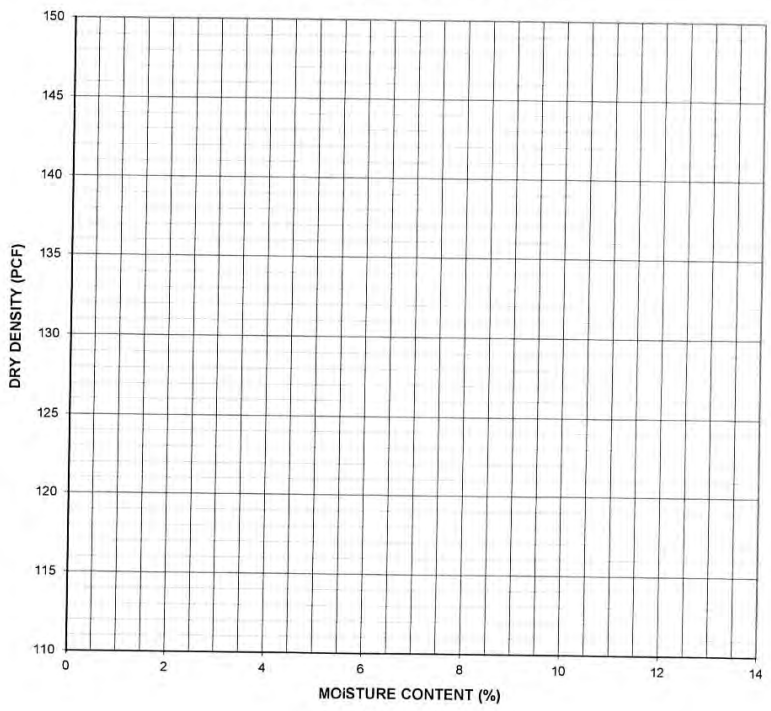
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	61.9
%Sand:	35.4
% Fines:	2.7
D60:	16.23
D30:	1.86
D10:	0.34
Cu:	48.2
Cc:	0.6
% .02 mm:	
% Moisture:	0.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Sand
USC:	GP
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

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REV 1-29-20

TESTHOLE LOG #22

Legal Description: T17N R1E Sec 6 B13 Date: 4/26/2021

Inspected By: Robert L Walden, PE

Ground level EL460

1ft	ML
2ft	
3ft	SP-SM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

SP-SM; Poorly graded sand w/Silt & gravel

#200-9.3%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P130	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 22-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	
2"	50.8	100
1"	25.4	87
3/4"	19.0	80
1/2"	12.7	72
3/8"	9.5	67
#4	4.75	57
#10	2.00	44
#20	0.85	33
#40	0.425	24
#60	0.25	17
#100	0.15	13
#200	0.075	9.3

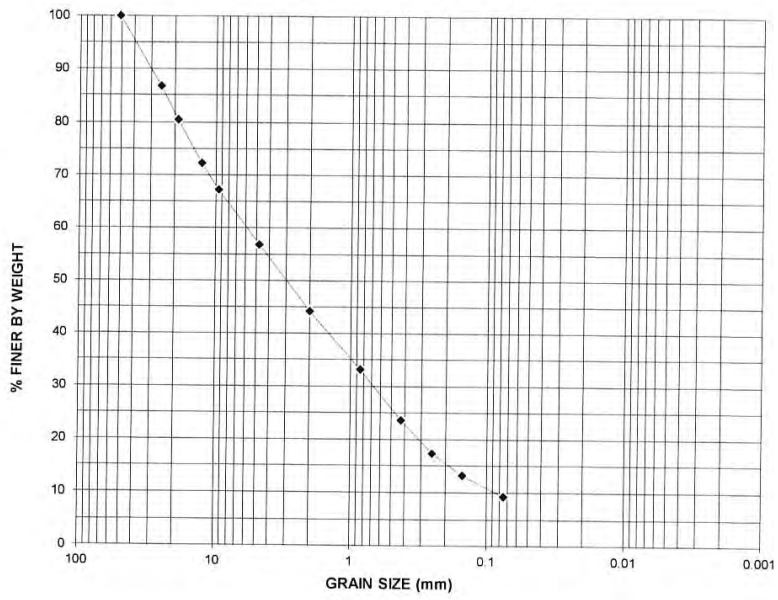
HYDROMETER TEST

(ASTM D422)

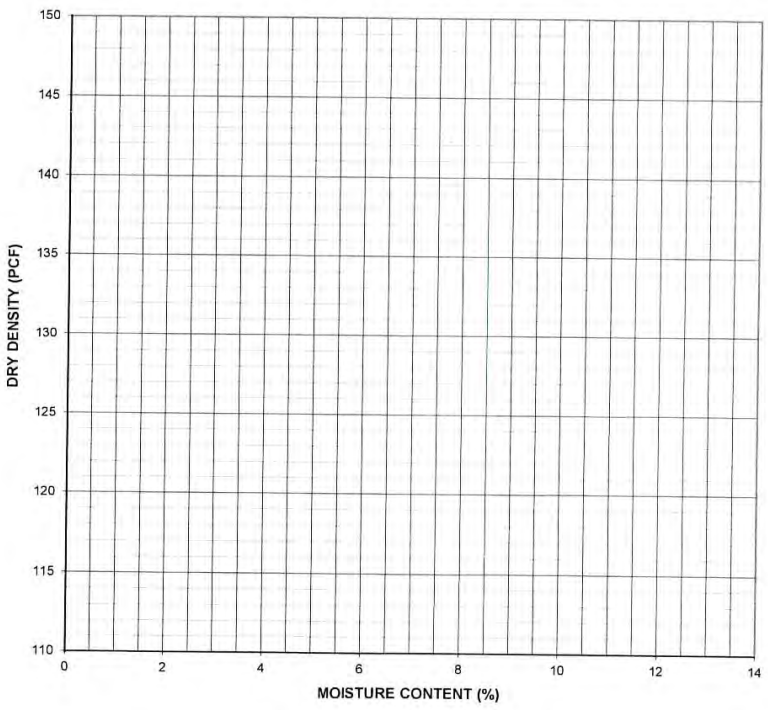
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	43.2
%Sand:	47.5
% Fines:	9.3
D60:	6.21
D30:	0.71
D10:	0.09
Cu:	69.7
Cc:	0.9
% .02 mm:	
% Moisture:	4.4
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Sand w/Silt & Gravel
USC:	SP-SM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH Robert L Walden ROBERT L. WALDEN No. CE13874 3/22/25 REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

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Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #23

Legal Description: T17N R1E Sec 6 B13 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL438

1ft	ML
2ft	
3ft	SP-SM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

SP-SM; Poorly graded sand w/Silt & gravel

No sample, on side hill 1:1.

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

TESTHOLE LOG #24

Legal Description: T17N R1E Sec 6 B12 Date: 4/23/2021

Inspected By: Robert L Walden, PE

Ground level EL450

1ft	ML
2ft	
3ft	GP-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	SP
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:
GP-GM; Poorly graded gravel w/Silt & sand
No sample, on side hill 1:1.

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden
3/22/25

Form revised 2/2016

TESTHOLE LOG #25

Legal Description: T17N R1E Sec 6 B12 Date: 4/23/2021

Inspected By: Robert L Walden, PE

Ground level EL418

1ft	ML
2ft	
3ft	
4ft	GW
5ft	
6ft	SP-SM
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

SP-SM; Poorly graded sand w/Silt & gravel

#200-5.6%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P126	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 25-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	98
1"	25.4	88
3/4"	19.0	83
1/2"	12.7	75
3/8"	9.5	70
#4	4.75	62
#10	2.00	57
#20	0.85	53
#40	0.425	47
#60	0.25	32
#100	0.15	15
#200	0.075	5.6

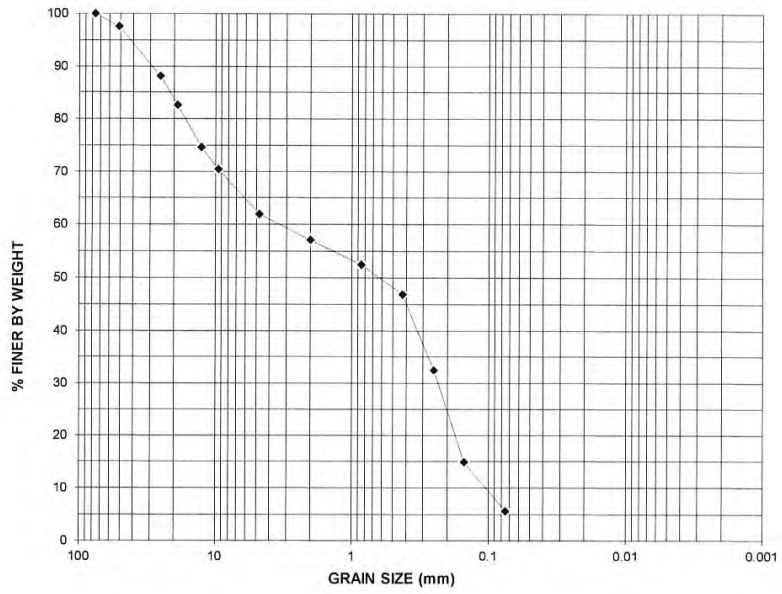
HYDROMETER TEST

(ASTM D422)

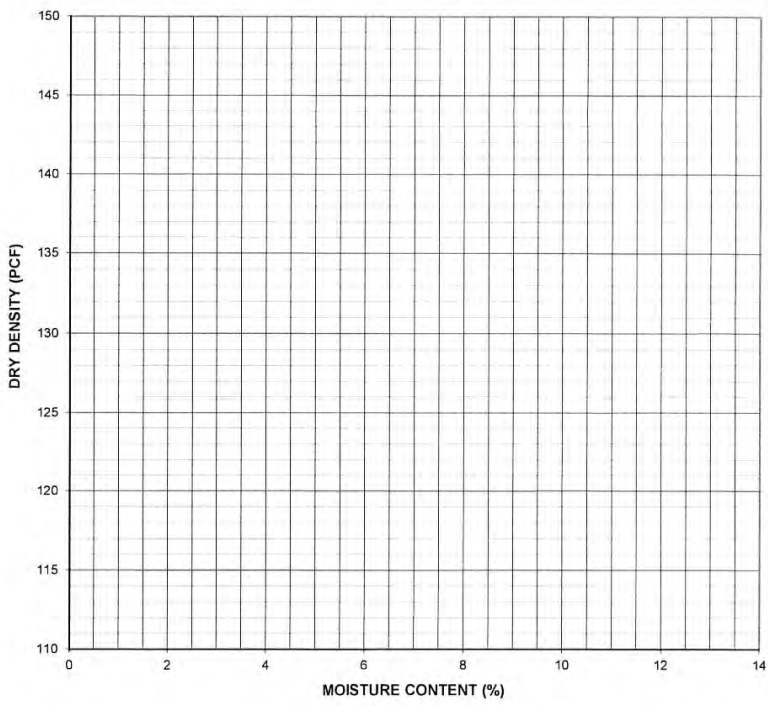
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	38.1
%Sand:	56.3
% Fines:	5.6
D60:	3.66
D30:	0.24
D10:	0.11
Cu:	33.1
Cc:	0.1
% .02 mm:	
% Moisture:	3.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Sand w/Silt & Gravel
USC:	SP-SM
FROST CLASS:	

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

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Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/24/2021
PROJECT NO.:	20-401	**DATE TESTED:**	4/30/2021
CLIENT:	WCC&E	**TESTED BY:**	NP
SAMPLE NO.:	21P107	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 26-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	99
1"	25.4	81
3/4"	19.0	76
1/2"	12.7	67
3/8"	9.5	62
#4	4.75	50
#10	2.00	40
#20	0.85	30
#40	0.425	18
#60	0.25	10
#100	0.15	7
#200	0.075	5.4

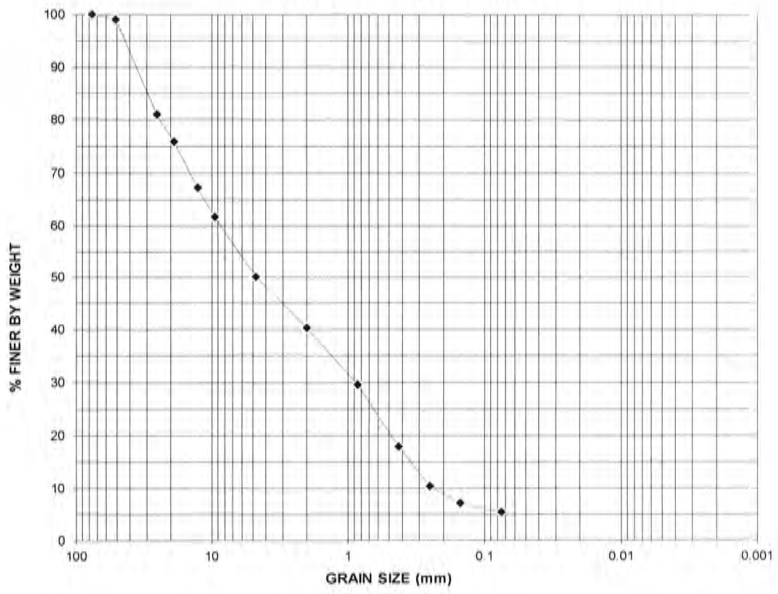
HYDROMETER TEST

(ASTM D422)

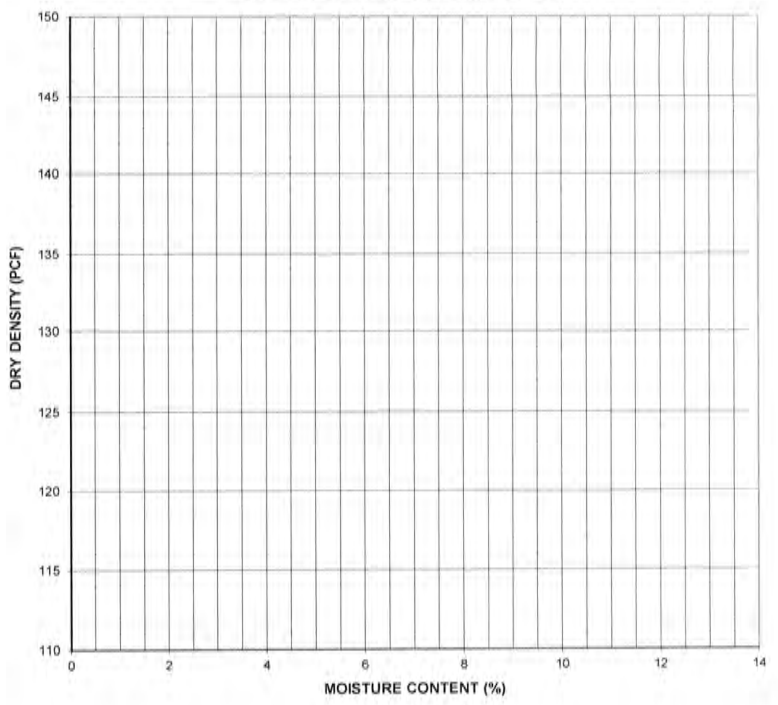
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1459		
2750		

% Gravel:	50.0
%Sand:	44.6
% Fines:	5.4
D60:	8.82
D30:	0.89
D10:	0.24
Cu:	36.9
Cc:	0.4
% .02 mm:	
% Moisture:	3.5
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Silt & Sand
USC:	GP-GM
FROST CLASS:	

Remarks:

STATE OF ALASKA
49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/12/2021

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Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #27

Legal Description: T17N R1E Sec 6 C9 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL425

1ft	ML
2ft	
3ft	SP
4ft	
5ft	GP-GM
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

2-4;SP; Poorly graded sand

4-14;GP-GM; Poorly graded gravel w/Silt & sand

#200 10.2%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden
ROBERT L. WALDEN
3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P124	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 27-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	95
1"	25.4	82
3/4"	19.0	74
1/2"	12.7	65
3/8"	9.5	60
#4	4.75	50
#10	2.00	42
#20	0.85	34
#40	0.425	25
#60	0.25	18
#100	0.15	14
#200	0.075	10.2

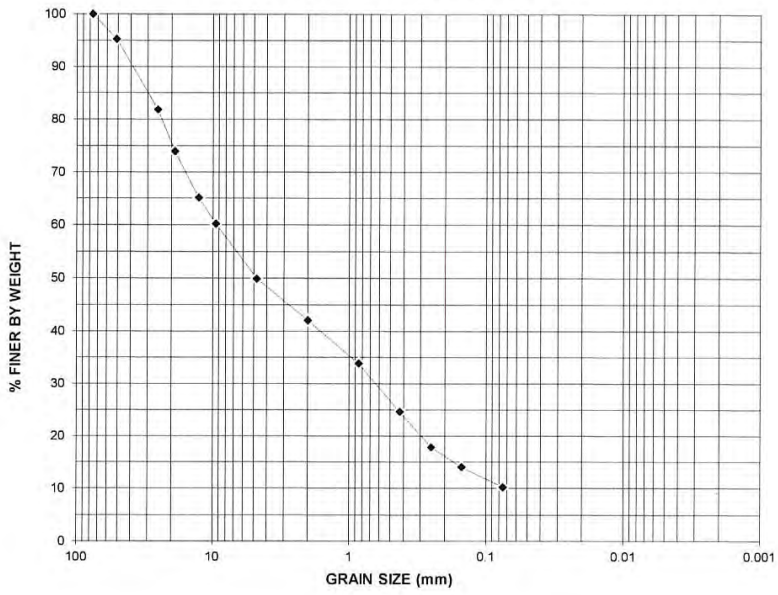
HYDROMETER TEST

(ASTM D422)

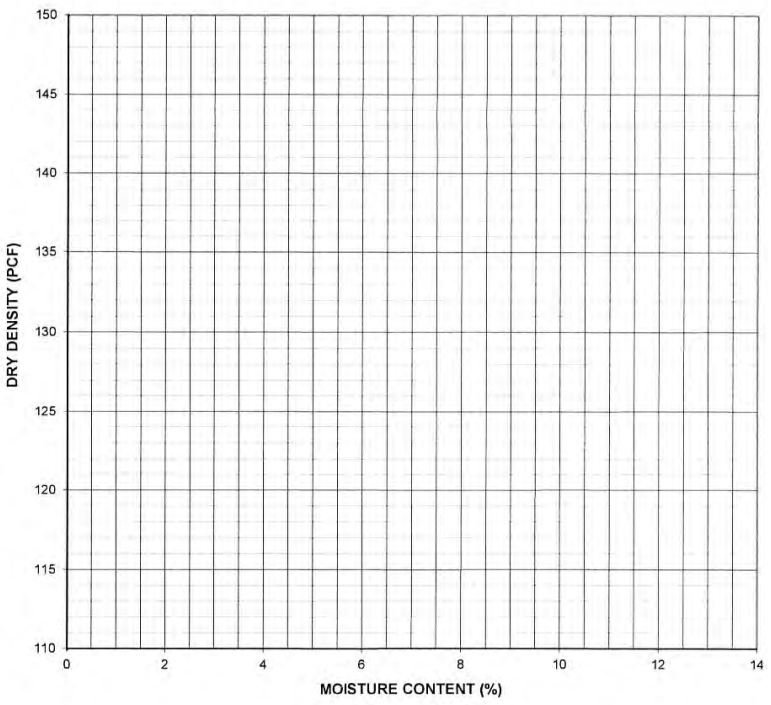
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	50.1
%Sand:	39.6
% Fines:	10.2
D60:	9.42
D30:	0.67
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	5.4
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION

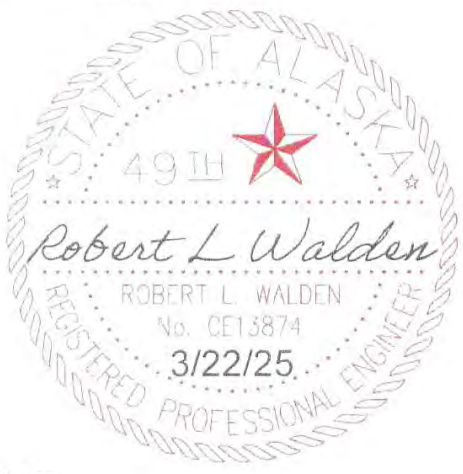


MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Silt & Sand
USC:	GP-GM
FROST CLASS:	

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

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Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #28

Legal Description: T17N R1E Sec 6 C8 Date: 4/28/2021

Inspected By: Robert L Walden, PE

Ground level EL433

1ft	ML
2ft	
3ft	
4ft	GW
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GW; Well graded Gravel w/sand

#200-4.9%

Total Depth of Testhole 12 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P135	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 28-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	99
1"	25.4	82
3/4"	19.0	74
1/2"	12.7	63
3/8"	9.5	57
#4	4.75	43
#10	2.00	31
#20	0.85	25
#40	0.425	16
#60	0.25	9
#100	0.15	6
#200	0.075	4.9

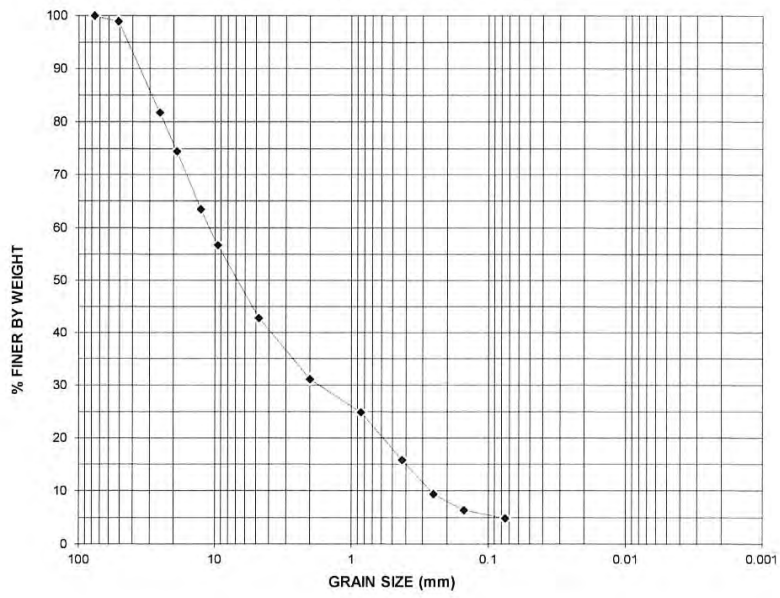
HYDROMETER TEST

(ASTM D422)

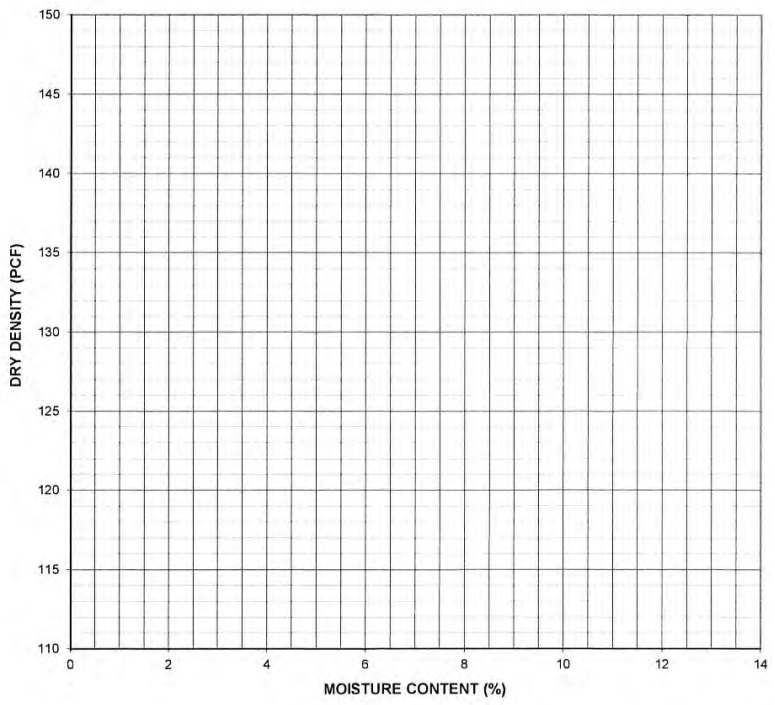
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	57.2
%Sand:	37.9
% Fines:	4.9
D60:	11.06
D30:	1.78
D10:	0.27
Cu:	41.4
Cc:	1.1
% .02 mm:	
% Moisture:	4.5
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP

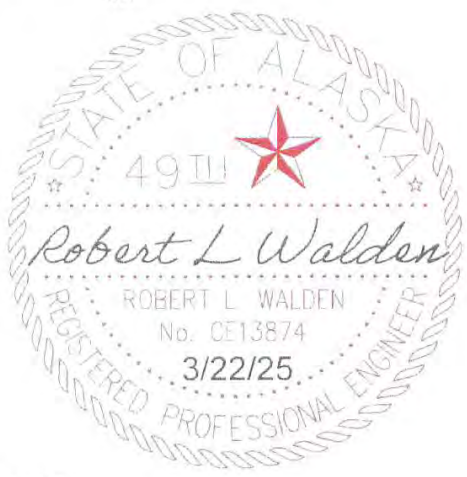


CLASSIFICATION: Well Graded Gravel w/Sand

USC: GW

FROST CLASS:

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #30

Legal Description: T17N R1E Sec 6 C8 Date: 4/28/2021

Inspected By: Robert L Walden, PE

Ground level EL440

1ft	ML
2ft	
3ft	GW
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GW; Well graded Gravel w/sand

#200-4.3%

Total Depth of Testhole 18 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.



Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P122	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 30-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	91
1"	25.4	76
3/4"	19.0	68
1/2"	12.7	57
3/8"	9.5	51
#4	4.75	38
#10	2.00	28
#20	0.85	21
#40	0.425	15
#60	0.25	9
#100	0.15	6
#200	0.075	4.3

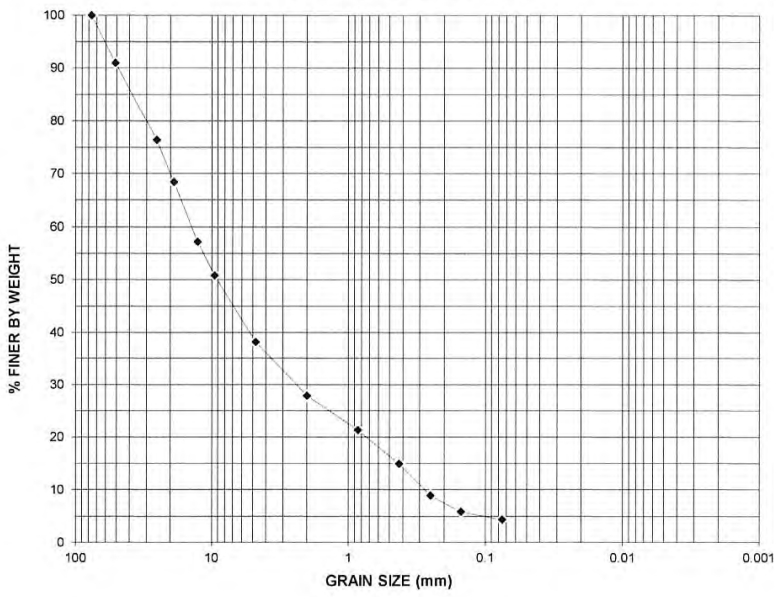
HYDROMETER TEST

(ASTM D422)

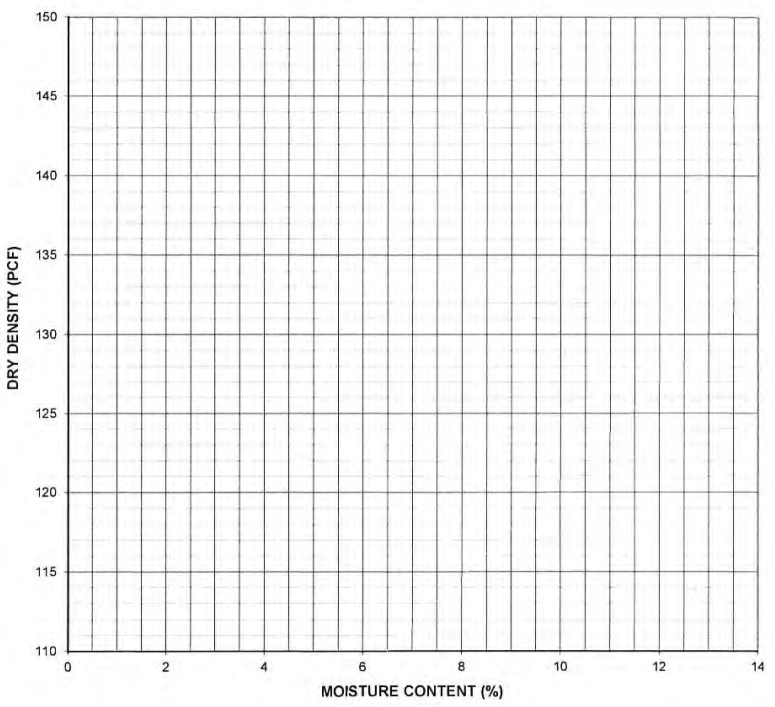
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	61.9
%Sand:	33.8
% Fines:	4.3
D60:	14.27
D30:	2.56
D10:	0.28
Cu:	50.6
Cc:	1.6
% .02 mm:	
% Moisture:	4.3
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Well Graded Gravel w/Sand

USC: GW

FROST CLASS:

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #32

Legal Description: T17N R1E Sec 6 B12 Date: 4/28/2021

Inspected By: Robert L Walden, PE

Ground level EL445

1ft	ML
2ft	
3ft	
4ft	
5ft	
6ft	SM
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

SM; Silty sand w/gravel

#200-13.2%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.



Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P139	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 32-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	91
1"	25.4	80
3/4"	19.0	77
1/2"	12.7	71
3/8"	9.5	68
#4	4.75	61
#10	2.00	55
#20	0.85	48
#40	0.425	38
#60	0.25	27
#100	0.15	19
#200	0.075	13.2

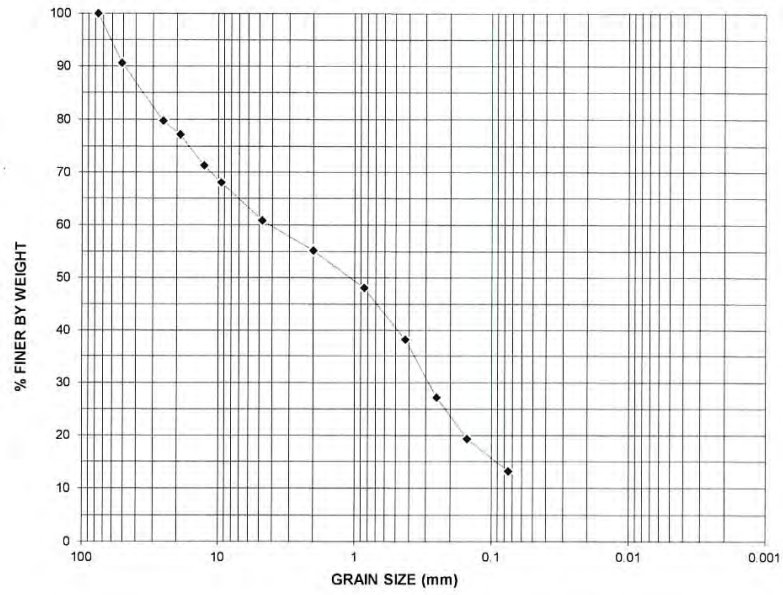
HYDROMETER TEST

(ASTM D422)

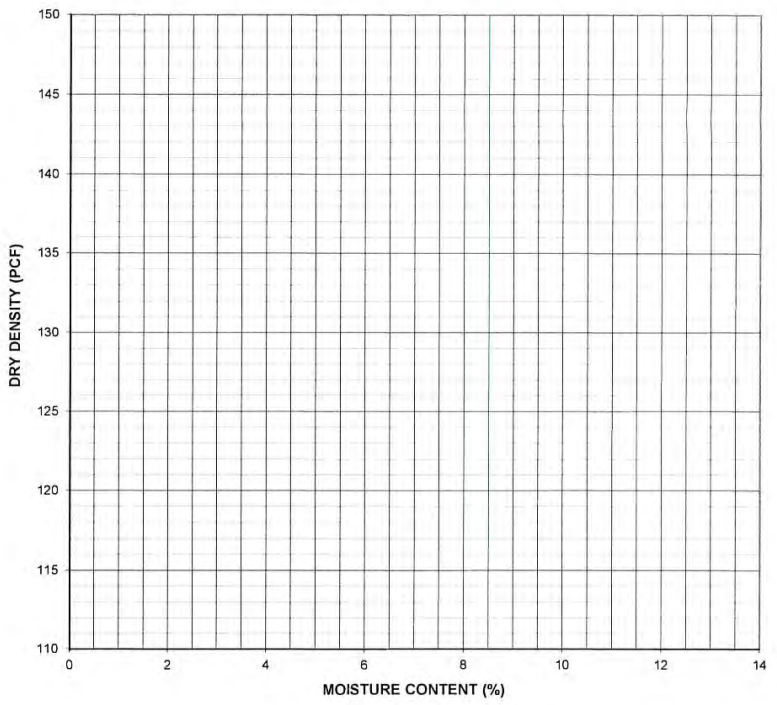
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	39.2
%Sand:	47.6
% Fines:	13.2
D60:	4.35
D30:	0.29
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	7.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Silty Sand w/Gravel
USC:	SM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH Robert L Walden ROBERT L. WALDEN No. CE13874 3/22/25 REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #33

Legal Description: T17N R1E Sec 6 C8 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL438

1ft	ML
2ft	
3ft	GW-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GW-GM; Well graded gravel w/Silt & Sand

#200 5.5%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P120	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 33-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	90
1"	25.4	64
3/4"	19.0	57
1/2"	12.7	48
3/8"	9.5	43
#4	4.75	33
#10	2.00	25
#20	0.85	18
#40	0.425	12
#60	0.25	8
#100	0.15	6
#200	0.075	5.5

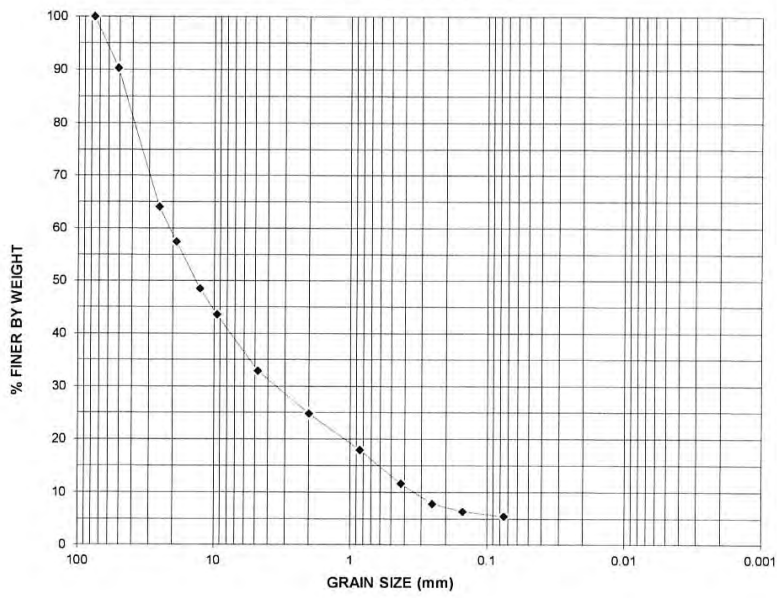
HYDROMETER TEST

(ASTM D422)

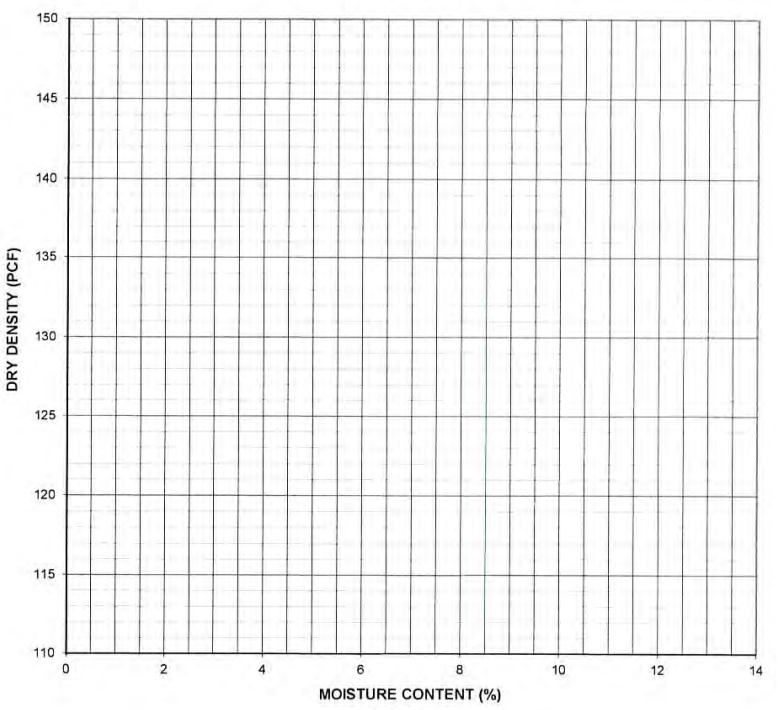
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	67.1
%Sand:	27.4
% Fines:	5.5
D60:	21.49
D30:	3.76
D10:	0.35
Cu:	61.4
Cc:	1.9
% .02 mm:	
% Moisture:	3.5
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Well Graded Gravel w/Silt & Sand
USC:	GW-GM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CL13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/11/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #34

Legal Description: T17N R1E Sec 6 C9 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL458

1ft	ML
2ft	GP-GM
3ft	
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	SW
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GP-GM; Poorly graded gravel w/Silt & sand

#200 6.5%

Total Depth of Testhole 13 ft.

Groundwater/Seeps Encountered? Y [N] At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y [N] At _____ ft.

Robert L Walden
3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P131	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 34-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	95
1"	25.4	78
3/4"	19.0	72
1/2"	12.7	64
3/8"	9.5	59
#4	4.75	49
#10	2.00	39
#20	0.85	29
#40	0.425	19
#60	0.25	13
#100	0.15	9
#200	0.075	6.5

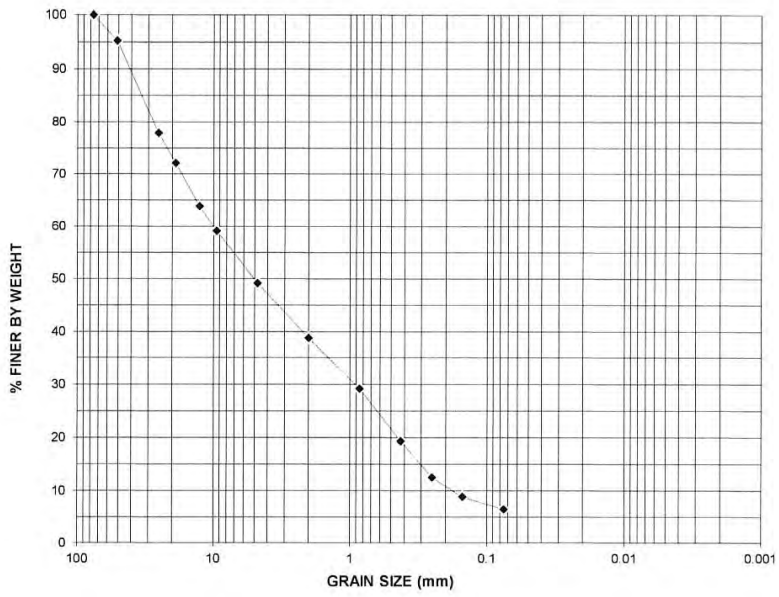
HYDROMETER TEST

(ASTM D422)

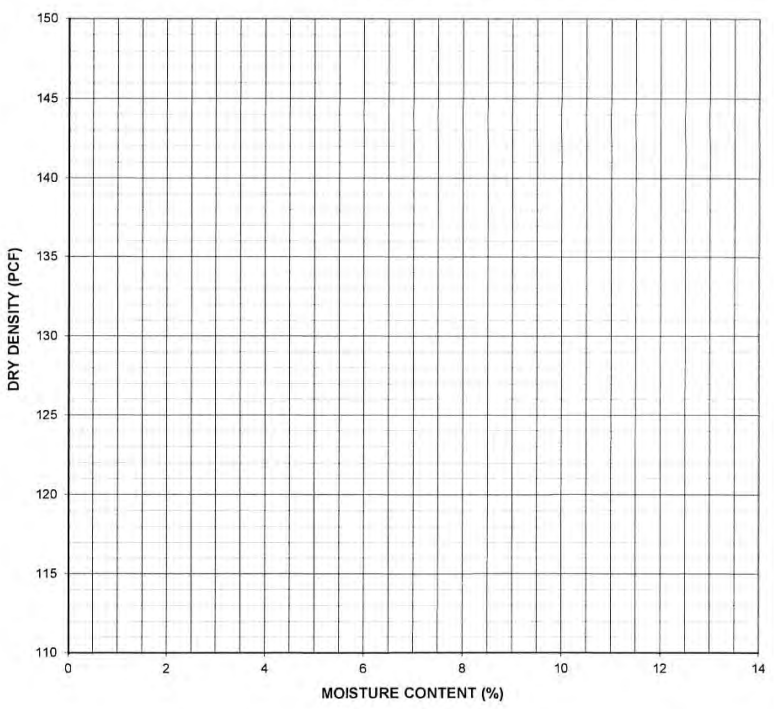
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	50.9
%Sand:	42.7
% Fines:	6.5
D60:	10.09
D30:	0.94
D10:	0.18
Cu:	55.7
Cc:	0.5
% .02 mm:	
% Moisture:	3.0
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Silt & Sand
USC:	GP-GM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #35

Legal Description: T17N R1E Sec 6 C7 Date: 4/28/2021

Inspected By: Robert L Walden, PE

Ground level EL403

1ft	ML
2ft	
3ft	GP-GM
4ft	
5ft	
6ft	
7ft	▽
8ft	SP-SM
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

2-7;GP-GM; Poorly graded Gravel w/Silt & sands #200-8.5%

7-10;SP-SM; Poorly graded Sand w/Silt & gravels #200-9.9%

Seeps at 7' water elevation in hole 8'

Total Depth of Testhole 10 ft.

Groundwater/Seeps Encountered? (Y) N At 7 ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden
3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P137	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 35-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	96
1"	25.4	77
3/4"	19.0	68
1/2"	12.7	56
3/8"	9.5	50
#4	4.75	40
#10	2.00	34
#20	0.85	28
#40	0.425	22
#60	0.25	17
#100	0.15	13
#200	0.075	8.5

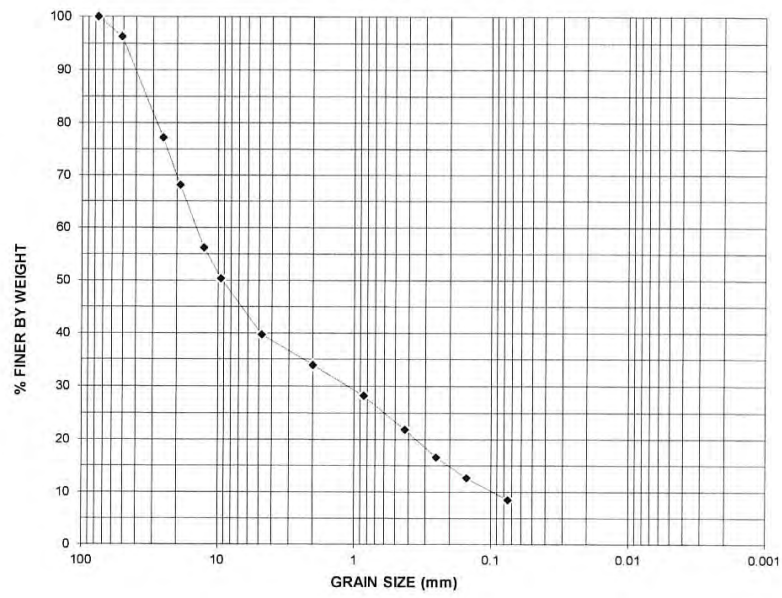
HYDROMETER TEST

(ASTM D422)

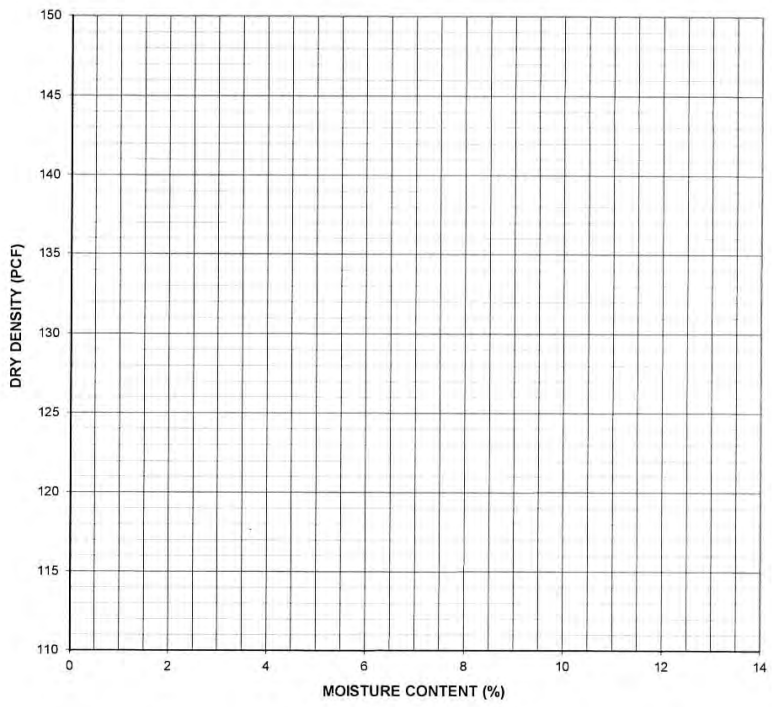
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	60.3
%Sand:	31.2
% Fines:	8.5
D60:	14.73
D30:	1.20
D10:	0.10
Cu:	144.7
Cc:	1.0
% .02 mm:	
% Moisture:	3.7
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Silt & Sand
USC:	GP-GM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH Robert L Walden ROBERT L. WALDEN No. CIT.58/4 3/22/25 REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

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Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P121	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 37-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	99
1"	25.4	89
3/4"	19.0	84
1/2"	12.7	72
3/8"	9.5	65
#4	4.75	50
#10	2.00	40
#20	0.85	33
#40	0.425	27
#60	0.25	22
#100	0.15	17
#200	0.075	11.9

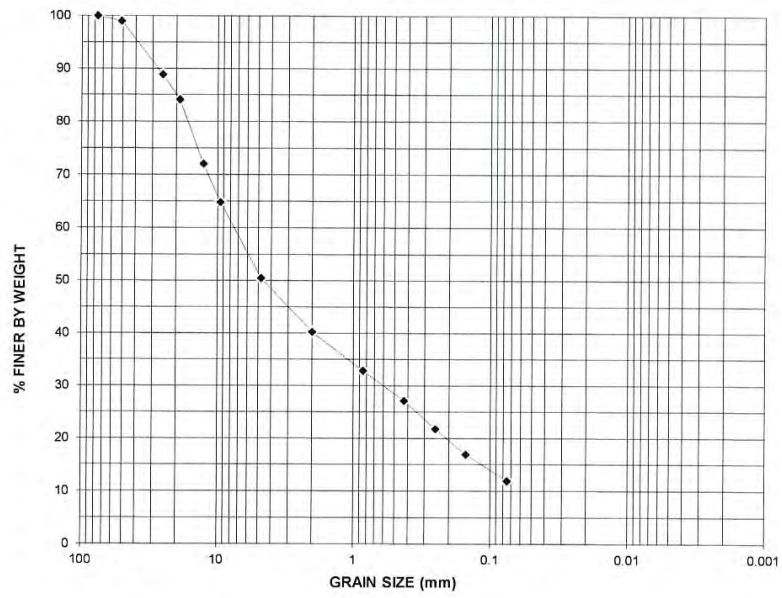
HYDROMETER TEST

(ASTM D422)

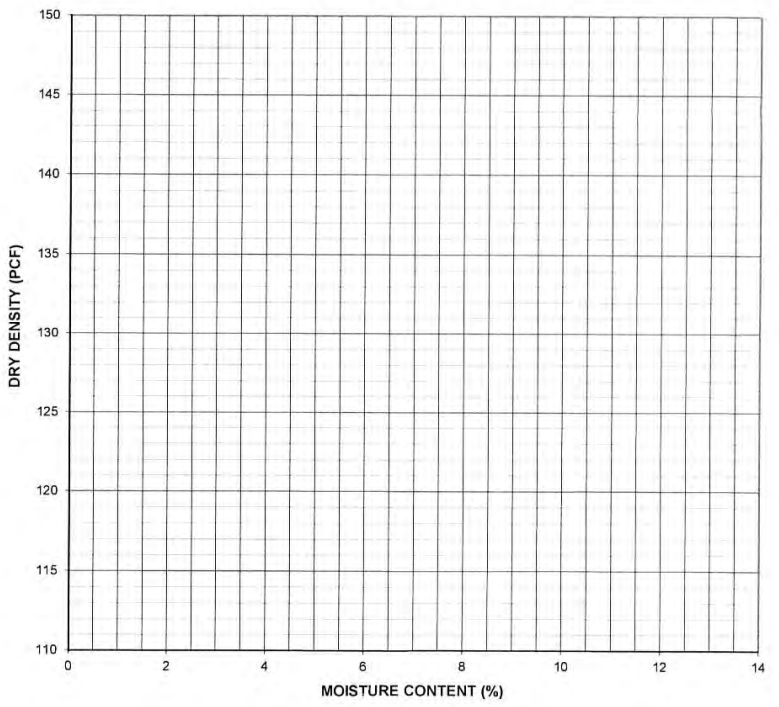
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	49.6
%Sand:	38.5
% Fines:	11.9
D60:	7.91
D30:	0.64
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	4.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Silt &Sand
USC:	GP-GM
FROST CLASS:	

Remarks:



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Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P138	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 38-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	
2"	50.8	100
1"	25.4	84
3/4"	19.0	76
1/2"	12.7	71
3/8"	9.5	67
#4	4.75	60
#10	2.00	55
#20	0.85	50
#40	0.425	43
#60	0.25	34
#100	0.15	25
#200	0.075	14.5

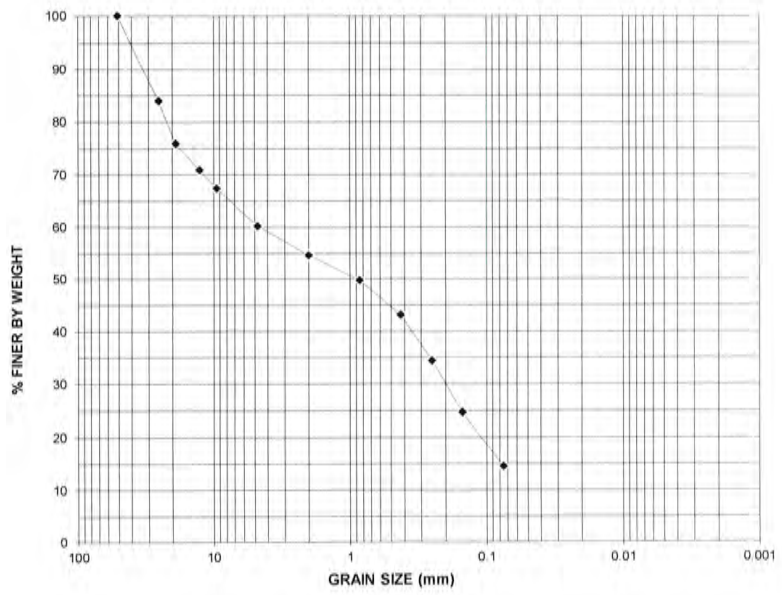
HYDROMETER TEST

(ASTM D422)

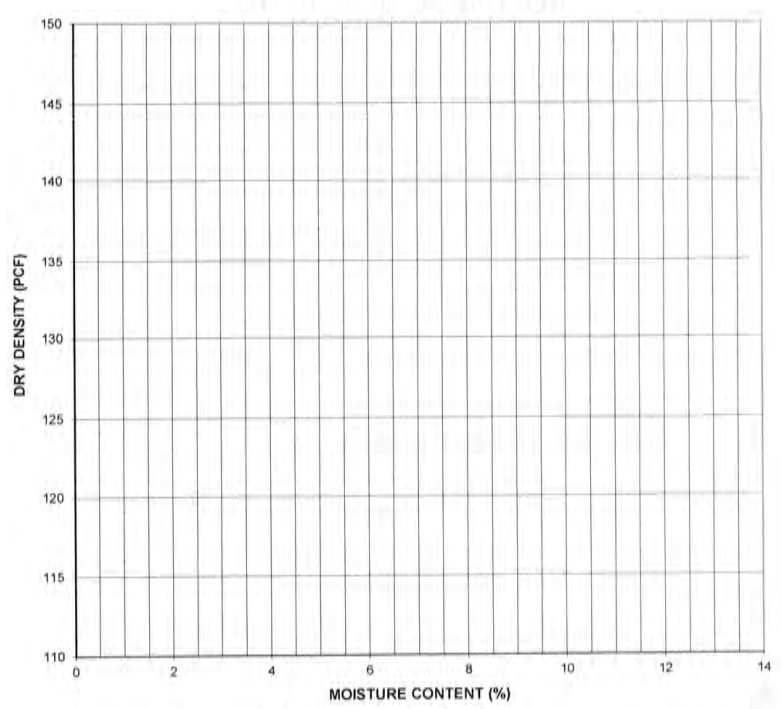
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	39.8
%Sand:	45.7
% Fines:	14.5
D60:	4.65
D30:	0.20
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	5.5
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Silty Sand w/Gravel

USC: SM

FROST CLASS:

Remarks:



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Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P140	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 35-3

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	
2"	50.8	100
1"	25.4	96
3/4"	19.0	91
1/2"	12.7	82
3/8"	9.5	75
#4	4.75	61
#10	2.00	51
#20	0.85	43
#40	0.425	31
#60	0.25	19
#100	0.15	13
#200	0.075	9.9

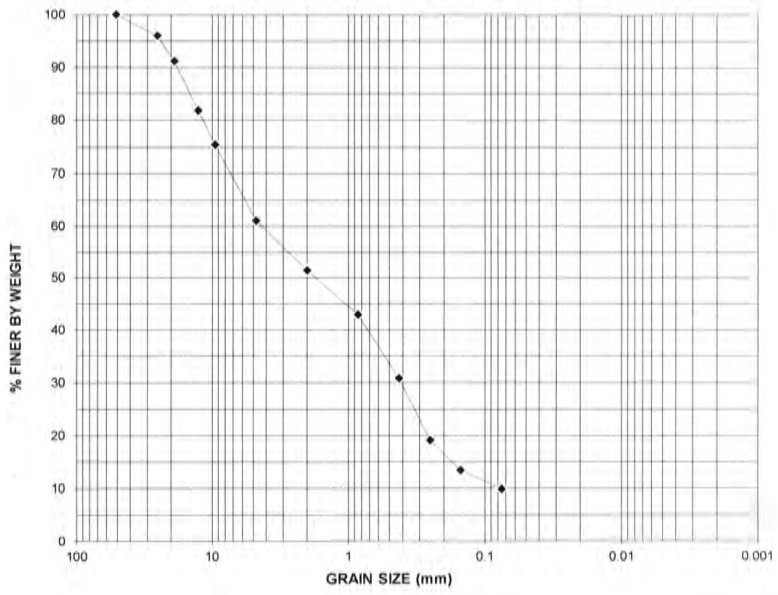
HYDROMETER TEST

(ASTM D422)

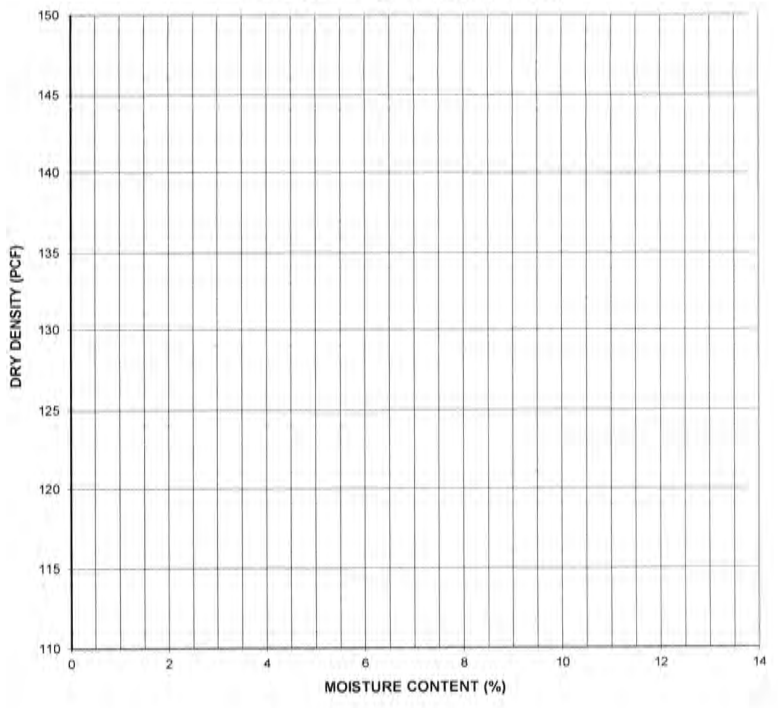
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	38.9
%Sand:	51.2
% Fines:	9.9
D60:	4.44
D30:	0.41
D10:	0.08
Cu:	57.0
Cc:	0.5
% .02 mm:	
% Moisture:	9.5
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP

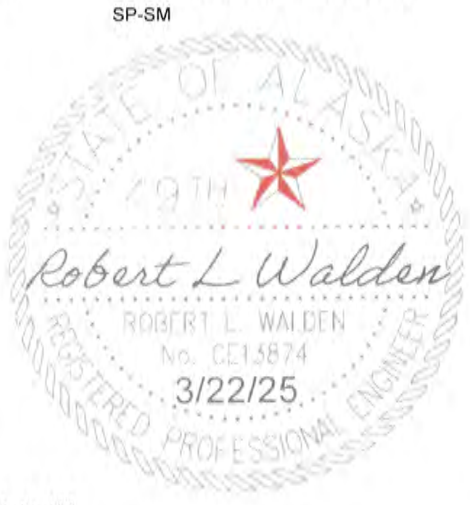


CLASSIFICATION: Poorly Graded Sand w/Silt & Gravel

USC: SP-SM

FROST CLASS:

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

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Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #39

Legal Description: T17N R1E Sec 6 C9 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL417

1ft	ML
2ft	
3ft	SP
4ft	
5ft	GP-GM
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

2-4;SP; Poorly graded sand

4-14;GP-GM; Poorly graded gravel w/Silt & sand

#200 10.2%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P134	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 39-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	96
1"	25.4	82
3/4"	19.0	76
1/2"	12.7	69
3/8"	9.5	65
#4	4.75	57
#10	2.00	52
#20	0.85	45
#40	0.425	37
#60	0.25	29
#100	0.15	21
#200	0.075	13.0

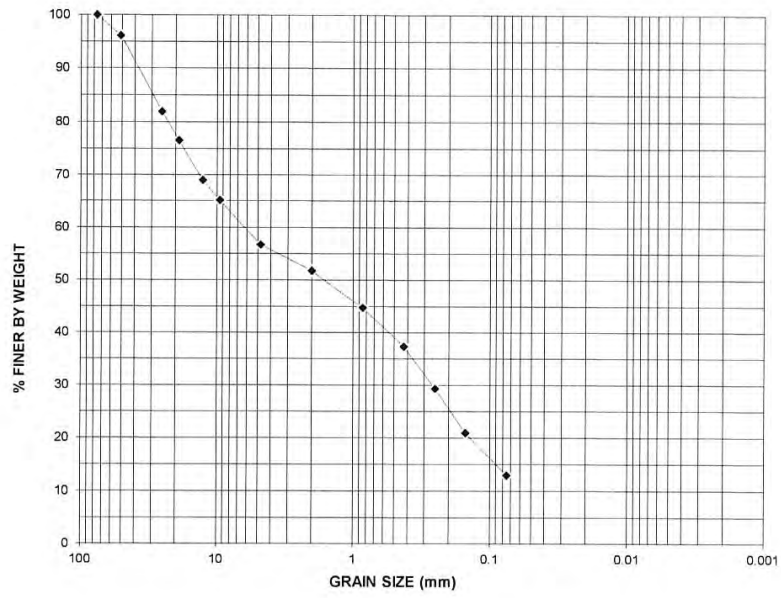
HYDROMETER TEST

(ASTM D422)

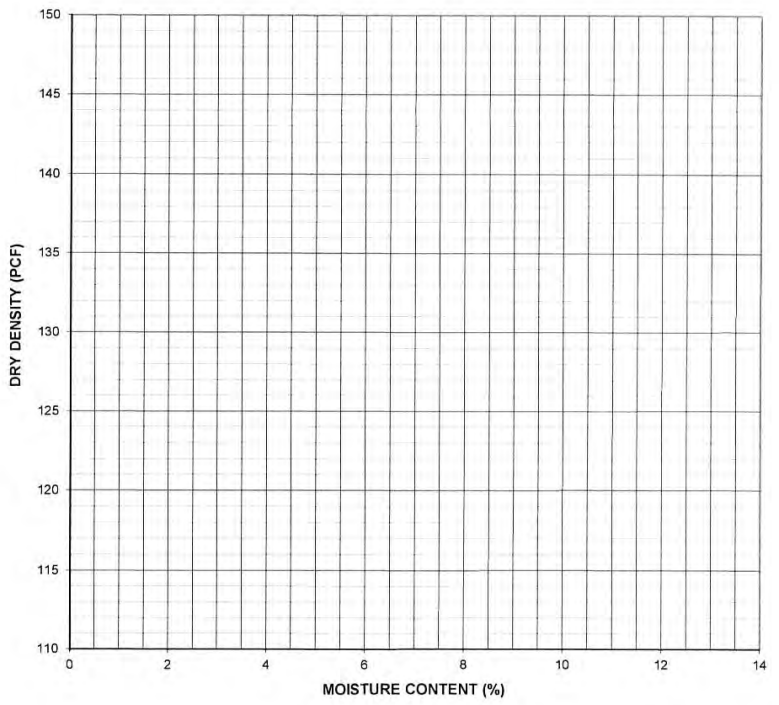
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	43.3
%Sand:	43.7
% Fines:	13.0
D60:	6.64
D30:	0.27
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	4.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Silty Sand w/Gravel
USC:	SM
FROST CLASS:	

Remarks:

STATE OF ALASKA
49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

3335 Arctic Blvd, Suite 100
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Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #41

Legal Description: T17N R1E Sec 6 B10 Date: 4/22/2021

Inspected By: Robert L Walden, PE

Ground level EL 403

1ft	ML
2ft	
3ft	GP-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	V
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GP-GM; Poorly graded gravel w/Silt & sand

#200-5.6%

Total Depth of Testhole 13.5 ft.

Groundwater/Seeps Encountered? (Y) N At 11.5 ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.



Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P136	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 42-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	
2"	50.8	100
1"	25.4	87
3/4"	19.0	83
1/2"	12.7	73
3/8"	9.5	67
#4	4.75	53
#10	2.00	41
#20	0.85	31
#40	0.425	24
#60	0.25	20
#100	0.15	16
#200	0.075	12.9

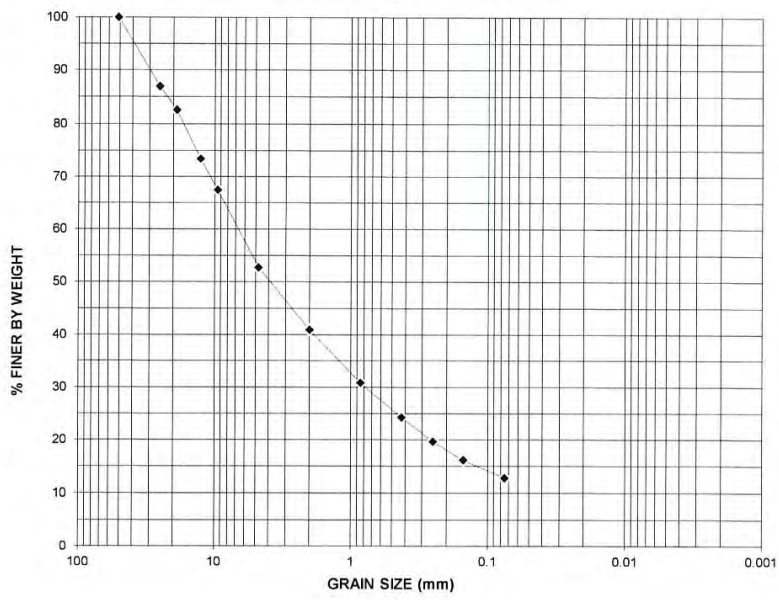
HYDROMETER TEST

(ASTM D422)

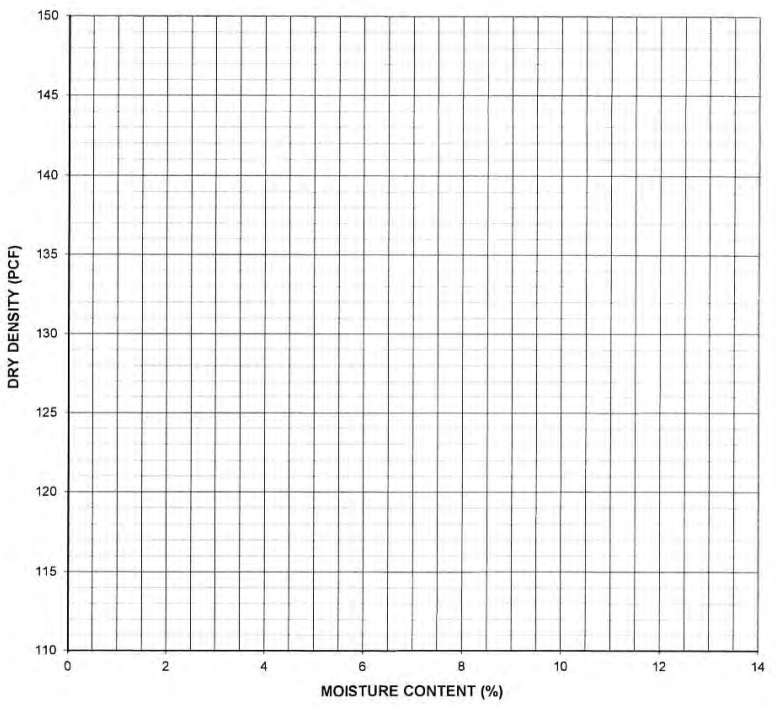
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	47.3
%Sand:	39.9
% Fines:	12.9
D60:	7.09
D30:	0.79
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	3.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP

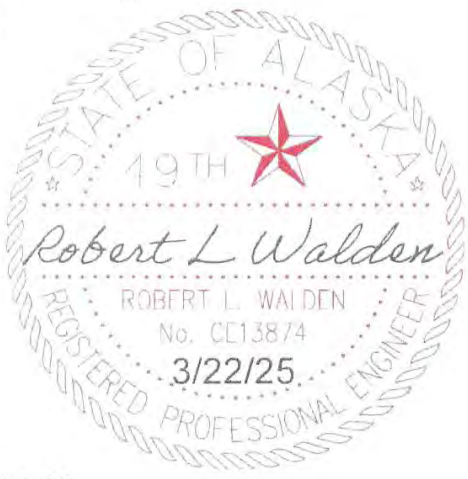


CLASSIFICATION: Silty Gravel w/Sand

USC: GM

FROST CLASS:

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

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Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P125	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 43-1

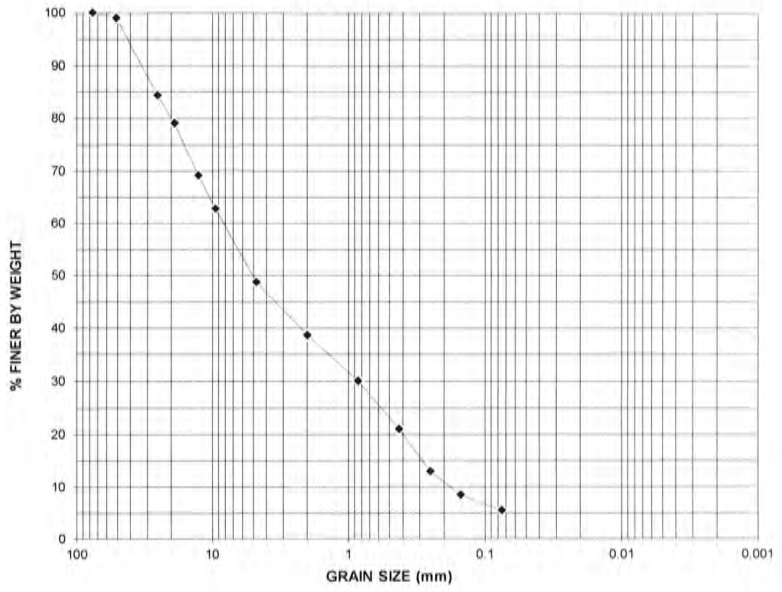
SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	99
1"	25.4	84
3/4"	19.0	79
1/2"	12.7	69
3/8"	9.5	63
#4	4.75	49
#10	2.00	39
#20	0.85	30
#40	0.425	21
#60	0.25	13
#100	0.15	8
#200	0.075	5.6

% Gravel:	51.3
%Sand:	43.1
% Fines:	5.6
D60:	8.52
D30:	0.84
D10:	0.18
Cu:	46.2
Cc:	0.5
% .02 mm:	
% Moisture:	3.5
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION

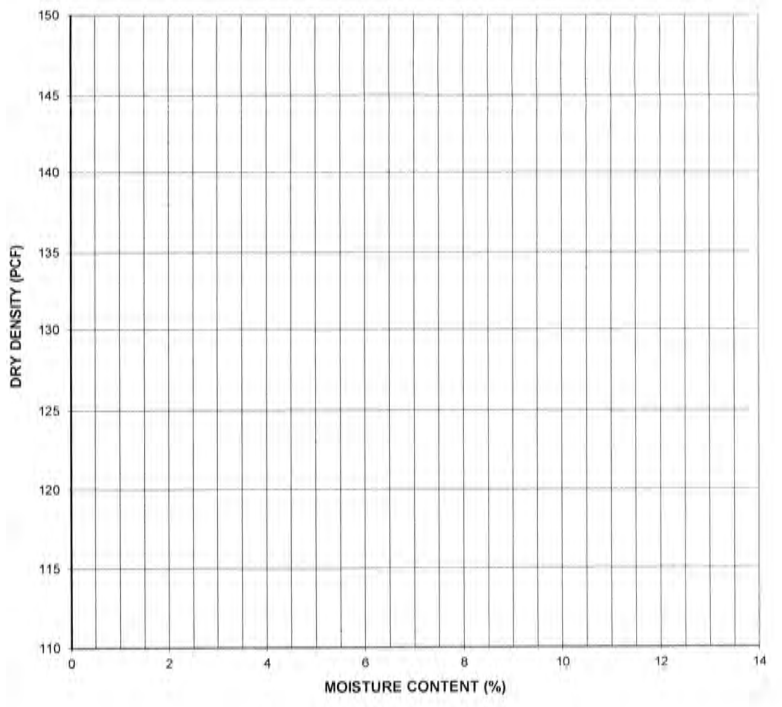


HYDROMETER TEST

(ASTM D422)

Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Poorly Graded Gravel w/Silt & Sand

USC: GP-GM

FROST CLASS:

Remarks:

STATE OF ALASKA
49TH
Robert L Walden
ROBERT L WALDEN
No. CL13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

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Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #45

Legal Description: T17N R1E Sec 6 C8 Date: 4/28/2021

Inspected By: Robert L Walden, PE

Ground level EL447

1ft	ML
2ft	GP-GM
3ft	
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

1.5-14;GP-GM; Poorly graded Gravel w/Silts & gravels

#200-11.7%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y (N) At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y (N) At _____ ft.

Robert L Walden

3/22/25

Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P143	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 45-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	93
1"	25.4	79
3/4"	19.0	72
1/2"	12.7	64
3/8"	9.5	59
#4	4.75	48
#10	2.00	42
#20	0.85	35
#40	0.425	27
#60	0.25	21
#100	0.15	16
#200	0.075	11.7

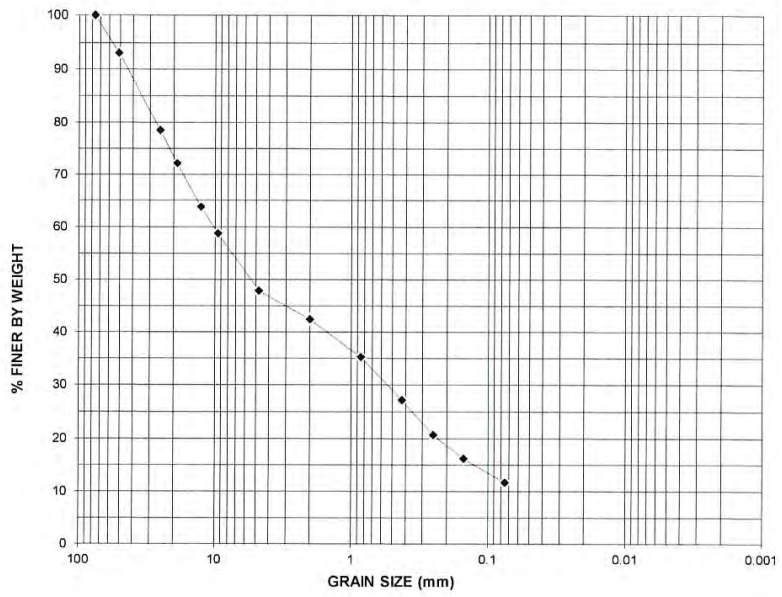
HYDROMETER TEST

(ASTM D422)

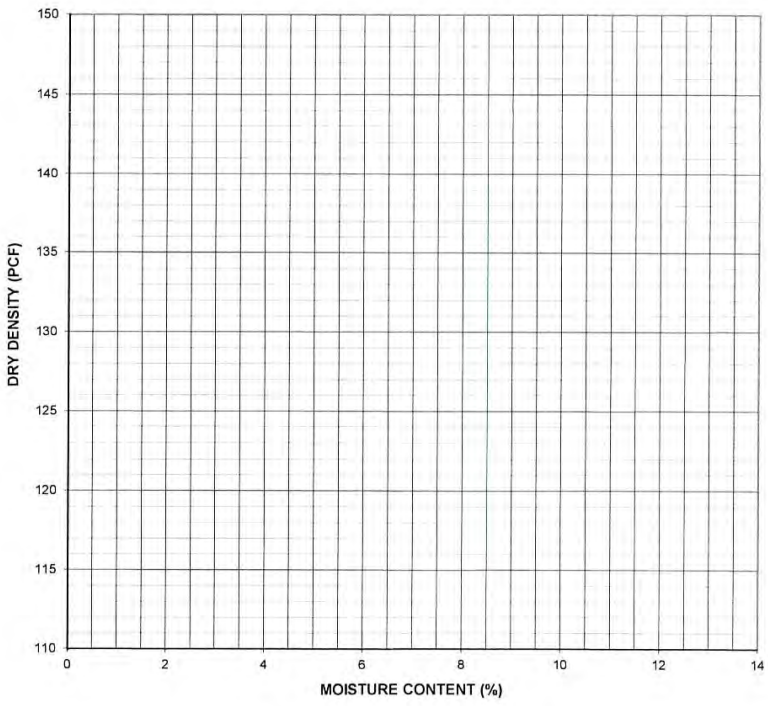
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	52.1
%Sand:	36.2
% Fines:	11.7
D60:	10.28
D30:	0.57
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	5.8
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION

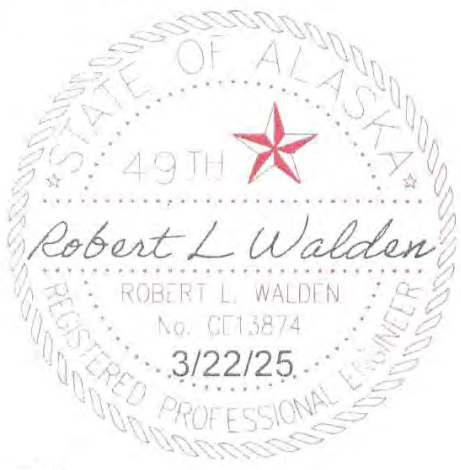


MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Poorly Graded Gravel w/Silt & Sand
USC:	GP-GM
FROST CLASS:	

Remarks:



JOHN A. BUZDOR, P.E. 5/10/2021

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Anchorage, AK 99503
Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P129	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 46-3

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	99
1"	25.4	79
3/4"	19.0	72
1/2"	12.7	63
3/8"	9.5	57
#4	4.75	47
#10	2.00	40
#20	0.85	32
#40	0.425	25
#60	0.25	20
#100	0.15	16
#200	0.075	12.4

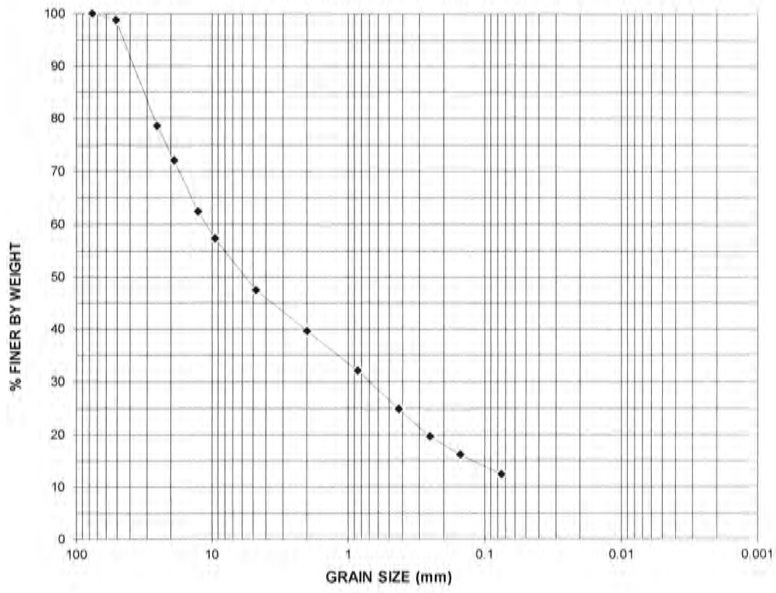
HYDROMETER TEST

(ASTM D422)

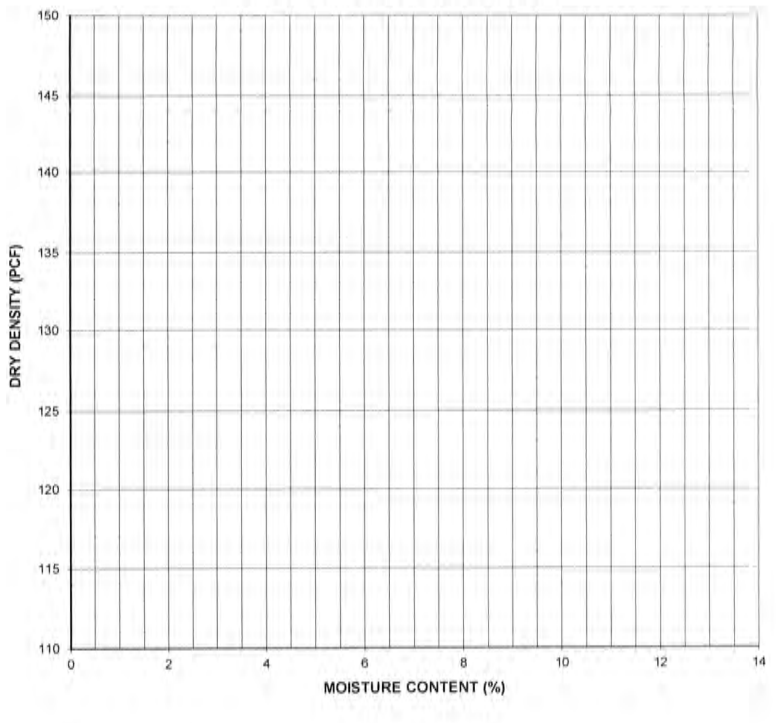
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	52.6
%Sand:	35.0
% Fines:	12.4
D60:	11.13
D30:	0.73
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	9.1
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Silty Gravel w/Sand
USC:	GM
FROST CLASS:	

Remarks:

STATE OF ALASKA
49TH
Robert L Walden
ROBERT L. WALDEN
No. CE15874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

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Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P132	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 46-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	92
1"	25.4	80
3/4"	19.0	77
1/2"	12.7	74
3/8"	9.5	72
#4	4.75	69
#10	2.00	66
#20	0.85	63
#40	0.425	60
#60	0.25	57
#100	0.15	51
#200	0.075	34.3

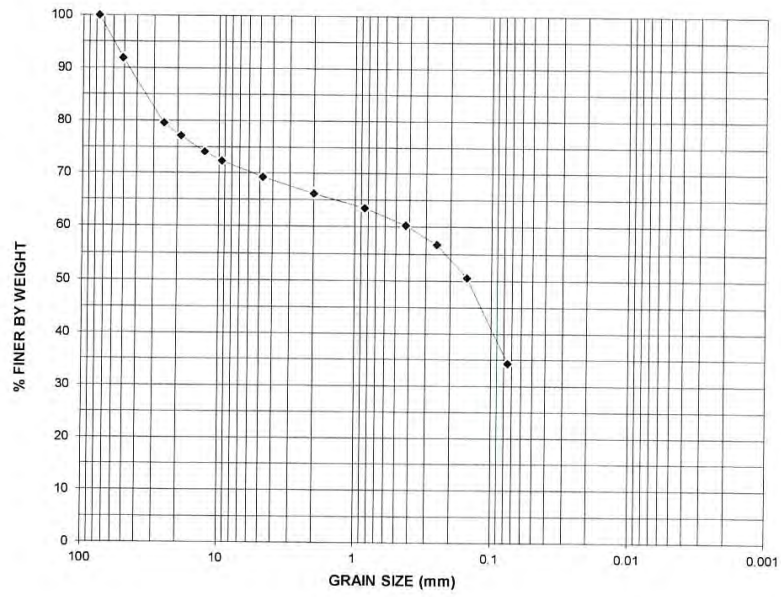
HYDROMETER TEST

(ASTM D422)

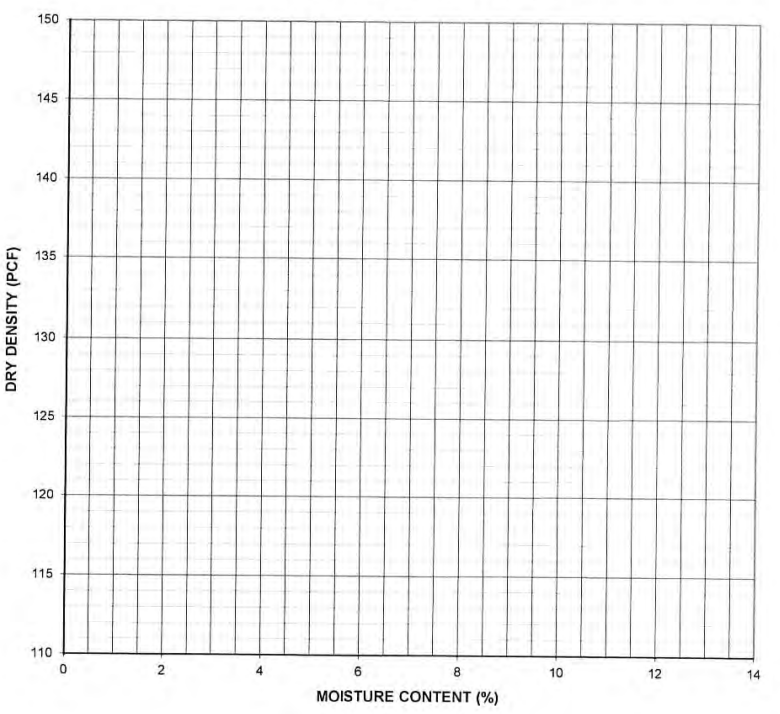
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	30.8
%Sand:	34.9
% Fines:	34.3
D60:	0.41
D30:	#N/A
D10:	
Cu:	
Cc:	
% .02 mm:	
% Moisture:	10.2
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION:	Silty Sand w/Gravel
USC:	SM
FROST CLASS:	

Remarks:

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/10/2021

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Phone: (907) 564-2120

Subject to review by our Materials Engineer

REV 1-29-20

TESTHOLE LOG #47

Legal Description: T17N R1E Sec 6 C9 Date: 4/30/2021

Inspected By: Robert L Walden, PE

Ground level EL437

1ft	ML
2ft	
3ft	GP-GM
4ft	
5ft	
6ft	
7ft	
8ft	
9ft	
10ft	
11ft	
12ft	
13ft	
14ft	
15ft	
16ft	
17ft	
18ft	
19ft	
20ft	

Testhole Location Map

Comments:

GP-GM; Poorly graded gravel w/Silt & sand

#200 5.8%

Total Depth of Testhole 14 ft.

Groundwater/Seeps Encountered? Y [N] At _____ ft.

Impermeable Soil (Silt/Clay/Bedrock) Encountered? Y [N] At _____ ft.



Form revised 2/2016

HDL ENGINEERING Consultants LLC

AGGREGATE/SOILS TEST REPORT

PROJECT:	CHURCH RD SD	**DATE TAKEN:**	4/29/2021
PROJECT NO.:	20-401	**DATE TESTED:**	5/4/2021
CLIENT:	WCC&E	**TESTED BY:**	DEM
SAMPLE NO.:	21P142	**REVIEWED BY:**	JAB
LOCATION:	UKN	**DESCRIPTION:**	TH 47-1

SIEVE ANALYSIS TEST

(ASTM D422)

Sieve Size	Diameter (mm)	Total % Passing
6"	152.4	
4"	100.0	
3"	76.2	100
2"	50.8	98
1"	25.4	79
3/4"	19.0	71
1/2"	12.7	58
3/8"	9.5	51
#4	4.75	41
#10	2.00	35
#20	0.85	30
#40	0.425	21
#60	0.25	14
#100	0.15	11
#200	0.075	5.8

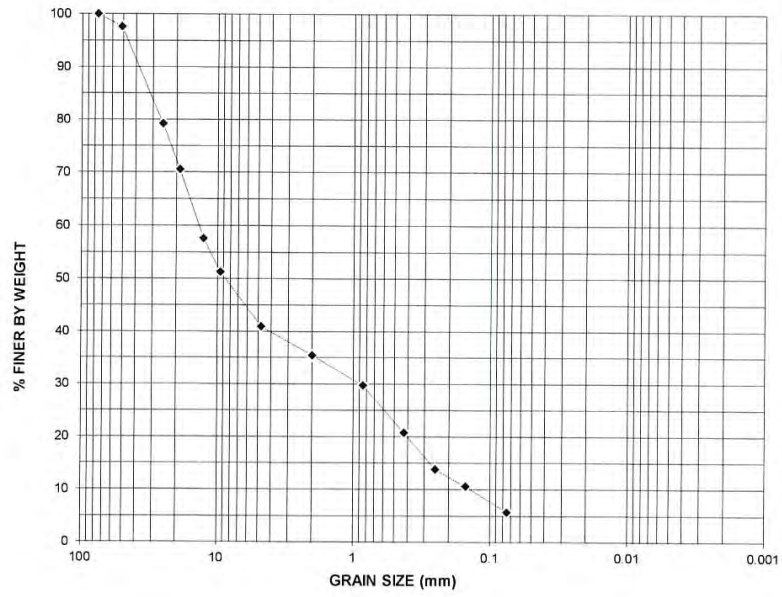
HYDROMETER TEST

(ASTM D422)

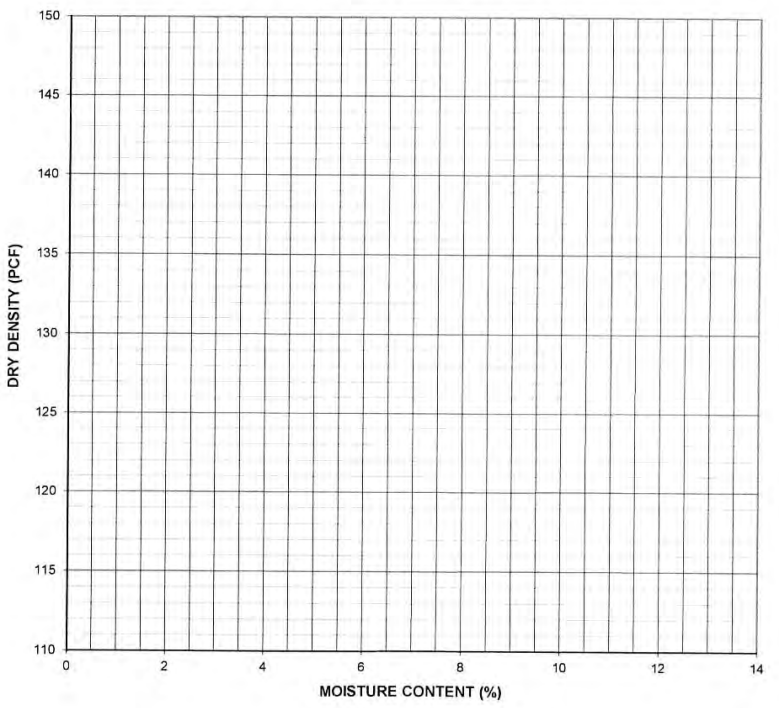
Elapsed Time (min)	Diameter (mm)	Total % Passing
0		
0.5		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

% Gravel:	59.0
%Sand:	35.2
% Fines:	5.8
D60:	13.86
D30:	0.91
D10:	0.14
Cu:	98.8
Cc:	0.4
% .02 mm:	
% Moisture:	3.0
Fine Modulus:	
(ASTM D4318)	
Liquid Limit:	
Plastic Limit:	
Plastic Index:	
(ASTM C127)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM C128)	
Bulk SpG:	
SSD SpG:	
Apparent SpG:	
% Absorption:	
(ASTM D1557)	
Dry Den (U):	
Dry Den (C):	
M% (U):	
M% (C):	
SpG (assumed):	
M-D Test Method:	

GRAIN SIZE DISTRIBUTION



MOISTURE-DENSITY RELATIONSHIP



CLASSIFICATION: Poorly Graded Gravel w/Silt & Sand

USC: GP-GM

FROST CLASS:

Remarks:

STATE OF ALASKA
49TH
Robert L Walden
ROBERT L WALDEN
No. CE13874
3/22/25
REGISTERED PROFESSIONAL ENGINEER

JOHN A. BUZDOR, P.E. 5/12/2021

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Subject to review by our Materials Engineer

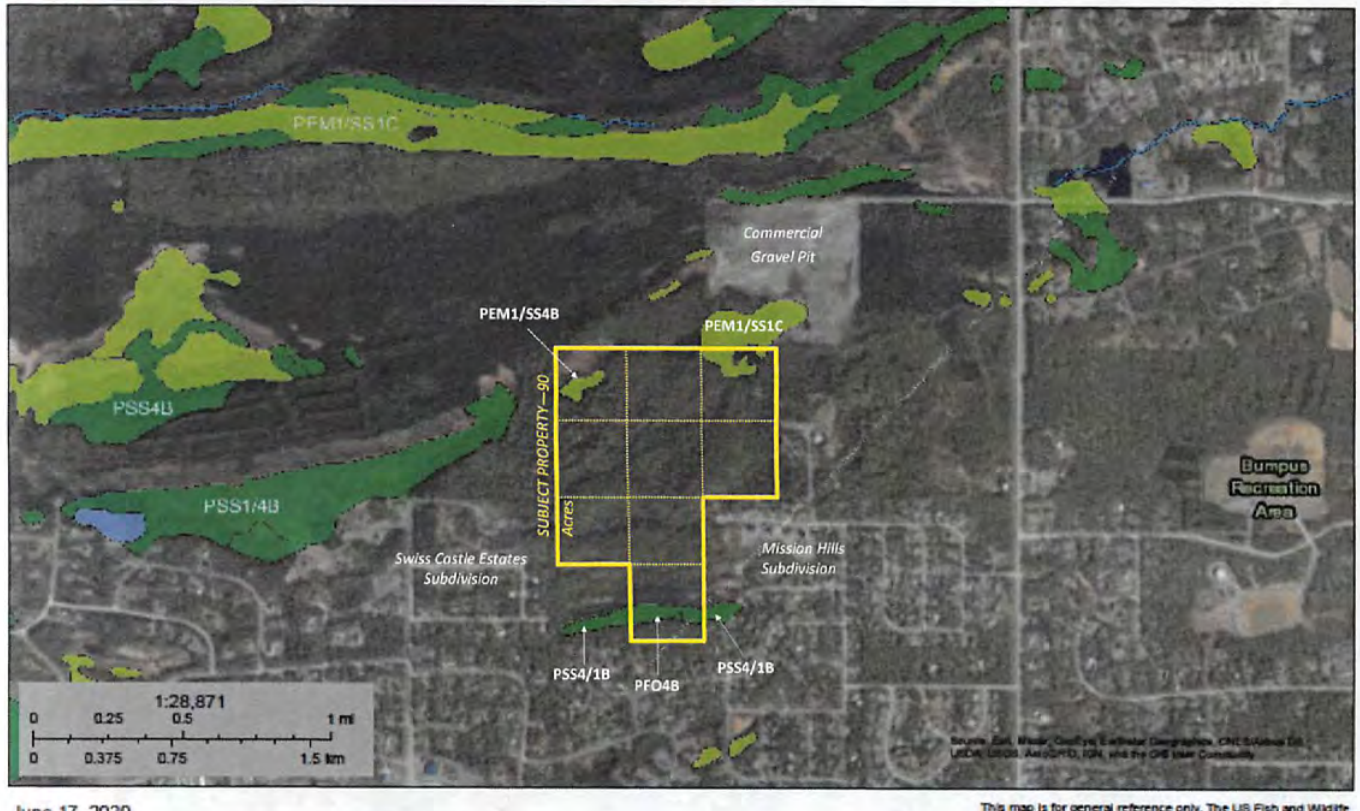
REV 1-29-20



Travis/Peterson Environmental Consulting, Inc. 3305 Arctic Boulevard, Suite 102 Anchorage, AK 99503	**Proposed Utopia View Subdivision** Meadow Lakes, Alaska	**Fig. 3—Wetland Map**	
Project No: 1669-02	File: Projects/Wolverine Supply/Church Road Jurisdictional Determination	6/24/2020	Scale: 1" = 350'

U.S. Fish and Wildlife Service
National Wetlands Inventory

UTOPIA VIEW SUBDIVISION



June 17, 2020

Wetlands

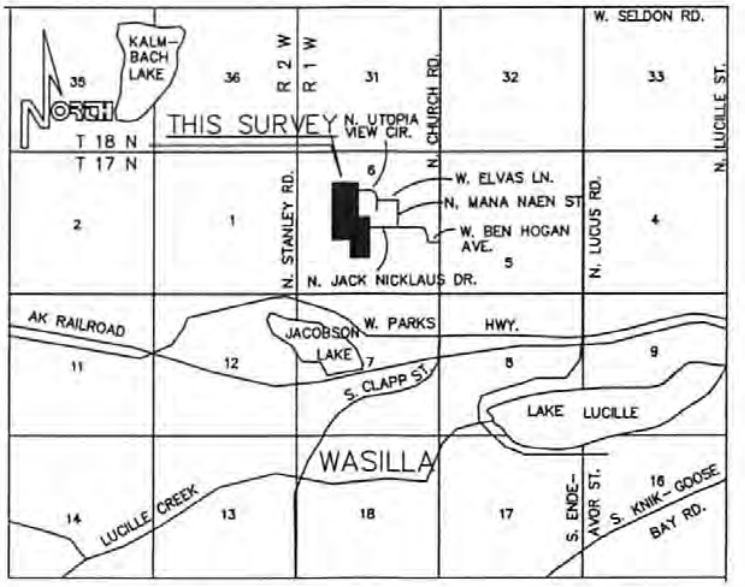
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

UTOPIA VIEW II SUBDIVISION

DRAINAGE REPORT



SECTION 6, TOWNSHIP 17N RANGE 01W (90.08-ACRES)

Seward Meridian, Alaska, Palmer Recording District

Lat61.59298° N Lon: 149.52829° W

Civil Resources, LLC

3001 W Stonebridge Dr.

Wasilla, AK 99654

CRLLC Job No. 10102022

April 2025

STATE OF ALASKA
49 TH
BRUCE J. FRIEDHOFF
No. CE 13163
04-07-2025
REGISTERED PROFESSIONAL ENGINEER

RECEIVED
APR 15 2025
PLATTING

UTOPIA VIEW II SUBDIVISION

DRAINAGE REPORT

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Introduction

This report is for Utopia View II having 41 Lots and one Tract on 62 acres. Utopia View (Phase I) with 20 Lots on 30 acres has been developed and recorded (Plat #2023-129)[1]. Owner proposes to develop complete road, drainage, and home improvements in the Matanuska-Susitna Borough (MSB). The site is located on undeveloped land 0.5 miles west of W. Mystery Ave and N. Church Road. New road connects to W Elvas Dr. and N. Jack Nicklaus Dr. Access is from W. Mission Hills Ave at N. Church Road. The contributing water shed has a total drainage area of 253.8 Acres.

The site contains five large, isolated wetland depressions. The south portion consists of potential wetland waters of the United States. Offsite run-on from Drainage Area-1 enters the site at one place at the east boundary and travels to Outfall 1 at the southwest boundary. Onsite runoff exits site at three outfall locations. Outfall 2 exits on the north side and Outfall 3 on the northwest side. There is no increase for the 10-year 24-hour post development peak flow for Outfalls 2 and 3. There is a slight increase in flow for Outfall 1 with no significant downstream impact.

Natural depressions should be protected where possible to provide storage for runoff from the 100-year 24-hour storm event. Drainage easements should be created in these depressions to prevent them being filled by property owners. Easement dimensions are based on an equivalent detention basin designed to store the required runoff for that depression. If the developer desires to fill these depressions, an equivalent detention basin must be constructed in its place. Easements should be 10-feet minimum outside the top of the detention basin. There is no storage allowed in the utility easement. Storage must be below the bottom of the road ditch or utility easement bench.

Ten detention basins are required to manage post-development runoff. Detention Basins 1 – 3 are developed in Phase I. Detention Basins 4 – 10 are developed in Phase II. Five culverts are required. Culverts 1 and 2 were constructed with Utopia View. Culverts 3, 4, and 5 will be constructed with Utopia View II.

Land development activities increase runoff and require responsible stormwater management facilities consisting of treatment, retention, detention, infiltration, and conveyance of stormwater to avoid adverse impact of adjoining, nearby, and downstream properties receiving water. In practice, if the natural flow is diverted, concentrated, blocked, or existing storage removed then some form of mitigation is required to improve the drainage condition. Mitigation includes ditches, culverts, detention basins, and engineered fill material. The purpose of this report is to document that mitigation will follow the criteria in Table D-1[2]:

1. Conveyance: Drainage ditches and non-regulated streams shall be designed for the 10-year storm 24-hour storm event. Regulated streams shall be designed for the 100-year 24-hour storm event.

[1] Utopia View Subdivision, Drainage Report, Civil Resources, LLC, Bruce J. Friedhoff P.E., November 2, 2022.
[2] Matanuska-Susitna Borough, Public Works Department, Subdivision Construction Manual, July 19, 2022.

   a. All ditches and culverts must convey the peak flow from the 10-Year Storm Event with a minimum of 12-Inches (1-foot) freeboard below the top of fore slope (structural section hinge point) or maximum flow depth of 18" in a 30" deep ditch.
   b. Flow capacity must be a minimum of 10% greater than the design flow.
2. Wetlands. Preserve the pre-development function of wetlands. For jurisdictional wetland areas, comply with United States Army Corps of Engineers wetlands development retention requirements.
3. Water Quality. Treat runoff generated by a 0.50 inch of rainfall in a 24-hour period.
4. Erosion and Sediment Control. Control flows in conveyance channels so that transport of particles sized D50 and greater will not occur for the post-development peak flow.
5. Extended Detention. Provide 12 to 24 hours of detention for the post-development project runoff in excess of pre-development volume for the 1-year, 24-hour storm.
6. Flood Hazard. Control peak flow to minimize downstream impacts.
   a. Maintain the post-development project runoff peak flows from the 10-year, 24-hour storm to less than or equal to pre-development runoff peak flow at all project discharge points. Or,
   b. Maintain the post-development project runoff peak flows to less than 1.10 times pre-development runoff peak flow at all project discharge points. Evaluate downstream until the project site area is less than 10% of the total upstream basin area and mitigate adverse impacts.
7. Flood Bypass. Compute post-development peak flow and delineate an unobstructed, overland flow path for runoff to overtop or bypass project conveyance routes for the post-development 100-year, 24-hour storm.
8. Drainage Easements. Easements are required for drainage facilities located outside of dedication right-of-way. Easements shall connect to right-of-way and be a minimum of 20' wide and 20' long. Easement for detention basins shall be 5' outside top of basin.
9. Utility Easements. Avoid locating drainage facilities in adjacent utility easements. Obtain approval from utilities when co-location is required.
10. Other Agency Requirement may include the following:
    a. Floodplain Use Permit from MSB;
    b. 404 Permit from U.S. Army Corps of Engineers;
    c. Alaska Department of Fish and Game (ADFG) for fish/stream crossings; or
    d. Storm Water Pollution Prevention Permit (SWPPP) from the Alaska Department of Environmental Control.

Maps and calculations supporting the findings and recommendations can be found in Appendices A and B. All storm events referenced herein have a 24-hour duration except those used in the Rational Method.

Site Conditions

FEMA Flood Zone

Flood Insurance DFIRM ID 02170C8060F (09/27/2019) Website Date 09/24/2022 designates the project site is outside the 100-Year Flood Zone. A Floodplain Use Permit is NOT needed.

Waters of the United States

There are isolated wetlands on the site. A 404 Permit is not required from the United States Army Corps of Engineers prior to performing any disturbance or development in this area.



Figure 1 – Wetlands

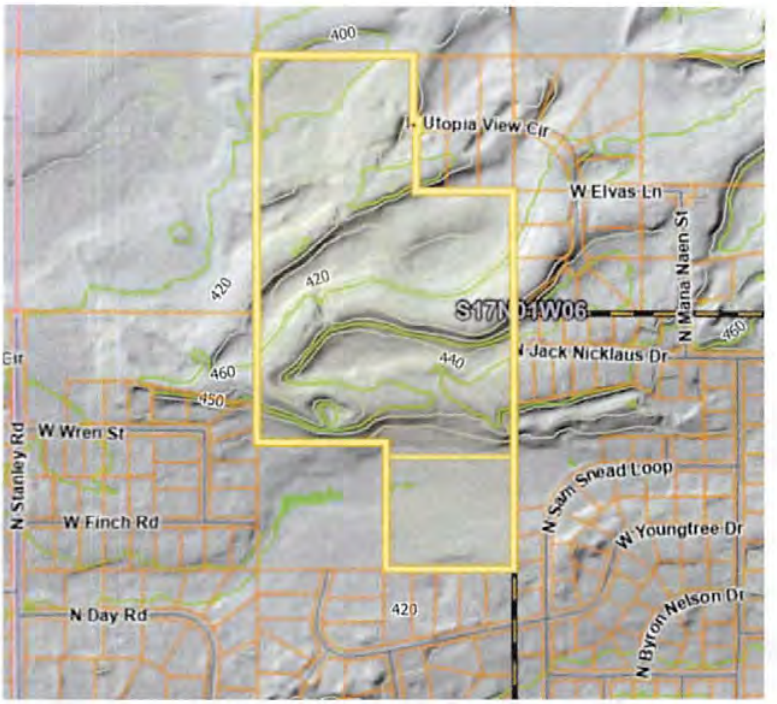


Figure 2 – Hillside Topography

Storm Water Pollution Prevention Plan (SWPPP)

Runoff from the site travels north and west to isolated wetlands with no surface water connection to traditional navigable waters of the United States. A storm water pollution prevention plan and notice of intent are NOT REQUIRED.

Alaska Department of Fish and Game

There are no active streams or fish crossings for this site.

Hydrology

Drainage Areas

Drainage areas and streams were delineated using HEC-HMS GIS tools[3] and the MSB 2019 Digital Elevation Model (DEM)[4]. Areas and streams were then adjusted based on review of contour maps and field observation.

Rainfall

Rainfall depths and intensities were taken from NOAA 14 Data Server[5] and are summarized in the following table. No aerial reduction is applied. SCS Type I Rainfall Distribution is recommended by NOAA 14, TR-55, and MOA for use in this area of Alaska.

NOAA14 uses a regional influence approach for a variety of probability distribution functions and durations that is most suitable for the region. Distribution parameters and precipitation frequency estimates were analyzed for each duration based on the mean of the annual maximum series at each station and then regionally smoothed across durations to ensure consistency in precipitation frequency estimates.

Storms vary spatially having differing effects within the same region. One storm could produce a 2-inch rainfall in Palmer and 1-inch at the project site. But the next storm could reverse having 2-inches at the project site and 1-inch in Palmer. Both sites within the same region have similar probabilities even though the effects could be different for any one event. The precipitation frequency duration data published by NOAA is the best available information available for this site.

Table 1

Wasilla							
24-Hour Depths in Inches				10-YR Intensity in Inches per Hour			
Frequency	1	10	100	5	10	15	30
Inches	1.09	1.98	3.02	2.11	1.42	1.10	0.73

[3] Hydrologic Modeling System (HEC-HMS) Version 4.7.1, January 14, 2021.
[4] 2019 LiDAR & Imagery Project, Matanuska-Susitna Borough.
[5] NOAA Atlas 14 Volume 7 Version 2.0, Precipitation-Frequency Atlas of the United States, Alaska. NOAA, National Weather Service, Silver Spring, MD.

Losses

Hydrologic Soil Groups (HSG) were given by the USDA/NRCS Data Server[6]. SCS Curve Numbers (CN) were taken from TR-55[7] Tables 2-2a and 2c and MOA[8] Table 4.4-3 and adjusted for non-connected impervious area. The following tables summarize CN'S by hydrologic soil group and weighted CN'S for each type of land use.

Runoff is based on maximum future development for current zoning. It is reasonable to expect future runoff events to be greater than those in the past. For example, commercial properties could replace pervious gravel with impervious pavement having significantly greater runoff. Likewise, residential properties can replace forest with grass having greater runoff. Initial abstraction of rainfall and small depression storage are incorporated into calculations.

Table 2

Rural SCS Runoff Curve Numbers (CN) (Imp Not Connected)						
HSG	IMP	A	B	C	D	TR-55
Infiltration (in/hr)		1.42	0.57	0.06	0.00	NRCS, Part 630 Tbl 7-2
Forrest		30	55	70	77	MOA Tbl 4.4-3
Grass/Pasture		39	61	74	80	Table 2-2c
R1 (1DU/AC)	20%	45	65	77	82	(1) and (4)
R2 (2DU/AC)	25%	47	66	77	82	(1) and (4)
R3 (3DU/AC)	30%	49	67	78	83	(1) and (4)
R4 (4DU/AC)	42%	53	70	80	84	(1) and (4)
COM	85%	89	92	94	95	(1)
IND	72%	81	88	91	93	(1)
Bare Ground		77	86	91	94	MOA Tbl 4.4-3
Pavement/IMP		98	98	98	98	MOA Tbl 4.4-3
Gravel		76	85	89	91	MOA Tbl 4.4-3
ROW	33%	50	68	78	83	(2)

Note: Hydrologic Soil Group 'C' is not found in this watershed/site.

[6] Custom Soil Resource Report for Matanuska-Susitna Valley Area, Alaska, USDA/NRCS, February 2, 2021.
[7] Urban Hydrology for Small Watersheds, USDA/NRCS, Technical Release 55 (TR-55), June 1986, Update January 1999.
[8] Anchorage Stormwater Manual, Volume 1, Chapter 4, December 2017.

Table 3

PRE LOSS SUMMARY						
HSG	A	B	C	D	TOTAL	CN
DA	ACRES					
1A	0.0	49.9	0.0	0.0	49.9	63.6
1B	0.0	11.8	0.0	0.0	11.8	56.3
1C	0.0	24.4	0.0	0.0	24.4	56.8
1D	0.0	47.4	0.0	5.2	52.6	65.5
1E	0.0	12.2	0.0	4.1	16.3	60.5
2A	0.0	18.8	0.0	0.0	18.8	55.0
2B	0.0	4.3	0.0	0.0	4.3	56.2
2C	0.0	4.9	0.0	0.0	4.9	55.0
2D	0.0	9.0	0.0	2.0	11.0	59.0
2E	0.0	6.8	0.0	0.0	6.8	55.0
2F	0.0	14.2	0.0	3.0	17.2	58.8
3A	0.0	14.1	0.0	0.0	14.1	55.0
3B	0.0	21.3	0.0	0.4	21.7	55.4
Total	**0.0**	**239.1**	**0.0**	**14.7**	**253.8**	**59.9**

POST LOSS SUMMARY						
HSG	A	B	C	D	TOTAL	CN
DA	ACRES					
1A	0.0	49.9	0.0	0.0	49.9	63.6
1B	0.0	11.8	0.0	0.0	11.8	56.3
1C	0.0	22.7	0.0	0.0	22.7	65.1
1D	0.0	48.5	0.0	5.2	53.7	65.5
1E	0.0	12.5	0.0	4.1	16.6	62.9
2A	0.0	19.1	0.0	0.0	19.1	64.1
2B	0.0	3.7	0.0	0.0	3.7	64.0
2C	0.0	4.9	0.0	0.0	4.9	55.0
2D	0.0	9.0	0.0	2.0	11.0	65.6
2E	0.0	7.4	0.0	0.0	7.4	65.1
2F	0.0	14.2	0.0	3.0	17.2	62.3
3A	0.0	14.1	0.0	0.0	14.1	62.6
3B	0.0	21.3	0.0	0.4	21.7	57.2
Total	**0.0**	**239.1**	**0.0**	**14.7**	**253.8**	**63.1**

Time of Concentration

Time of concentration was computed using four different methods (Kirpich, NRCS Upland, NRCS Lag, and Manning's Equation). Manning's, Upland, and Kirpich all give comparable results. NRCS Lag gives a much higher travel time than the other three and will not be used. Kirpich gives a slightly shorter time than the other two and produces realistic, slightly conservative results. Kirpich Equation is given as,

$$Tc = 0.0078\, L^{0.77}\, S^{-0.385} \text{ in Minutes} \qquad EQ.\ 1$$

Where:

L = Stream Length in feet;

S = Watercourse Slope in feet/feet.

Table 4 – Pre-Development Input Data

DA	Pre Acres	Length	Slope	Tc	V	CN	
						PRE	POST
1A	49.9	1,779	0.0100	14.6	2.0	63.6	63.6
1B	11.8	1,187	0.1000	5.0	4.0	56.3	56.3
1C	24.4	1,000	0.1000	5.0	3.3	56.8	65.1
1D	52.6	2,078	0.0100	16.5	2.1	65.5	65.5
1E	16.3	1,000	0.0100	9.4	1.8	60.5	62.9
2A	18.8	500	0.1000	5.0	1.7	55.0	64.1
2B	4.3	250	0.1000	5.0	0.8	56.2	64.0
2C	4.9	250	0.0130	5.0	0.8	55.0	55.0
2D	11.0	500	0.0130	5.0	1.7	59.0	65.6
2E	7.4	500	0.0130	5.0	1.7	55.0	65.1
2F	17.2	500	0.0130	5.0	1.7	58.8	62.3
3A	14.1	750	0.0190	5.9	2.1	55.0	62.6
3B	21.7	750	0.0190	5.9	2.1	55.4	57.2
Total	254.4						
Max	52.6		0.1000	16.5	4.0	65.5	65.6
Min	4.3		0.0100	5.0	0.8	55.0	55.0
Note: Minimum Tc is 5 minutes.							

Table 5. Post-Development Road Hydrology (Sample)

Road Hydrology Using Rational Method (Q = CIA)										
From Node	To Node	Feature	Length	Grade	A	C	Tc	I	Q10	Qd
21	22	CUL4	SHORT	STEEP	13.2	0.17	5.0	2.12	4.8	5.2
22	23	Ditch1	SHORT	STEEP	15.2	0.17	5.0	2.12	5.5	6.0
23	24	CUL5	SHORT	STEEP	15.2	0.17	5.0	2.12	5.5	6.0
24	25	Ditch2	SHORT	STEEP	17.3	0.17	5.0	2.12	6.2	6.9
41	11	CUL3	SHORT	STEEP	2.8	0.17	5.0	2.12	1.0	1.1
52	4	CUL1	SHORT	STEEP	1.6	0.17	5.0	2.12	0.6	0.6
42.2	9	CUL2	SHORT	STEEP	2.1	0.17	5.0	2.12	0.8	0.8
Min			SHORT	STEEP	0.1	0.2	5.0	2.1	0.0	0.0
Avg			SHORT	STEEP	2.5	0.2	5.0	2.1	0.9	1.0
Max			SHORT	STEEP	19.1	0.2	5.0	2.1	6.9	7.6
NODE COUNT			52	See Appendix for detail calculations.						

Transformation - Routing

Autodesk Hydraflow[9] model is used to transform Type I Hyetograph into runoff using the SCS Method. Basin area, curve number (CN), and time of concentration are entered for each area and routed to their respective outfalls. Results are summarized in the following figures and table.

[9] Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 is an application for urban hydro systems engineering. It creates hyetographs from rainfall data, computes losses, and creates runoff hydrographs that can be added together at junctions, routed through channels, diverted at junctions, and routed through ponds. Pond sizing and routing is interactive within the application.

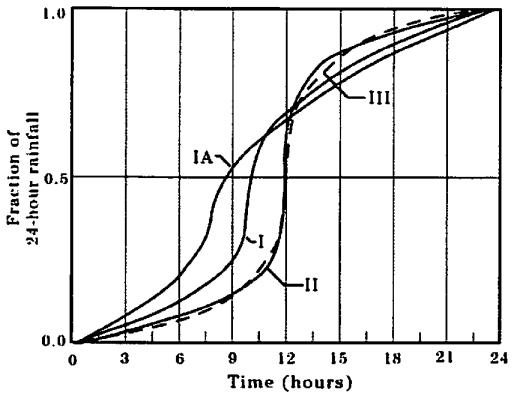


Figure 3. SCS 24-Hour Rainfall Distributions

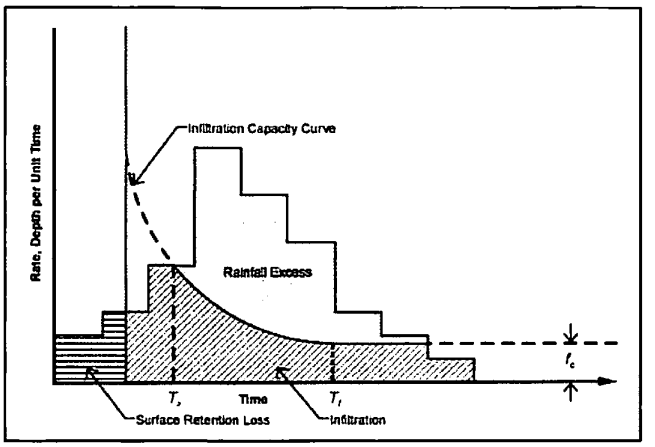


Figure 4. Rainfall – Runoff - Infiltration Relationship

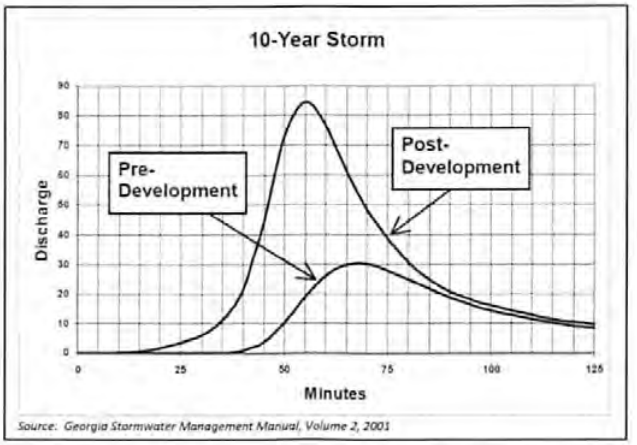


Figure 5. Comparison of Pre- and Post-Development Runoff Hydrographs (Example)

Table 6

Pre- and Post- Development Flows and Volumes

PRE FLOW IN CFS				
OUTFALL	BASINS	1YR	10YR	100YR
1	1	0.0	0.7	9.9
2	2	0.0	0.1	0.6
3	3	0.0	0.1	0.6

PRE VOLUME IN CU-FT			
OUTFALL	1YR	10YR	100YR
1	49	30,531	124,445
1	0	3,195	24,652
1	0	2,051	27,632

POST FLOW IN CFS				
OUTFALL	BASINS	1YR	10YR	100YR
1	1	0.0	0.8	10.9
2	2	0.0	0.1	2.3
3	3	0.0	0.1	1.0

POST VOLUME IN CU-FT			
OUTFALL	1YR	10YR	100YR
1	0	33,120	131,889
1	0	5,593	26,825
1	0	1,944	33,803

POST FLOW INCREASE IN CFS				
OUTFALL	BASINS	1YR	10YR	100YR
1	1	0.0	**0.1**	**1.0**
2	2	0.0	0.0	**1.7**
3	3	0.0	0.0	**0.4**

POST VOLUME INCREASE CU-FT			
OUTFALL	1YR	10YR	100YR
1	-49	2,589	7,444
1	0	2,398	2,173
1	0	-107	6,171

Note: Downstream evaluation is required when Post Flow increase exceeds 0 for 10-YR storm event

Snow Melt

Spring snow melt is an event that occurs every year with a daily runoff volume that could exceed the 10-year 24-hour rainfall volume when "ice-sealing" occurs. Ice sealing takes place when snow melts at a rate exceeding soil infiltrate causing a saturated soil condition. The saturated soil then freezes at night forming an impervious ice layer that reduces the amount of snowmelt that can infiltrate into the ground. The phenomenon could last a few hours to two days until night freezing temperature hours are less than daytime warming hours. Even if it only occurs for one or two days, there is a real risk of property damage and traffic interruption if not properly addressed. The Municipality of Anchorage estimates this type of event occurs every five years and design for the 10-Year storm event is adequate to address snow melt[10]. The estimated snow melt during spring break-up is 0.5 inches per day[11]. The project has 10- and 100-year daily runoff amounts of 0.05 and 0.3 inches. In other words, it is likely the site will experience a greater and more frequent amount of runoff from snowmelt than rainfall. Providing stormwater detention basins will help mitigate snow melt runoff.

[10] Anchorage Stormwater Manual, Volume 1, December 2017, Section 8.1.

[11] NEH Part 630, Chapter 630.1103, Eq. 11-5 for mean daily temperature of 40 Degree-F. Assumes minimum of 2' depth of snow. MOA has recorded 0.9 inches in 40 hours (Appendix D-6).

Hydraulic and Stability Analyses

Ditches

Ditches were analyzed using Manning's Equation for a 30" deep V-Ditch having 3:1 gravel fore slope and 2:1 turf back slope. Results of detailed calculations for the 100-Year design flow are summarized in the following table.

Manning's Equation is,

$V = (1.486R^{2/3}S^{1/2})/N$ *EQ. 3*

$Q = VA$

Where;

V = Velocity, ft/s

A =area of flow, ft^2

Q= quantity of flow, ft^3/s

N = Manning friction coefficient

R = Hydraulic Radius, feet

S = Energy Slope (ft/ft)

Standard ditch consists of turf and Class II sub-base fill (D_{50} = 1.5-inches). Ditches with D_{50}-Incipient Motion diameters greater than 1.5-inches risk erosion. These were designed for stabilized gravel/rock lining using the Isbash Equation[12] for channel banks on straight reach. Rock stabilization with diameters and gradation is shown in the following table. Turf Reinforcement Matt (TRM) is an acceptable alternative if approved by the Borough for use in right-of-way.

The Isbash Equation for critical incipient motion is,

$D_{50} = 0.0191\ Va^2\ [\gamma w/(\gamma s-\gamma w)]/\cos\varphi$ *EQ. 5*

Where:

Va = Average velocity in feet per second,

γw = Specific weight of water in pounds per cubic feet = 62.4,

γs = Specific weight of stone in pound per cubic feet = 156, and

Φ = Bank Angle with horizontal

[12] Drainage Design Manual for Maricopa County, Hydraulic Open Channels, Pg. 6-51, EQ 6.34, December 14, 2018.

Table 7 – Hydraulic Design Results Summary for Ditches that require rock Rip-Rap on Steep Grades. Type 'A' lining is acceptable for all grades for remaining ditches.

FROM NODE	TO NODE	FEATURE	FLOW	MILD GRADE 0.5%<GRADE<5%			MEDIUM GRADE 5%<GRADE<10%			STEEP GRADE 10%<GRADE<50%		
				DEPTH	VELOCITY	LINER	DEPTH	VELOCITY	LINER	DEPTH	VELOCITY	LINER
			CFS	FEET	FPS		FEET	FPS		FEET	FPS	
21	22	CUL4	5.2	0.7	4.4	B	0.6	5.8	B	0.4	10.5	E
22	23	Ditch1	6.0	0.7	4.6	B	0.6	6.0	B	0.5	10.9	F
23	24	CUL5	6.0	0.7	4.6	B	0.6	6.0	B	0.5	10.9	F
24	25	Ditch2	6.9	0.8	4.9	B	0.7	6.4	C	0.5	11.7	F
25	29	NA	7.6	0.9	5.1	B	0.8	6.6	C	0.6	12.0	F
36	37	Ditch	2.3	0.5	3.6	A	0.4	4.7	B	0.3	8.6	D
37	40	Ditch	2.3	0.5	3.6	A	0.4	4.7	B	0.3	8.6	D
MAX			7.6	0.9	5.1	B	0.8	6.6	C	0.6	12.0	F
SAMPLE. See appendix for detailed calculations.												
Number of channels = 52												

Table 8. Ditch and Channel Lining Material

DITCH / CHANNEL LINING STABILIZATION					
TYPE	D50	DMAX	DMIN	T	MATERIAL
UNITS	INCHES				
A	NATIVE GRASS/TURF/GRAVEL				
B	3.0	4.5	1.5	6.0	RIPRAP
C	6.0	9.0	3.0	12.0	RIPRAP
D	9.0	13.5	4.5	18.0	RIPRAP
E	12.0	18.0	6.0	24.0	RIPRAP

Culverts

Culvert crossings were analyzed using Autodesk Hydraflow[13] for HW/D = 1.0, a minimum grade of 1.0%, and are summarized in the following table.

Table 9

Minimum Culvert Diameters								
CULVERT NO.	YEAR	FLOW (CFS)	Number	FLOW/PIPE (CFS)	HW/D	DIAMETER CALC	DIAMETER USE	TYPE RIPRAP
1	10	0.6	1	0.6	1.0	12	**18**	B
2	10	0.8	1	0.8	1.0	12	**18**	B
3	10	1.1	1	1.1	1.0	12	**18**	B
4	10	5.2	1	5.2	1.0	24	**24**	B
5	10	6.0	1	6.0	1.0	24	**24**	B
Note: Use 18" diameter when less than 18" for MSB and 24" for DOT.								

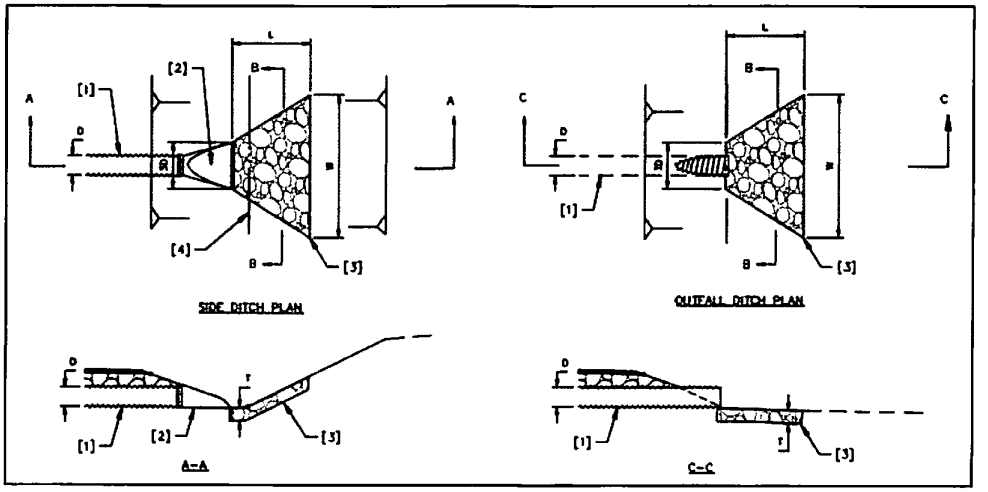


Figure 6

[13] Hydraflow Express Extension for Autodesk Civil 3D Version 12 by Autodesk, Inc. Http://www.autodesk.com/civil3d-stormwater.

First Flush Treatment

The term "first flush" has become common nomenclature in the stormwater management field. The concept behind this term is that pollutants that have collected on impervious surfaces will wash off during the first part of a storm event. The first portion of a given rain event will "flush" the impervious surface of its pollutants, resulting in stormwater runoff that contains more pollutants than runoff produced later in the storm. If the 24-hour 90th percentile historic rainfall event is selected, then capturing/treating the runoff associated with this amount for every rainfall event will prevent 90% of all pollutants from leaving the site. The first flush rainfall amount is 0.52-inches. Treating the runoff from this event by filtering or trapping will prevent 90% of all pollutants from entering Waters of the United States or public water supplies. All polluted runoff from impervious roads, roof tops, patios, walks, and drives will be filtered when flowing through turf and native vegetation before soaking into ground. There is no runoff from the first-flush rainfall event. Therefore, water quality treatment facilities are not needed. All runoffs including the first 0.25" of the 1-, 10-, and 100-year rainfall events are treated by turf filtration/soil infiltration prior to entering storage basins or leaving the site.

Stormwater Detention Basins

Detention basins are designed to meet the following requirements.

1. Store and infiltrate runoff from First Flush (90th Percentile) rainfall event;
2. Maintain Post-Development Flow less than Pre-Development for the 10-Year 24-Hour storm event;
3. Detain/Keep the excess volume from the Post-Development 1-Year 24-Hour storm for 12 to 24 Hours; and
4. By-Pass the Post-Development 100-Year 24-Hour peak flow.

Similar to a forebay, natural depressions and detention basins can intercept and store a significant amount of runoff upstream from detention basins. Detention basins typically use storage, piped outlet, and emergency spillway to control incoming volumes and flows through the basin. Piped outlets are not applicable for shallow basins. Shallow basins use a surface spillway to regulate outflow and infiltration to remove stored water.

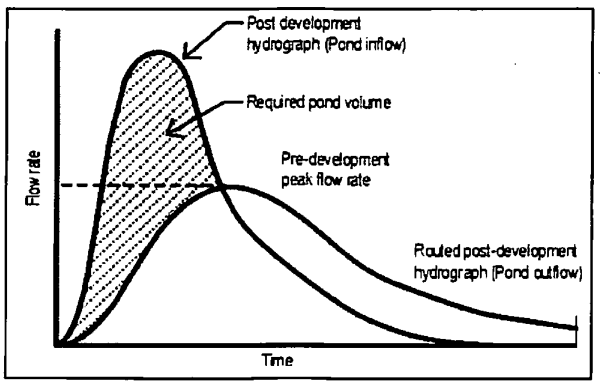


Figure 7. Flood Routing Inflow and Outflow Hydrographs and Storage

Table 10

STORMWATER DETENTION BASIN DESIGN SUMMARY						
DET	W	L	D	Y	Z	V
	FEET	FEET	FEET	FEET		CU-FT
4	30	40	0	3.0	3	5,850
5	45	45	0	3.0	3	8,800
6	20	340	0	4.0	2	46,000
7	15	100	0	4.0	2	13,275
8	30	40	0	3.0	3	5,850
9	40	120	0	3.0	3	19,100
10	30	40	0	3.0	3	5,850
TOTALS						**104,725**
W = Bottom width of basins			*L = Bottom length of basin*			
D = Depth of infiltration pit			*Y = Depth of storage above ground*			
Water storage must be at or below bottom of road ditch and utility bench.						

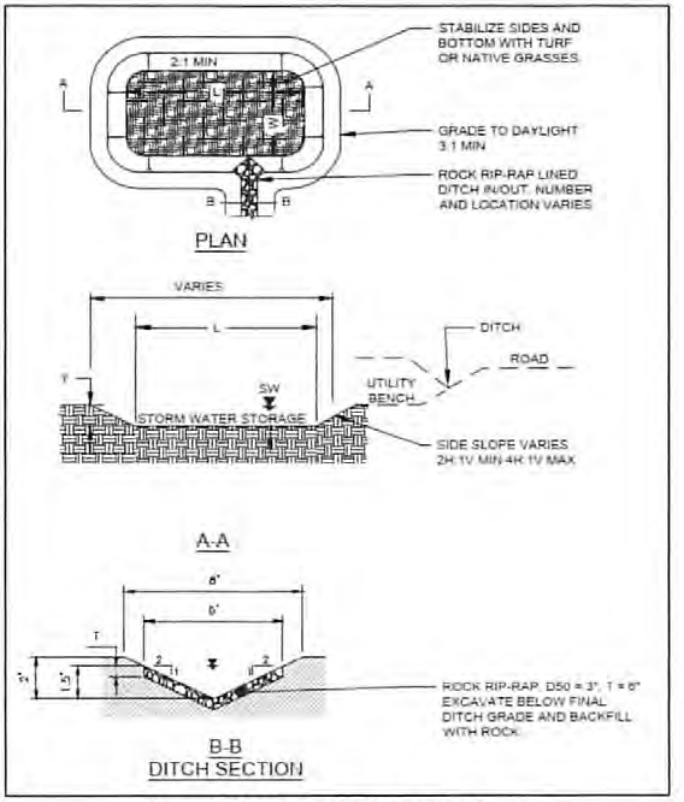


Figure 8. Stormwater Detention Basin

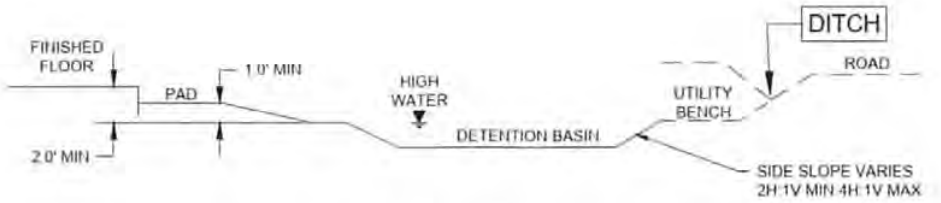


Figure 9. Building PAD and Finished Floor Elevation

Down Stream Impact Analysis

A downstream impact analysis is needed when the net increase in Post Development flow leaving the site is between 0 and 10 percent. The net increase at the outfall is less than 10%. Therefore, a water surface analysis was performed using the HEC-RAS (U.S. Army Corps of Engineers, Hydrologic Engineering Center, 2021) application for 20 cross sections from Utopia Road 3 to N Stanley Road. Results are found in the appendix and summarized below. There is no negative impact at River Station 1742 (W Finch Rd). Road elevation is 11+ feet above the high-water surface elevations for the 10- and 100-year storm events.

Table 11

PRE-POST INCREASE FOR 10-YEAR STORM EVENT							
Reach	River Sta	Increase	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	6%	0.04	0.0	0.1	0.0	0.0
1	3816	6%	0.04	0.0	0.0	0.4	0.0
1	3614	6%	0.04	0.0	0.0	0.0	0.0
1	3379	6%	0.04	0.0	0.0	0.3	0.0
1	3171	6%	0.04	0.0	0.0	2.8	0.0
1	2937	6%	0.04	0.0	0.0	2.6	0.1
1	2702	9%	0.06	0.0	0.0	1.2	0.0
1	2264	9%	0.06	0.0	0.1	0.4	0.0
1	1976	9%	0.06	0.0	0.0	0.1	0.0
1	**1742**	**9%**	**0.06**	**0.1**	**-0.1**	**0.4**	**0.0**
1	1553	9%	0.06	0.0	0.0	0.1	0.0
1	1480	9%	0.06	0.0	0.1	0.0	0.0
1	1369	9%	0.06	0.0	0.0	0.9	0.0
1	1243	9%	0.06	0.0	0.0	0.1	0.0
1	1060	9%	0.06	0.0	0.0	0.2	0.0
1	851	9%	0.06	0.0	0.0	0.2	0.0
1	622	9%	0.06	0.0	0.0	0.6	0.0
1	472	9%	0.06	0.0	0.0	0.2	0.0
1	337	9%	0.06	0.0	0.1	0.1	0.0
1	147	9%	0.06	0.0	0.0	0.4	0.0
MIN			0.04	0.0	-0.1	0.0	0.0
AVG			0.05	0.0	0.0	0.6	0.0
MAX			0.06	0.1	0.1	2.8	0.1

Erosion and Sediment Control

With the results of the 2020 Census coming in less than a year, it is expected that the Borough will reach the threshold that will qualify parts of the Borough and Cities of Wasilla and Palmer to apply for an MS4 permit.

- The MS4 permit is a 5-year National Pollutant Discharge Elimination System (NPDES) permit that is renewed every fifth year,
- The permit is governed by the EPA - Through the Alaska Department of Environmental Conservation (ADEC),
- The permit will have defined boundaries set up around Census Designated *"Urbanized Areas,"*
- The permit itself is a Best Management Practices Based Program, and
- The permit is an unfunded mandate by the Federal Government.

Given that clearing and grading over a site and constructing impervious surfaces causes increased runoff, property owners need to ensure that their individual activities do not injure their property, downstream neighbors, or pollute local waterways or ground water. Runoff controls aim to reduce the total amount of water that runs off and to reduce the pollutants in the runoff. Runoff controls include temporary measures during construction and permanent measures to improve water quality and control drainage. Groundwater recharges wells in the region, which could introduce above-ground pollutants into groundwater. Construct stormwater systems so contaminants are removed before they pollute surface waters or groundwater.

Stormwater runoff from construction activities can have a significant impact on water quality. As stormwater flows over a construction site, it can pick up pollutants such as sediment, debris, and chemicals and transport these to a nearby storm sewer system or directly to a water body. Polluted stormwater runoff and sedimentation can harm or kill fish and other wildlife, destroy aquatic habitat, and cause stream bank erosion. It is the responsibility of the project owner, Homeowner's Association, or the Matanuska-Susitna Borough to keep and service all temporary and permanent erosion and sediment control facilities.

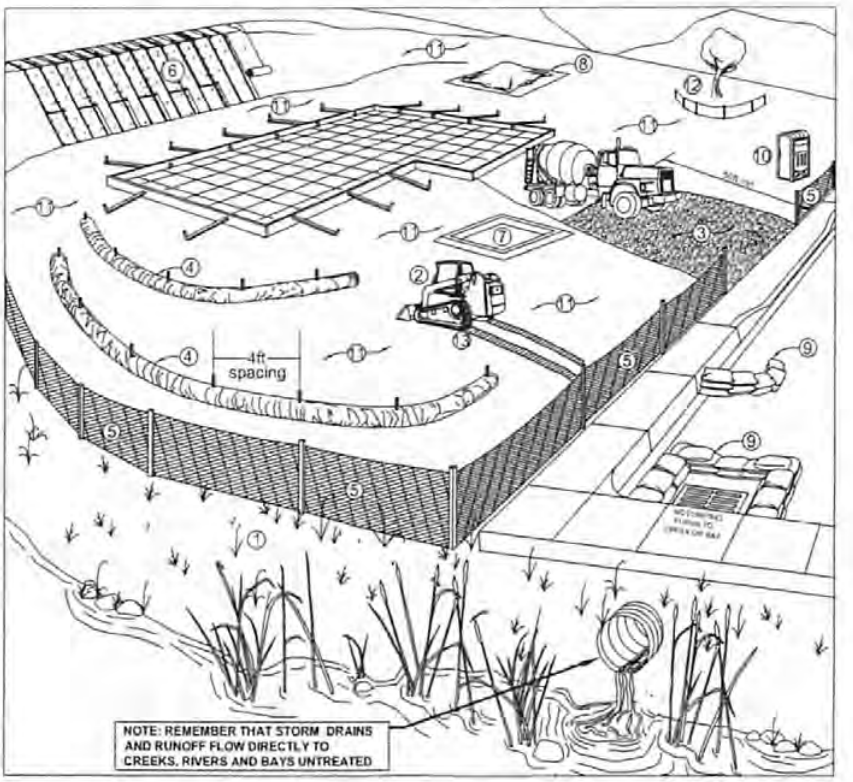


Figure 10. Best Management Practices

(1) Check with your local planning and public works departments for creek setback requirements. Grading and/or building may be limited to Creekside buffers.

(2) During grading phase, track-walk up and down slopes (not parallel to them).

(3) Stabilize site entrance and temporary driveway – use 3-4" crushed rock for a minimum of 50' (or as far as possible) to prevent tracking soil offsite. This can be used in conjunction with a tire wash or rumble plates.

(4) Use straw wattles along contours of short slopes or slopes 3:1 or flatter, keyed into ground at least 3" deep (typically 25' apart).

(5) Install silt fences along contours as secondary measure to keep sediment onsite and to minimize vehicle and foot traffic beyond limits of site disturbance. Silt fencing must be keyed in.

(6) Install erosion control blankets (or equivalent) on any disturbed site with 3:1 slope or steeper, keyed into the ground at least 3".

(7) Construct a concrete washout site next to stabilized entrance. Clean as needed and remove at end of project.

(8) Cover all stockpiles and landscape material and berm properly with straw wattles or sandbags. Keep behind silt fence, away from water bodies. Hazardous materials and refuse must be kept in closed containers that are covered and use secondary containment, not directly on soil.

(9) Use pea-gravel bags, (or similar product) around drain inlets found both onsite and in gutter as a last line of defense.

(10) Place port-a-potty with secondary containment near stabilized site entrance, behind the curb and away from gutters, storm drain inlets, and water bodies.

(11) Cover all exposed soil with straw mulch and tackifier (or equivalent).

(12) Existing vegetation should be preserved as much as possible. Areas of disturbed soil/vegetation should be revegetated as soon as practical.

(13) Prevent equipment fluid leaks onto ground by placing drip pans or plastic tarps under equipment. Repair equipment, as necessary.

(14) Maintain all landscaping to ensure that vegetation is healthy and working as designed to prevent erosion and provide treatment to runoff.

(15) Keep the site clear of debris and trash to prevent these items from entering roadside ditches.

(16) Maintain channel/trail to facilitate drainage and access.

(17) Clear all ditches, culverts, and down-chutes of ice prior to Spring break-up.

Conclusions and Recommendations

1. All ditches and culverts will convey the peak flow plus 10% from the 10-Year Storm Event with a minimum of 12-Inches (1-foot) freeboard below the top of fore slope (structural section hinge point) or maximum flow depth of 18" in a 30" deep ditch.
2. The site discharges to Waters of the United States. SWPPP/NOI are required. Any work in wetlands requires a 404 Permit from the U.S. Army Corps of Engineers.
3. All runoff from the first-flush storm soaks into ground. There is no need for water quality treatment facilities.
4. All ditches are stable when using liner materials recommended in this report. All culvert outlets require rock riprap. Spillways into and out of detention basins (if needed) require riprap.
5. The post runoff from the 1-year 24-hour storm infiltrates into the ground. No detention storage is needed for this storm event.
6. Outfalls 1, 2, and 3. Post runoff from the 10-Year 24-Hour storm event is less than or equal to pre-development. Detention basins are required.
7. All runoff from the 100-Year 24-Hour storm event will pass unobstructed through the site. Lot improvements shall not block or divert water flow.
8. Other Agency Requirements:
   a. Floodplain Use Permit is not needed.
   b. 404 Permit from U.S. Army Corps of Engineers is not required.
   c. Verification from the Alaska Department of Fish and Game is not needed.
   d. A Storm Water Pollution Prevention Plan is not required for this project.
9. Ditches will require periodic removal of sediment and vegetation. It is recommended they be inspected every five years and following major storm events.
10. All rock ripraps shall be lain on graded filter material or filter fabric to prevent erosion of underlying soils. Filter is not needed for gravel mulch.
11. Detention basin storage should be at or below the bottom of the adjacent roadside ditch or the utility bench, whichever is lower. No standing water is allowed in ditch or utility easement. See Figures 8 and 9.
12. Easements should be dedicated for maintenance access from public right-of-way to ditches and detention basins. No detention basins are allowed in utility easements.
13. Finished floor elevations and all openings shall be a minimum of 18" above highest adjacent grade within 10' of building and 24" above adjacent 100-year high water level (flowing or standing) in adjacent streams, swales, ditches, ponds, or detention basins. See Figures 8 and 9.
14. Finished floor and all openings shall be a minimum of 12" above building pad.
15. Wetland areas where applicable should be delineated and protected from removing any vegetation.
16. As-Built drawings and certification are recommended for all drainage improvements (ditches, basins, culverts, riprap, etc.) prior to final acceptance by Borough.

APPENDIX A – MAPS



MAP 1

UTOPIA VIEW II SUBDIVISION

WATERSHED AERIAL

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

STATE OF ALASKA
49TH
BRIAN J. FRIEDHOFF
CE 13183
04-07-2025
PROFESSIONAL ENGINEER

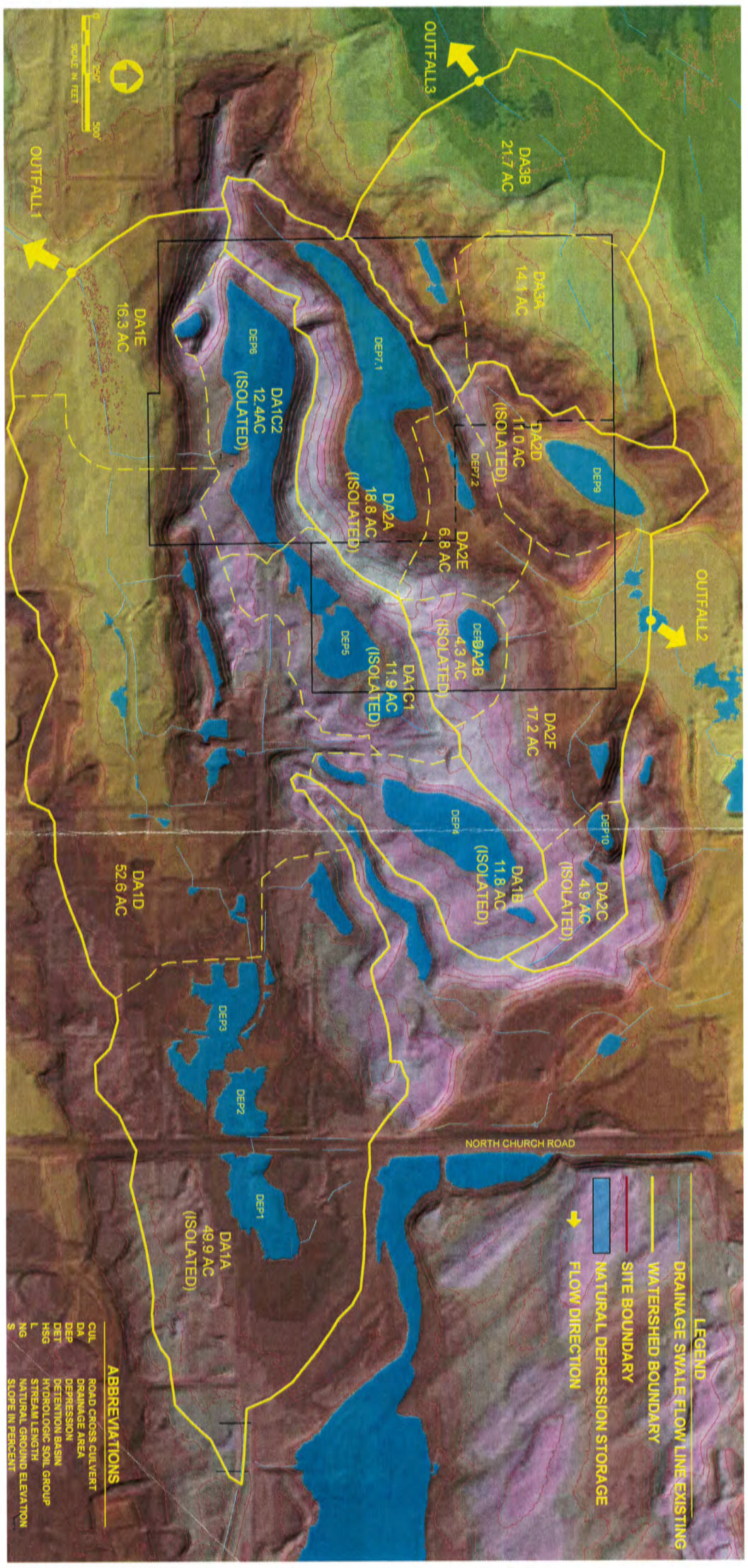


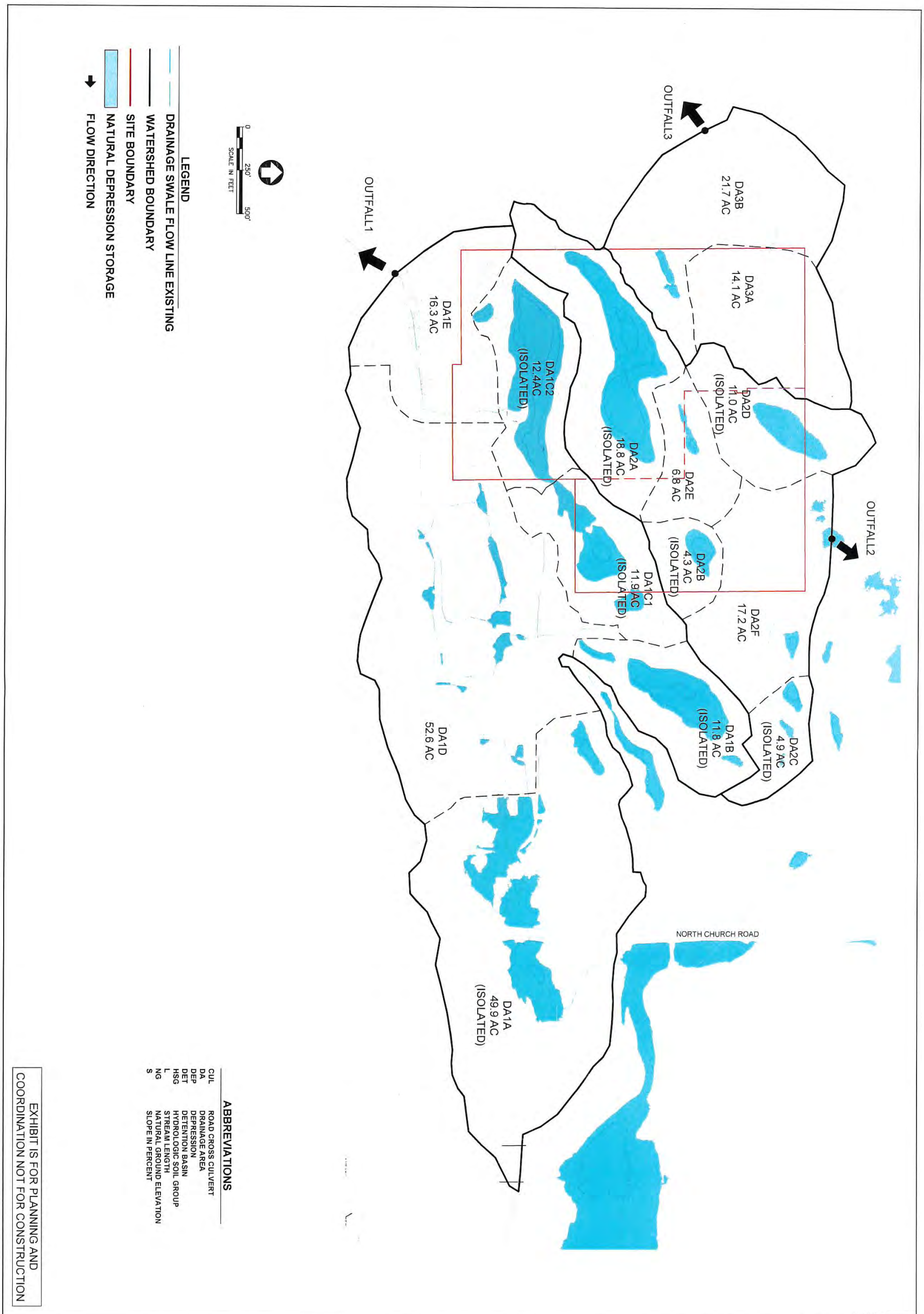
EXHIBIT IS FOR PLANNING AND COORDINATION NOT FOR CONSTRUCTION

UTOPIA VIEW II SUBDIVISION

WATERSHED TERRAIN

MAP 2.1

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022



MAP 2.2

UTOPIA VIEW II SUBDIVISION

WATERSHED CONTOURS

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

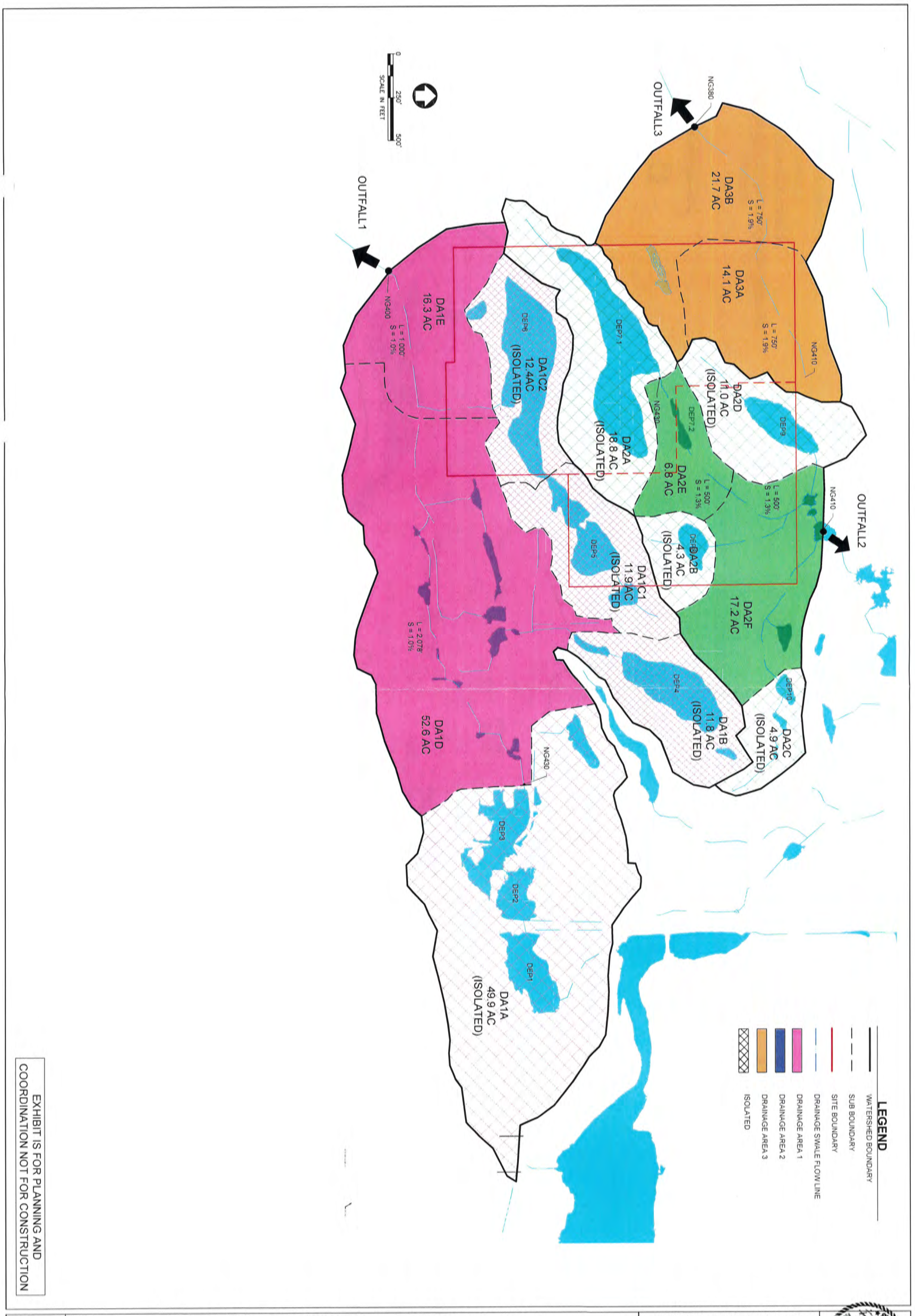


EXHIBIT IS FOR PLANNING AND COORDINATION NOT FOR CONSTRUCTION

MAP 3.1

UTOPIA VIEW II SUBDIVISION

PRE-WATERSHED

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

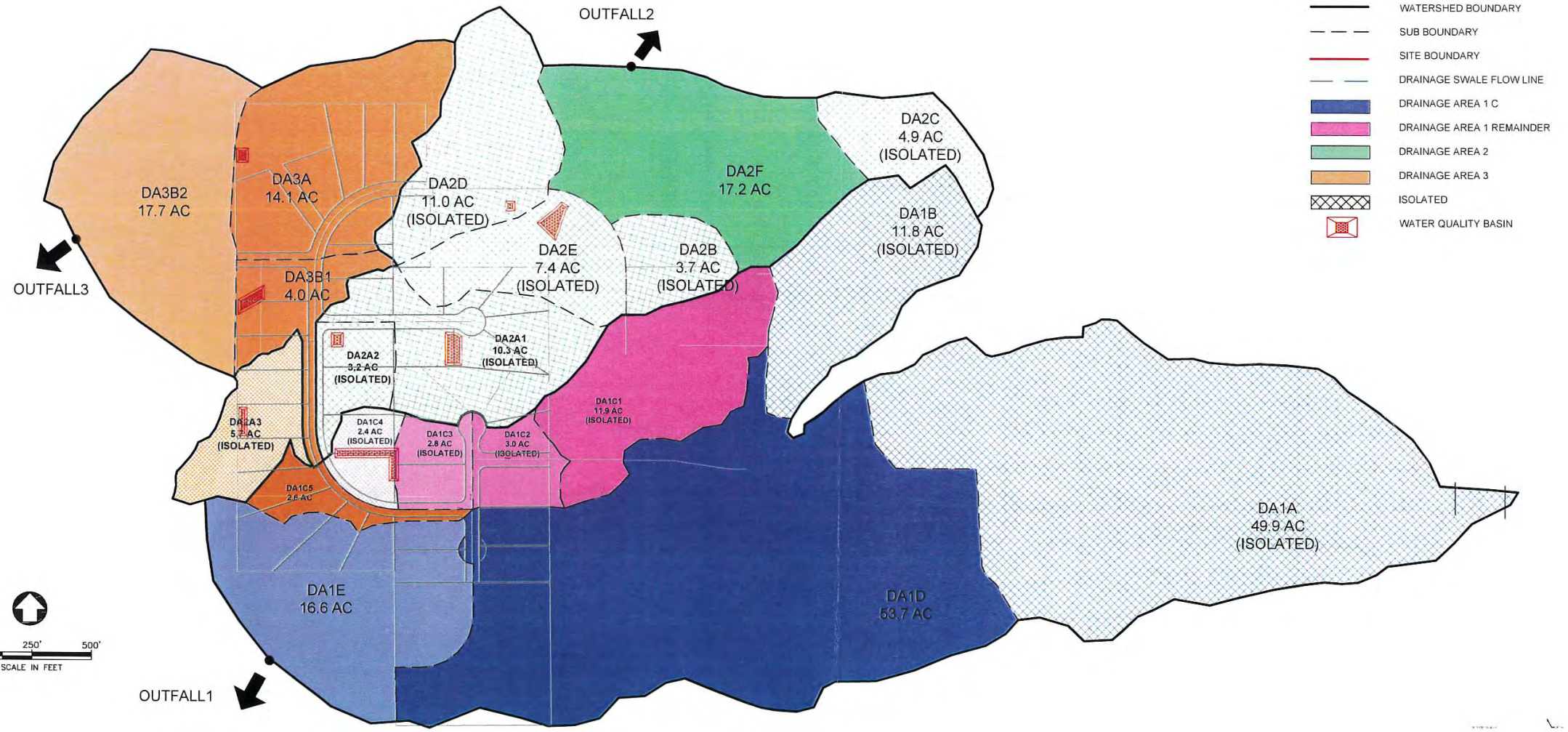


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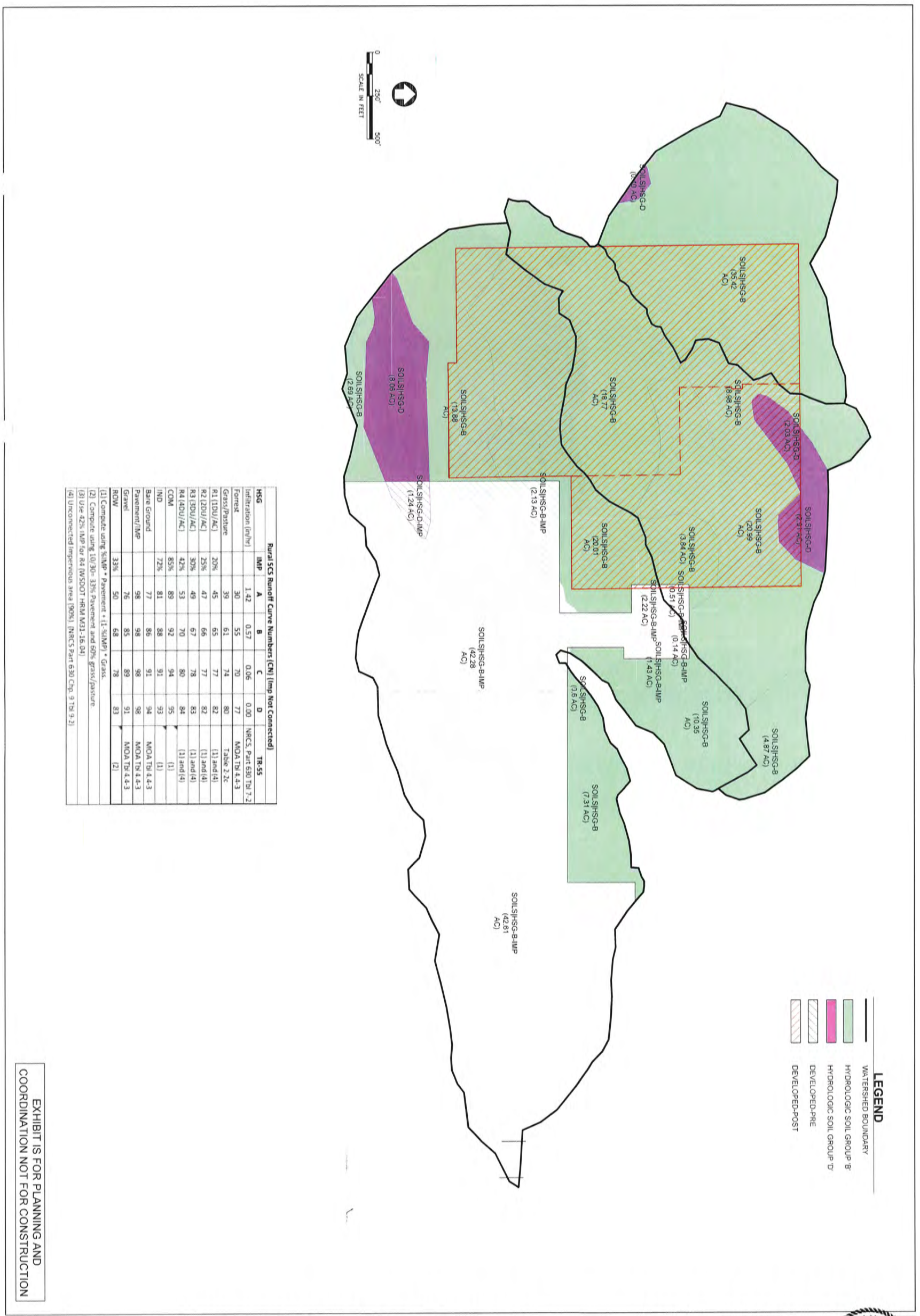
STATE OF ALASKA
49 TH
BRUCE H. FRIEDHOFF
CE 13161
04-07-2025
REGISTERED PROFESSIONAL ENGINEER

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

UTOPIA VIEW II SUBDIVISION

POST-WATERSHED

MAP
3.2



Rural SCS Runoff Curve Numbers (CN) (Imp Not Connected)						
HSG	IMP	A	B	C	D	TR-55
Infiltration (in/hr)		1.42	0.57	0.06	0.00	NRCS, Part 630 Tbl 7-2
Forrest		30	55	70	77	MOA Tbl 4.4-3
Grass/Pasture		39	61	74	80	Table 2-2c
R1 (1DU/AC)	20%	45	65	77	82	(1) and (4)
R2 (2DU/AC)	25%	47	66	77	82	(1) and (4)
R3 (3DU/AC)	30%	49	67	78	83	(1) and (4)
R4 (4DU/AC)	42%	53	70	80	84	(1) and (4)
COM	85%	89	92	94	95	(1)
IND	72%	81	88	91	93	(1)
Bare Ground		77	86	91	94	MOA Tbl 4.4-3
Pavement/IMP		98	98	98	98	MOA Tbl 4.4-3
Gravel		76	85	89	91	MOA Tbl 4.4-3
ROW	33%	50	68	78	83	(2)

(1) Compute using %IMP * Pavement + (1-%IMP) * Grass.
(2) Compute using 1/3= 33% Pavement and 2/3% grass/pasture
(3) Use 42% IMP for R4 (WSDOT HRM M31-16.04)
(4) Unconnected impervious area (90%) (NRCS Part 630 Chp 9 Tbl 9-2)

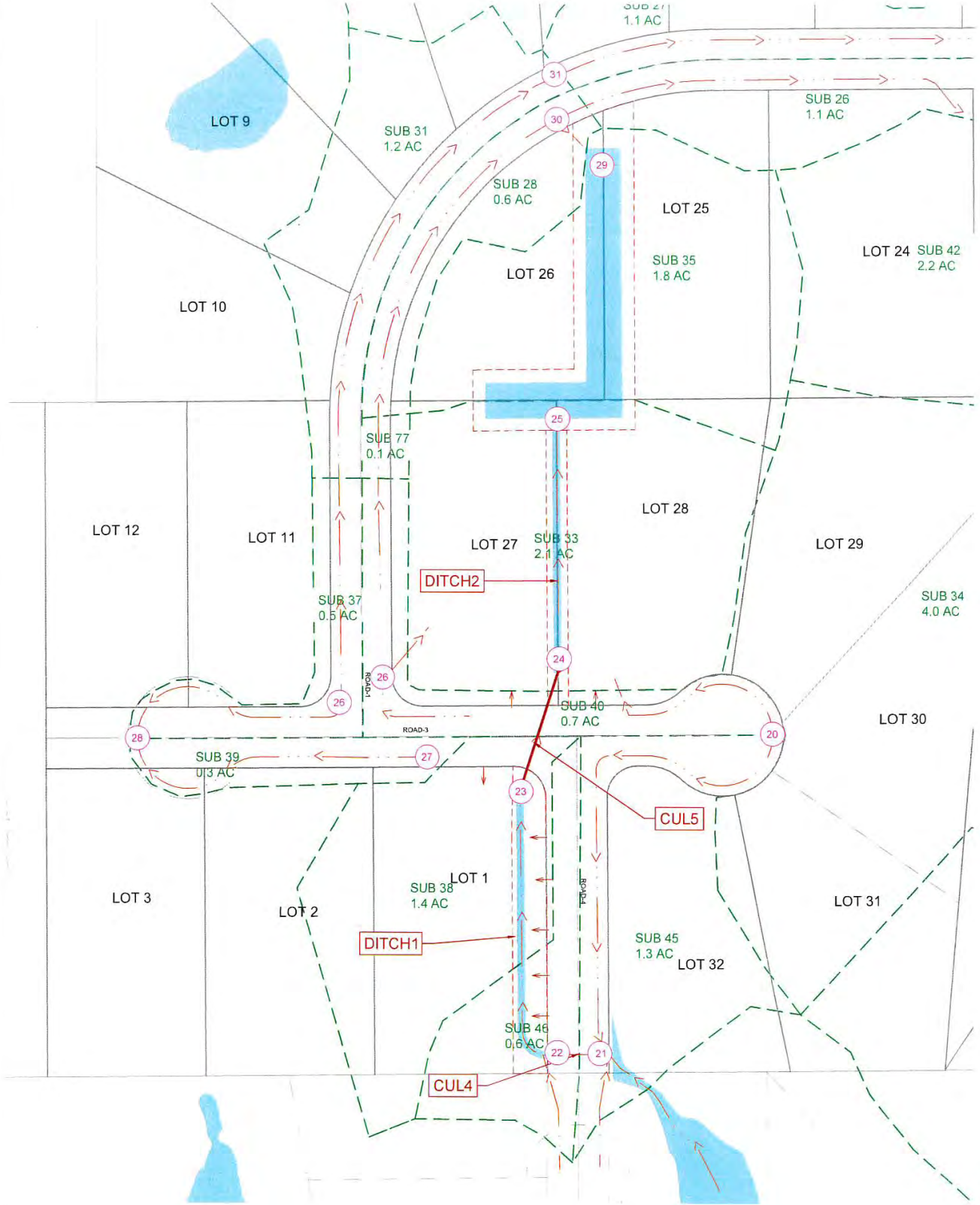
EXHIBIT IS FOR PLANNING AND COORDINATION NOT FOR CONSTRUCTION

MAP 4

UTOPIA VIEW II SUBDIVISION

HYDROLOGIC SOIL GROUPS

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
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PHONE: (907) 354-3021
JOB#: 10102022



0 60' 120'
SCALE IN FEET

LEGEND

- PROPERTY LINES
- 10' CONTOUR
- 2' CONTOUR
- DRAINAGE SWALE FLOW LINE EXISTING
- DRAINAGE SWALE FLOW LINE NEW
- TOP OF SLOPE
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE
- NATURAL DEPRESSION STORAGE
- WETLAND
- CULVERT
- CULVERT WITH FLOW CONTROL RISER
- FLOW DIRECTION
- CONCENTRATION POINT (NODE)
- WATER QUALITY BASIN
- DRAINAGE EASEMENT

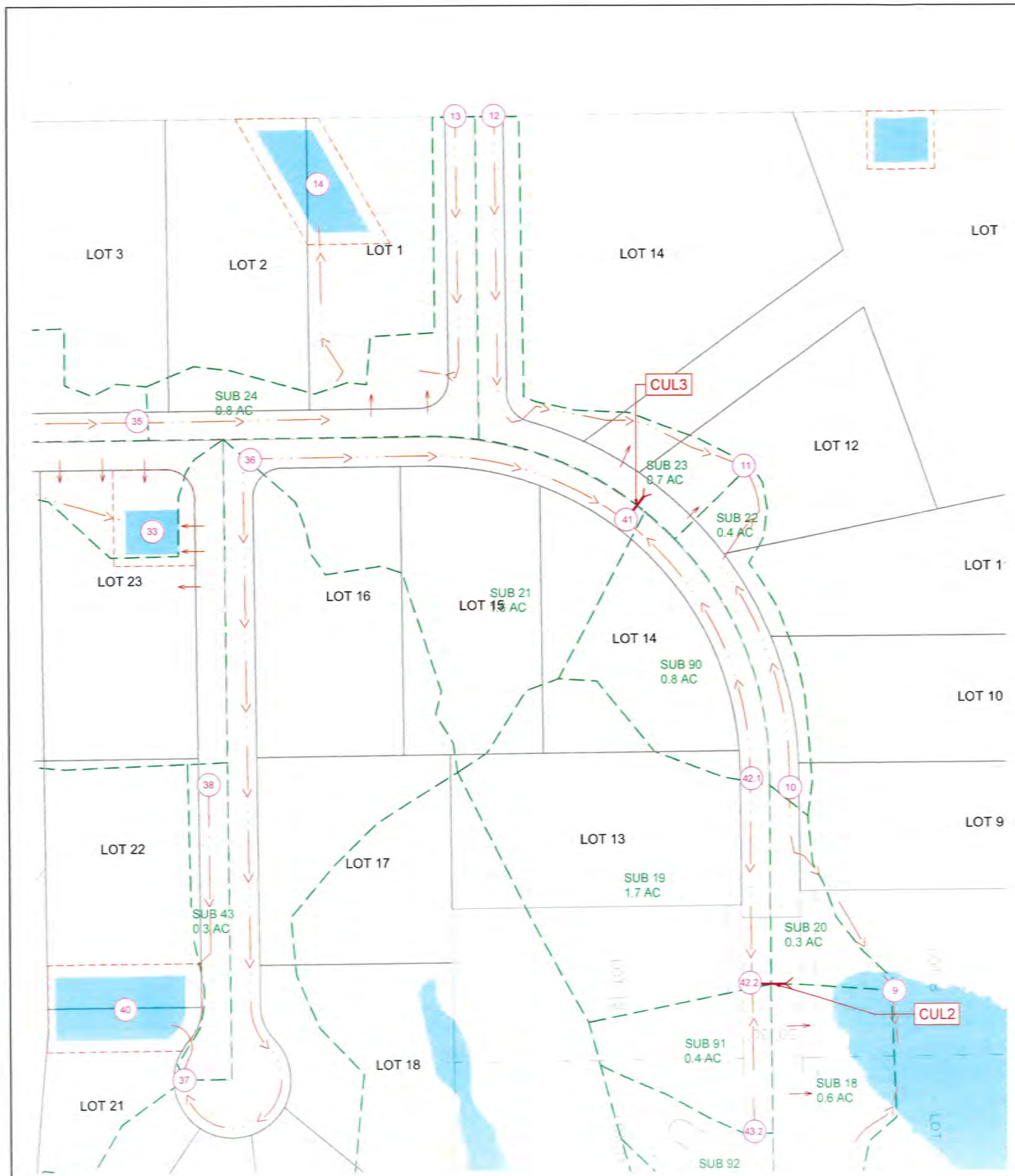
STATE OF ALASKA 49TH BRUCE FRIEDHOFF CE 13163 04-07-2025 REGISTERED PROFESSIONAL ENGINEER

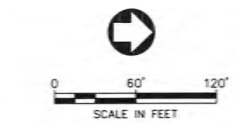
CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
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BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

UTOPIA VIEW II SUBDIVISION

LINKS, NODES, AND AREAS

MAP
5.1





LEGEND

- PROPERTY LINES
- 10' CONTOUR
- 2' CONTOUR
- DRAINAGE SWALE FLOW LINE EXISTING
- DRAINAGE SWALE FLOW LINE NEW
- TOP OF SLOPE
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE
- NATURAL DEPRESSION STORAGE
- WETLAND
- CULVERT
- CULVERT WITH FLOW CONTROL RISER
- FLOW DIRECTION
- CONCENTRATION POINT (NODE)
- WATER QUALITY BASIN
- DRAINAGE EASEMENT

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
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PHONE: (907) 354-3021
JOB#: 10102022

UTOPIA VIEW II SUBDIVISION

LINKS, NODES, AND AREAS

MAP
5.2

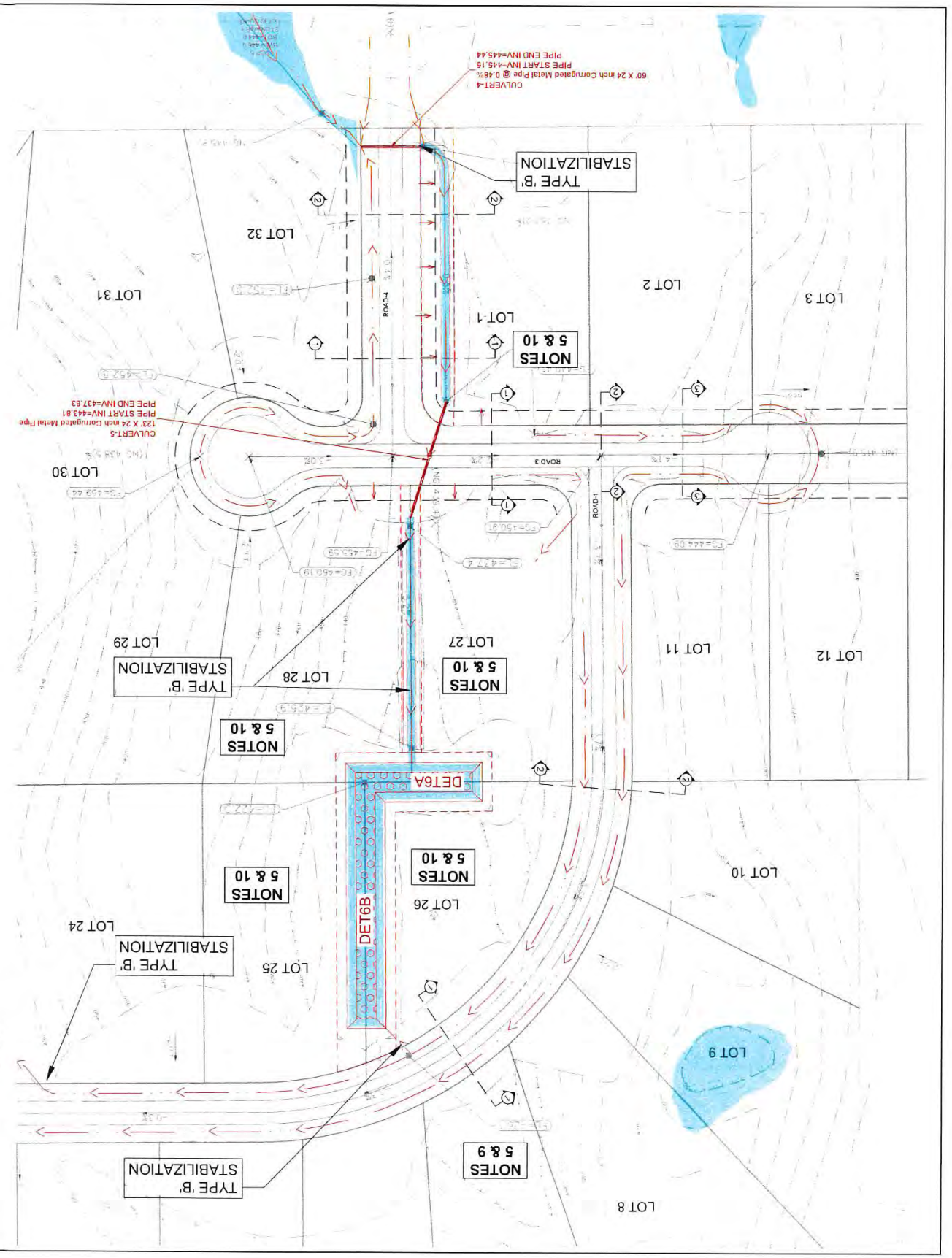
UTOPIA VIEW II SUBDIVISION

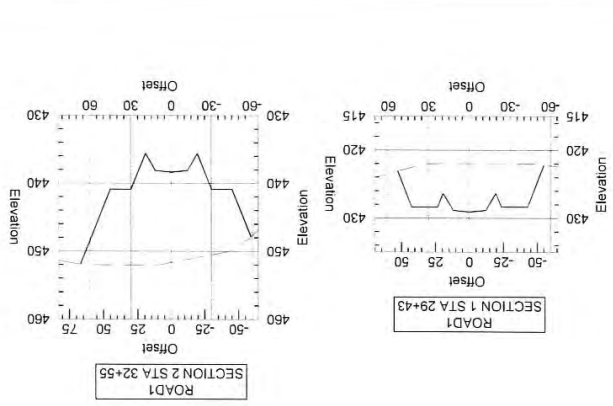
PRELIMINARY DRAINAGE DESIGN

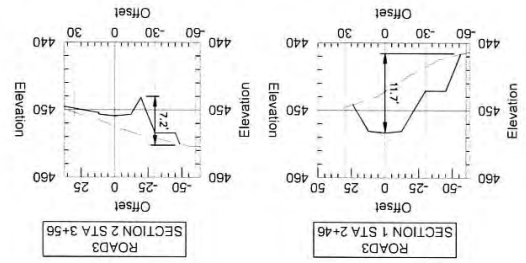
MAP 6.1

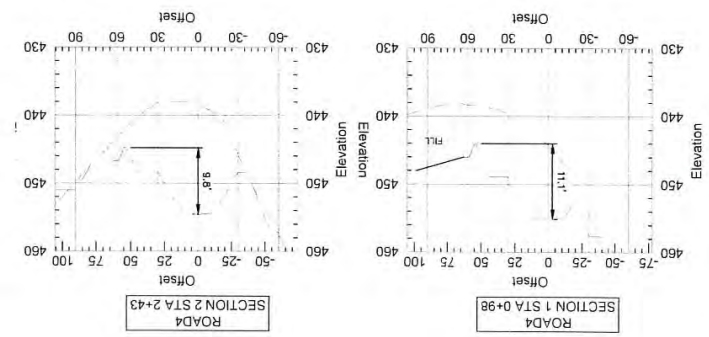
CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 1010202











NOTE

DESIGN AND DETAILS ARE SCHEMATIC AND REQUIRE FIELD ADJUSTMENT BY CONTRACTOR AND ENGINEER DURING CONSTRUCTION.

NOTES

1. DITCHES AND CULVERT ARE DESIGNED FOR 10-YEAR PEAK FLOW PLUS 10%.
2. USE RIPRAP ENERGY DISSIPATERS AT BASIN OUTLETS, AND BASIN INLETS.
3. ALL CULVERTS ARE A MINIMUM OF 18" DIAMETER CORRUGATED METAL PIPE.
4. SEE REPORT FOR DETENTION BASIN VOLUME. CONFIGURATION TO BE DETERMINED DURING FINAL DESIGN.
5. BUILDING AND DRIVEWAY IMPROVEMENTS SHALL NOT BLOCK FLOWING WATER IN DRAINAGE SWALE THROUGH FRONT OF LOT.
6. FINISHED FLOOR ELEVATIONS AND OPENINGS SHALL BE A MINIMUM OF 18" ABOVE HIGHEST ADJACENT GRADE WITHIN 10' OF BUILDING AND 24" ABOVE ADJACENT 100-YEAR HIGH WATER LEVEL IN ADJACENT WASHES, DITCHES, OR DETENTION BASINS.
7. USE TYPE 'A' STABILIZATION FOR ALL DITCHES UNLESS NOTED OTHERWISE (MAP 6.4 DETAILS).
8. NO FILL ALLOWED IN DRAINAGE EASEMENTS.
9. FILL LOT AND GRADE TO DRAIN TO ROAD.
10. FILL LOT AND GRADE TO DRAIN TO DETENTION BASIN DRAINAGE EASEMENT.

LEGEND

- PROPERTY LINES
- 490 10' CONTOUR
- 2' CONTOUR
- DRAINAGE SWALE FLOW LINE EXISTING
- DRAINAGE SWALE FLOW LINE NEW
- TOP OF SLOPE
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE
- NATURAL DEPRESSION STORAGE
- WETLAND
- CULVERT
- CULVERT WITH FLOW CONTROL RISER
- FLOW DIRECTION
- CONCENTRATION POINT (NODE)
- WATER QUALITY BASIN
- DRAINAGE EASEMENT

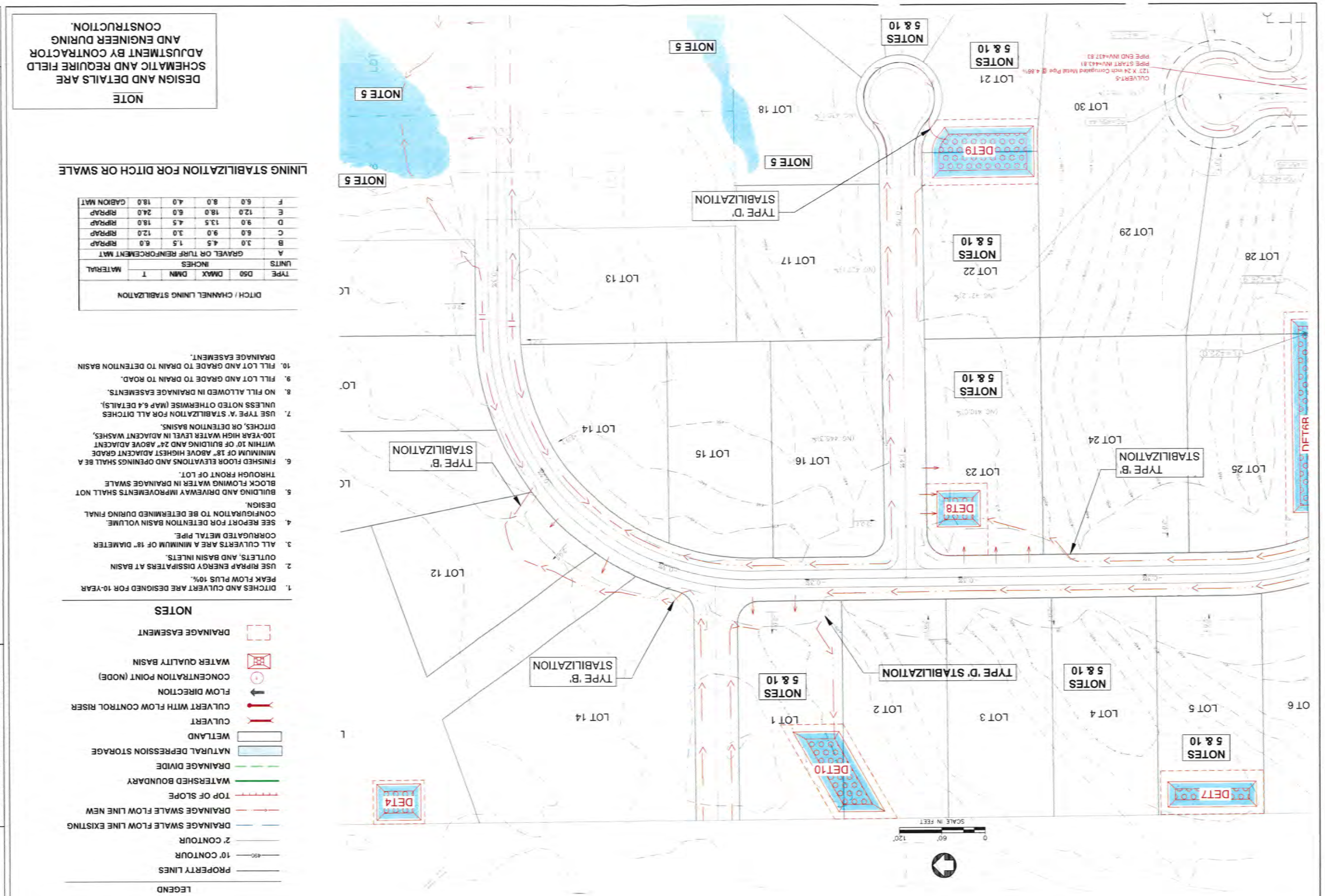
SCALE IN FEET
0 60' 120'

UTOPIA VIEW II SUBDIVISION

PRELIMINARY DRAINAGE DESIGN

MAP 6.2

CIVIL RESOURCES, LLC
3001 W STONERIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022



NOTE

DESIGN AND DETAILS ARE SCHEMATIC AND REQUIRE FIELD ADJUSTMENT BY CONTRACTOR AND ENGINEER DURING CONSTRUCTION.

LINING STABILIZATION FOR DITCH OR SWALE

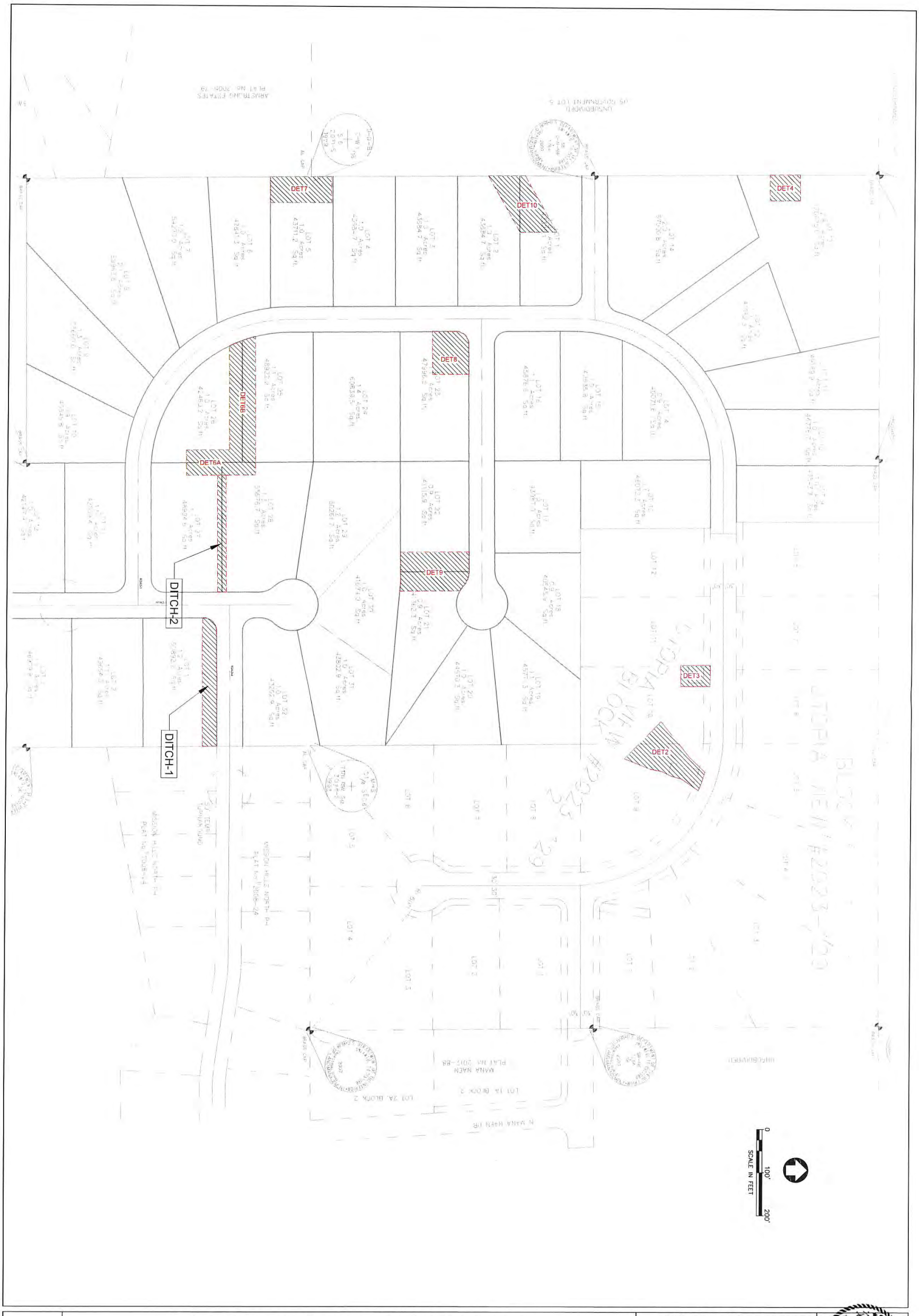
DITCH / CHANNEL LINING STABILIZATION					
UNITS	TYPE	D50	DMAX	DMIN	T	MATERIAL
	INCHES				
A	GRAVEL OR TURF REINFORCEMENT MAT				
B	3.0	4.5	1.5	6.0	RIPRAP
C	6.0	9.0	3.0	12.0	RIPRAP
D	9.0	13.5	4.5	18.0	RIPRAP
E	12.0	18.0	6.0	24.0	RIPRAP
F	6.0	8.0	4.0	18.0	GABION MAT

NOTES

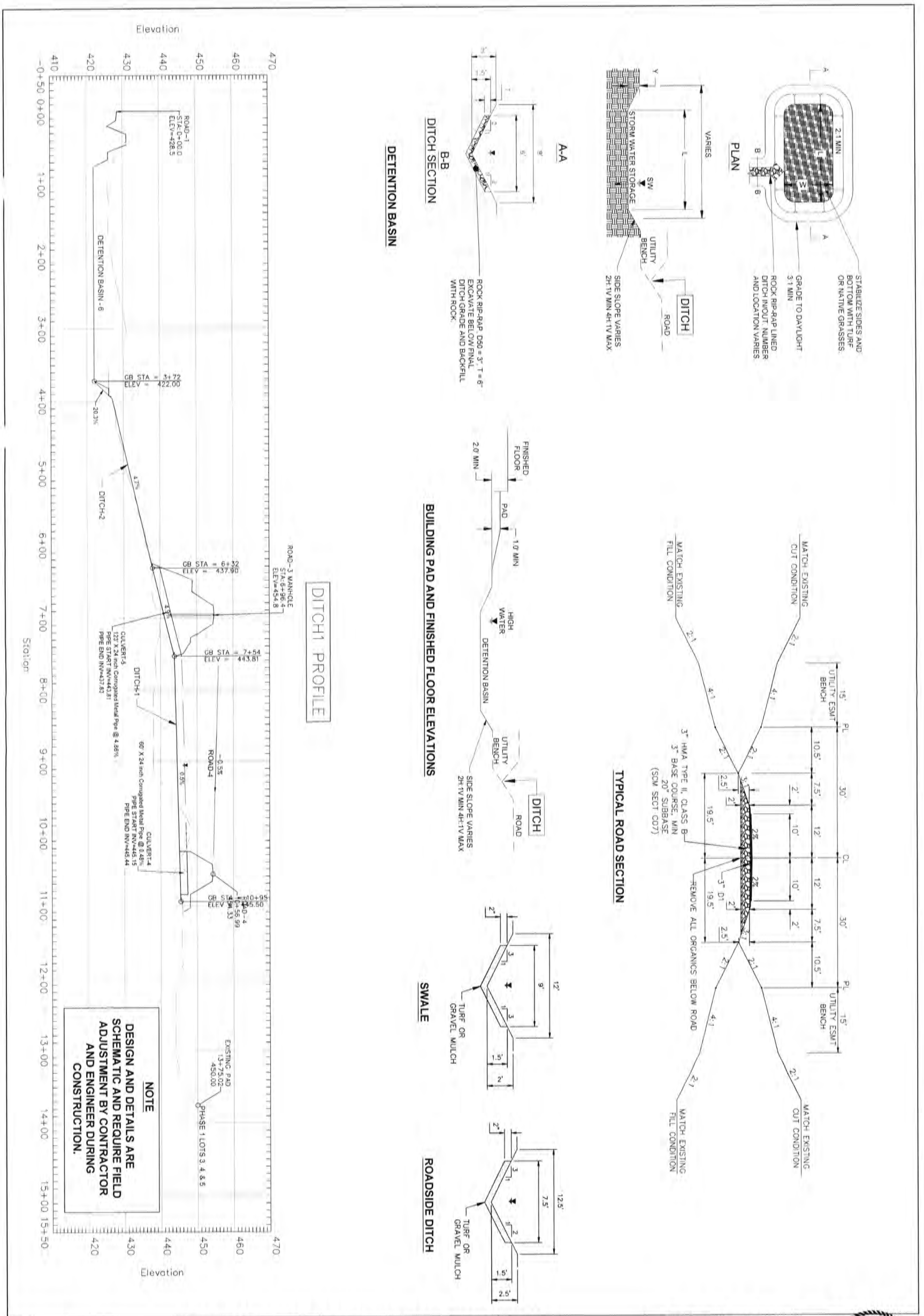
1. DITCHES AND CULVERT ARE DESIGNED FOR 10-YEAR PEAK FLOW PLUS 10%.
2. USE RIPRAP ENERGY DISSIPATERS AT BASIN OUTLETS, AND BASIN INLETS.
3. ALL CULVERTS ARE A MINIMUM OF 18" DIAMETER CORRUGATED METAL PIPE.
4. SEE REPORT FOR DETENTION BASIN VOLUME CONFIGURATION TO BE DETERMINED DURING FINAL DESIGN.
5. BUILDING AND DRIVEWAY IMPROVEMENTS SHALL NOT BLOCK FLOWING WATER IN DRAINAGE SWALE THROUGH FRONT OF LOT.
6. FINISHED FLOOR ELEVATIONS AND OPENINGS SHALL BE A MINIMUM OF 18" ABOVE HIGHEST ADJACENT GRADE WITHIN 10' OF BUILDING AND 24" ABOVE ADJACENT 100-YEAR HIGH WATER LEVEL IN ADJACENT WASHES, DITCHES, OR DETENTION BASINS.
7. USE TYPE 'A' STABILIZATION FOR ALL DITCHES UNLESS NOTED OTHERWISE (MAP 6.4 DETAILS).
8. NO FILL ALLOWED IN DRAINAGE EASEMENTS.
9. FILL LOT AND GRADE TO DRAIN TO ROAD.
10. FILL LOT AND GRADE TO DRAIN TO DETENTION BASIN DRAINAGE EASEMENT.

LEGEND

- PROPERTY LINES
- 10' CONTOUR
- 2' CONTOUR
- DRAINAGE SWALE FLOW LINE EXISTING
- DRAINAGE SWALE FLOW LINE NEW
- TOP OF SLOPE
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE
- NATURAL DEPRESSION STORAGE
- WETLAND
- CULVERT
- CULVERT WITH FLOW CONTROL RISER
- FLOW DIRECTION
- CONCENTRATION POINT (NODE)
- WATER QUALITY BASIN
- DRAINAGE EASEMENT



MAP 6.3	UTOPIA VIEW II SUBDIVISION DRAINAGE EASEMENTS	CIVIL RESOURCES, LLC 3001 W STONEBRIDGE DRIVE WASILLA, AK 99654 BFRIEDHOFF@MTAONLINE.NET PHONE: (907) 354-3021 JOB#: 10102022

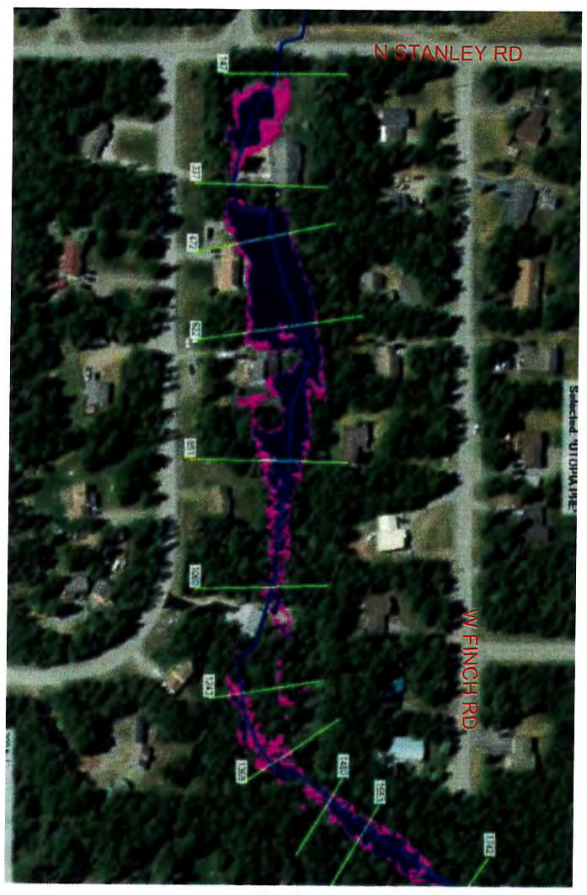


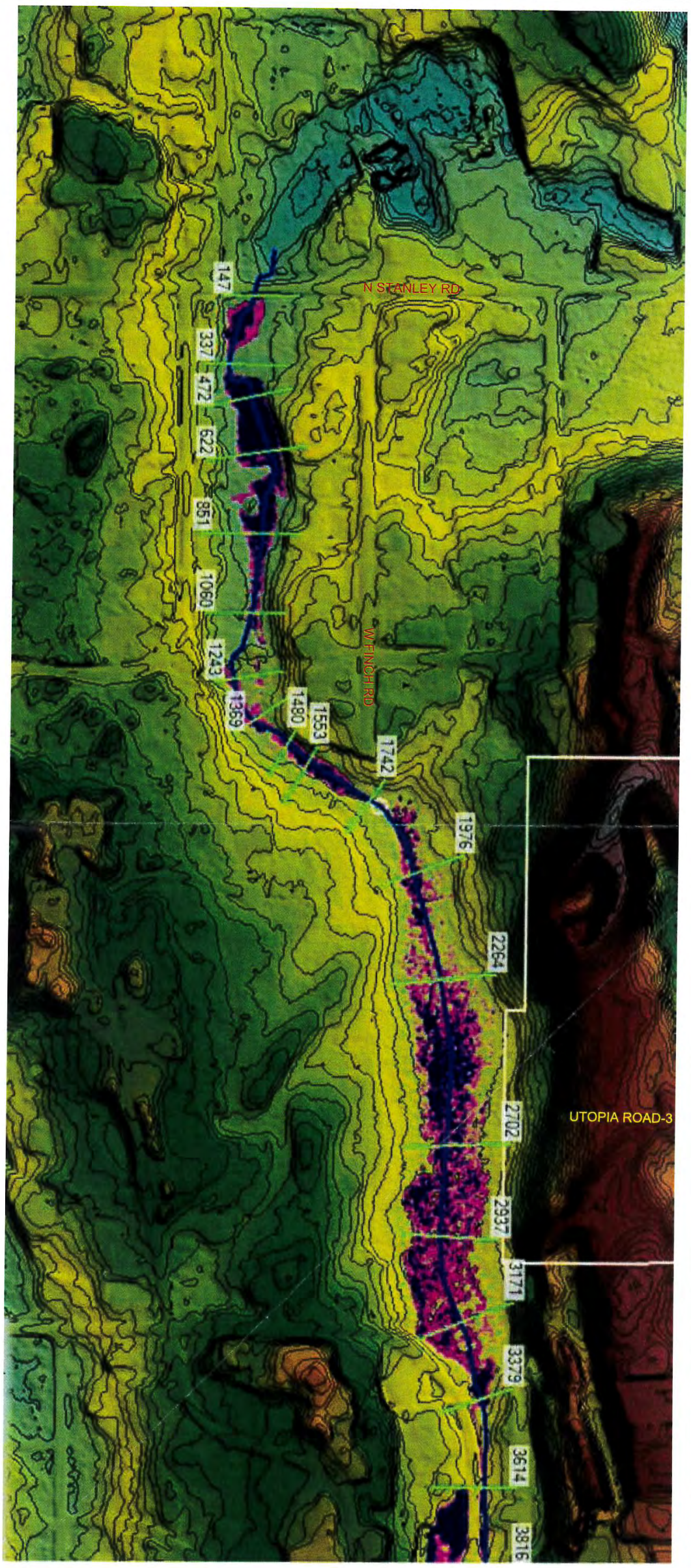
UTOPIA VIEW II SUBDIVISION

SECTIONS AND DETAILS

MAP 6.4

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022





MAP 7

UTOPIA VIEW II SUBDIVISION

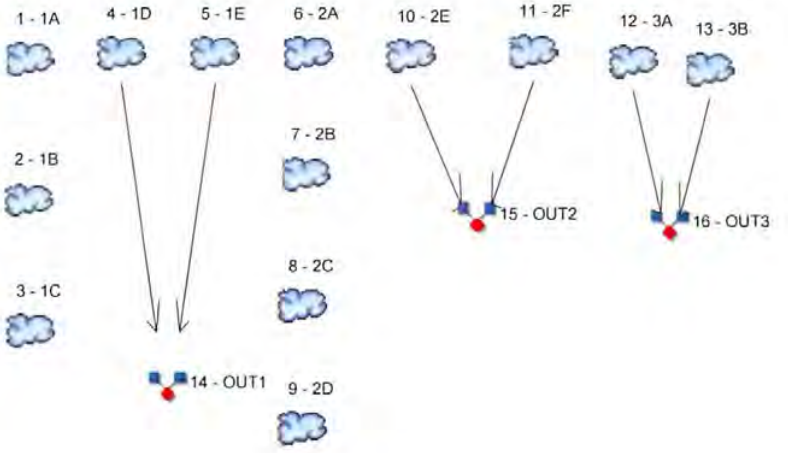
HECRAS WATER SURFACE PROFILE PLAN

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

APPENDIX B - CALCULATIONS

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020



Legend

Hyd.	Origin	Description
1	SCS Runoff	1A
2	SCS Runoff	1B
3	SCS Runoff	1C
4	SCS Runoff	1D
5	SCS Runoff	1E
6	SCS Runoff	2A
7	SCS Runoff	2B
8	SCS Runoff	2C
9	SCS Runoff	2D
10	SCS Runoff	2E
11	SCS Runoff	2F
12	SCS Runoff	3A
13	SCS Runoff	3B
14	Combine	OUT1
15	Combine	OUT2
16	Combine	OUT3

Project: PRE.gpw | Tuesday, 02 / 25 / 2025

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	0.000	-------	-------	-------	0.458	-------	-------	6.101	1A
2	SCS Runoff	------	0.000	-------	-------	-------	0.037	-------	-------	0.242	1B
3	SCS Runoff	------	0.000	-------	-------	-------	0.085	-------	-------	0.534	1C
4	SCS Runoff	------	0.010	-------	-------	-------	0.620	-------	-------	8.954	1D
5	SCS Runoff	------	0.000	-------	-------	-------	0.102	-------	-------	0.990	1E
6	SCS Runoff	------	0.000	-------	-------	-------	0.043	-------	-------	0.323	2A
7	SCS Runoff	------	0.000	-------	-------	-------	0.013	-------	-------	0.087	2B
8	SCS Runoff	------	0.000	-------	-------	-------	0.011	-------	-------	0.084	2C
9	SCS Runoff	------	0.000	-------	-------	-------	0.057	-------	-------	0.405	2D
10	SCS Runoff	------	0.000	-------	-------	-------	0.016	-------	-------	0.117	2E
11	SCS Runoff	------	0.000	-------	-------	-------	0.086	-------	-------	0.558	2F
12	SCS Runoff	------	0.000	-------	-------	-------	0.033	-------	-------	0.242	3A
13	SCS Runoff	------	0.000	-------	-------	-------	0.056	-------	-------	0.395	3B
14	Combine	4, 5,	0.010	-------	-------	-------	0.694	-------	-------	9.899	OUT1
15	Combine	10, 11,	0.000	-------	-------	-------	0.101	-------	-------	0.590	OUT2
16	Combine	12, 13,	0.000	-------	-------	-------	0.088	-------	-------	0.637	OUT3

Proj. file: PRE.gpw

Tuesday, 02 / 25 / 2025

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.000	1	n/a	0	------	------	------	1A
2	SCS Runoff	0.000	1	n/a	0	------	------	------	1B
3	SCS Runoff	0.000	1	n/a	0	------	------	------	1C
4	SCS Runoff	0.010	1	1440	49	------	------	------	1D
5	SCS Runoff	0.000	1	n/a	0	------	------	------	1E
6	SCS Runoff	0.000	1	n/a	0	------	------	------	2A
7	SCS Runoff	0.000	1	n/a	0	------	------	------	2B
8	SCS Runoff	0.000	1	n/a	0	------	------	------	2C
9	SCS Runoff	0.000	1	n/a	0	------	------	------	2D
10	SCS Runoff	0.000	1	n/a	0	------	------	------	2E
11	SCS Runoff	0.000	1	n/a	0	------	------	------	2F
12	SCS Runoff	0.000	1	n/a	0	------	------	------	3A
13	SCS Runoff	0.000	1	n/a	0	------	------	------	3B
14	Combine	0.010	1	1440	49	4, 5,	------	------	OUT1
15	Combine	0.000	1	n/a	0	10, 11,	------	------	OUT2
16	Combine	0.000	1	n/a	0	12, 13,	------	------	OUT3

PRE.gpw	Return Period: 1 Year	Tuesday, 02 / 25 / 2025

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.458	1	1058	19,272	------	------	------	1A
2	SCS Runoff	0.037	1	1266	986	------	------	------	1B
3	SCS Runoff	0.085	1	1248	2,385	------	------	------	1C
4	SCS Runoff	0.620	1	776	26,797	------	------	------	1D
5	SCS Runoff	0.102	1	1134	3,734	------	------	------	1E
6	SCS Runoff	0.043	1	1318	975	------	------	------	2A
7	SCS Runoff	0.013	1	1270	348	------	------	------	2B
8	SCS Runoff	0.011	1	1318	254	------	------	------	2C
9	SCS Runoff	0.057	1	1176	1,902	------	------	------	2D
10	SCS Runoff	0.016	1	1318	353	------	------	------	2E
11	SCS Runoff	0.086	1	1182	2,842	------	------	------	2F
12	SCS Runoff	0.033	1	1318	731	------	------	------	3A
13	SCS Runoff	0.056	1	1300	1,320	------	------	------	3B
14	Combine	0.694	1	1039	30,531	4, 5,	------	------	OUT1
15	Combine	0.101	1	1215	3,195	10, 11,	------	------	OUT2
16	Combine	0.088	1	1306	2,051	12, 13,	------	------	OUT3

PRE.gpw	Return Period: 10 Year	Tuesday, 02 / 25 / 2025

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	6.101	1	606	83,837	-----	-----	-----	1A
2	SCS Runoff	0.242	1	759	10,308	-----	-----	-----	1B
3	SCS Runoff	0.534	1	754	22,538	-----	-----	-----	1C
4	SCS Runoff	8.954	1	606	103,356	-----	-----	-----	1D
5	SCS Runoff	0.990	1	604	21,089	-----	-----	-----	1E
6	SCS Runoff	0.323	1	774	14,085	-----	-----	-----	2A
7	SCS Runoff	0.087	1	760	3,714	-----	-----	-----	2B
8	SCS Runoff	0.084	1	774	3,671	-----	-----	-----	2C
9	SCS Runoff	0.405	1	602	12,755	-----	-----	-----	2D
10	SCS Runoff	0.117	1	774	5,095	-----	-----	-----	2E
11	SCS Runoff	0.558	1	602	19,557	-----	-----	-----	2F
12	SCS Runoff	0.242	1	774	10,564	-----	-----	-----	3A
13	SCS Runoff	0.395	1	769	17,068	-----	-----	-----	3B
14	Combine	9.899	1	606	124,445	4, 5,	-----	-----	OUT1
15	Combine	0.590	1	708	24,652	10, 11,	-----	-----	OUT2
16	Combine	0.637	1	771	27,632	12, 13,	-----	-----	OUT3

PRE.gpw	Return Period: 100 Year	Tuesday, 02 / 25 / 2025

Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 Tuesday, 02 / 25 / 2025

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	2.6203	0.1000	0.5477	--------
2	3.2439	0.1000	0.5492	--------
3	0.0000	0.0000	0.0000	--------
5	0.0000	0.0000	0.0000	--------
10	4.6883	0.1000	0.5455	--------
25	5.6755	0.1000	0.5482	--------
50	6.3839	0.1000	0.5475	--------
100	7.0165	0.1000	0.5443	--------

File name: WASILLA.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	1.07	0.74	0.59	0.51	0.45	0.41	0.37	0.35	0.33	0.31	0.29	0.28
2	1.33	0.91	0.73	0.62	0.55	0.50	0.46	0.43	0.40	0.38	0.36	0.34
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	1.93	1.33	1.07	0.91	0.81	0.73	0.67	0.63	0.59	0.55	0.53	0.50
25	2.32	1.60	1.28	1.10	0.97	0.88	0.81	0.75	0.70	0.66	0.63	0.60
50	2.62	1.80	1.44	1.23	1.09	0.99	0.91	0.85	0.79	0.75	0.71	0.68
100	2.89	1.99	1.60	1.37	1.21	1.10	1.01	0.94	0.88	0.83	0.79	0.75

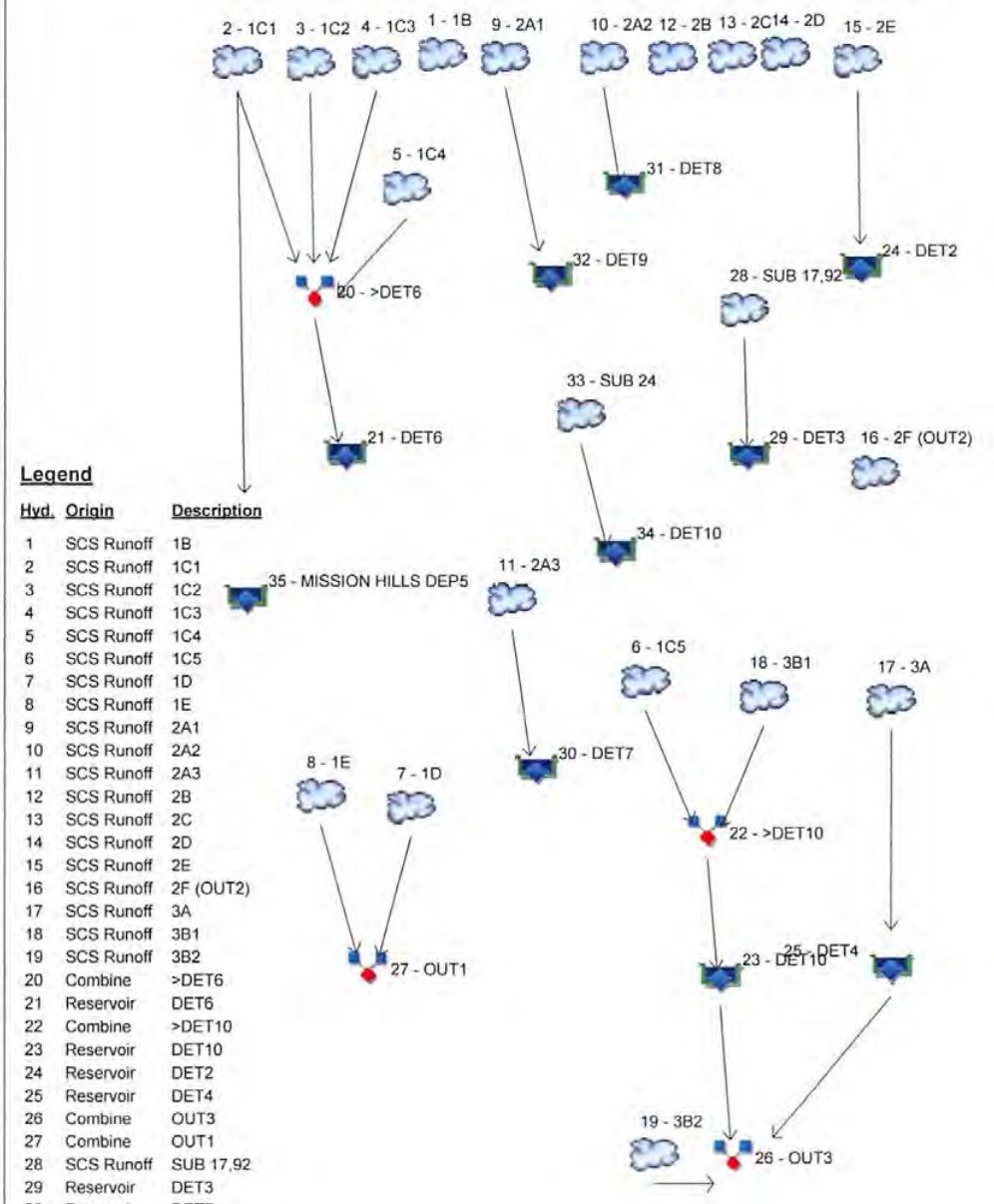
Tc = time in minutes. Values may exceed 60.

Precip. file name: C:\Users\bfrie\CRLLC\Projects_Support\PCP\WASILLA.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	1.09	1.36	1.54	1.71	1.98	2.37	2.67	3.02
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020



Legend

Hyd.	Origin	Description
1	SCS Runoff	1B
2	SCS Runoff	1C1
3	SCS Runoff	1C2
4	SCS Runoff	1C3
5	SCS Runoff	1C4
6	SCS Runoff	1C5
7	SCS Runoff	1D
8	SCS Runoff	1E
9	SCS Runoff	2A1
10	SCS Runoff	2A2
11	SCS Runoff	2A3
12	SCS Runoff	2B
13	SCS Runoff	2C
14	SCS Runoff	2D
15	SCS Runoff	2E
16	SCS Runoff	2F (OUT2)
17	SCS Runoff	3A
18	SCS Runoff	3B1
19	SCS Runoff	3B2
20	Combine	>DET6
21	Reservoir	DET6
22	Combine	>DET10
23	Reservoir	DET10
24	Reservoir	DET2
25	Reservoir	DET4
26	Combine	OUT3
27	Combine	OUT1
28	SCS Runoff	SUB 17,92
29	Reservoir	DET3
30	Reservoir	DET7
31	Reservoir	DET8
32	Reservoir	DET9
33	SCS Runoff	SUB 24
34	Reservoir	DET10
35	Reservoir	MISSION HILLS DEP5

Project: POST.gpw | Wednesday, 04 / 2 / 2025

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	0.000	------	------	------	0.037	------	------	0.242	1B
2	SCS Runoff	------	0.001	------	------	------	0.134	------	------	2.887	1C1
3	SCS Runoff	------	0.000	------	------	------	0.034	------	------	0.728	1C2
4	SCS Runoff	------	0.000	------	------	------	0.032	------	------	0.679	1C3
5	SCS Runoff	------	0.000	------	------	------	0.027	------	------	0.582	1C4
6	SCS Runoff	------	0.000	------	------	------	0.029	------	------	0.631	1C5
7	SCS Runoff	------	0.010	------	------	------	0.633	------	------	9.141	1D
8	SCS Runoff	------	0.000	------	------	------	0.141	------	------	2.134	1E
9	SCS Runoff	------	0.000	------	------	------	0.103	------	------	2.077	2A1
10	SCS Runoff	------	0.000	------	------	------	0.032	------	------	0.645	2A2
11	SCS Runoff	------	0.000	------	------	------	0.057	------	------	1.149	2A3
12	SCS Runoff	------	0.000	------	------	------	0.037	------	------	0.746	2B
13	SCS Runoff	------	0.000	------	------	------	0.011	------	------	0.084	2C
14	SCS Runoff	------	0.002	------	------	------	0.134	------	------	2.898	2D
15	SCS Runoff	------	0.001	------	------	------	0.084	------	------	1.795	2E
16	SCS Runoff	------	0.000	------	------	------	0.140	------	------	2.321	2F (OUT2)
17	SCS Runoff	------	0.000	------	------	------	0.119	------	------	2.053	3A
18	SCS Runoff	------	0.000	------	------	------	0.040	------	------	0.807	3B1
19	SCS Runoff	------	0.000	------	------	------	0.067	------	------	0.407	3B2
20	Combine	2, 3, 4, 5,	0.002	------	------	------	0.227	------	------	4.876	>DET6
21	Reservoir	20	0.000	------	------	------	0.000	------	------	0.000	DET6
22	Combine	6, 18,	0.000	------	------	------	0.069	------	------	1.437	>DET10
23	Reservoir	22	0.000	------	------	------	0.000	------	------	0.000	DET10
24	Reservoir	15	0.000	------	------	------	0.000	------	------	0.000	DET2
25	Reservoir	17	0.000	------	------	------	0.000	------	------	0.548	DET4
26	Combine	19, 23, 25	0.000	------	------	------	0.067	------	------	0.955	OUT3
27	Combine	7, 8,	0.010	------	------	------	0.753	------	------	10.91	OUT1
28	SCS Runoff	------	0.000	------	------	------	0.010	------	------	0.211	SUB 17,92
29	Reservoir	28	0.000	------	------	------	0.000	------	------	0.000	DET3
30	Reservoir	11	0.000	------	------	------	0.000	------	------	0.000	DET7
31	Reservoir	10	0.000	------	------	------	0.000	------	------	0.000	DET8
32	Reservoir	9	0.000	------	------	------	0.000	------	------	0.000	DET9
33	SCS Runoff	------	0.000	------	------	------	0.010	------	------	0.211	SUB 24
34	Reservoir	33	0.000	------	------	------	0.000	------	------	0.000	DET10

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Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
35	Reservoir	2	0.000	------	-------	-------	0.000	------	------	0.288	MISSION HILLS DEP5

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Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.000	1	n/a	0	------	------	------	1B
2	SCS Runoff	0.001	1	1440	3	------	------	------	1C1
3	SCS Runoff	0.000	1	1440	1	------	------	------	1C2
4	SCS Runoff	0.000	1	1440	1	------	------	------	1C3
5	SCS Runoff	0.000	1	1440	1	------	------	------	1C4
6	SCS Runoff	0.000	1	1440	1	------	------	------	1C5
7	SCS Runoff	0.010	1	1440	50	------	------	------	1D
8	SCS Runoff	0.000	1	n/a	0	------	------	------	1E
9	SCS Runoff	0.000	1	n/a	0	------	------	------	2A1
10	SCS Runoff	0.000	1	n/a	0	------	------	------	2A2
11	SCS Runoff	0.000	1	n/a	0	------	------	------	2A3
12	SCS Runoff	0.000	1	n/a	0	------	------	------	2B
13	SCS Runoff	0.000	1	n/a	0	------	------	------	2C
14	SCS Runoff	0.002	1	1440	13	------	------	------	2D
15	SCS Runoff	0.001	1	1440	2	------	------	------	2E
16	SCS Runoff	0.000	1	n/a	0	------	------	------	2F (OUT2)
17	SCS Runoff	0.000	1	n/a	0	------	------	------	3A
18	SCS Runoff	0.000	1	n/a	0	------	------	------	3B1
19	SCS Runoff	0.000	1	n/a	0	------	------	------	3B2
20	Combine	0.002	1	1440	4	2, 3, 4, 5,	------	------	>DET6
21	Reservoir	0.000	1	n/a	0	20	422.00	4.43	DET6
22	Combine	0.000	1	1440	1	6, 18,	------	------	>DET10
23	Reservoir	0.000	1	n/a	0	22	399.00	0.574	DET10
24	Reservoir	0.000	1	n/a	0	15	424.00	1.63	DET2
25	Reservoir	0.000	1	n/a	0	17	421.00	0.000	DET4
26	Combine	0.000	1	n/a	0	19, 23, 25	------	------	OUT3
27	Combine	0.010	1	1440	50	7, 8,	------	------	OUT1
28	SCS Runoff	0.000	1	1440	1	------	------	------	SUB 17,92
29	Reservoir	0.000	1	n/a	0	28	421.00	0.963	DET3
30	Reservoir	0.000	1	n/a	0	11	96.00	0.000	DET7
31	Reservoir	0.000	1	n/a	0	10	97.00	0.000	DET8
32	Reservoir	0.000	1	n/a	0	9	97.00	0.000	DET9
33	SCS Runoff	0.000	1	1440	1	------	------	------	SUB 24
34	Reservoir	0.000	1	n/a	0	33	97.00	0.963	DET10

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Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
35	Reservoir	0.000	1	n/a	0	2	444.00	2.62	MISSION HILLS DEP5

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Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.037	1	1266	986	------	------	------	1B
2	SCS Runoff	0.134	1	774	5,856	------	------	------	1C1
3	SCS Runoff	0.034	1	774	1,476	------	------	------	1C2
4	SCS Runoff	0.032	1	774	1,378	------	------	------	1C3
5	SCS Runoff	0.027	1	774	1,181	------	------	------	1C4
6	SCS Runoff	0.029	1	774	1,280	------	------	------	1C5
7	SCS Runoff	0.633	1	776	27,357	------	------	------	1D
8	SCS Runoff	0.141	1	1071	5,762	------	------	------	1E
9	SCS Runoff	0.103	1	1041	4,413	------	------	------	2A1
10	SCS Runoff	0.032	1	1041	1,371	------	------	------	2A2
11	SCS Runoff	0.057	1	1041	2,442	------	------	------	2A3
12	SCS Runoff	0.037	1	1041	1,585	------	------	------	2B
13	SCS Runoff	0.011	1	1318	254	------	------	------	2C
14	SCS Runoff	0.134	1	768	5,783	------	------	------	2D
15	SCS Runoff	0.084	1	774	3,642	------	------	------	2E
16	SCS Runoff	0.140	1	1083	5,593	------	------	------	2F (OUT2)
17	SCS Runoff	0.119	1	1077	4,813	------	------	------	3A
18	SCS Runoff	0.040	1	1041	1,714	------	------	------	3B1
19	SCS Runoff	0.067	1	1234	1,944	------	------	------	3B2
20	Combine	0.227	1	774	9,892	2, 3, 4, 5,	------	------	>DET6
21	Reservoir	0.000	1	n/a	0	20	423.22	9,892	DET6
22	Combine	0.069	1	1029	2,993	6, 18,	------	------	>DET10
23	Reservoir	0.000	1	n/a	0	22	400.83	2,993	DET10
24	Reservoir	0.000	1	n/a	0	15	424.49	3,642	DET2
25	Reservoir	0.000	1	n/a	0	17	423.62	4,813	DET4
26	Combine	0.067	1	1234	1,944	19, 23, 25	------	------	OUT3
27	Combine	0.753	1	782	33,120	7, 8,	------	------	OUT1
28	SCS Runoff	0.010	1	768	421	------	------	------	SUB 17,92
29	Reservoir	0.000	1	n/a	0	28	421.82	421	DET3
30	Reservoir	0.000	1	n/a	0	11	97.25	2,442	DET7
31	Reservoir	0.000	1	n/a	0	10	97.97	1,371	DET8
32	Reservoir	0.000	1	n/a	0	9	97.84	4,413	DET9
33	SCS Runoff	0.010	1	768	421	------	------	------	SUB 24
34	Reservoir	0.000	1	n/a	0	33	97.11	421	DET10

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Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
35	Reservoir	0.000	1	n/a	0	2	444.85	5,856	MISSION HILLS DEP5

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Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.242	1	759	10,308	------	------	------	1B
2	SCS Runoff	2.887	1	599	23,124	------	------	------	1C1
3	SCS Runoff	0.728	1	599	5,830	------	------	------	1C2
4	SCS Runoff	0.679	1	599	5,441	------	------	------	1C3
5	SCS Runoff	0.582	1	599	4,664	------	------	------	1C4
6	SCS Runoff	0.631	1	599	5,052	------	------	------	1C5
7	SCS Runoff	9.141	1	606	105,518	------	------	------	1D
8	SCS Runoff	2.134	1	602	26,371	------	------	------	1E
9	SCS Runoff	2.077	1	599	18,555	------	------	------	2A1
10	SCS Runoff	0.645	1	599	5,765	------	------	------	2A2
11	SCS Runoff	1.149	1	599	10,268	------	------	------	2A3
12	SCS Runoff	0.746	1	599	6,665	------	------	------	2B
13	SCS Runoff	0.084	1	774	3,671	------	------	------	2C
14	SCS Runoff	2.898	1	599	22,176	------	------	------	2D
15	SCS Runoff	1.795	1	599	14,380	------	------	------	2E
16	SCS Runoff	2.321	1	600	26,825	------	------	------	2F (OUT2)
17	SCS Runoff	2.053	1	600	22,542	------	------	------	3A
18	SCS Runoff	0.807	1	599	7,206	------	------	------	3B1
19	SCS Runoff	0.407	1	750	17,076	------	------	------	3B2
20	Combine	4.876	1	599	39,058	2, 3, 4, 5,	------	------	>DET6
21	Reservoir	0.000	1	n/a	0	20	425.60	39,058	DET6
22	Combine	1.437	1	599	12,258	6, 18,	------	------	>DET10
23	Reservoir	0.000	1	n/a	0	22	403.88	12,258	DET10
24	Reservoir	0.000	1	n/a	0	15	425.92	14,380	DET2
25	Reservoir	0.548	1	746	16,727	17	424.05	5,953	DET4
26	Combine	0.955	1	747	33,803	19, 23, 25	------	------	OUT3
27	Combine	10.91	1	605	131,889	7, 8,	------	------	OUT1
28	SCS Runoff	0.211	1	599	1,613	------	------	------	SUB 17,92
29	Reservoir	0.000	1	n/a	0	28	423.22	1,613	DET3
30	Reservoir	0.000	1	n/a	0	11	99.56	10,268	DET7
31	Reservoir	0.000	1	n/a	0	10	99.98	5,765	DET8
32	Reservoir	0.000	1	n/a	0	9	99.94	18,555	DET9
33	SCS Runoff	0.211	1	599	1,613	------	------	------	SUB 24
34	Reservoir	0.000	1	n/a	0	33	97.42	1,613	DET10

POST.gpw | Return Period: 100 Year | Wednesday, 04 / 2 / 2025

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
35	Reservoir	0.288	1	1318	9,324	2	446.24	17,573	MISSION HILLS DEP5

POST.gpw	Return Period: 100 Year	Wednesday, 04 / 2 / 2025

Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 Wednesday, 04 / 2 / 2025

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	2.6203	0.1000	0.5477	-------
2	3.2439	0.1000	0.5492	-------
3	0.0000	0.0000	0.0000	-------
5	0.0000	0.0000	0.0000	-------
10	4.6883	0.1000	0.5455	-------
25	5.6755	0.1000	0.5482	-------
50	6.3839	0.1000	0.5475	-------
100	7.0165	0.1000	0.5443	-------

File name: WASILLA.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	1.07	0.74	0.59	0.51	0.45	0.41	0.37	0.35	0.33	0.31	0.29	0.28
2	1.33	0.91	0.73	0.62	0.55	0.50	0.46	0.43	0.40	0.38	0.36	0.34
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	1.93	1.33	1.07	0.91	0.81	0.73	0.67	0.63	0.59	0.55	0.53	0.50
25	2.32	1.60	1.28	1.10	0.97	0.88	0.81	0.75	0.70	0.66	0.63	0.60
50	2.62	1.80	1.44	1.23	1.09	0.99	0.91	0.85	0.79	0.75	0.71	0.68
100	2.89	1.99	1.60	1.37	1.21	1.10	1.01	0.94	0.88	0.83	0.79	0.75

Tc = time in minutes. Values may exceed 60.

Precip. file name: C:\Users\bfrie\CRLLC\Projects_Support\PCP\WASILLA.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	1.09	1.36	1.54	1.71	1.98	2.37	2.67	3.02
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Road Hydrology Using Rational Method (Q = CiA)										
From Node	To Node	Feature	Length	Grade	A	C	Tc	i	Q10	Qd
1	2	Ditch	SHORT	STEEP	0.7	0.17	5.0	2.12	0.3	0.3
3	4	Ditch	SHORT	STEEP	0.5	0.17	5.0	2.12	0.2	0.2
5.1	4	Ditch	SHORT	STEEP	0.2	0.17	5.0	2.12	0.1	0.1
5.1	5.2	Ditch	SHORT	STEEP	0.3	0.17	5.0	2.12	0.1	0.1
6	5.2	Ditch	SHORT	STEEP	0.2	0.17	5.0	2.12	0.1	0.1
6	7	Ditch	SHORT	STEEP	0.2	0.17	5.0	2.12	0.1	0.1
8	7	Ditch	SHORT	STEEP	0.2	0.17	5.0	2.12	0.1	0.1
8	9	Ditch	SHORT	STEEP	0.6	0.17	5.0	2.12	0.2	0.2
10	9	Ditch	SHORT	STEEP	0.3	0.17	5.0	2.12	0.1	0.1
10	11	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
12	11	Ditch	SHORT	STEEP	0.7	0.17	5.0	2.12	0.3	0.3
13	14	Ditch	SHORT	STEEP	0.8	0.17	5.0	2.12	0.3	0.3
15	14	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
15	16	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
17	16	Ditch	SHORT	STEEP	0.9	0.17	5.0	2.12	0.3	0.4
17	18	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
19	18	Ditch	SHORT	STEEP	1.0	0.17	5.0	2.12	0.4	0.4
19	20	Ditch	SHORT	STEEP	0.6	0.17	5.0	2.12	0.2	0.2
20	24	Ditch	SHORT	STEEP	0.7	0.17	5.0	2.12	0.3	0.3
20	21	Ditch	SHORT	STEEP	1.3	0.17	5.0	2.12	0.5	0.5
21	22	CUL4	SHORT	STEEP	13.2	0.17	5.0	2.12	4.8	5.2
22	23	Ditch1	SHORT	STEEP	15.2	0.17	5.0	2.12	5.5	6.0
27	28	Ditch	SHORT	STEEP	0.3	0.17	5.0	2.12	0.1	0.1
23	24	CUL5	SHORT	STEEP	15.2	0.17	5.0	2.12	5.5	6.0
24	25	Ditch2	SHORT	STEEP	17.3	0.17	5.0	2.12	6.2	6.9
26	28	Ditch	SHORT	STEEP	0.5	0.17	5.0	2.12	0.2	0.2
26	31	Ditch	SHORT	STEEP	1.7	0.17	5.0	2.12	0.6	0.7
25	29	NA	SHORT	STEEP	19.1	0.17	5.0	2.12	6.9	7.6

Road Hydrology Using Rational Method (Q = CiA)										
From Node	To Node	Feature	Length	Grade	A	C	Tc	i	Q10	Qd
30	33	Ditch	SHORT	STEEP	1.1	0.17	5.0	2.12	0.4	0.4
31	35	Ditch	SHORT	STEEP	3.4	0.17	5.0	2.12	1.2	1.3
35	14	Ditch	SHORT	STEEP	4.2	0.17	5.0	2.12	1.5	1.7
36	37	Ditch	SHORT	STEEP	5.9	0.17	5.0	2.12	2.1	2.3
37	40	Ditch	SHORT	STEEP	5.9	0.17	5.0	2.12	2.1	2.3
38	40	Ditch	SHORT	STEEP	0.3	0.17	5.0	2.12	0.1	0.1
44	43.1	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
42.1	41	Ditch	SHORT	STEEP	0.8	0.17	5.0	2.12	0.3	0.3
41	11	CUL3	SHORT	STEEP	2.8	0.17	5.0	2.12	1.0	1.1
43.2	42.2	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
43.2	43.1	Ditch	SHORT	STEEP	0.4	0.17	5.0	2.12	0.1	0.2
44	45	Ditch	SHORT	STEEP	0.1	0.17	5.0	2.12	0.0	0.0
46	45	Ditch	SHORT	STEEP	0.1	0.17	5.0	2.12	0.0	0.0
42.1	42.2	Ditch	SHORT	STEEP	1.7	0.17	5.0	2.12	0.6	0.7
48	46	Ditch	SHORT	STEEP	0.8	0.17	5.0	2.12	0.3	0.3
44	43.1	Ditch	SHORT	STEEP	0.7	0.17	5.0	2.12	0.3	0.3
48	49	Ditch	SHORT	STEEP	0.6	0.17	5.0	2.12	0.2	0.2
50	49	Ditch	SHORT	STEEP	0.3	0.17	5.0	2.12	0.1	0.1
50	52	Ditch	SHORT	STEEP	0.2	0.17	5.0	2.12	0.1	0.1
53	52	Ditch	SHORT	STEEP	1.4	0.17	5.0	2.12	0.5	0.6
52	4	CUL1	SHORT	STEEP	1.6	0.17	5.0	2.12	0.6	0.6
53	54	Ditch	SHORT	STEEP	0.1	0.17	5.0	2.12	0.0	0.0
55	54	Ditch	SHORT	STEEP	0.3	0.17	5.0	2.12	0.1	0.1
42.2	9	CUL2	SHORT	STEEP	2.1	0.17	5.0	2.12	0.8	0.8
Min			SHORT	STEEP	0.1	0.2	5.0	2.1	0.0	0.0
Avg			SHORT	STEEP	2.5	0.2	5.0	2.1	0.9	1.0
Max			SHORT	STEEP	19.1	0.2	5.0	2.1	6.9	7.6
NODE COUNT			52	See Appendix for detail calculations.						

FROM NODE	TO NODE	FEATURE	FLOW	FLAT GRADE GRADE<0.5%			MILD GRADE 0.5%<GRADE<5%			MEDIUM GRADE 5%<GRADE<10%			STEEP GRADE 10%<GRADE<50%		
				DEPTH	VELOCITY	LINER	DEPTH	VELOCITY	LINER	DEPTH	VELOCITY	LINER	DEPTH	VELOCITY	LINER
			CFS	FEET	FPS		FEET	FPS		FEET	FPS		FEET	FPS	
1	2	Ditch	0.3	0.4	0.9	A	0.2	2.1	A	0.2	2.8	A	0.1	5.0	B
3	4	Ditch	0.2	0.3	0.8	A	0.2	2.0	A	0.2	2.5	A	0.1	4.6	B
5.1	4	Ditch	0.1	0.2	0.7	A	0.1	1.6	A	0.1	2.0	A	0.1	3.7	A
5.1	5.2	Ditch	0.1	0.3	0.7	A	0.2	1.7	A	0.1	2.2	A	0.1	4.1	A
6	5.2	Ditch	0.1	0.2	0.7	A	0.1	1.6	A	0.1	2.0	A	0.1	3.7	A
6	7	Ditch	0.1	0.2	0.7	A	0.1	1.6	A	0.1	2.0	A	0.1	3.7	A
8	7	Ditch	0.1	0.2	0.7	A	0.1	1.6	A	0.1	2.0	A	0.1	3.7	A
8	9	Ditch	0.2	0.3	0.9	A	0.2	2.0	A	0.2	2.7	A	0.1	4.9	B
10	9	Ditch	0.1	0.3	0.7	A	0.2	1.7	A	0.1	2.2	A	0.1	4.1	A
10	11	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
12	11	Ditch	0.3	0.4	0.9	A	0.2	2.1	A	0.2	2.8	A	0.1	5.0	B
13	14	Ditch	0.3	0.4	0.9	A	0.2	2.2	A	0.2	2.9	A	0.2	5.2	B
15	14	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
15	16	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
17	16	Ditch	0.4	0.4	1.0	A	0.3	2.3	A	0.2	2.9	A	0.2	5.4	B
17	18	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
19	18	Ditch	0.4	0.4	1.0	A	0.3	2.3	A	0.2	3.0	A	0.2	5.5	B
19	20	Ditch	0.2	0.3	0.9	A	0.2	2.0	A	0.2	2.7	A	0.1	4.9	B
20	24	Ditch	0.3	0.4	0.9	A	0.2	2.1	A	0.2	2.8	A	0.1	5.0	B
20	21	Ditch	0.5	0.4	1.0	A	0.3	2.5	A	0.3	3.2	A	0.2	5.9	B
21	22	CUL4	5.2	1.1	1.9	A	0.7	4.4	B	0.6	5.8	B	0.4	10.5	E
22	23	Ditch1	6.0	1.1	1.9	A	0.7	4.6	B	0.6	6.0	B	0.5	10.9	F
27	28	Ditch	0.1	0.3	0.8	A	0.2	1.8	A	0.2	2.3	A	0.1	4.2	A
23	24	CUL5	6.0	1.1	1.9	A	0.7	4.6	B	0.6	6.0	B	0.5	10.9	F
24	25	Ditch2	6.9	1.3	2.1	A	0.8	4.9	B	0.7	6.4	C	0.5	11.7	F
26	28	Ditch	0.2	0.3	0.8	A	0.2	2.0	A	0.2	2.5	A	0.1	4.6	B
26	31	Ditch	0.7	0.5	1.1	A	0.3	2.7	A	0.3	3.4	A	0.2	6.3	C
25	29	NA	7.6	1.3	2.1	A	0.9	5.1	B	0.8	6.6	C	0.6	12.0	F
30	33	Ditch	0.4	0.4	1.0	A	0.3	2.4	A	0.2	3.1	A	0.2	5.6	B
31	35	Ditch	1.3	0.6	1.3	A	0.4	3.2	A	0.4	4.1	A	0.3	7.5	C
35	14	Ditch	1.7	0.7	1.4	A	0.4	3.3	A	0.4	4.3	A	0.3	7.9	D
36	37	Ditch	2.3	0.8	1.5	A	0.5	3.6	A	0.4	4.7	B	0.3	8.6	D
37	40	Ditch	2.3	0.8	1.5	A	0.5	3.6	A	0.4	4.7	B	0.3	8.6	D
38	40	Ditch	0.1	0.3	0.7	A	0.2	1.7	A	0.1	2.2	A	0.1	4.1	A
44	43.1	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
42.1	41	Ditch	0.3	0.4	0.9	A	0.2	2.2	A	0.2	2.9	A	0.2	5.2	B
41	11	CUL3	1.1	0.6	1.3	A	0.4	3.0	A	0.3	3.9	A	0.2	7.1	C
43.2	42.2	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
43.2	43.1	Ditch	0.2	0.3	0.8	A	0.2	1.9	A	0.2	2.4	A	0.1	4.4	A
44	45	Ditch	0.0	0.2	0.6	A	0.1	1.3	A	0.1	1.7	A	0.1	3.1	A
46	45	Ditch	0.0	0.2	0.6	A	0.1	1.3	A	0.1	1.7	A	0.1	3.1	A
42.1	42.2	Ditch	0.7	0.5	1.1	A	0.3	2.7	A	0.3	3.4	A	0.2	6.3	C
48	46	Ditch	0.3	0.4	0.9	A	0.2	2.2	A	0.2	2.9	A	0.2	5.2	B
44	43.1	Ditch	0.3	0.4	0.9	A	0.2	2.1	A	0.2	2.8	A	0.1	5.0	B
48	49	Ditch	0.2	0.3	0.9	A	0.2	2.0	A	0.2	2.7	A	0.1	4.9	B
50	49	Ditch	0.1	0.3	0.7	A	0.2	1.7	A	0.1	2.2	A	0.1	4.1	A
50	52	Ditch	0.1	0.2	0.7	A	0.1	1.6	A	0.1	2.0	A	0.1	3.7	A
53	52	Ditch	0.6	0.5	1.1	A	0.3	2.5	A	0.3	3.3	A	0.2	6.0	B
52	4	CUL1	0.6	0.5	1.1	A	0.3	2.6	A	0.3	3.4	A	0.2	6.2	B
53	54	Ditch	0.0	0.2	0.6	A	0.1	1.3	A	0.1	1.7	A	0.1	3.1	A
55	54	Ditch	0.1	0.3	0.7	A	0.2	1.7	A	0.1	2.2	A	0.1	4.1	A
42.2	9	CUL2	0.8	0.5	1.2	A	0.3	2.8	A	0.3	3.6	A	0.2	6.6	C
MAX			7.6	1.3	2.1	A	0.9	5.1	B	0.8	6.6	C	0.6	12.0	F
MIN			0.0	0.2	0.6	A	0.1	1.3	A	0.1	1.7	A	0.1	3.1	A
AVG			1.0	0.4	1.0	A	0.3	2.4	A	0.2	3.1	A	0.2	5.6	B
SAMPLE. See appendix for detailed calculations.															
Number of channels = 52															

FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
1	2	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
3	4	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
5.1	4	Ditch	10	0.1	0.5	0.2	0	3	2	2.5	2.3	0.035	0.7	0.1	A
5.1	5.2	Ditch	10	0.1	0.5	0.3	0	3	2	2.5	2.2	0.035	0.7	0.1	A
6	5.2	Ditch	10	0.1	0.5	0.2	0	3	2	2.5	2.3	0.035	0.7	0.1	A
6	7	Ditch	10	0.1	0.5	0.2	0	3	2	2.5	2.3	0.035	0.7	0.1	A
8	7	Ditch	10	0.1	0.5	0.2	0	3	2	2.5	2.3	0.035	0.7	0.1	A
8	9	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.9	0.1	A
10	9	Ditch	10	0.1	0.5	0.3	0	3	2	2.5	2.2	0.035	0.7	0.1	A
10	11	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
12	11	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
13	14	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
15	14	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
15	16	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
17	16	Ditch	10	0.4	0.5	0.4	0	3	2	2.5	2.1	0.035	1.0	0.1	A
17	18	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
19	18	Ditch	10	0.4	0.5	0.4	0	3	2	2.5	2.1	0.035	1.0	0.1	A
19	20	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.9	0.1	A
20	24	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
20	21	Ditch	10	0.5	0.5	0.4	0	3	2	2.5	2.1	0.035	1.0	0.2	A
21	22	CUL4	10	5.2	0.5	1.1	0	3	2	2.5	1.4	0.035	1.9	0.5	A
22	23	Ditch1	10	6.0	0.5	1.1	0	3	2	2.5	1.4	0.035	1.9	0.6	A
27	28	Ditch	10	0.1	0.5	0.3	0	2	2	2.5	2.2	0.035	0.8	0.1	A
23	24	CUL5	10	6.0	0.5	1.1	0	3	2	2.5	1.4	0.035	1.9	0.6	A
24	25	Ditch2	10	6.9	0.5	1.3	0	2	2	2.5	1.2	0.035	2.1	0.7	A
26	28	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
26	31	Ditch	10	0.7	0.5	0.5	0	3	2	2.5	2.0	0.035	1.1	0.2	A
25	29	NA	10	7.6	0.5	1.3	0	2	2	2.5	1.2	0.035	2.1	0.7	A
30	33	Ditch	10	0.4	0.5	0.4	0	3	2	2.5	2.1	0.035	1.0	0.2	A
31	35	Ditch	10	1.3	0.5	0.6	0	3	2	2.5	1.9	0.035	1.3	0.3	A
35	14	Ditch	10	1.7	0.5	0.7	0	3	2	2.5	1.8	0.035	1.4	0.3	A
36	37	Ditch	10	2.3	0.5	0.8	0	3	2	2.5	1.7	0.035	1.5	0.4	A
37	40	Ditch	10	2.3	0.5	0.8	0	3	2	2.5	1.7	0.035	1.5	0.4	A
38	40	Ditch	10	0.1	0.5	0.3	0	3	2	2.5	2.2	0.035	0.7	0.1	A
44	43.1	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
42.1	41	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
41	11	CUL3	10	1.1	0.5	0.6	0	3	2	2.5	1.9	0.035	1.3	0.3	A
43.2	42.2	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
43.2	43.1	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.8	0.1	A
44	45	Ditch	10	0.0	0.5	0.2	0	3	2	2.5	2.3	0.035	0.6	0.0	A
46	45	Ditch	10	0.0	0.5	0.2	0	3	2	2.5	2.3	0.035	0.6	0.0	A
42.1	42.2	Ditch	10	0.7	0.5	0.5	0	3	2	2.5	2.0	0.035	1.1	0.2	A
48	46	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
44	43.1	Ditch	10	0.3	0.5	0.4	0	3	2	2.5	2.1	0.035	0.9	0.1	A
48	49	Ditch	10	0.2	0.5	0.3	0	3	2	2.5	2.2	0.035	0.9	0.1	A

FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
50	49	Ditch	10	0.1	0.5	0.3	0	3	2	2.5	2.2	0.035	0.7	0.1	A
50	52	Ditch	10	0.1	0.5	0.2	0	3	2	2.5	2.3	0.035	0.7	0.1	A
53	52	Ditch	10	0.6	0.5	0.5	0	3	2	2.5	2.0	0.035	1.1	0.2	A
52	4	CUL1	10	0.6	0.5	0.5	0	3	2	2.5	2.0	0.035	1.1	0.2	A
53	54	Ditch	10	0.0	0.5	0.2	0	3	2	2.5	2.3	0.035	0.6	0.0	A
55	54	Ditch	10	0.1	0.5	0.3	0	3	2	2.5	2.2	0.035	0.7	0.1	A
42.2	9	CUL2	10	0.8	0.5	0.5	0	3	2	2.5	2.0	0.035	1.2	0.2	A
MAX				7.6	0.5	1.3	0.0	3	2	2.5	2.3	0.035	2.1	0.7	A
MIN				0.0	0.5	0.2	0.0	2	2	2.5	1.2	0.035	0.6	0.0	A
AVG	52	NODE COUNT		1.0	0.5	0.4	0.0	3	2	2.5	2.1	0.035	1.0	0.2	A
Note: See Appendix for detailed calculations for Type 'A' lining.															
Note: 100-Year storm is peak flow for 24-Hr duration. 10-Year peak flow is short duration.															

FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
1	2	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.1	0.7	A
3	4	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	2.0	0.6	A
5.1	4	Ditch	10	0.1	5.0	0.1	0	3	2	2.5	2.4	0.035	1.6	0.4	A
5.1	5.2	Ditch	10	0.1	5.0	0.2	0	3	2	2.5	2.3	0.035	1.7	0.5	A
6	5.2	Ditch	10	0.1	5.0	0.1	0	3	2	2.5	2.4	0.035	1.6	0.4	A
6	7	Ditch	10	0.1	5.0	0.1	0	3	2	2.5	2.4	0.035	1.6	0.4	A
8	7	Ditch	10	0.1	5.0	0.1	0	3	2	2.5	2.4	0.035	1.6	0.4	A
8	9	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	2.0	0.7	A
10	9	Ditch	10	0.1	5.0	0.2	0	3	2	2.5	2.3	0.035	1.7	0.5	A
10	11	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
12	11	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.1	0.7	A
13	14	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.2	0.8	A
15	14	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
15	16	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
17	16	Ditch	10	0.4	5.0	0.3	0	3	2	2.5	2.2	0.035	2.3	0.8	A
17	18	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
19	18	Ditch	10	0.4	5.0	0.3	0	3	2	2.5	2.2	0.035	2.3	0.8	A
19	20	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	2.0	0.7	A
20	24	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.1	0.7	A
20	21	Ditch	10	0.5	5.0	0.3	0	3	2	2.5	2.2	0.035	2.5	1.0	A
21	22	CUL4	10	5.2	5.0	0.7	0	3	2	2.5	1.8	0.035	4.4	3.1	B
22	23	Ditch1	10	6.0	5.0	0.7	0	3	2	2.5	1.8	0.035	4.6	3.3	B
27	28	Ditch	10	0.1	5.0	0.2	0	2	2	2.5	2.3	0.035	1.8	0.5	A
23	24	CUL5	10	6.0	5.0	0.7	0	3	2	2.5	1.8	0.035	4.6	3.3	B
24	25	Ditch2	10	6.9	5.0	0.8	0	2	2	2.5	1.7	0.035	4.9	3.8	B
26	28	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	2.0	0.6	A
26	31	Ditch	10	0.7	5.0	0.3	0	3	2	2.5	2.2	0.035	2.7	1.1	A
25	29	NA	10	7.6	5.0	0.9	0	2	2	2.5	1.6	0.035	5.1	4.0	B
30	33	Ditch	10	0.4	5.0	0.3	0	3	2	2.5	2.2	0.035	2.4	0.9	A
31	35	Ditch	10	1.3	5.0	0.4	0	3	2	2.5	2.1	0.035	3.2	1.6	A
35	14	Ditch	10	1.7	5.0	0.4	0	3	2	2.5	2.1	0.035	3.3	1.7	A
36	37	Ditch	10	2.3	5.0	0.5	0	3	2	2.5	2.0	0.035	3.6	2.0	A
37	40	Ditch	10	2.3	5.0	0.5	0	3	2	2.5	2.0	0.035	3.6	2.0	A
38	40	Ditch	10	0.1	5.0	0.2	0	3	2	2.5	2.3	0.035	1.7	0.5	A
44	43.1	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
42.1	41	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.2	0.8	A
41	11	CUL3	10	1.1	5.0	0.4	0	3	2	2.5	2.1	0.035	3.0	1.4	A
43.2	42.2	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
43.2	43.1	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	1.9	0.5	A
44	45	Ditch	10	0.0	5.0	0.1	0	3	2	2.5	2.4	0.035	1.3	0.3	A
46	45	Ditch	10	0.0	5.0	0.1	0	3	2	2.5	2.4	0.035	1.3	0.3	A
42.1	42.2	Ditch	10	0.7	5.0	0.3	0	3	2	2.5	2.2	0.035	2.7	1.1	A
48	46	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.2	0.8	A
44	43.1	Ditch	10	0.3	5.0	0.2	0	3	2	2.5	2.3	0.035	2.1	0.7	A
48	49	Ditch	10	0.2	5.0	0.2	0	3	2	2.5	2.3	0.035	2.0	0.7	A

FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
50	49	Ditch	10	0.1	5.0	0.2	0	3	2	2.5	2.3	0.035	1.7	0.5	A
50	52	Ditch	10	0.1	5.0	0.1	0	3	2	2.5	2.4	0.035	1.6	0.4	A
53	52	Ditch	10	0.6	5.0	0.3	0	3	2	2.5	2.2	0.035	2.5	1.0	A
52	4	CUL1	10	0.6	5.0	0.3	0	3	2	2.5	2.2	0.035	2.6	1.1	A
53	54	Ditch	10	0.0	5.0	0.1	0	3	2	2.5	2.4	0.035	1.3	0.3	A
55	54	Ditch	10	0.1	5.0	0.2	0	3	2	2.5	2.3	0.035	1.7	0.5	A
42.2	9	CUL2	10	0.8	5.0	0.3	0	3	2	2.5	2.2	0.035	2.8	1.2	A
MAX				7.6	5.0	0.9	0.0	3	2	2.5	2.4	0.035	5.1	4.0	B
MIN				0.0	5.0	0.1	0.0	2	2	2.5	1.6	0.035	1.3	0.3	A
AVG	52	NODE COUNT		1.0	5.0	0.3	0.0	3	2	2.5	2.2	0.035	2.4	1.0	A

Note: See Appendix for detailed calculations for Type 'A' lining.

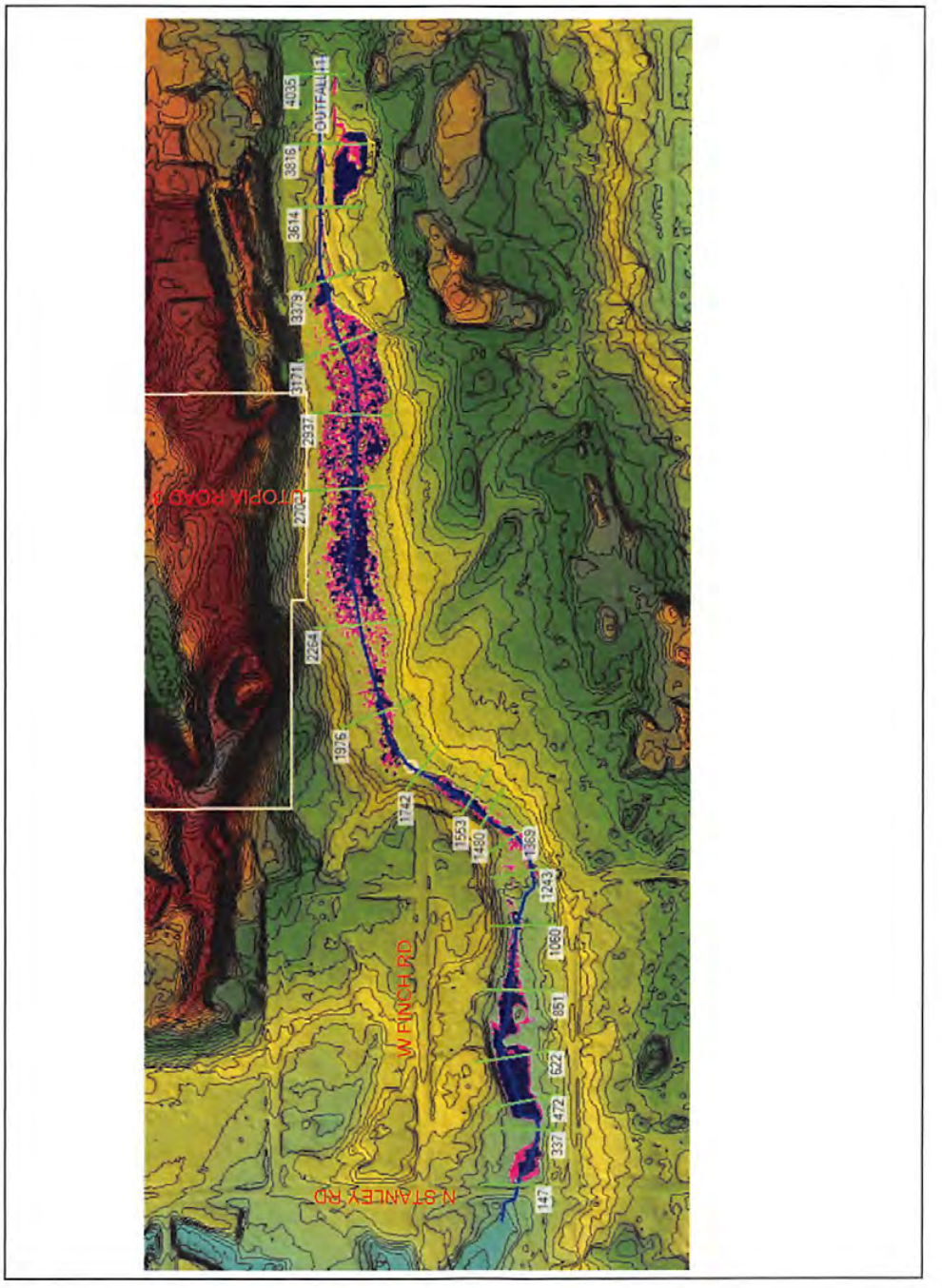
Note: 100-Year storm is peak flow for 24-Hr duration. 10-Year peak flow is short duration.

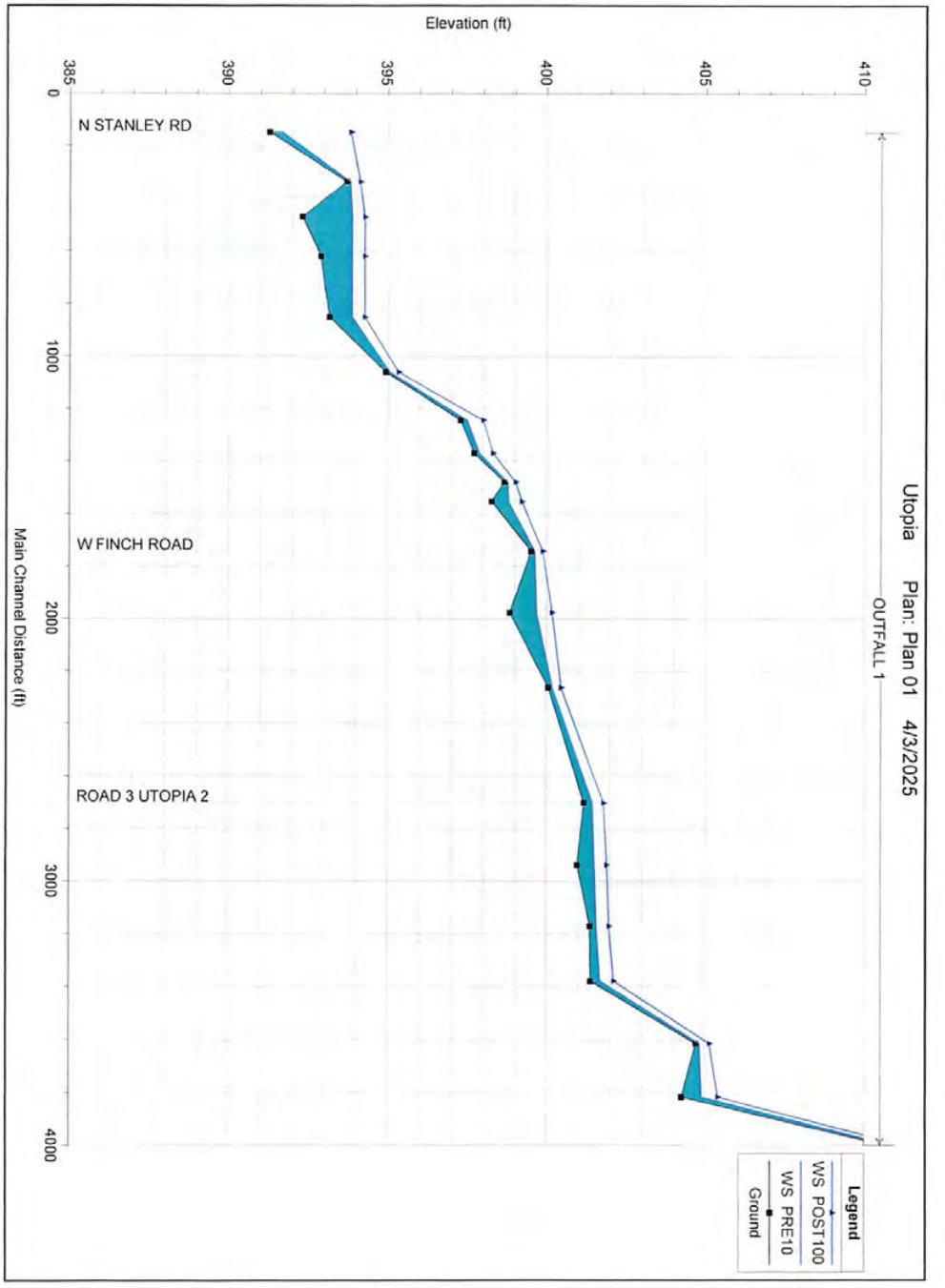
FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
1	2	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.8	1.2	A
3	4	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.5	1.0	A
5.1	4	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.0	0.6	A
5.1	5.2	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.2	0.8	A
6	5.2	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.0	0.6	A
6	7	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.0	0.6	A
8	7	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.0	0.6	A
8	9	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.7	1.1	A
10	9	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.2	0.8	A
10	11	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
12	11	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.8	1.2	A
13	14	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.9	1.3	A
15	14	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
15	16	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
17	16	Ditch	10	0.4	10.0	0.2	0	3	2	2.5	2.3	0.035	2.9	1.3	A
17	18	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
19	18	Ditch	10	0.4	10.0	0.2	0	3	2	2.5	2.3	0.035	3.0	1.4	A
19	20	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.7	1.1	A
20	24	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.8	1.2	A
20	21	Ditch	10	0.5	10.0	0.3	0	3	2	2.5	2.2	0.035	3.2	1.6	A
21	22	CUL4	10	5.2	10.0	0.6	0	3	2	2.5	1.9	0.035	5.8	5.1	B
22	23	Ditch1	10	6.0	10.0	0.6	0	3	2	2.5	1.9	0.035	6.0	5.5	B
27	28	Ditch	10	0.1	10.0	0.2	0	2	2	2.5	2.3	0.035	2.3	0.8	A
23	24	CUL5	10	6.0	10.0	0.6	0	3	2	2.5	1.9	0.035	6.0	5.5	B
24	25	Ditch2	10	6.9	10.0	0.7	0	2	2	2.5	1.6	0.035	6.4	6.4	C
26	28	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.5	1.0	A
26	31	Ditch	10	0.7	10.0	0.3	0	3	2	2.5	2.2	0.035	3.4	1.8	A
25	29	NA	10	7.6	10.0	0.8	0	2	2	2.5	1.7	0.035	6.6	6.7	C
30	33	Ditch	10	0.4	10.0	0.2	0	3	2	2.5	2.3	0.035	3.1	1.5	A
31	35	Ditch	10	1.3	10.0	0.4	0	3	2	2.5	2.1	0.035	4.1	2.6	A
35	14	Ditch	10	1.7	10.0	0.4	0	3	2	2.5	2.1	0.035	4.3	2.9	A
36	37	Ditch	10	2.3	10.0	0.4	0	3	2	2.5	2.1	0.035	4.7	3.4	B
37	40	Ditch	10	2.3	10.0	0.4	0	3	2	2.5	2.1	0.035	4.7	3.4	B
38	40	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.2	0.8	A
44	43.1	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
42.1	41	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.9	1.3	A
41	11	CUL3	10	1.1	10.0	0.3	0	3	2	2.5	2.2	0.035	3.9	2.4	A
43.2	42.2	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
43.2	43.1	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.4	0.9	A
44	45	Ditch	10	0.0	10.0	0.1	0	3	2	2.5	2.4	0.035	1.7	0.4	A
46	45	Ditch	10	0.0	10.0	0.1	0	3	2	2.5	2.4	0.035	1.7	0.4	A
42.1	42.2	Ditch	10	0.7	10.0	0.3	0	3	2	2.5	2.2	0.035	3.4	1.8	A
48	46	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.9	1.3	A
44	43.1	Ditch	10	0.3	10.0	0.2	0	3	2	2.5	2.3	0.035	2.8	1.2	A
48	49	Ditch	10	0.2	10.0	0.2	0	3	2	2.5	2.3	0.035	2.7	1.1	A

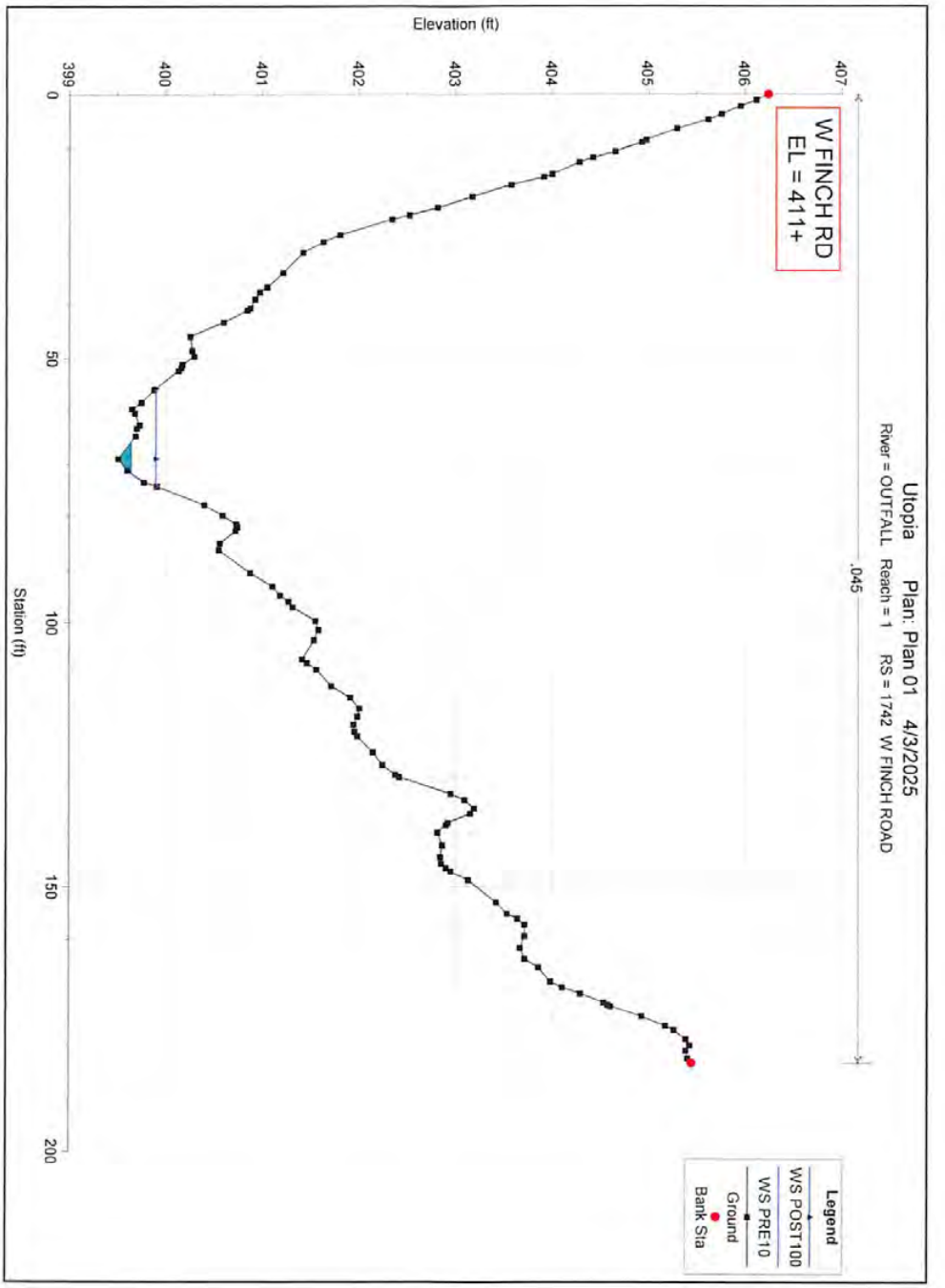
FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
50	49	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.2	0.8	A
50	52	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.0	0.6	A
53	52	Ditch	10	0.6	10.0	0.3	0	3	2	2.5	2.2	0.035	3.3	1.7	A
52	4	CUL1	10	0.6	10.0	0.3	0	3	2	2.5	2.2	0.035	3.4	1.8	A
53	54	Ditch	10	0.0	10.0	0.1	0	3	2	2.5	2.4	0.035	1.7	0.4	A
55	54	Ditch	10	0.1	10.0	0.1	0	3	2	2.5	2.4	0.035	2.2	0.8	A
42.2	9	CUL2	10	0.8	10.0	0.3	0	3	2	2.5	2.2	0.035	3.6	2.0	A
MAX				7.6	10.0	0.8	0.0	3	2	2.5	2.4	0.035	6.6	6.7	C
MIN				0.0	10.0	0.1	0.0	2	2	2.5	1.7	0.035	1.7	0.4	A
AVG	52	NODE COUNT		1.0	10.0	0.2	0.0	3	2	2.5	2.3	0.035	3.1	1.7	A
Note: See Appendix for detailed calculations for Type 'A' lining.															
Note: 100-Year storm is peak flow for 24-Hr duration. 10-Year peak flow is short duration.															

FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
1	2	Ditch	10	0.3	50.0	0.1	0	3	2	2.5	2.4	0.035	5.0	4.0	B
3	4	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.6	3.3	B
5.1	4	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	3.7	2.1	A
5.1	5.2	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	4.1	2.6	A
6	5.2	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	3.7	2.1	A
6	7	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	3.7	2.1	A
8	7	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	3.7	2.1	A
8	9	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.9	3.7	B
10	9	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	4.1	2.6	A
10	11	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
12	11	Ditch	10	0.3	50.0	0.1	0	3	2	2.5	2.4	0.035	5.0	4.0	B
13	14	Ditch	10	0.3	50.0	0.2	0	3	2	2.5	2.3	0.035	5.2	4.2	B
15	14	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
15	16	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
17	16	Ditch	10	0.4	50.0	0.2	0	3	2	2.5	2.3	0.035	5.4	4.5	B
17	18	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
19	18	Ditch	10	0.4	50.0	0.2	0	3	2	2.5	2.3	0.035	5.5	4.7	B
19	20	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.9	3.7	B
20	24	Ditch	10	0.3	50.0	0.1	0	3	2	2.5	2.4	0.035	5.0	4.0	B
20	21	Ditch	10	0.5	50.0	0.2	0	3	2	2.5	2.3	0.035	5.9	5.4	B
21	22	CUL4	10	5.2	50.0	0.4	0	3	2	2.5	2.1	0.035	10.5	17.2	E
22	23	Ditch1	10	6.0	50.0	0.5	0	3	2	2.5	2.0	0.035	10.9	18.4	F
27	28	Ditch	10	0.1	50.0	0.1	0	2	2	2.5	2.4	0.035	4.2	2.8	A
23	24	CUL5	10	6.0	50.0	0.5	0	3	2	2.5	2.0	0.035	10.9	18.4	F
24	25	Ditch2	10	6.9	50.0	0.5	0	2	2	2.5	2.0	0.035	11.7	21.2	F
26	28	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.6	3.3	B
26	31	Ditch	10	0.7	50.0	0.2	0	3	2	2.5	2.3	0.035	6.3	6.2	C
25	29	NA	10	7.6	50.0	0.6	0	2	2	2.5	1.9	0.035	12.0	22.3	F
30	33	Ditch	10	0.4	50.0	0.2	0	3	2	2.5	2.3	0.035	5.6	5.0	B
31	35	Ditch	10	1.3	50.0	0.3	0	3	2	2.5	2.2	0.035	7.5	8.7	C
35	14	Ditch	10	1.7	50.0	0.3	0	3	2	2.5	2.2	0.035	7.9	9.7	D
36	37	Ditch	10	2.3	50.0	0.3	0	3	2	2.5	2.2	0.035	8.6	11.5	D
37	40	Ditch	10	2.3	50.0	0.3	0	3	2	2.5	2.2	0.035	8.6	11.5	D
38	40	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	4.1	2.6	A
44	43.1	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
42.1	41	Ditch	10	0.3	50.0	0.2	0	3	2	2.5	2.3	0.035	5.2	4.2	B
41	11	CUL3	10	1.1	50.0	0.2	0	3	2	2.5	2.3	0.035	7.1	7.9	C
43.2	42.2	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
43.2	43.1	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.4	3.0	A
44	45	Ditch	10	0.0	50.0	0.1	0	3	2	2.5	2.4	0.035	3.1	1.5	A
46	45	Ditch	10	0.0	50.0	0.1	0	3	2	2.5	2.4	0.035	3.1	1.5	A
42.1	42.2	Ditch	10	0.7	50.0	0.2	0	3	2	2.5	2.3	0.035	6.3	6.2	C
48	46	Ditch	10	0.3	50.0	0.2	0	3	2	2.5	2.3	0.035	5.2	4.2	B
44	43.1	Ditch	10	0.3	50.0	0.1	0	3	2	2.5	2.4	0.035	5.0	4.0	B
48	49	Ditch	10	0.2	50.0	0.1	0	3	2	2.5	2.4	0.035	4.9	3.7	B
50	49	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	4.1	2.6	A

FROM NODE	TO NODE	FEATURE	Storm	Qd (CFS)	S (%)	D (FT)	B (FT)	z1	z2	Y (FT)	FB (FT)	N	V (FPS)	D50	Lining
50	52	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	3.7	2.1	A
53	52	Ditch	10	0.6	50.0	0.2	0	3	2	2.5	2.3	0.035	6.0	5.6	B
52	4	CUL1	10	0.6	50.0	0.2	0	3	2	2.5	2.3	0.035	6.2	6.0	B
53	54	Ditch	10	0.0	50.0	0.1	0	3	2	2.5	2.4	0.035	3.1	1.5	A
55	54	Ditch	10	0.1	50.0	0.1	0	3	2	2.5	2.4	0.035	4.1	2.6	A
42.2	9	CUL2	10	0.8	50.0	0.2	0	3	2	2.5	2.3	0.035	6.6	6.9	C
MAX				7.6	50.0	0.6	0.0	3	2	2.5	2.4	0.035	12.0	22.3	F
MIN				0.0	50.0	0.1	0.0	2	2	2.5	1.9	0.035	3.1	1.5	A
AVG	52	NODE COUNT		1.0	50.0	0.2	0.0	3	2	2.5	2.3	0.035	5.6	5.7	B
Note: See Appendix for detailed calculations for Type 'A' lining.															
Note: 100-Year storm is peak flow for 24-Hr duration. 10-Year peak flow is short duration.															


OUTFALL #1
4035
3816
3614
3379
3171
2937
2707
2264
1976
1742
1553
1430
1369
1243
1060
851
622
472
337
147
UTOPIA ROAD
W FINCH RD
N STANLEY RD


Elevation (ft)
385
390
395
400
405
410
0
1000
2000
3000
4000
Main Channel Distance (ft)
N STANLEY RD
W FINCH ROAD
ROAD 3 UTOPIA 2
OUTFALL 1
Utopia Plan: Plan 01 4/3/2025
Legend
WS POST100
WS PRE10
Ground


Utopia Plan: Plan 01 4/3/2025
River = OUTFALL Reach = 1 RS = 1742 W FINCH ROAD
.045
W FINCH RD
EL = 411+
Elevation (ft)
407
406
405
404
403
402
401
400
399
0
50
100
150
200
Station (ft)
Legend
WS POST100
WS PRE10
Ground
Bank Sta

Utopia Plan: Plan 01 4/3/2025
OUTFALL 1
Volume (acre-ft)
Main Channel Distance (ft)
Legend
Volume POST100
Volume PRE10
2.6 AF
0.8 AF
OUT1 RUNOFF VOLUME
V10 = 33,120 CU-FT (0.76 AF)
V100 = 131,889 CU-FT (3.03 AF)

Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Apr 3 2025

OUTFALL CULVERT STA 120<Name>

Invert Elev Dn (ft)	= 391.00
Pipe Length (ft)	= 60.00
Slope (%)	= 0.50
Invert Elev Up (ft)	= 391.30
Rise (in)	= 24.0
Shape	= Circular
Span (in)	= 24.0
No. Barrels	= 1
n-Value	= 0.024
Culvert Type	= Circular Corrugate Metal Pipe
Culvert Entrance	= Projecting
Coeff. K,M,c,Y,k	= 0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

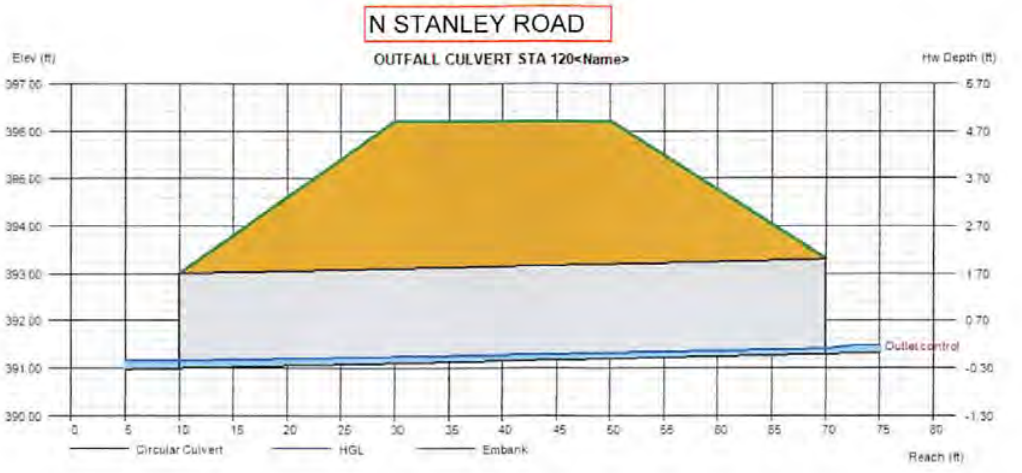
Top Elevation (ft)	= 396.20
Top Width (ft)	= 20.00
Crest Width (ft)	= 20.00

Calculations

Qmin (cfs)	= 0.10
Qmax (cfs)	= 12.00
Tailwater Elev (ft)	= Normal

Highlighted

Qtotal (cfs)	= 0.10
Qpipe (cfs)	= 0.10
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 0.91
Veloc Up (ft/s)	= 1.53
HGL Dn (ft)	= 391.15
HGL Up (ft)	= 391.41
Hw Elev (ft)	= 391.48
Hw/D (ft)	= 0.09
Flow Regime	= Outlet Control



Q			Veloc		Depth		HGL	
Total	Pipe	Over	Dn	Up	Dn	Up	Dn	Up
(cfs)	(cfs)	(cfs)	(ft/s)	(ft/s)	(in)	(in)	(ft)	(ft)
0.10	0.10	0.00	0.91	1.53	1.83	1.29	391.15	391.41
1.10	1.10	0.00	1.87	2.85	5.82	4.34	391.49	391.66
2.10	2.10	0.00	2.25	3.39	8.10	6.03	391.68	391.80
3.10	3.10	0.00	2.52	3.78	9.96	7.37	391.83	391.91
4.10	4.10	0.00	2.72	4.10	11.63	8.52	391.97	392.01
5.10	5.10	0.00	2.87	4.38	13.25	9.54	392.10	392.10
6.10	6.10	0.00	2.98	4.63	14.90	10.48	392.24	392.17
7.10	7.10	0.00	3.07	4.86	16.55	11.34	392.38	392.25
8.10	8.10	0.00	3.13	5.07	18.42	12.15	392.53	392.31
9.10	9.10	0.00	3.12	5.28	21.01	12.91	392.75	392.38
10.10	10.10	0.00	3.22	3.21	24.00	24.00	393.00	393.41
11.10	11.10	0.00	3.53	3.53	24.00	24.00	393.00	393.49



HGL	
Hw	Hw/D
(ft)	
391.48	0.09
391.79	0.25
392.00	0.35
392.17	0.44
392.33	0.51
392.47	0.59
392.61	0.66
392.74	0.72
392.86	0.79
393.00	0.85
393.71	1.21
393.86	1.28

HECRAS OUTPUT DATA

Reach	River Sta	Profile	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
1	4035	PRE10	0.62	412.1	1.6	5.3	0.1
1	4035	PRE100	8.95	412.4	3.1	10.3	0.4
1	4035	POST10	0.66	412.1	1.7	5.3	0.1
1	4035	POST100	9.14	412.4	3.1	10.4	0.4
1	3816	PRE10	0.62	404.9	0.1	27.8	0.6
1	3816	PRE100	8.95	405.4	0.2	83.1	1.1
1	3816	POST10	0.66	404.9	0.1	28.2	0.6
1	3816	POST100	9.14	405.4	0.2	83.2	1.1
1	3614	PRE10	0.62	404.8	1.7	5.1	0.1
1	3614	PRE100	8.95	405.1	2.8	12.5	0.4
1	3614	POST10	0.66	404.8	1.7	5.1	0.1
1	3614	POST100	9.14	405.1	2.9	12.5	0.4
1	3379	PRE10	0.62	401.7	0.2	15.7	0.3
1	3379	PRE100	8.95	402.1	0.8	21.3	0.7
1	3379	POST10	0.66	401.7	0.2	16	0.3
1	3379	POST100	9.14	402.1	0.8	21.3	0.7
1	3171	PRE10	0.62	401.6	0.2	26.6	0.2
1	3171	PRE100	8.95	402	0.3	121.3	0.6
1	3171	POST10	0.66	401.6	0.2	29.4	0.2
1	3171	POST100	9.14	402	0.3	122.5	0.6
1	2937	PRE10	0.62	401.5	0.1	35.9	0.5
1	2937	PRE100	8.95	401.9	0.2	129.3	0.9
1	2937	POST10	0.66	401.5	0.1	38.5	0.6
1	2937	POST100	9.14	401.9	0.2	133.8	0.9
1	2702	PRE10	0.69	401.5	0.2	22.9	0.3
1	2702	PRE100	9.9	401.8	0.4	114	0.6
1	2702	POST10	0.75	401.5	0.2	24.1	0.3
1	2702	POST100	10.91	401.8	0.4	115.8	0.6
1	2264	PRE10	0.69	400.2	1.5	6	0.2
1	2264	PRE100	9.9	400.4	2.2	29.5	0.4
1	2264	POST10	0.75	400.2	1.6	6.4	0.2
1	2264	POST100	10.91	400.5	2	40.7	0.4
1	1976	PRE10	0.69	399.7	0.1	24	0.9
1	1976	PRE100	9.9	400.2	0.4	40.6	1.3
1	1976	POST10	0.75	399.7	0.1	24.1	0.9

1	1976	POST100	10.91	400.2	0.4	41.5	1.3
1	1742	PRE10	0.69	399.6	1.6	6.1	0.1
1	1742	PRE100	9.9	399.9	2.6	18.2	0.4
1	1742	POST10	0.75	399.7	1.5	6.5	0.1
1	1742	POST100	10.91	399.9	2.7	18.5	0.4
1	1553	PRE10	0.69	398.8	0.1	34.4	0.5
1	1553	PRE100	9.9	399.2	0.4	39	0.9
1	1553	POST10	0.75	398.8	0.1	34.5	0.5
1	1553	POST100	10.91	399.2	0.4	39.3	1
1	1480	PRE10	0.69	398.8	1.2	7.5	0.1
1	1480	PRE100	9.9	399	2.5	20.5	0.4
1	1480	POST10	0.75	398.8	1.3	7.5	0.1
1	1480	POST100	10.91	399	2.6	20.7	0.4
1	1369	PRE10	0.69	397.9	0.3	21.2	0.2
1	1369	PRE100	9.9	398.3	0.5	52	0.6
1	1369	POST10	0.75	397.9	0.3	22.1	0.2
1	1369	POST100	10.91	398.3	0.6	53.2	0.6
1	1243	PRE10	0.69	397.5	0.7	6.3	0.2
1	1243	PRE100	9.9	398	1.2	29.1	0.7
1	1243	POST10	0.75	397.5	0.7	6.4	0.2
1	1243	POST100	10.91	398	1.2	30.6	0.7
1	1060	PRE10	0.69	395.1	1.4	6.7	0.2
1	1060	PRE100	9.9	395.3	2.5	19.2	0.4
1	1060	POST10	0.75	395.1	1.4	6.9	0.2
1	1060	POST100	10.91	395.3	2.6	20.1	0.4
1	851	PRE10	0.69	393.9	0	46.8	0.7
1	851	PRE100	9.9	394.3	0.2	66.3	1.1
1	851	POST10	0.75	393.9	0	47	0.7
1	851	POST100	10.91	394.3	0.3	66.9	1.1
1	622	PRE10	0.69	393.9	0	98.6	1
1	622	PRE100	9.9	394.3	0.1	116.3	1.4
1	622	POST10	0.75	393.9	0	99.2	1
1	622	POST100	10.91	394.3	0.1	117.1	1.4
1	472	PRE10	0.69	393.9	0	83.5	1.6
1	472	PRE100	9.9	394.3	0.1	89	2
1	472	POST10	0.75	393.9	0	83.7	1.6

1	472	POST100	10.91	394.3	0.1	89.4	2
1	337	PRE10	0.69	393.8	1.7	6.3	0.1
1	337	PRE100	9.9	394.1	2.8	14.7	0.4
1	337	POST10	0.75	393.8	1.8	6.4	0.1
1	337	POST100	10.91	394.1	2.8	15.2	0.4
1	147	PRE10	0.69	391.7	0.1	23.1	0.4
1	147	PRE100	9.9	393.6	0.1	82.2	2.3
1	147	POST10	0.75	391.7	0.1	23.5	0.4
1	147	POST100	10.91	393.8	0.1	89	2.6

PRE-DEVELOPMENT HECRAS RESULTS FOR 10-YEAR STORM EVENT							
Reach	River Sta	Profile	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	PRE10	0.62	412.1	1.6	5.3	0.1
1	3816	PRE10	0.62	404.9	0.1	27.8	0.6
1	3614	PRE10	0.62	404.8	1.7	5.1	0.1
1	3379	PRE10	0.62	401.7	0.2	15.7	0.3
1	3171	PRE10	0.62	401.6	0.2	26.6	0.2
1	2937	PRE10	0.62	401.5	0.1	35.9	0.5
1	2702	PRE10	0.69	401.5	0.2	22.9	0.3
1	2264	PRE10	0.69	400.2	1.5	6.0	0.2
1	1976	PRE10	0.69	399.7	0.1	24.0	0.9
1	1742	PRE10	0.69	399.6	1.6	6.1	0.1
1	1553	PRE10	0.69	398.8	0.1	34.4	0.5
1	1480	PRE10	0.69	398.8	1.2	7.5	0.1
1	1369	PRE10	0.69	397.9	0.3	21.2	0.2
1	1243	PRE10	0.69	397.5	0.7	6.3	0.2
1	1060	PRE10	0.69	395.1	1.4	6.7	0.2
1	851	PRE10	0.69	393.9	0.0	46.8	0.7
1	622	PRE10	0.69	393.9	0.0	98.6	1.0
1	472	PRE10	0.69	393.9	0.0	83.5	1.6
1	337	PRE10	0.69	393.8	1.7	6.3	0.1
1	147	PRE10	0.69	391.7	0.1	23.1	0.4
MIN			0.62	391.7	0.0	5.1	0.1
AVG			0.67	399.1	0.6	25.5	0.4
MAX			0.69	412.1	1.7	98.6	1.6

PRE-DEVELOPMENT HECRAS RESULTS FOR 100-YEAR STORM EVENT							
Reach	River Sta	Profile	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	PRE100	8.95	412.4	3.1	10.3	0.4
1	3816	PRE100	8.95	405.4	0.2	83.1	1.1
1	3614	PRE100	8.95	405.1	2.8	12.5	0.4
1	3379	PRE100	8.95	402.1	0.8	21.3	0.7
1	3171	PRE100	8.95	402.0	0.3	121.3	0.6
1	2937	PRE100	8.95	401.9	0.2	129.3	0.9
1	2702	PRE100	9.90	401.8	0.4	114.0	0.6
1	2264	PRE100	9.90	400.4	2.2	29.5	0.4
1	1976	PRE100	9.90	400.2	0.4	40.6	1.3
1	1742	PRE100	9.90	399.9	2.6	18.2	0.4
1	1553	PRE100	9.90	399.2	0.4	39.0	0.9
1	1480	PRE100	9.90	399.0	2.5	20.5	0.4
1	1369	PRE100	9.90	398.3	0.5	52.0	0.6
1	1243	PRE100	9.90	398.0	1.2	29.1	0.7
1	1060	PRE100	9.90	395.3	2.5	19.2	0.4
1	851	PRE100	9.90	394.3	0.2	66.3	1.1
1	622	PRE100	9.90	394.3	0.1	116.3	1.4
1	472	PRE100	9.90	394.3	0.1	89.0	2.0
1	337	PRE100	9.90	394.1	2.8	14.7	0.4
1	147	PRE100	9.90	393.6	0.1	82.2	2.3
MIN			8.95	393.6	0.1	10.3	0.4
AVG			9.62	399.6	1.2	55.4	0.9
MAX			9.90	412.4	3.1	129.3	2.3

POST-DEVELOPMENT HECRAS RESULTS FOR 10-YEAR STORM EVENT							
Reach	River Sta	Profile	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	POST10	0.66	412.1	1.7	5.3	0.1
1	3816	POST10	0.66	404.9	0.1	28.2	0.6
1	3614	POST10	0.66	404.8	1.7	5.1	0.1
1	3379	POST10	0.66	401.7	0.2	16.0	0.3
1	3171	POST10	0.66	401.6	0.2	29.4	0.2
1	2937	POST10	0.66	401.5	0.1	38.5	0.6
1	2702	POST10	0.75	401.5	0.2	24.1	0.3
1	2264	POST10	0.75	400.2	1.6	6.4	0.2
1	1976	POST10	0.75	399.7	0.1	24.1	0.9
1	1742	POST10	0.75	399.7	1.5	6.5	0.1
1	1553	POST10	0.75	398.8	0.1	34.5	0.5
1	1480	POST10	0.75	398.8	1.3	7.5	0.1
1	1369	POST10	0.75	397.9	0.3	22.1	0.2
1	1243	POST10	0.75	397.5	0.7	6.4	0.2
1	1060	POST10	0.75	395.1	1.4	6.9	0.2
1	851	POST10	0.75	393.9	0.0	47.0	0.7
1	622	POST10	0.75	393.9	0.0	99.2	1.0
1	472	POST10	0.75	393.9	0.0	83.7	1.6
1	337	POST10	0.75	393.8	1.8	6.4	0.1
1	147	POST10	0.75	391.7	0.1	23.5	0.4
MIN			0.66	391.7	0.0	5.1	0.1
AVG			0.72	399.2	0.7	26.0	0.4
MAX			0.75	412.1	1.8	99.2	1.6

POST-DEVELOPMENT HECRAS RESULTS FOR 100-YEAR STORM EVENT							
Reach	River Sta	Profile	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	POST100	9.14	412.4	3.1	10.4	0.4
1	3816	POST100	9.14	405.4	0.2	83.2	1.1
1	3614	POST100	9.14	405.1	2.9	12.5	0.4
1	3379	POST100	9.14	402.1	0.8	21.3	0.7
1	3171	POST100	9.14	402.0	0.3	122.5	0.6
1	2937	POST100	9.14	401.9	0.2	133.8	0.9
1	2702	POST100	10.91	401.8	0.4	115.8	0.6
1	2264	POST100	10.91	400.5	2.0	40.7	0.4
1	1976	POST100	10.91	400.2	0.4	41.5	1.3
1	1742	POST100	10.91	399.9	2.7	18.5	0.4
1	1553	POST100	10.91	399.2	0.4	39.3	1.0
1	1480	POST100	10.91	399.0	2.6	20.7	0.4
1	1369	POST100	10.91	398.3	0.6	53.2	0.6
1	1243	POST100	10.91	398.0	1.2	30.6	0.7
1	1060	POST100	10.91	395.3	2.6	20.1	0.4
1	851	POST100	10.91	394.3	0.3	66.9	1.1
1	622	POST100	10.91	394.3	0.1	117.1	1.4
1	472	POST100	10.91	394.3	0.1	89.4	2.0
1	337	POST100	10.91	394.1	2.8	15.2	0.4
1	147	POST100	10.91	393.8	0.1	89.0	2.6
MIN			9.14	393.8	0.1	10.4	0.4
AVG			10.38	399.6	1.2	57.1	0.9
MAX			10.91	412.4	3.1	133.8	2.6

PRE-POST INCREASE FOR 10-YEAR STORM EVENT							
Reach	River Sta	Increase	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	6%	0.04	0.0	0.1	0.0	0.0
1	3816	6%	0.04	0.0	0.0	0.4	0.0
1	3614	6%	0.04	0.0	0.0	0.0	0.0
1	3379	6%	0.04	0.0	0.0	0.3	0.0
1	3171	6%	0.04	0.0	0.0	2.8	0.0
1	2937	6%	0.04	0.0	0.0	2.6	0.1
1	2702	9%	0.06	0.0	0.0	1.2	0.0
1	2264	9%	0.06	0.0	0.1	0.4	0.0
1	1976	9%	0.06	0.0	0.0	0.1	0.0
1	1742	9%	0.06	0.1	-0.1	0.4	0.0
1	1553	9%	0.06	0.0	0.0	0.1	0.0
1	1480	9%	0.06	0.0	0.1	0.0	0.0
1	1369	9%	0.06	0.0	0.0	0.9	0.0
1	1243	9%	0.06	0.0	0.0	0.1	0.0
1	1060	9%	0.06	0.0	0.0	0.2	0.0
1	851	9%	0.06	0.0	0.0	0.2	0.0
1	622	9%	0.06	0.0	0.0	0.6	0.0
1	472	9%	0.06	0.0	0.0	0.2	0.0
1	337	9%	0.06	0.0	0.1	0.1	0.0
1	147	9%	0.06	0.0	0.0	0.4	0.0
MIN			0.04	0.0	-0.1	0.0	0.0
AVG			0.05	0.0	0.0	0.6	0.0
MAX			0.06	0.1	0.1	2.8	0.1

PRE-POST INCREASE FOR 100-YEAR STORM EVENT							
Reach	River Sta	Increase	Q Total	W.S. Elev	Vel Chnl	Top Width	Max Chl Dpth
			CFS	FEET	FPS	FEET	FEET
1	4035	2%	0.19	0.0	0.0	0.1	0.0
1	3816	2%	0.19	0.0	0.0	0.1	0.0
1	3614	2%	0.19	0.0	0.1	0.0	0.0
1	3379	2%	0.19	0.0	0.0	0.0	0.0
1	3171	2%	0.19	0.0	0.0	1.2	0.0
1	2937	2%	0.19	0.0	0.0	4.5	0.0
1	2702	10%	1.01	0.0	0.0	1.8	0.0
1	**2264**	**10%**	**1.01**	**0.1**	**-0.2**	**11.2**	**0.0**
1	1976	10%	1.01	0.0	0.0	0.9	0.0
1	1742	10%	1.01	0.0	0.1	0.3	0.0
1	1553	10%	1.01	0.0	0.0	0.3	0.1
1	1480	10%	1.01	0.0	0.1	0.2	0.0
1	1369	10%	1.01	0.0	0.1	1.2	0.0
1	1243	10%	1.01	0.0	0.0	1.5	0.0
1	1060	10%	1.01	0.0	0.1	0.9	0.0
1	851	10%	1.01	0.0	0.1	0.6	0.0
1	622	10%	1.01	0.0	0.0	0.8	0.0
1	472	10%	1.01	0.0	0.0	0.4	0.0
1	337	10%	1.01	0.0	0.0	0.5	0.0
1	**147**	**10%**	**1.01**	**0.2**	**0.0**	**6.8**	**0.3**
MIN			0.19	0.0	-0.2	0.0	0.0
AVG			0.76	0.0	0.0	1.7	0.0
MAX			1.01	0.2	0.1	11.2	0.3

UTOPIA VIEW II SUBDIVISION

PRELIMINARY DRAINAGE DESIGN

MAP 6.1

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022



NOTE

DESIGN AND DETAILS ARE SCHEMATIC AND REQUIRE FIELD ADJUSTMENT BY CONTRACTOR AND ENGINEER DURING CONSTRUCTION.

RECEIVED
APR 15 2025
PLATTING

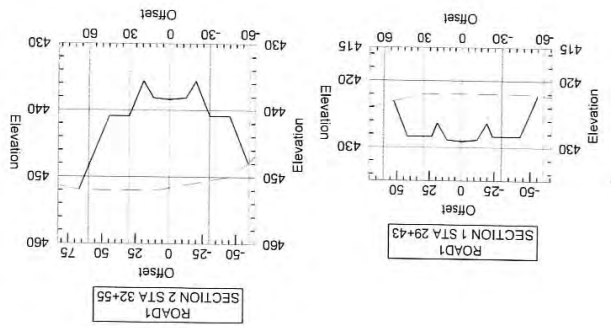
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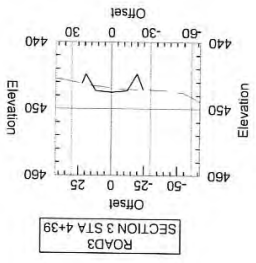
1. DITCHES AND CULVERT ARE DESIGNED FOR 10-YEAR PEAK FLOW PLUS 10%.
2. USE RIPRAP ENERGY DISSIPATERS AT BASIN OUTLETS, AND BASIN INLETS.
3. ALL CULVERTS ARE A MINIMUM OF 18" DIAMETER CORRUGATED METAL PIPE.
4. SEE REPORT FOR DETENTION BASIN VOLUME. CONFIGURATION TO BE DETERMINED DURING FINAL DESIGN.
5. BUILDING AND DRIVEWAY IMPROVEMENTS SHALL NOT BLOCK FLOWING WATER IN DRAINAGE SWALE THROUGH FRONT OF LOT.
6. FINISHED FLOOR ELEVATIONS AND OPENINGS SHALL BE A MINIMUM OF 18" ABOVE HIGHEST ADJACENT GRADE WITHIN 10' OF BUILDING AND 24" ABOVE ADJACENT 100-YEAR HIGH WATER LEVEL IN ADJACENT WASHES, DITCHES, OR DETENTION BASINS.
7. USE TYPE 'A' STABILIZATION FOR ALL DITCHES UNLESS NOTED OTHERWISE (MAP 6.4 DETAILS).
8. NO FILL ALLOWED IN DRAINAGE EASEMENTS.
9. FILL LOT AND GRADE TO DRAIN TO ROAD.
10. FILL LOT AND GRADE TO DRAIN TO DETENTION BASIN DRAINAGE EASEMENT.

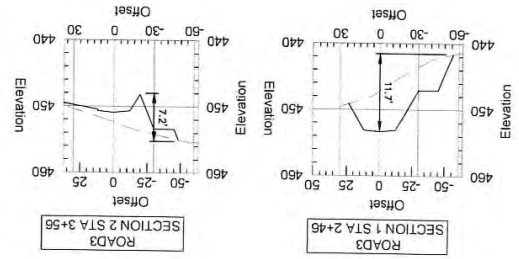
LEGEND

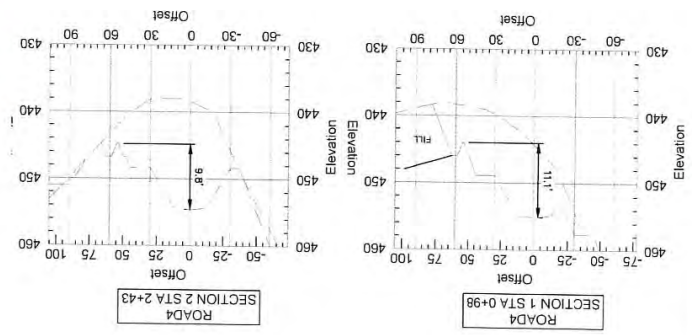
- PROPERTY LINES
- 490 10' CONTOUR
- 2' CONTOUR
- DRAINAGE SWALE FLOW LINE EXISTING
- DRAINAGE SWALE FLOW LINE NEW
- TOP OF SLOPE
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE
- NATURAL DEPRESSION STORAGE
- WETLAND
- CULVERT
- CULVERT WITH FLOW CONTROL RISER
- FLOW DIRECTION
- CONCENTRATION POINT (NODE)
- WATER QUALITY BASIN
- DRAINAGE EASEMENT

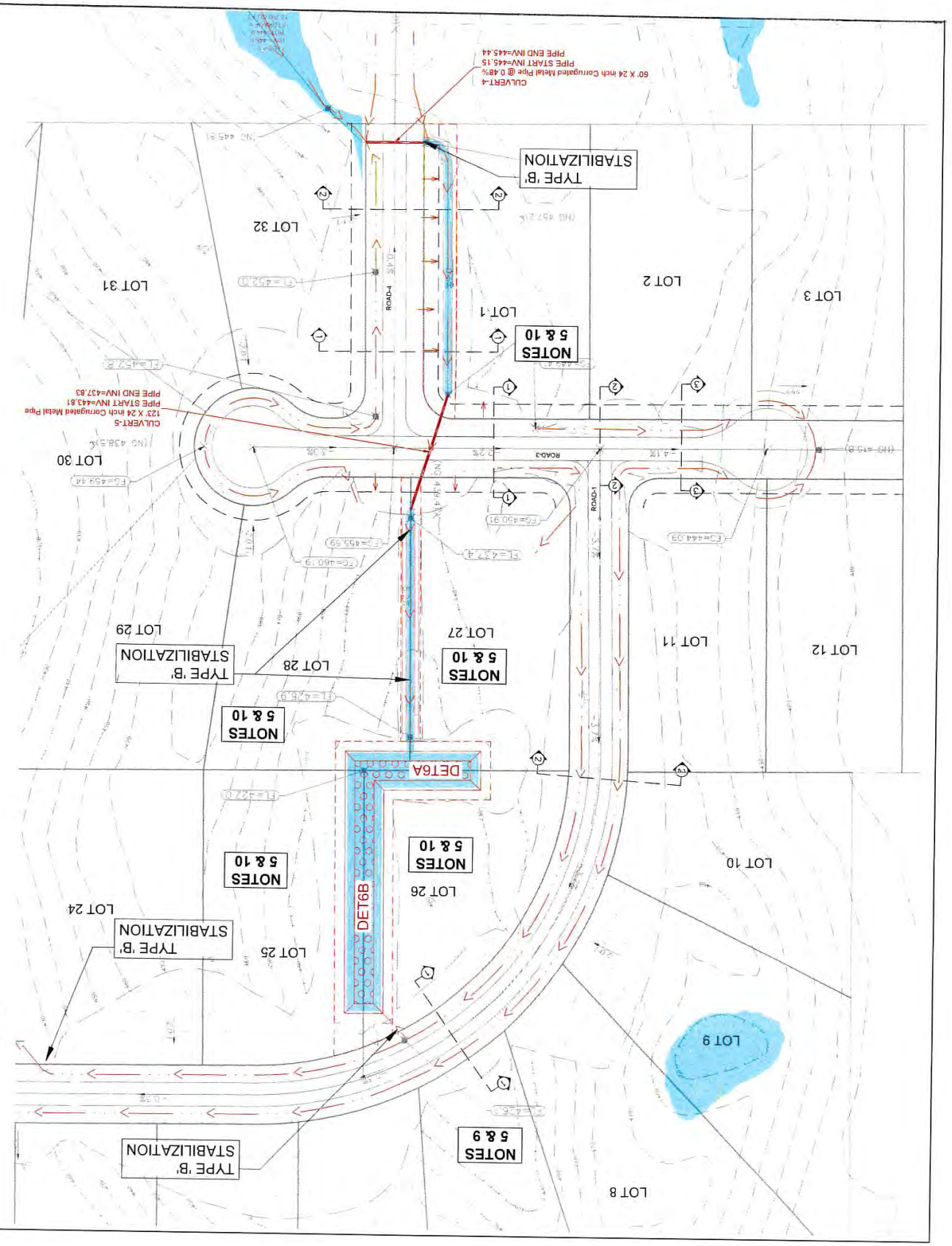
SCALE IN FEET
0 60' 120'

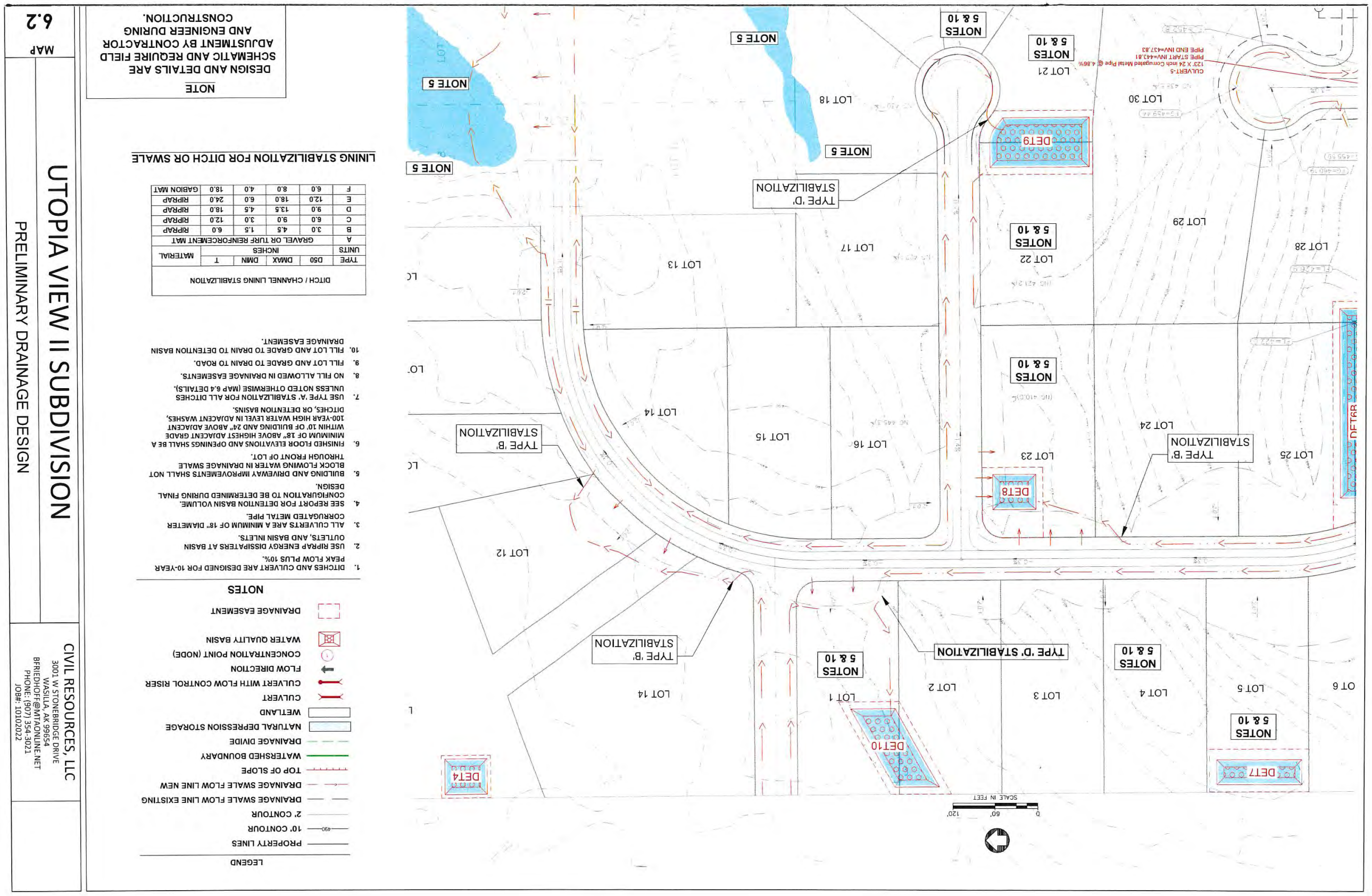


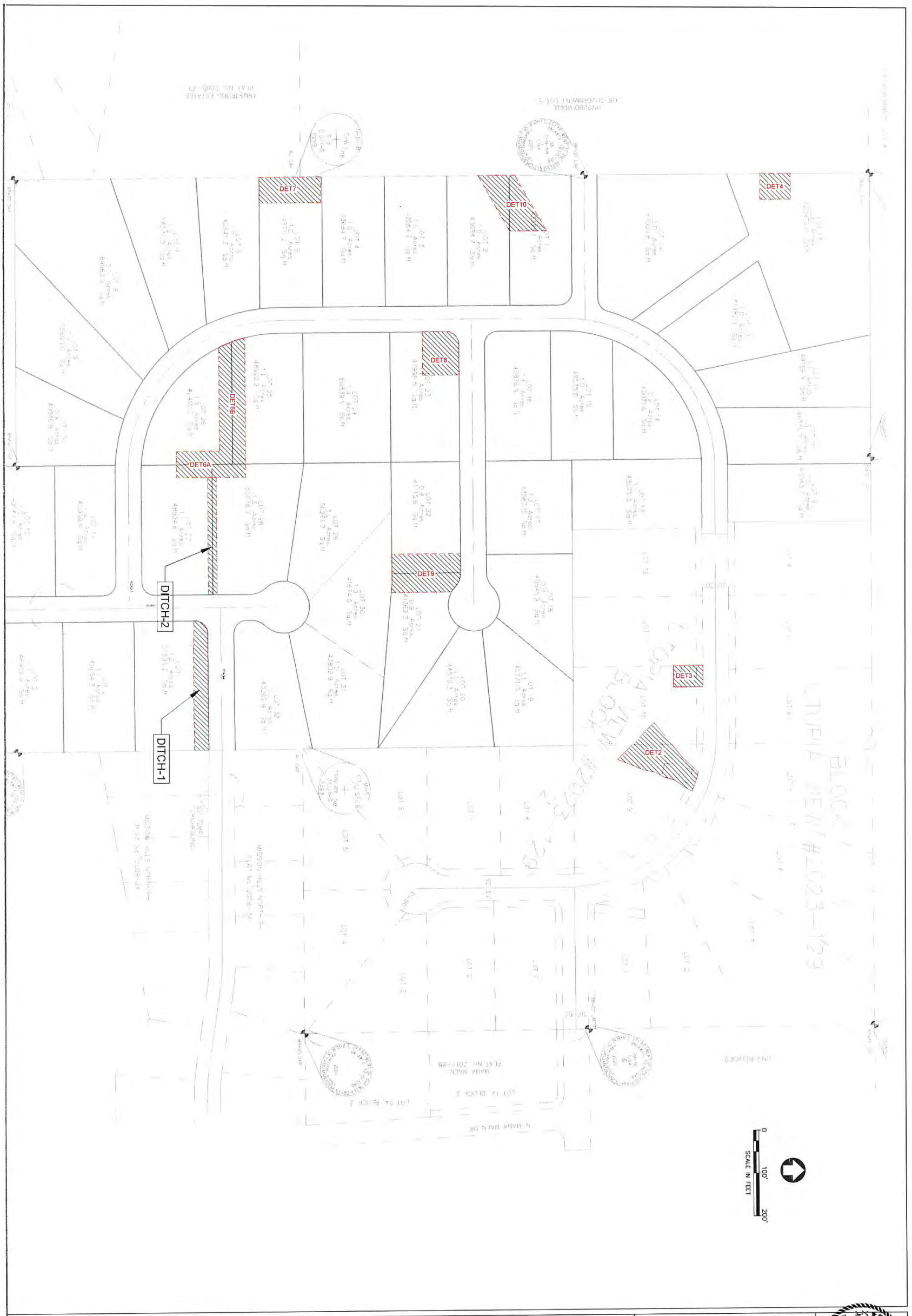









NOTE
DESIGN AND DETAILS ARE SCHEMATIC AND REQUIRE FIELD ADJUSTMENT BY CONTRACTOR AND ENGINEER DURING CONSTRUCTION.
LINING STABILIZATION FOR DITCH OR SWALE
DITCH / CHANNEL LINING STABILIZATION
TYPE | D50 | DMAX | DMIN | T | MATERIAL
UNITS | INCHES
A | GRAVEL OR TURF REINFORCEMENT MAT
B | 3.0 | 4.5 | 1.5 | 6.0 | RIPRAP
C | 6.0 | 9.0 | 3.0 | 12.0 | RIPRAP
D | 9.0 | 13.5 | 4.5 | 18.0 | RIPRAP
E | 12.0 | 18.0 | 6.0 | 24.0 | RIPRAP
F | 6.0 | 8.0 | 4.0 | 18.0 | GABION MAT
1. DITCHES AND CULVERT ARE DESIGNED FOR 10-YEAR PEAK FLOW PLUS 10%.
2. USE RIPRAP ENERGY DISSIPATERS AT BASIN OUTLETS, AND BASIN INLETS.
3. ALL CULVERTS ARE A MINIMUM OF 18" DIAMETER CORRUGATED METAL PIPE.
4. SEE REPORT FOR DETENTION BASIN VOLUME. CONFIGURATION TO BE DETERMINED DURING FINAL DESIGN.
5. BUILDING AND DRIVEWAY IMPROVEMENTS SHALL NOT BLOCK FLOWING WATER IN DRAINAGE SWALE THROUGH FRONT OF LOT.
6. FINISHED FLOOR ELEVATIONS AND OPENINGS SHALL BE A MINIMUM OF 18" ABOVE HIGHEST ADJACENT GRADE WITHIN 10' OF BUILDING AND 24" ABOVE ADJACENT 100-YEAR HIGH WATER LEVEL IN ADJACENT WASHES, DITCHES, OR DETENTION BASINS.
7. USE TYPE 'A' STABILIZATION FOR ALL DITCHES UNLESS NOTED OTHERWISE (MAP 8.4 DETAILS).
8. NO FILL ALLOWED IN DRAINAGE EASEMENTS.
9. FILL LOT AND GRADE TO DRAIN TO ROAD.
10. FILL LOT AND GRADE TO DRAIN TO DETENTION BASIN DRAINAGE EASEMENT.
LEGEND
PROPERTY LINES
10' CONTOUR
2' CONTOUR
DRAINAGE SWALE FLOW LINE EXISTING
DRAINAGE SWALE FLOW LINE NEW
TOP OF SLOPE
WATERSHED BOUNDARY
DRAINAGE DIVIDE
NATURAL DEPRESSION STORAGE
WETLAND
CULVERT
CULVERT WITH FLOW CONTROL RISER
FLOW DIRECTION
CONCENTRATION POINT (NODE)
WATER QUALITY BASIN
DRAINAGE EASEMENT
NOTES
NOTE 5
NOTES 5 & 10
TYPE 'B' STABILIZATION
TYPE 'D' STABILIZATION
DET4
DET7
DET8
DET9
DET10
CULVERT-5
12" X 24 inch Corrugated Metal Pipe @ 4.86%
PIPE START INV=443.81
PIPE END INV=437.83
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16
LOT 17
LOT 18
LOT 21
LOT 22
LOT 23
LOT 24
LOT 25
LOT 28
LOT 29
LOT 30
SCALE IN FEET
0
60'
120'
UTOPIA VIEW II SUBDIVISION
PRELIMINARY DRAINAGE DESIGN
MAP
6.2
CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

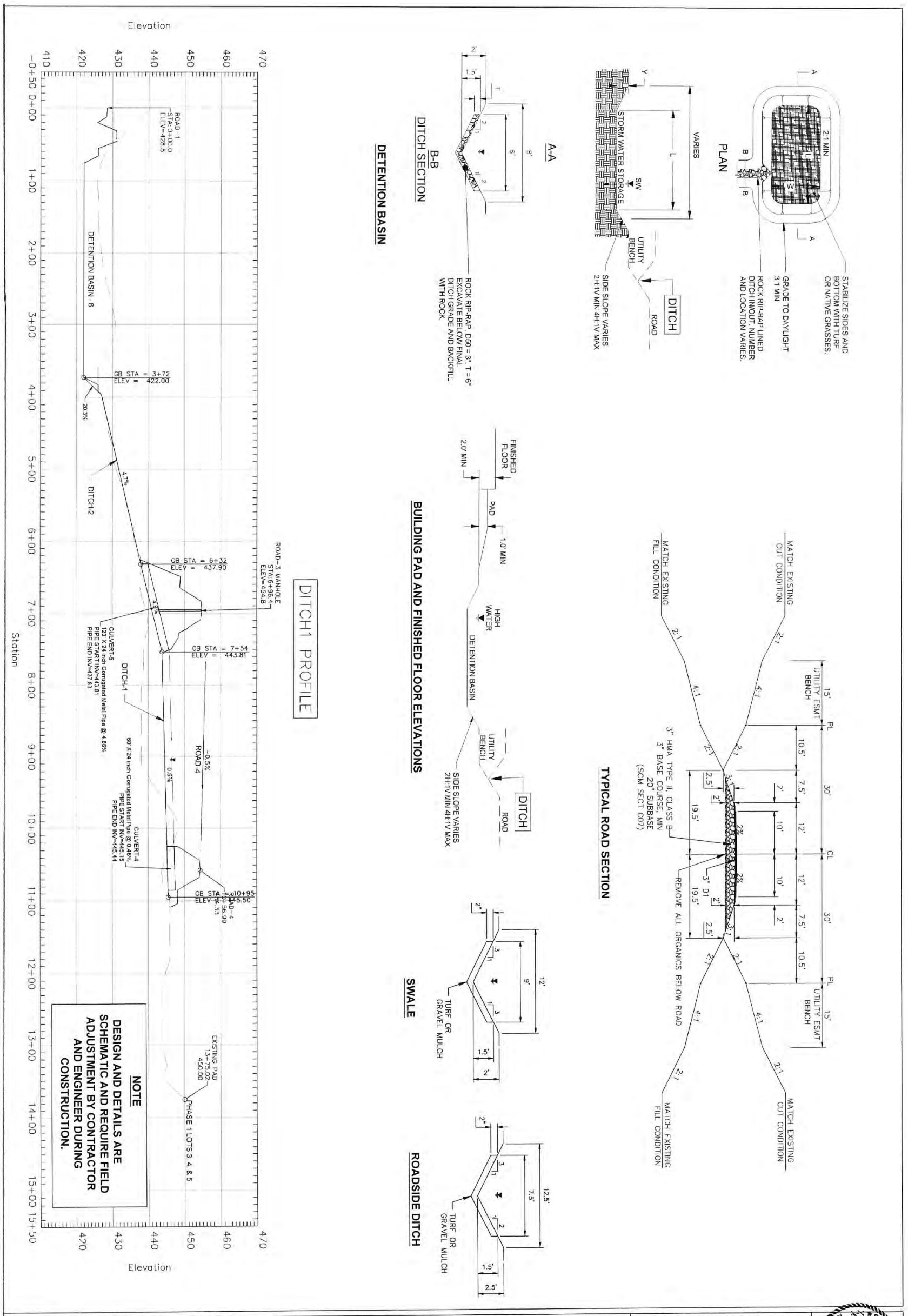


MAP 6.3

UTOPIA VIEW II SUBDIVISION

DRAINAGE EASEMENTS

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022



UTOPIA VIEW II SUBDIVISION

SECTIONS AND DETAILS

CIVIL RESOURCES, LLC
3001 W STONEBRIDGE DRIVE
WASILLA, AK 99654
BFRIEDHOFF@MTAONLINE.NET
PHONE: (907) 354-3021
JOB#: 10102022

STATE OF ALASKA — BRUCE H. FRIEDHOFF — No. CE 13163 — 2025-04-07 — PROFESSIONAL ENGINEER

MAP 6.4

ADT Phase II

PLANNING AND LAND USE DIRECTOR'S CERTIFICATE

I CERTIFY THAT THE SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY THE PLAT RESOLUTION No. _____ DATED _____ 20___, AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.

_____, 20_____.
Date

_____ ATTEST: _____
Planning and Land Use Director Platting Clerk

CERTIFICATION OF PAYMENT OF TAXES

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

_____, 20___. _____
Date Tax Collection Official (MATANUSKA-SUSITNA BOROUGH)

OWNERSHIP & DEDICATION CERTIFICATE

WE CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT, AND WE HEREBY DEDICATE ALL RIGHTS-OF-WAY TO THE MATANUSKA-SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN.

_____ _____
Date

FOXGLOVE LLC
ASHLEE S. STETSON - MANAGER
3201 E. TAMARAK AVE
WASILLA , AK 99654

NOTARY'S ACKNOWLEDGMENT

SUBSCRIBED AND SWORN TO ME THIS _____ DAY

OF _____, 20___,

FOR _____.

MY COMMISSION EXPIRES: _____.

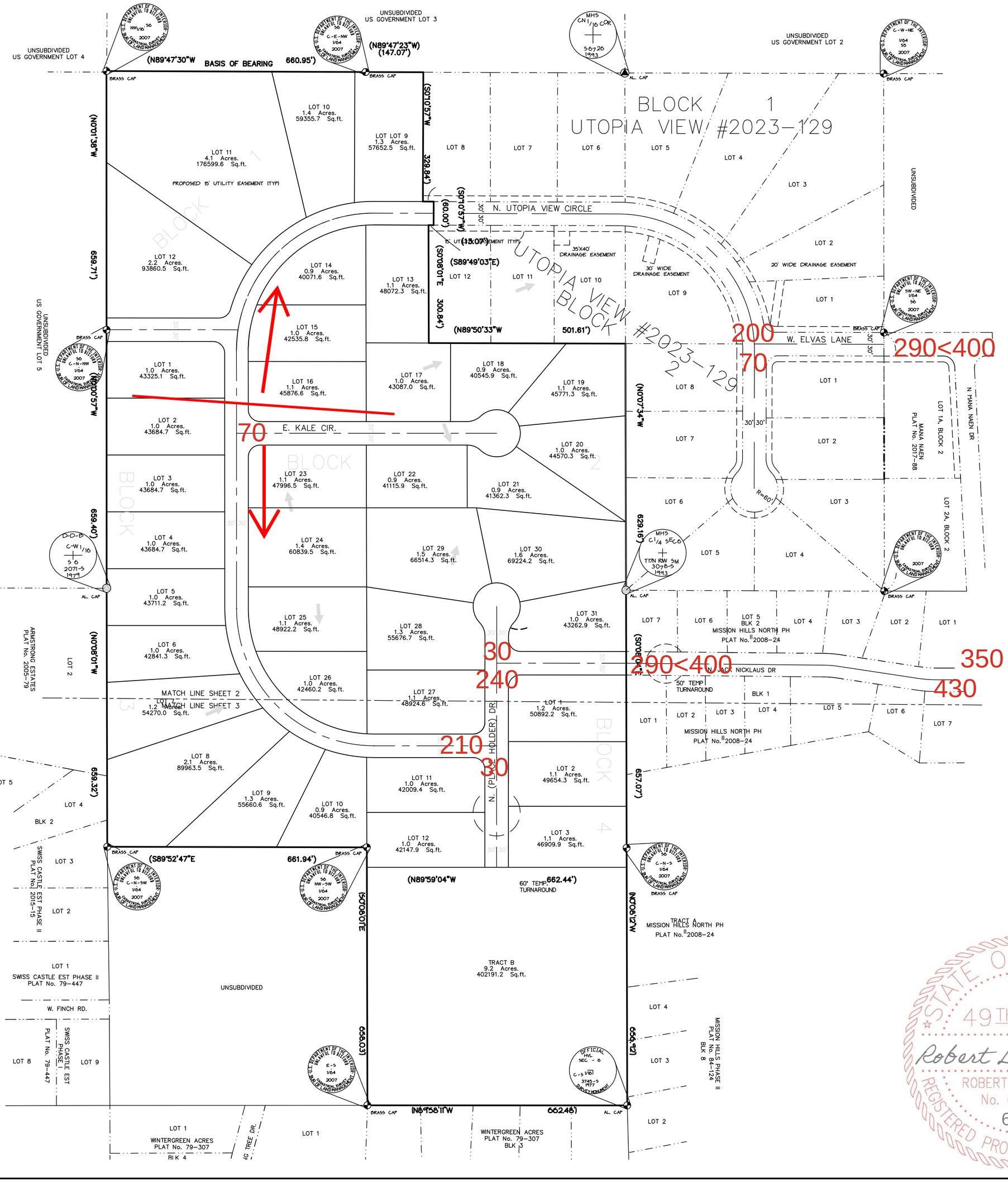
_____
NOTARY PUBLIC FOR ALASKA

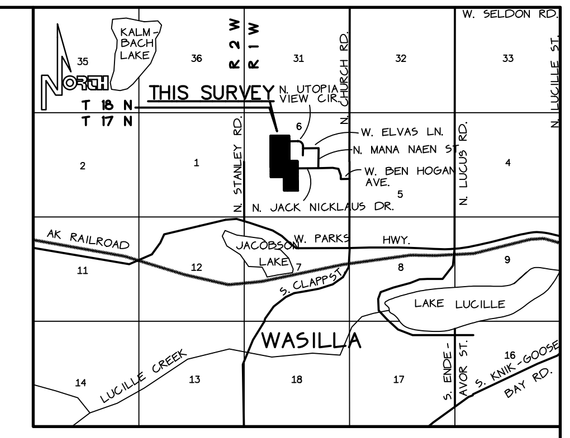
GENERAL NOTES

1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. ALL RECORD INFORMATION TAKEN FROM THE G.L.O. PLAT OF TOWNSHIP 17 NORTH RANGE 1 WEST SEWARD MERIDIAN, ALASKA; RECORD PLAT OF UTOPIA MEADOWS (PLAT No. ****-**) OFFICIALLY FILED IN THE OFFICE OF THE PALMER RECORDING DISTRICT.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
4. BLANKET EASEMENT GRANTED TO MATANUSKA ELECTRIC ASSOCIATION, INC., RECORDED SEPTEMBER 1, 2021, AS RECEPTION NO. 2021-025870-0. DOUBLE CHECK

TERMS, COVENANTS, CONDITIONS AND PROVISIONS, INCLUDING RIGHTS-OF-WAY AND EASEMENTS AS CONTAINED IN THE ALASKA NATIVE CLAIMS SETTLEMENT ACT DATED DECEMBER 18, 1971, U.S. PUBLIC LAW 92-203, 85 STAT. 688, 43 U.S.C.A. 1601, ET SEQ, AND ANY AMENDMENTS AND ADDITIONS THERETO, AND ANY REGULATIONS ARISING THEREFROM.DOUBLE CHECK

5. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-00926-0.DOUBLE CHECK





VICINITY MAP
1" = 1 MILE

NORTH

CAP DETAIL:
N.T.S.

ACUTEK GEOMATICS 9106-S

LEGEND

RECORD DATA GLO	[N 90°00'00" E]
RECORD DATA (PLAT No. 2017-88)	(N 90°00'00" E)
MEASURED DATA	N 90°00'00" E
PROPERTY LINES	
ADJACENT PROPERTY LINES	
CENTER LINE	
FOUND 3" BRASS CAP	
FOUND 3" ALUMINUM CAP	
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:	

SURVEYOR'S CERTIFICATE

I, TERRY L. NICODEMUS, L.S. 9106, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
6/2/25
REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY PLAT OF

UTOPIA VIEW II

CONTAINING 62.049 ACRES

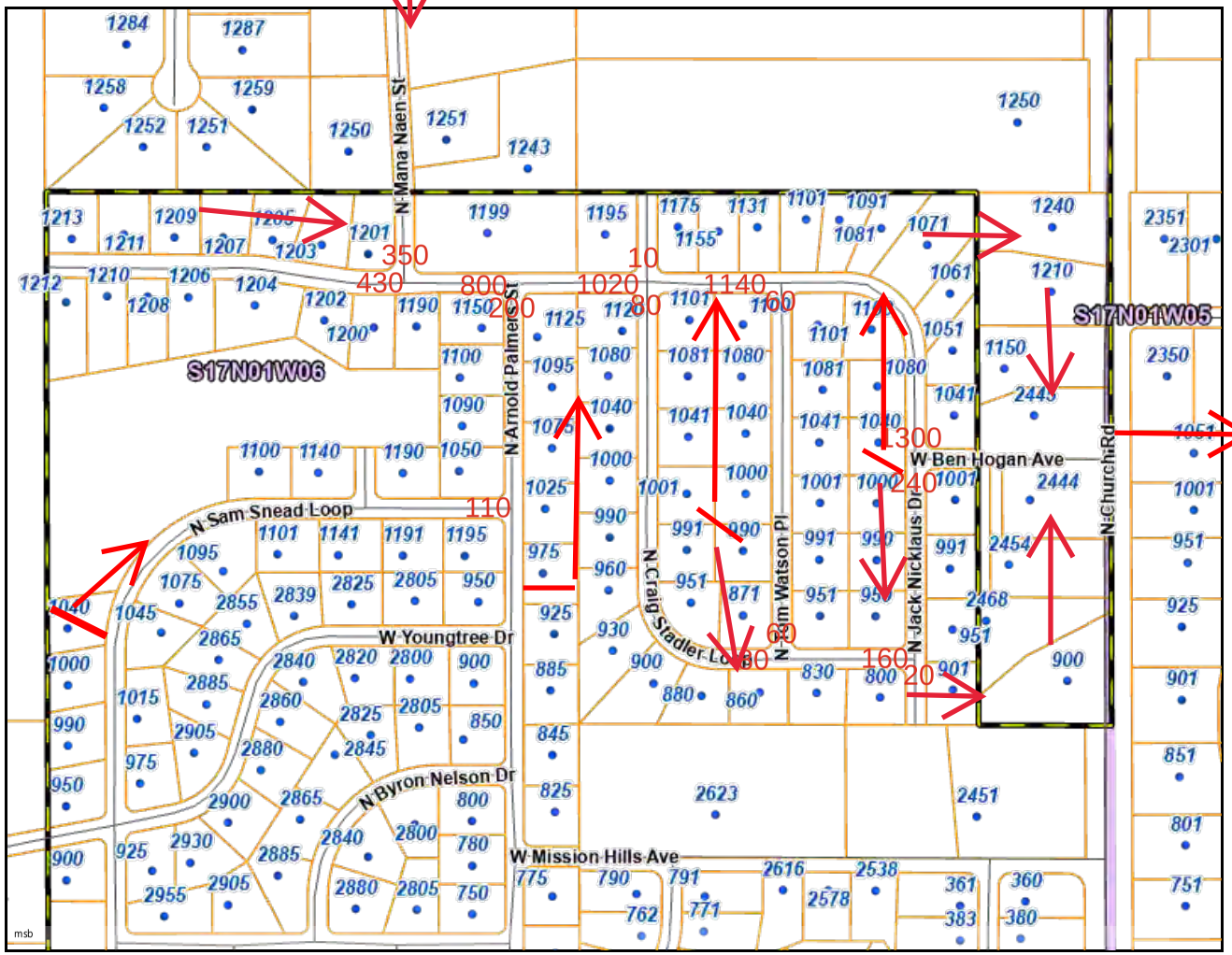
A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA.

PALMER RECORDING DISTRICT

PREPARED BY
ACUTEK GEOMATICS LLC
5099 E. BLUE LUPINE DR. SUITE 104, WASILLA AK 99654
(907) 376-8800 FAX (907) 376-9629 E-MAIL admin@acutek.survey.com

DESIGNED BY:	TLN	SCALE: NOT TO SCALE	FIELD BOOK:	19-01 23	
DRAWN BY:	TAN	DATE: 5/14/2024	MAP NO.:	WA 12	
CHECKED:	TLN	FILE No. 19-10.2	SHEET:	1	OF 3

ADT to Ben Hogan Ave





Ben Hogan Ave upgraded 2023 to Residential Collector

Rest of the south of Mission hills goes out W Mission Hills Ave.

STATE OF ALASKA 49TH
Robert L Walden
ROBERT L. WALDEN
No. CE13874
6/2/25
REGISTERED PROFESSIONAL ENGINEER

1 : 9028

THIS MAP IS NOT TO BE USED FOR NAVIGATION

0 500 1000 ft

WGS_1984_Web_Mercator_Auxiliary_Sphere

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

Notes

Matthew Goddard

From: Mazer, Gregory J CIV USARMY CEPOA (USA) <Gregory.J.Mazer@usace.army.mil>
Sent: Wednesday, May 14, 2025 9:18 AM
To: Matthew Goddard
Subject: Utopia View II

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

I'm responding to your inquiry about U.S. Army Corps of Engineers (USACE) permitting for the planned Utopia View II project in Wasilla, Alaska. Department of the Army authorization from USACE is required for placement of dredged and/or fill material into waters of the U.S., including wetlands and/or performing work in waters protected by the Rivers and Harbors Act. Information about USACE permitting as well as access to a permit application and detailed instructions for preparing and submitting a complete application can be found online at www.poa.usace.army.mil/Missions/Regulatory.

The parcel where the development would occur contains two areas mapped by the Mat-Su Borough as wetlands – the entirety of a 0.7 acre wetland and a portion of a 2.93 acre wetland. Upon review of the Borough's data, other information and recent aerial imagery, neither of these mapped wetlands appear to have a continuous surface connection with a relative permanent water such as a tributary or a navigable water. Hence, it appears that even if wetlands are present at the property (presuming that the mapping is accurate), the wetlands would not be considered waters of the U.S. subject to regulation under the Clean Water Act. Please note that this assessment is unofficial and does not serve as an approved or preliminary jurisdictional determination.

V/r, Greg

US Army Corps of Engineers®

Greg Mazer
Project Manager, North Central Section | Regulatory Division | U.S. Army Corps of Engineers | Alaska District
Cell: 907.347.9059 | Regulatory Main Line: 907.753.2717
Website: www.poa.usace.army.mil/missions/regulatory

RRS REGULATORY REQUEST SYSTEM beta

Streamline the permitting process with the **Regulatory Request System (RRS)** — your new online platform for permit applications.

rrs.usace.army.mil

Matthew Goddard

From:	Jamie Taylor
Sent:	Monday, June 9, 2025 1:02 PM
To:	Matthew Goddard; Pre-Design & Engineering
Cc:	Erich E. Schaal; Daniel Dahms; Tammy Simmons; Brad Sworts
Subject:	Re: Utopia ADT

Hi Matthew,

Soils:
The soils report appears to be incomplete:

- Of the test holes shown on the test hole location map, sieve analysis results were not provided for test holes 2, 11, 14, 23, 24, and 41
    - it was noted on the test hole logs for test holes 23 and 24 that samples were not taken, but the soil types reported require sieve analysis or percolation tests per 43.20.281(A)(1)(f).
- Of the test holes shown on the test hole location map, test hole logs were not provided for test holes 1, 12, 26, 28, 29, 31, 36, and 40
- according to the test hole log for test hole 35, ground water seeps were found at 7 feet below ground on 4/28/2021 - per 43.20.281(A)(1)(a) "where water is encountered at ten feet or less below the surface, the seasonal high subsurface water is to be determined between May 1st and October 30th)

PD&E recommends a condition of approval to submit a complete soils report containing all necessary and pertinent information, including test hole logs, sieve analyses, and ground water monitoring results, as well as updated soils and useable area information post-regrading. Soils information outside of the boundary of the subdivision should not be included in the report.

Jack Nicklaus Drive:
ADT estimate shows potential traffic volumes as high as 1300 on Jack Nicklaus Drive. This is over the allowed traffic volume for a local road per the 2022 Subdivision Construction Manual. Since Jack Nicklaus Drive is a City of Wasilla owned and maintained road, the developer should coordinate with the City to determine if this is allowable and/or what upgrades or traffic impact mitigation measures will be required.

PD&E recommends the developer coordinate with the City of Wasilla to determine if a permanent turnaround is needed where Jack Nicklaus Drive exits the City of Wasilla and enters RSA 27. The existing cul-de-sac is located within a temporary turnaround easement which will automatically terminate when the road is extended.

Internal Subdivision Roads:
PD&E recommends the extension of Jack Nicklaus Drive, the extension of Utopia View Circle, Joseb Drive, and Jimmys Way be constructed to Residential Subcollector standard and the remaining cul-de-sac roads be constructed to Residential standard.

Access must be constructed to proposed Tract B. The temporary cul-de-sac on Jimmys Way should be relocated to give Tract B constructed frontage.

A permanent turnaround is needed at the north end of Utopia View Circle within the RSA 27 boundary.

Thank you,
PD&E Review Group

From: Erich E. Schaal <eschaal@cityofwasilla.gov>
Sent: Tuesday, June 3, 2025 11:38 AM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>
Subject: RE: Utopia ADT

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

It does not appear that the impacts to the exiting neighborhood have been adequately addressed, and the applicant did not identify the new traffic forecast at W Ben Hogan Ave. N Jack Nicklaus Dr will need to be upgraded due to the increase in traffic. The current traffic load from just the contractors has forced the city to make the intersection of N Jack Nicklaus and N Arnold Palmers a 3 way stop (which is often ignored).

This is important due to the lack of connection to W Youngtree Drive.

Thank,

Erich

Erich Schaal P.E.
Director of Public Works

City of Wasilla
290 E. Herning Avenue
Wasilla, AK 99654-7091
Office: (907) 373-9018
Cell: (907) 232-9678

Book time with Erich E. Schaal

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Tuesday, June 3, 2025 7:24 AM
To: Pre-Design & Engineering <pde@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Erich E. Schaal <eschaal@cityofwasilla.gov>
Subject: FW: Utopia ADT

Good morning,

Please find attached the revised ADT for Utopia View II.
If possible, please ensure any comments you have are submitted by Friday, 6/6/2025, so they can be incorporated in the staff report packet.

Thank you,

Matthew Goddard
Platting Technician
907-861-7881
Matthew.Goddard@matsugov.us

From: Robert Walden, PE <robertwcce@gmail.com>
Sent: Monday, June 2, 2025 6:25 PM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>; Wyatt Anderson <Wyatt.Anderson@matsugov.us>
Cc: Acutek Geomatics <admin@acuteksurvey.com>; Michelle Clapp <Michelle@wsiak.com>; Bill Van Buskirk <bill@wsiak.com>
Subject: Re: Utopia ADT

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

Thanks for the nudge. I had got through most of it then got busy with other side stuff and buried it again. Attached revised ADT to Ben Hogan with two maps to stretch that far. Please replace the previous single ADT Map. Revised engineering letter to replace the old letter.

Sincerely,
Robert L Walden, PE

On Mon, Jun 2, 2025 at 12:30 PM Matthew Goddard <Matthew.Goddard@matsugov.us> wrote:

> Good morning,
>
> I am following up on the request for an updated ADT. The supplied ADT does not meet the requirements as noted in the SCM section A15.
> I have since received comments from the City of Wasilla also requesting the ADT as this impacts City of Wasilla Roads (see attached).
> I will need the updated ADT no later than Wednesday, June 4, 2025, or this case will need to be continued to a later hearing date.
>
> Please submit the revised ADT as soon as possible.
>
> Thank you,
>
> Matthew Goddard
> Platting Technician
> 907-861-7881
> Matthew.Goddard@matsugov.us

From: Matthew Goddard
Sent: Thursday, May 22, 2025 6:31 PM
To: Robert Walden, PE <robertwcce@gmail.com>; Acutek Geomatics <admin@acuteksurvey.com>
Subject: Utopia ADT

Hello,

Upon conversation with MSB DPW it was noted that the submitted ADT does not meet the requirements for an ADT submittal.
The internal street intersections do not show the ADT counts and the shown ADT stops short of connecting with a Residential Collector Street or higher.
A revised ADT will be required. This should be submitted as soon as possible to allow time for proper review prior to the Public Hearing.

2022 Subdivision Construction Manual
A15 Average Daily Traffic
(a) The following formula shall be used to determine the required classification of streets:
ADT = Number of lots x 10 for single-family residential use.
(b) See Section G for other land uses.
(c) For subdivisions of five or more lots, submit potential ADT calculations for the following locations with the preliminary plat:
(1) at each intersection within the subdivision,
(2) at each intersection en route to an existing Residential Collector street or higher classification, and
(3) at an existing Residential Collector street or higher classification.

Thank you and have a great day,

Matthew Goddard
Platting Technician
907-861-7881
Matthew.Goddard@matsugov.us

--
Sincerely,
Robert L Walden, PE

Matthew Goddard

From: Erich E. Schaal <eschaal@cityofwasilla.gov>
Sent: Monday, June 9, 2025 1:14 PM
To: Jamie Taylor; Matthew Goddard; Pre-Design & Engineering
Cc: Daniel Dahms; Tammy Simmons; Brad Sworts
Subject: RE: Utopia ADT

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

For Jack Nicklaus Dr, the City will require the certification to Residential Collector to match Ben Hogan Ave. If certification to Residential Collector is not possible due to ROW width or geometry, then the applicant may propose other traffic mitigation measures, to be approved by the City of Wasilla Public Works.

Thanks,

Erich

Erich Schaal P.E.
Director of Public Works
City of Wasilla
290 E. Herning Avenue
Wasilla, AK 99654-7091
Office: (907) 373-9018
Cell: (907) 232-9678

Book time with Erich E. Schaal

From: Jamie Taylor <Jamie.Taylor@matsugov.us>
Sent: Monday, June 9, 2025 1:02 PM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>
Cc: Erich E. Schaal <eschaal@cityofwasilla.gov>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>
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A permanent turnaround is needed at the north end of Utopia View Circle within the RSA 27 boundary.

Thank you,
PD&E Review Group

From: Erich E. Schaal <eschaal@cityofwasilla.gov>
Sent: Tuesday, June 3, 2025 11:38 AM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>
Subject: RE: Utopia ADT

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

Hi Matthew,

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This is important due to the lack of connection to W Youngtree Drive.

Thank,

Erich

Erich Schaal P.E.

Director of Public Works

City of Wasilla

290 E. Herning Avenue

Wasilla, AK 99654-7091

Office: (907) 373-9018

Cell: (907) 232-9678

Book time with Erich E. Schaal

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Tuesday, June 3, 2025 7:24 AM
To: Pre-Design & Engineering <pde@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Erich E. Schaal <eschaal@cityofwasilla.gov>
Subject: FW: Utopia ADT

Matthew Goddard

From: Erich E. Schaal <eschaal@cityofwasilla.gov>
Sent: Tuesday, June 3, 2025 11:39 AM
To: Matthew Goddard; Pre-Design & Engineering; Jamie Taylor; Daniel Dahms; Tammy Simmons
Subject: RE: Utopia ADT

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

It does not appear that the impacts to the exiting neighborhood have been adequately addressed, and the applicant did not identify the new traffic forecast at W Ben Hogan Ave. N Jack Nicklaus Dr will need to be upgraded due to the increase in traffic. The current traffic load from just the contractors has forced the city to make the intersection of N Jack Nicklaus and N Arnold Palmers a 3 way stop (which is often ignored).

This is important due to the lack of connection to W Youngtree Drive.

Thank,

Erich

Erich Schaal P.E.
Director of Public Works

City of Wasilla
290 E. Herning Avenue
Wasilla, AK 99654-7091
Office: (907) 373-9018
Cell: (907) 232-9678

Book time with Erich E. Schaal

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Tuesday, June 3, 2025 7:24 AM
To: Pre-Design & Engineering <pde@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Erich E. Schaal <eschaal@cityofwasilla.gov>
Subject: FW: Utopia ADT

Good morning,

Please find attached the revised ADT for Utopia View II.
If possible, please ensure any comments you have are submitted by Friday, 6/6/2025, so they can be incorporated in the staff report packet.

Thank you,

Matthew Goddard
Platting Technician

Matthew Goddard

From: Matthew.Goddard@matsugov.us
To: Erich E. Schaal
Subject: RE: RFC Utopia View II (MG)

From: Erich E. Schaal <eschaal@cityofwasilla.gov>
Sent: Monday, June 2, 2025 12:13 PM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>
Subject: RE: RFC Utopia View II (MG)

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

We'll need the average daily traffic load at the entrance into the Mission Hills neighborhood at Church Rd.

We're very concerned about the additional traffic on N. Jack Nicklaus Dr and will likely require the applicant to bring that road up to a higher level of service due to those impacts.

Thanks,

Erich

Erich Schaal P.E.
Director of Public Works
City of Wasilla
290 E. Herning Avenue
Wasilla, AK 99654-7091
Office: (907) 373-9018
Cell: (907) 232-9678

Book time with Erich E. Schaal

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Monday, June 2, 2025 12:06 PM
To: Erich E. Schaal <eschaal@cityofwasilla.gov>
Subject: RE: RFC Utopia View II (MG)

Hello Erich,

The following link is the requested Utopia View II

Utopia View II

Matthew Goddard

Platting Technician
907-861-7881
Matthew.Goddard@matsugov.us

From: Erich E. Schaal <eschaal@cityofwasilla.gov>
Sent: Friday, May 30, 2025 4:05 PM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>
Cc: Robert Walden <rwalden@cityofwasilla.gov>; Richard Antonio <rantonio@cityofwasilla.gov>
Subject: RE: RFC Utopia View II (MG)

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

COW comments are that the drainage report is important to the city and that the system should be built to the report to prevent drainage issues within the city.

Thanks,

Erich

Erich Schaal P.E.
Director of Public Works
City of Wasilla
290 E. Herning Avenue
Wasilla, AK 99654-7091
Office: (907) 373-9018
Cell: (907) 232-9678

Book time with Erich E. Schaal

From: PW Shared <publicworks@cityofwasilla.gov>
Sent: Wednesday, May 14, 2025 7:11 AM
To: Erich E. Schaal <eschaal@cityofwasilla.gov>; Robert Walden <rwalden@cityofwasilla.gov>; Richard Antonio <rantonio@cityofwasilla.gov>
Subject: FW: RFC Utopia View II (MG)

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Tuesday, May 13, 2025 12:53 PM
To: sarah.myers@alaska.gov; colton.percy@alaska.gov; Cindy Wellman <cwellman@cityofwasilla.gov>; Planning <Planning@cityofwasilla.gov>; PW Shared <publicworks@cityofwasilla.gov>; Crystal Nygard <cnygard@cityofwasilla.gov>; Juliah Barnett <jbarnett@cityofwasilla.gov>; Tim Swezey <tim.swezey@mlccak.org>; Patricia Fisher <psfisherak49@gmail.com>; information@mlccak.org; camden.yehle@gmail.com; lana@mtaonline.net; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>;

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Code Compliance Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822 • Fax (907) 745-9876
E-mail: ccb@matsugov.us

MEMORANDUM

DATE: 05/13/2025

TO: Matthew Goddard, Platting Tech

FROM: Kendra Johnson, CFM
Senior Code Compliance Office

SUBJECT: Proposed Platting action for Utopia View II Subdivision case #2025-061

No open Code Compliance cases on MSB Tax ID 8415000T00A at this time.

Code Compliance has no objection of subdividing Tract A into 42 lots.

Matthew Goddard

From: Permit Center
Sent: Tuesday, May 13, 2025 4:56 PM
To: Matthew Goddard
Subject: RE: RFC Utopia View II (MG)

Each access or encroachment constructed during subdivision road development shall be reported to the Permit Center for documentation. Cluster box pullout locations should be designed using the MSB Standard Drawing – Mailbox Pullouts, and in alignment with lot lines as shown on the plat layout.

No other comments from the Permit Center.

Brandon Tucker
Permit Technician
Matanuska-Susitna Borough Permit Center
350 E Dahlia Ave
Palmer AK 99645
P (907) 861-7871
F (907) 861-8158

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Tuesday, May 13, 2025 12:53 PM
To: sarah.myers@alaska.gov; colton.percy@alaska.gov; Cindy Wellman <cwellman@cityofwasilla.gov>; Planning <planning@cityofwasilla.gov>; PW Shared <publicworks@cityofwasilla.gov>; Crystal Nygard <cnygard@cityofwasilla.gov>; jbarnett@cityofwasilla.gov; Tim Swezey <tim.swezey@mlccak.org>; Patricia Fisher <psfisherak49@gmail.com>; information@mlccak.org; camden.yehle@gmail.com; lana@mtaonline.net; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Utopia View II (MG)

Hello,

The following link is a request for comments for the proposed Utopia View II.
Please ensure all comments have been submitted by May 30, 2025, so they can be incorporated in the staff report packet that will be presented at the platting board hearing.

Utopia View II

Matthew Goddard

From: Stephen Edwards <sledwards4959@gmail.com>
Sent: Monday, June 9, 2025 9:21 AM
To: Platting
Subject: Utopia View II subdivision

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Please add the following comments from Stephen Edwards RSA 27 Meadow Lakes.

Suggest altering the design to allow connectivity to adjacent parcels for future connectivity. Road maintenance costs are lower when equipment can flow thru from one subdivision to the next without backtracking.

Culdesacs are more difficult (expensive) to maintain than strait roads. Suggest requiring snow storage pocket on each in the best location for drainage. Include drainage easements to prevent water accumulation in ditches resulting in damage to the road bed.
Stephen Edwards

MEADOW LAKES
Community Council

1210 N Kim Drive, Suite B, Meadow Lakes, Alaska 99623
Phone: 907-232-2845 - Email: info@mlccak.org - Website: www.mlccak.org

Matanuska Susitna Borough
Platting Board and staff
Attn: matthew.goddard@matsugov.us

June 3, 2025

RE: Utopia View MSP platting action

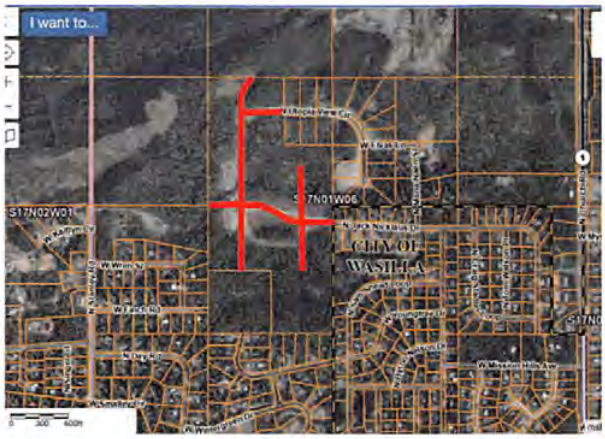
Dear Platting Board members and staff:

The Meadow Lakes Community Council membership would like to submit the following comments.

We would like to see construction of additional roads with temporary turnarounds to the north and south sides for future development and connectivity. Key concerns were:

A. We are aware of future development in area.
B. Emergency vehicle access.
C. Snow plowing efficiency.

The image below is an example.



The Council membership voted to submit these comments at our May 14, 2025, meeting.

Sincerely,

Camden Yehle

Camden Yehle, Meadow Lakes Community Council Secretary

Matthew Goddard

From: Ardie Buechner <asbuechner@gmail.com>
Sent: Friday, May 30, 2025 7:26 PM
To: Platting
Subject: 19 June Public Hearing: Utopia View II Subdivision

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
To the MatSu Borough Platting Board

It is with an emphatic OBJECTION for the proposed subdivision by FOXGLOVE, LLC. There is no plan for an additional roadway outlet for the subdivision. Planning a new subdivision/neighborhood with the disregard of traffic is shortsighted. Until the owner can also plan for an additional outlet to Spruce onto Church Road for the newest subdivision it will be an objection and concern.

Ardie Buechner

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

May 19, 2025

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

To whom it may concern:

ENSTAR Natural Gas Company, LLC has reviewed preliminary plat **UTOPIA VIEW II (MSB Case # 2025-061)** and advises that ENSTAR has an existing 15FT wide natural gas easement located within Utopia View II.

1. Please add a note which refers to ENSTAR 15FT wide natural gas easement, said easement can be found under recording number 2022-011389-0.

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

Sincerely,

James Christopher

James Christopher
Right Of Way & Permitting Agent
ENSTAR Natural Gas Company, LLC

ALASKA

2022 – 011389 – 0

Recording District 311 Palmer CC

05/17/2022 02:12 PM Page 1 of 2

ENSTAR Natural Gas Company
RIGHT-OF-WAY EASEMENT

FOXGLOVE, LLC, whose current mailing address is 3201 E Tamarak Ave, Wasilla, AK 99654, hereinafter called Grantor, for Ten Dollars, ($10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, does hereby convey and warrant to **ENSTAR Natural Gas Company, a division of SEMCO Energy, Inc., whose address is P.O. Box 190288, Anchorage, Alaska 99519-0288,** hereinafter called Grantee, its successors and assigns, a right-of-way easement to construct, lay, maintain, operate, alter, repair, remove, and replace pipelines and appurtenance, including metering and regulation facilities, thereto for the transportation of natural gas under, upon, over and through lands which the Grantor owns or in which the Grantor has an interest, situated in the **Palmer** Recording District, Third Judicial District, State of Alaska, and more particularly described as follows:

A natural gas easement situated over all that part of the West one-half of the Southwest one-quarter of the Northeast one-quarter (W1/2 SW1/4 NE1/4), and the Northeast one-quarter of the Southeast one-quarter of the Northwest one-quarter (NE1/4 SE1/4 NW1/4), and the Northwest one-quarter of the Southeast one-quarter of the Northwest one-quarter, and the Southwest one-quarter of the Southeast one-quarter of the Northwest one-quarter (SW1/4 SE1/4 NW1/4), of Section 6, Township 17 North, Range 1 West, Seward Meridian, State of Alaska.

Providing that said easement shall reduce to a fifteen feet (15 FT) wide natural gas easement, centered on the natural gas pipelines installed under, over, upon, and through said parcel.

This easement shall automatically vacate upon dedication of a valid public right-of-way in which to install, maintain, repair, and replace natural gas facilities is appropriately situated over the natural gas facilities installed hereunder, and an adequate utility permit allowing for installation of natural gas facilities is conveyed from the permitting authority.

The Grantee, its successor and assigns, is hereby expressly given and granted the right to assign said right-of-way easement herein granted and conveyed, or any part thereof or interest herein. The same shall be divisible among two or more owners as to any right or rights granted hereunder so that each assignee or owner shall have the rights and privileges herein granted, to be enjoyed either in common or in severalty.

This easement is given to the Grantee, its successors and assigns, with right of ingress and egress from the premises for the purposes herein granted:

The said Grantor is to fully use and enjoy said premises except for the purposes herein granted to the said Grantee and the said Grantor shall not construct or permit to be constructed any house, structures or obstructions on or over said gas easement that will interfere with the construction, maintenance, repair or operation of pipelines or appurtenance, including metering and regulation facilities, constructed hereunder and will not change the grade of such pipelines.

Grantee hereby agrees to bury all pipeline improvements to sufficient depth to not interfere with cultivation of the soil and agrees to repair or replace in kind, to prior existing condition, damaged landscaping, fencing, roads, parking areas and related improvements which may arise from the construction, maintenance, operation of said lines, and replacement, upgrade or addition of new gas lines.

The Grantor covenants with ENSTAR that they have good title to said lands and have full authority to grant said easement, either jointly or severally, and acknowledge they executed this agreement freely and voluntarily for the uses and purposes herein stated, in all cases holding ENSTAR harmless against claimants, heirs, successors, assigns and remaindermen.

FOXGLOVE, LLC

By: Ashlee Stetson
Its: MANAGER
Date: 3-21-22

CORPORATE ACKNOWLEDGMENT

STATE OF ALASKA)
) SS
THIRD JUDICIAL DISTRICT)

This certifies that on this 21st day of MARCH, 2022, before me, the undersigned, a Notary Public in and for the State of ALASKA, personally appeared Ashlee Stetson, authorized representative of **FOXGLOVE, LLC,** and known to me to be the person named as the Grantor in the foregoing easement and they acknowledged to me that they executed the same freely and voluntarily for the uses and purposes therein stated, and of oath stated they have Full Authority to grant said easement:

WITNESS my hand and official seal the day and year in this certificate first above written.

Michelle Clapp
Notary Public, State of ALASKA

STATE OF ALASKA
NOTARY PUBLIC
Michelle Clapp
My Commission Expires Mar 12, 2023

Please Return To:
ENSTAR Natural Gas Company
Engineering Department, Right of Way Section
PO Box 190288
Anchorage, AK 99519-0288

Grid: NW3954 & NW3955
Prop: 8286

Page 2 of 2
2022-011389-0

Matthew Goddard

From: OSP Design Group <ospdesign@gci.com>
Sent: Thursday, May 29, 2025 5:17 PM
To: Matthew Goddard
Cc: OSP Design Group
Subject: RE: RFC Utopia View II (MG)
Attachments: Agenda Plat (40).pdf

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

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

Thanks,
GCI | OSP Design
1001 Northway Dr., 1st Floor, Anchorage, AK 99508
e: OSPDesign@gci.com | w: www.gci.com

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Tuesday, May 13, 2025 12:53 PM
To: sarah.myers@alaska.gov; colton.percy@alaska.gov; Cindy Wellman <cwellman@cityofwasilla.gov>; Planning <planning@cityofwasilla.gov>; PW Shared <publicworks@cityofwasilla.gov>; Crystal Nygard <cnygard@cityofwasilla.gov>; jbarnett@cityofwasilla.gov; Tim Swezey <tim.swezey@mlccak.org>; Patricia Fisher <psfisherak49@gmail.com>; information@mlccak.org; camden.yehle@gmail.com; lana@mtaonline.net; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Utopia View II (MG)

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

Hello,

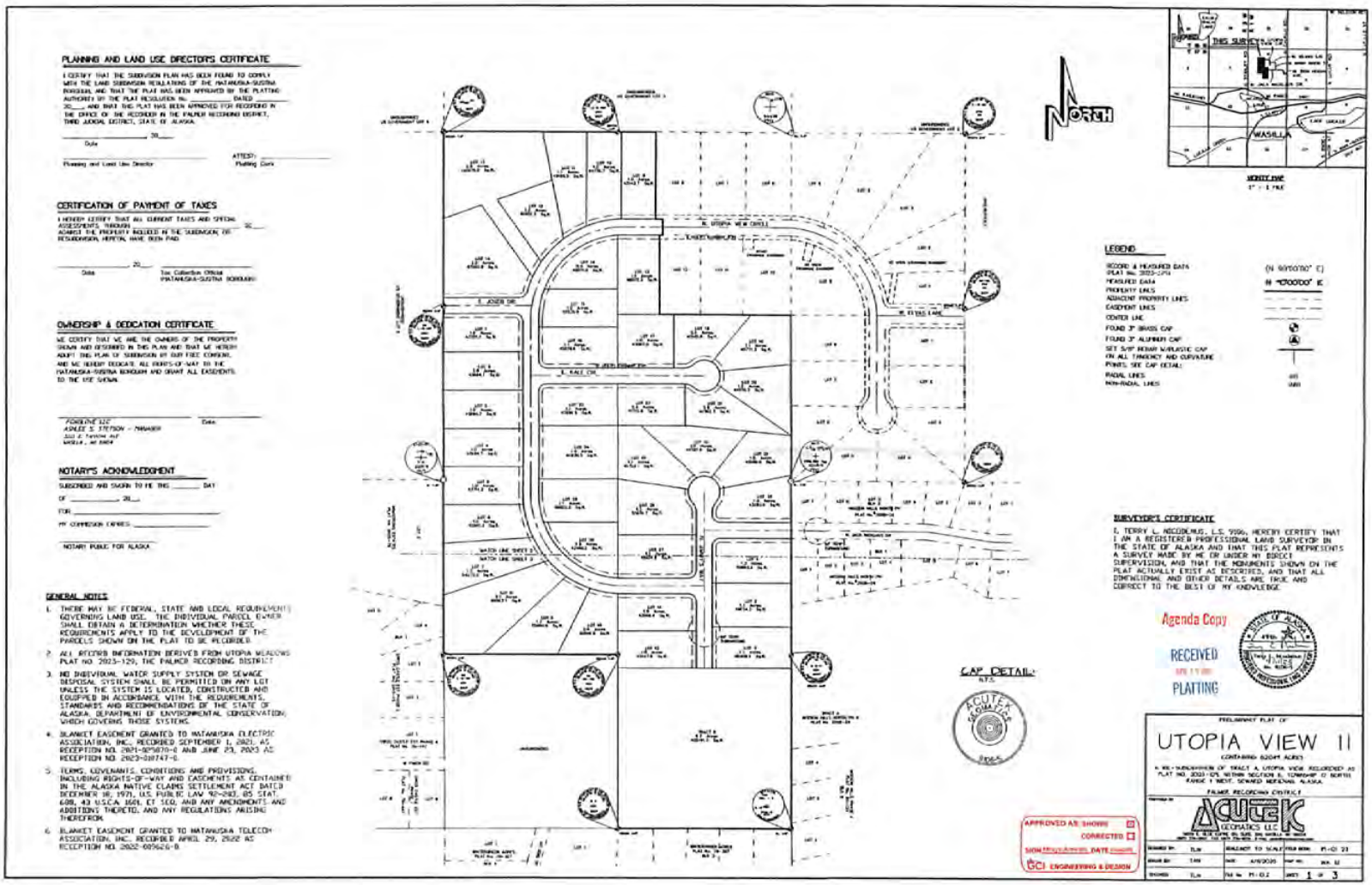
The following link is a request for comments for the proposed Utopia View II.
Please ensure all comments have been submitted by May 30, 2025, so they can be incorporated in the staff report packet that will be presented at the platting board hearing.

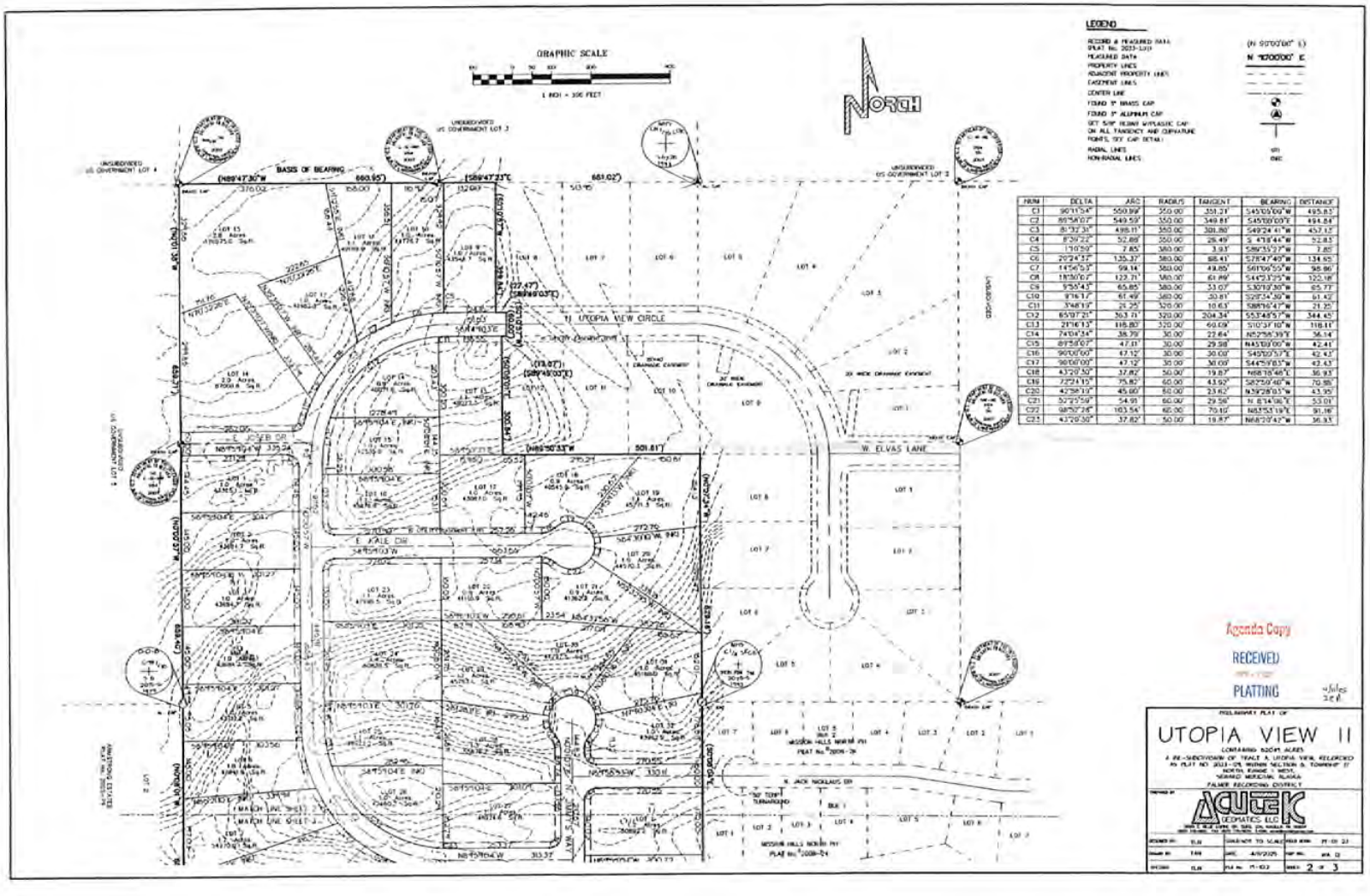
Utopia View II

Feel free to contact me if you have any questions.

Thank you,

Matthew Goddard
Platting Technician
907-861-7881
Matthew.Goddard@matsugov.us


PLANNING AND LAND USE DIRECTOR'S CERTIFICATE
CERTIFICATION OF PAYMENT OF TAXES
OWNERSHIP & DEDICATION CERTIFICATE
NOTARY'S ACKNOWLEDGMENT
GENERAL NOTES
1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. ALL RECORD INFORMATION DERIVED FROM UTOPIA MEADOWS PLAT NO. 2023-129, THE PALMER RECORDING DISTRICT.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
4. BLANKET EASEMENT GRANTED TO MATANUSKA ELECTRIC ASSOCIATION, INC., RECORDED SEPTEMBER 1, 2021, AS RECEPTION NO. 2021-029870-0 AND JUNE 23, 2023 AS RECEPTION NO. 2023-019747-0.
5. TERMS, COVENANTS, CONDITIONS AND PROVISIONS, INCLUDING RIGHTS-OF-WAY AND EASEMENTS AS CONTAINED IN THE ALASKA NATIVE CLAIMS SETTLEMENT ACT DATED DECEMBER 18, 1971, U.S. PUBLIC LAW 92-203, 85 STAT. 688, 43 U.S.C.A. 1601, ET SEQ, AND ANY AMENDMENTS AND ADDITIONS THERETO, AND ANY REGULATIONS ARISING THEREFROM.
6. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-007626-0.
NORTH
VICINITY MAP
LEGEND
CAP DETAIL
SURVEYOR'S CERTIFICATE
I, TERRY L. NICODEMUS, L.S. 9196, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.
Agenda Copy
RECEIVED
PLATTING
PRELIMINARY PLAT OF
UTOPIA VIEW II
CONTAINING 62.041 ACRES
PALMER RECORDING DISTRICT
ACUTEK GEOMATICS LLC
APPROVED AS SHOWN
CORRECTED
GCI ENGINEERING & DESIGN



RUN	DELTA	ARC	RADIUS	TANGENT	BEARING	DISTANCE
C1	90°11'54"	550.89'	350.00'	350.21'	S45°05'03"W	495.83'
C2	89°54'07"	549.59'	350.00'	349.81'	S45°00'03"E	494.84'
C3	81°32'34"	498.11'	350.00'	305.86'	S49°24'41"W	457.13'
C4	8°39'22"	52.88'	350.00'	26.49'	S 41°44'41" W	52.83'
C5	1°10'59"	7.85'	380.00'	3.93'	S89°35'27"W	7.85'
C6	20°24'52"	135.37'	380.00'	68.41'	S78°47'40"W	134.65'
C7	14°56'53"	99.14'	380.00'	49.85'	S61°00'55"W	98.86'
C8	19°00'07"	123.71'	380.00'	61.99'	S43°23'29"W	123.18'
C9	9°55'43"	65.85'	380.00'	33.07'	S30°10'38"W	65.77'
C10	9°16'17"	61.49'	380.00'	30.81'	S20°54'30"W	61.42'
C11	3°48'19"	21.25'	320.00'	10.63'	S88°16'47"W	21.25'
C12	65°07'21"	363.71'	320.00'	204.34'	S53°48'57"W	344.43'
C13	21°16'13"	118.80'	320.00'	60.09'	S10°37'10"W	118.11'
C14	74°04'34"	38.79'	30.00'	22.64'	N52°56'39"E	36.14'
C15	81°58'07"	47.01'	30.00'	29.38'	N43°09'00"W	42.41'
C16	90°00'00"	47.12'	30.00'	30.00'	S45°00'57"E	42.43'
C17	90°00'00"	47.12'	30.00'	30.00'	S44°59'03"W	42.43'
C18	43°20'50"	37.82'	50.00'	19.83'	N68°10'46"E	36.93'
C19	72°24'15"	75.82'	60.00'	43.92'	S82°50'40"E	70.88'
C20	42°58'19"	45.00'	60.00'	23.62'	N39°28'03"W	43.95'
C21	50°27'59"	54.91'	60.00'	29.58'	N 81°41'36" E	53.01'
C22	98°52'16"	103.54'	60.00'	70.10'	N83°53'19"E	91.16'
C23	43°29'56"	37.82'	50.00'	19.83'	N68°29'47"W	36.93'

PRELIMINARY PLAT OF
UTOPIA VIEW II
AQUEK
GRAPHIC SCALE
LEGEND

PLANNING AND LAND USE DIRECTOR'S CERTIFICATE

I CERTIFY THAT THE SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY THE PLAT RESOLUTION No. _____ DATED _____ 20___, AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.

_____, 20____.
Date

_____ ATTEST: _____
Planning and Land Use Director — Platting Clerk

CERTIFICATION OF PAYMENT OF TAXES

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

_____, 20___. _____
Date — Tax Collection Official (MATANUSKA-SUSITNA BOROUGH)

OWNERSHIP & DEDICATION CERTIFICATE

WE CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT, AND WE HEREBY DEDICATE ALL RIGHTS-OF-WAY TO THE MATANUSKA-SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN.

_____ _____
Date

FOXGLOVE LLC
ASHLEE S. STETSON - MANAGER
3201 E. TAMARAK AVE
WASILLA , AK 99654

NOTARY'S ACKNOWLEDGMENT

SUBSCRIBED AND SWORN TO ME THIS _____ DAY

OF _____, 20___,

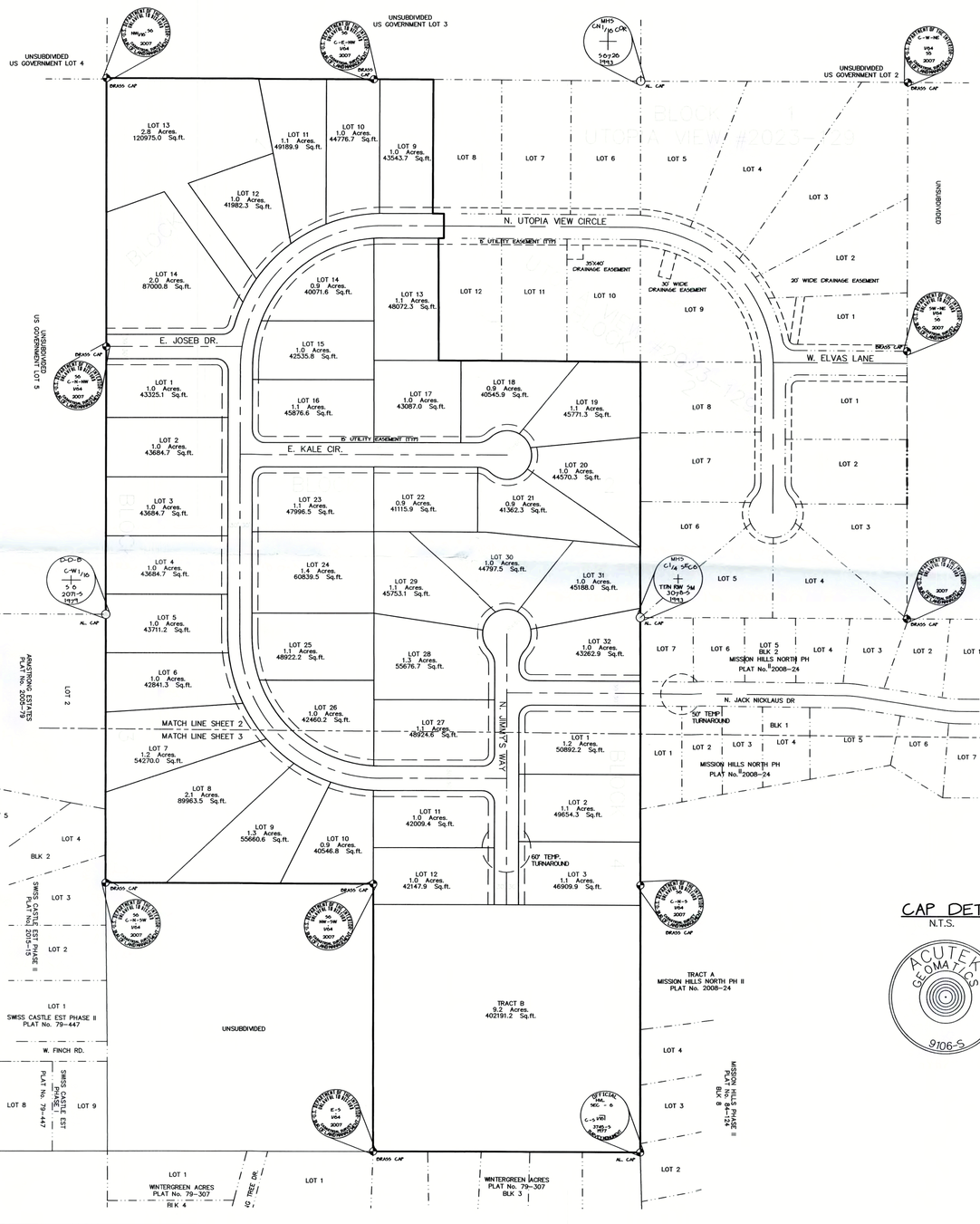
FOR _____.

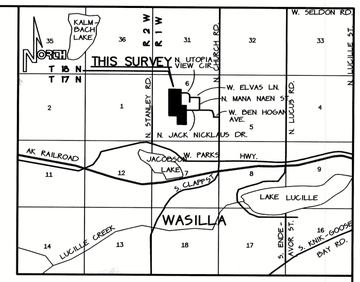
MY COMMISSION EXPIRES: _____.

_____
NOTARY PUBLIC FOR ALASKA

GENERAL NOTES

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6. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-009626-0.





VICINITY MAP
1" = 1 MILE

LEGEND

RECORD & MEASURED DATA (PLAT No. 2023-129)	(N 90°00'00" E)
MEASURED DATA	N 90°00'00" E
PROPERTY LINES	
ADJACENT PROPERTY LINES	
EASEMENT LINES	
CENTER LINE	
FOUND 3" BRASS CAP	
FOUND 3" ALUMINUM CAP	
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:	
RADIAL LINES	(R)
NON-RADIAL LINES	(NR)

SURVEYOR'S CERTIFICATE

I, TERRY L. NICODEMUS, L.S. 9106, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Agenda Copy

RECEIVED
APR 15 2025
PLATTING

STATE OF ALASKA — 49th — Terry L. Nicodemus — 9106-S — REGISTERED PROFESSIONAL LAND SURVEYOR

CAP DETAIL:
N.T.S.

ACUTEK GEOMATICS 9106-S

PRELIMINARY PLAT OF

UTOPIA VIEW II

CONTAINING 62.049 ACRES

A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA.

PALMER RECORDING DISTRICT

PREPARED BY
ACUTEK GEOMATICS LLC
5099 E. BLUE LUPINE DR. SUITE 104, WASILLA AK 99654
(907) 376-8800 FAX (907) 376-9629 E-MAIL admin@acutekurvey.com

DESIGNED BY: TLN	SCALE: NOT TO SCALE	FIELD BOOK:	19-01 23
DRAWN BY: TAN	DATE: 4/11/2025	MAP NO.:	WA 12
CHECKED: TLN	FILE No. 19-10.2	SHEET:	1 OF 3

GRAPHIC SCALE

100 0 50 100 200 400

1 INCH = 100 FEET

NORTH

LEGEND

RECORD & MEASURED DATA (PLAT No. 2023-129)	(N 90°00'00" E)
MEASURED DATA	N 90°00'00" E
PROPERTY LINES	
ADJACENT PROPERTY LINES	
EASEMENT LINES	
CENTER LINE	
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FOUND 3" ALUMINUM CAP	
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:	
RADIAL LINES	(R)
NON-RADIAL LINES	(NR)

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C19	72°24'15"	75.82'	60.00'	43.92'	S82°50'40"W	70.88'
C20	42°58'19"	45.00'	60.00'	23.62'	N39°28'03"W	43.95'
C21	52°25'59"	54.91'	60.00'	29.56'	N 8°14'06"E	53.01'
C22	98°52'28"	103.54'	60.00'	70.10'	N83°53'19"E	91.16'
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Agenda Copy

RECEIVED

APR 15 2025

PLATTING 4/11/25 ZCM

PRELIMINARY PLAT OF

UTOPIA VIEW II

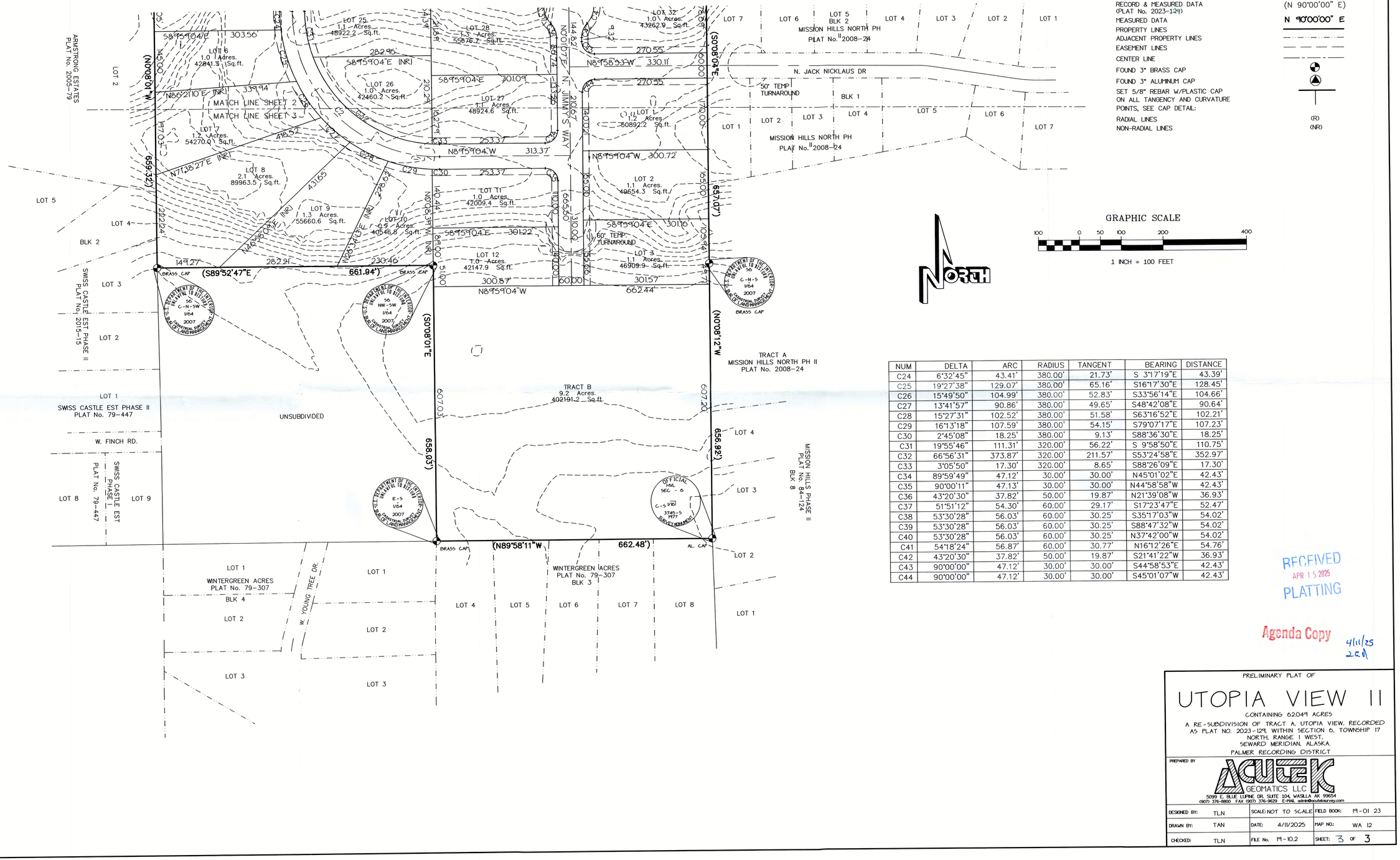
CONTAINING 62.049 ACRES

A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA. PALMER RECORDING DISTRICT

PREPARED BY

ACUTEK GEOMATICS LLC
5099 E. BLUE LUPINE DR. SUITE 104, WASILLA, AK 99654
(907) 376-8800 FAX (907) 376-9629 E-MAIL admin@acutekSurvey.com

DESIGNED BY: TLN	SCALE: NOT TO SCALE	FIELD BOOK:	19-01 23
DRAWN BY: TAN	DATE: 4/11/2025	MAP NO.:	WA 12
CHECKED: TLN	FILE No. 19-10.2	SHEET:	2 OF 3



NUM	DELTA	ARC	RADIUS	TANGENT	BEARING	DISTANCE
C24	6°32'45"	43.41'	380.00'	21.73'	S 3°17'19"E	43.39'
C25	19°27'38"	129.07'	380.00'	65.16'	S16°17'30"E	128.45'
C26	15°49'50"	104.99'	380.00'	52.83'	S33°56'14"E	104.66'
C27	13°41'57"	90.86'	380.00'	49.65'	S48°42'08"E	90.64'
C28	15°27'31"	102.52'	380.00'	51.58'	S63°16'52"E	102.21'
C29	16°13'18"	107.59'	380.00'	54.15'	S79°07'17"E	107.23'
C30	2°45'08"	18.25'	380.00'	9.13'	S88°36'30"E	18.25'
C31	19°55'46"	111.31'	320.00'	56.22'	S 9°58'50"E	110.75'
C32	66°56'31"	373.87'	320.00'	211.57'	S53°24'58"E	352.97'
C33	3°05'50"	17.30'	320.00'	8.65'	S88°26'09"E	17.30'
C34	89°59'49"	47.12'	30.00'	30.00'	N45°01'02"E	42.43'
C35	90°00'11"	47.13'	30.00'	30.00'	N44°58'58"W	42.43'
C36	43°20'30"	37.82'	50.00'	19.87'	N21°39'08"W	36.93'
C37	51°51'12"	54.30'	60.00'	29.17'	S17°23'47"E	52.47'
C38	53°30'28"	56.03'	60.00'	30.25'	S35°17'03"W	54.02'
C39	53°30'28"	56.03'	60.00'	30.25'	S88°47'32"W	54.02'
C40	53°30'28"	56.03'	60.00'	30.25'	N37°42'00"W	54.02'
C41	54°18'24"	56.87'	60.00'	30.77'	N16°12'26"E	54.76'
C42	43°20'30"	37.82'	50.00'	19.87'	S21°41'22"W	36.93'
C43	90°00'00"	47.12'	30.00'	30.00'	S44°58'53"E	42.43'
C44	90°00'00"	47.12'	30.00'	30.00'	S45°01'07"W	42.43'

RECEIVED
APR 15 2025
PLATTING

Agenda Copy 4/11/25 2 of 1

PRELIMINARY PLAT OF

UTOPIA VIEW II

CONTAINING 62.049 ACRES

A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA.

PALMER RECORDING DISTRICT

PREPARED BY
ACUTEK GEOMATICS LLC
5099 E. BLUE LUPINE DR. SUITE 104, WASILLA AK 99654
(907) 376-8800 FAX (907) 376-9629 E-MAIL admin@acutekSurvey.com

DESIGNED BY: TLN	SCALE: NOT TO SCALE	FIELD BOOK:	19-01 23
DRAWN BY: TAN	DATE: 4/11/2025	MAP NO.:	WA 12
CHECKED: TLN	FILE No. 19-10.2	SHEET:	3 OF 3

Matthew Goddard

From: phootenak@mtaonline.net
Sent: Monday, June 16, 2025 10:29 AM
To: Platting
Subject: Foxglove LLC - Proposed Utopia View II Subdivision

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

To Whom It May Concern:
I am writing to express my concerns and objection to the proposed Utopia View II Subdivision which is scheduled for a public hearing on June 19,2025.

My concerns are:

1. Access to the proposed subdivision off Church Road via Ben Hogan to Jack Niclaus Drive. Both streets are within the Mission Hills Subdivision and were not built for the proposed traffic to the proposed subdivision. Both streets will need to be upgraded for the proposed traffic if the plat is approved.
2. Water for the proposed subdivision. Right now, Mission Hills is experiencing reduced water quality, and this subdivision will need to have its own water supply.
3. Construction traffic: the streets used for access to the proposed subdivision are not equipped to handle contraction equipment and potential residential traffic.

With these outlined concerns, I object to the approval of this proposed subdivision. Unless the City of Wasilla can address the objections, this proposed subdivision will cause increased traffic and strain on the current water supply for Mission Hills. Construction equipment will deteriorate the already deteriorating subdivision streets.

Pauline S Hooten
900 North Arnold Palmers Street
Wasilla, AK
PO Box 873637
Wasilla, AK 99687
907-373-1715 – home
907-355-3409 – cell

Matthew Goddard

From: Jamie Taylor
Sent: Wednesday, July 9, 2025 11:42 AM
To: Matthew Goddard
Cc: Brad Sworts; Tammy Simmons
Subject: Re: RFC Utopia View II (MG)

Hi Matthew,

PD&E does not object to removing the requirement to construct E Joseb Drive, as physical access is provided to all lots by the adjoining streets.

Thank you,
PD&E Review Group

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, July 2, 2025 11:43 AM
To: sarah.myers@alaska.gov <sarah.myers@alaska.gov>; colton.percy@alaska.gov <colton.percy@alaska.gov>; Cindy Wellman <cwellman@cityofwasilla.gov>; Planning <planning@cityofwasilla.gov>; PW Shared <publicworks@cityofwasilla.gov>; Crystal Nygard <cnygard@cityofwasilla.gov>; jbarnett@cityofwasilla.gov <jbarnett@cityofwasilla.gov>; Tim Swezey <tim.swezey@mlccak.org>; Patricia Fisher <psfisherak49@gmail.com>; information@mlccak.org <information@mlccak.org>; camden.yehle@gmail.com <camden.yehle@gmail.com>; lana@mtaonline.net <lana@mtaonline.net>; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov <eric.r.schuler@usps.gov>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop <mearow@mea.coop>
Subject: RFC Utopia View II (MG)

Hello,

The following link is a request for comments for the proposed Utopia View II.
This case is being brought back before the Platting Board at the Request of the Petitioner to modify Condition of Approval 4a.
Please ensure all comments have been submitted by July 18, 2025, so they can be incorporated in the staff report packet that will be presented at the platting board hearing.

Utopia View II

Matthew Goddard

From: Permit Center
Sent: Wednesday, July 2, 2025 2:15 PM
To: Matthew Goddard
Subject: RE: RFC Utopia View II (MG)

Each access or encroachment constructed during subdivision road development shall be reported to the Permit Center for documentation. Cluster box pullout locations should be designed using the MSB Standard Drawing – Mailbox Pullouts, and in alignment with lot lines as shown on the plat layout.

Any water system, sewer lines, or street lighting placed in the right-of-way shall require a utility permit.

No other comments from the Permit Center.

Brandon Tucker
Permit Technician
Matanuska-Susitna Borough Permit Center
350 E Dahlia Ave
Palmer AK 99645
P (907) 861-7871
F (907) 861-8158

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, July 2, 2025 11:44 AM
To: sarah.myers@alaska.gov; colton.percy@alaska.gov; Cindy Wellman <cwellman@cityofwasilla.gov>; Planning <planning@cityofwasilla.gov>; PW Shared <publicworks@cityofwasilla.gov>; Crystal Nygard <cnygard@cityofwasilla.gov>; jbarnett@cityofwasilla.gov; Tim Swezey <tim.swezey@mlccak.org>; Patricia Fisher <psfisherak49@gmail.com>; information@mlccak.org; camden.yehle@gmail.com; lana@mtaonline.net; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Utopia View II (MG)

Hello,

The following link is a request for comments for the proposed Utopia View II.
This case is being brought back before the Platting Board at the Request of the Petitioner to modify Condition of Approval 4a.
Please ensure all comments have been submitted by July 18, 2025, so they can be incorporated in the staff report packet that will be presented at the platting board hearing.

MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department
Code Compliance Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822 • Fax (907) 745-9876
E-mail: ccb@matsugov.us

MEMORANDUM

DATE: 7/14/2025

TO: Matthew Goddard, Platting Technician

FROM: Kendra Johnson, CFM
Senior Code Compliance Office

SUBJECT: Proposed Platting action for Utopia View II 2025-061

No open Code Compliance cases/violations on MSB Tax ID 8415000T00A; Platting action PLAT-2025-000061 at this time.

Code Compliance has no objection to removing the requirement to construct the proposed E. Joseb Drive at this time.

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

May 19, 2025

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

To whom it may concern:

ENSTAR Natural Gas Company, LLC has reviewed preliminary plat **UTOPIA VIEW II (MSB Case # 2025-061)** and advises that ENSTAR has an existing 15FT wide natural gas easement located within Utopia View II.

1. Please add a note which refers to ENSTAR 15FT wide natural gas easement, said easement can be found under recording number 2022-011389-0.

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

Sincerely,

James Christopher

James Christopher
Right Of Way & Permitting Agent
ENSTAR Natural Gas Company, LLC

ALASKA
2022-011389-0
Recording District 311 Palmer CC
05/17/2022 02:12 PM Page 1 of 2

ENSTAR Natural Gas Company
RIGHT-OF-WAY EASEMENT

FOXGLOVE, LLC, whose current mailing address is 3201 E Tamarak Ave, Wasilla, AK 99654, hereinafter called Grantor, for Ten Dollars, ($10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, does hereby convey and warrant to **ENSTAR Natural Gas Company, a division of SEMCO Energy, Inc., whose address is P.O. Box 190288, Anchorage, Alaska 99519-0288,** hereinafter called Grantee, its successors and assigns, a right-of-way easement to construct, lay, maintain, operate, alter, repair, remove, and replace pipelines and appurtenance, including metering and regulation facilities, thereto for the transportation of natural gas under, upon, over and through lands which the Grantor owns or in which the Grantor has an interest, situated in the **Palmer** Recording District, Third Judicial District, State of Alaska, and more particularly described as follows:

A natural gas easement situated over all that part of the West one-half of the Southwest one-quarter of the Northeast one-quarter (W1/2 SW1/4 NE1/4), and the Northeast one-quarter of the Southeast one-quarter of the Northwest one-quarter (NE1/4 SE1/4 NW1/4), and the Northwest one-quarter of the Southeast one-quarter of the Northwest one-quarter, and the Southwest one-quarter of the Southeast one-quarter of the Northwest one-quarter (SW1/4 SE1/4 NW1/4), of Section 6, Township 17 North, Range 1 West, Seward Meridian, State of Alaska.

Providing that said easement shall reduce to a fifteen feet (15 FT) wide natural gas easement, centered on the natural gas pipelines installed under, over, upon, and through said parcel.

This easement shall automatically vacate upon dedication of a valid public right-of-way in which to install, maintain, repair, and replace natural gas facilities is appropriately situated over the natural gas facilities installed hereunder, and an adequate utility permit allowing for installation of natural gas facilities is conveyed from the permitting authority.

The Grantee, its successor and assigns, is hereby expressly given and granted the right to assign said right-of-way easement herein granted and conveyed, or any part thereof or interest herein. The same shall be divisible among two or more owners as to any right or rights granted hereunder so that each assignee or owner shall have the rights and privileges herein granted, to be enjoyed either in common or in severalty.

This easement is given to the Grantee, its successors and assigns, with right of ingress and egress from the premises for the purposes herein granted:

The said Grantor is to fully use and enjoy said premises except for the purposes herein granted to the said Grantee and the said Grantor shall not construct or permit to be constructed any house, structures or obstructions on or over said gas easement that will interfere with the construction, maintenance, repair or operation of pipelines or appurtenance, including metering and regulation facilities, constructed hereunder and will not change the grade of such pipelines.

Grantee hereby agrees to bury all pipeline improvements to sufficient depth to not interfere with cultivation of the soil and agrees to repair or replace in kind, to prior existing condition, damaged landscaping, fencing, roads, parking areas and related improvements which may arise from the construction, maintenance, operation of said lines, and replacement, upgrade or addition of new gas lines.

The Grantor covenants with ENSTAR that they have good title to said lands and have full authority to grant said easement, either jointly or severally, and acknowledge they executed this agreement freely and voluntarily for the uses and purposes herein stated, in all cases holding ENSTAR harmless against claimants, heirs, successors, assigns and remaindermen.

FOXGLOVE, LLC

By: Ashlee Stetson
Its: MANAGER
Date: 3-21-22

CORPORATE ACKNOWLEDGMENT

STATE OF ALASKA)
) **SS**
THIRD JUDICIAL DISTRICT)

This certifies that on this 21st day of MARCH, 2022, before me, the undersigned, a Notary Public in and for the State of ALASKA, personally appeared Ashlee Stetson, authorized representative of **FOXGLOVE, LLC,** and known to me to be the person named as the Grantor in the foregoing easement and they acknowledged to me that they executed the same freely and voluntarily for the uses and purposes therein stated, and of oath stated they have Full Authority to grant said easement:

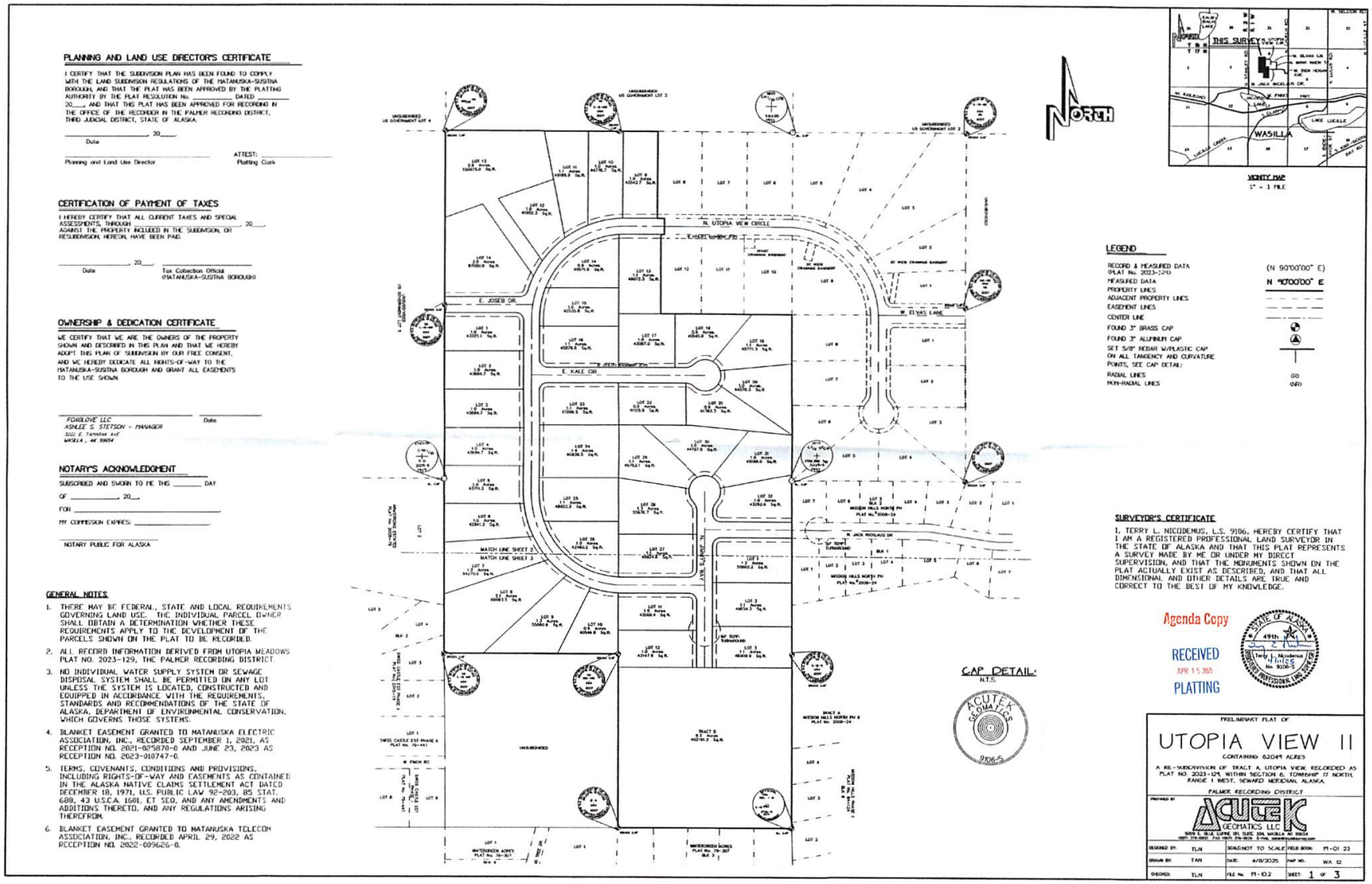
WITNESS my hand and official seal the day and year in this certificate first above written.

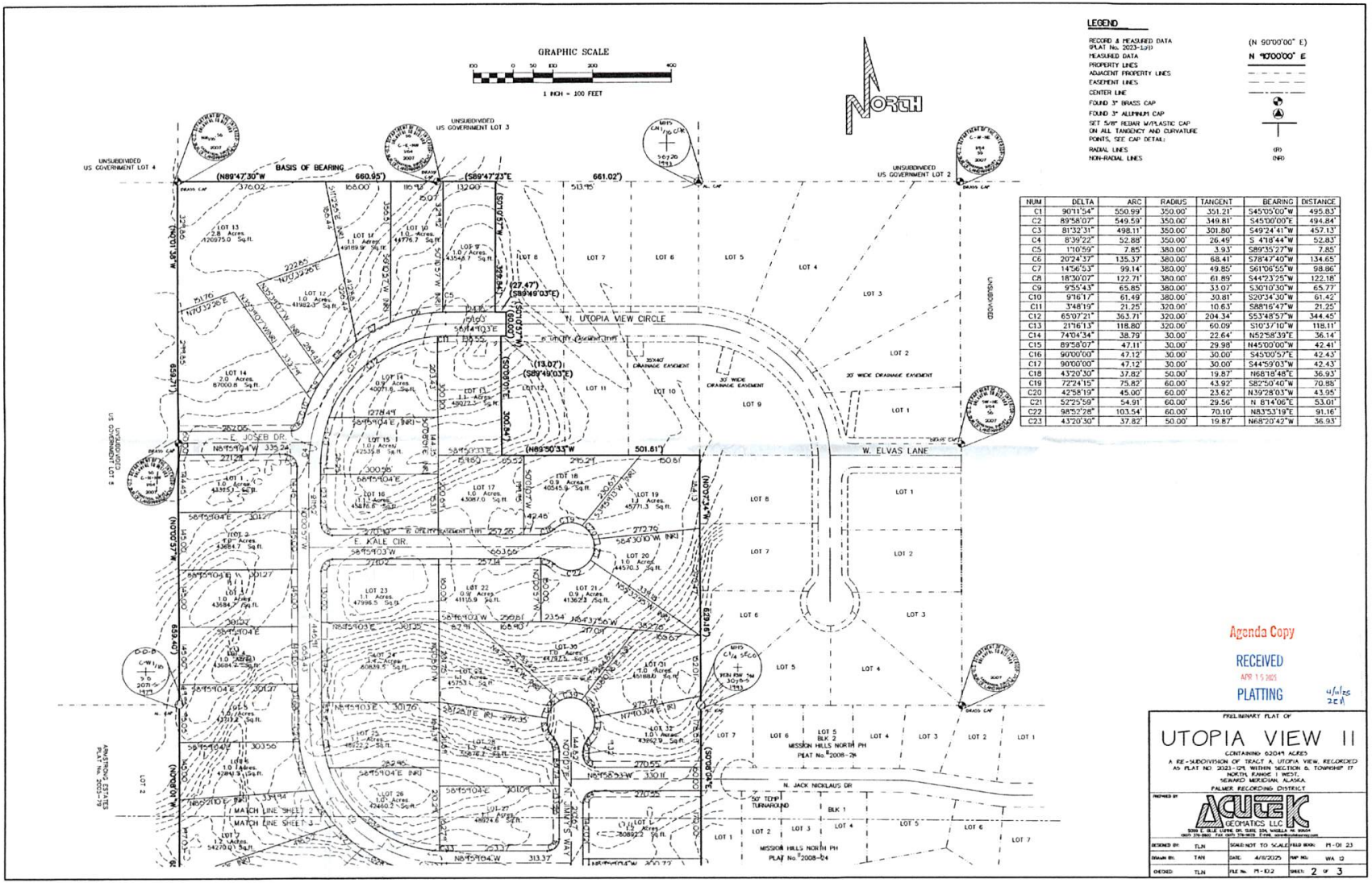
Michelle Clapp
Notary Public, State of ALASKA

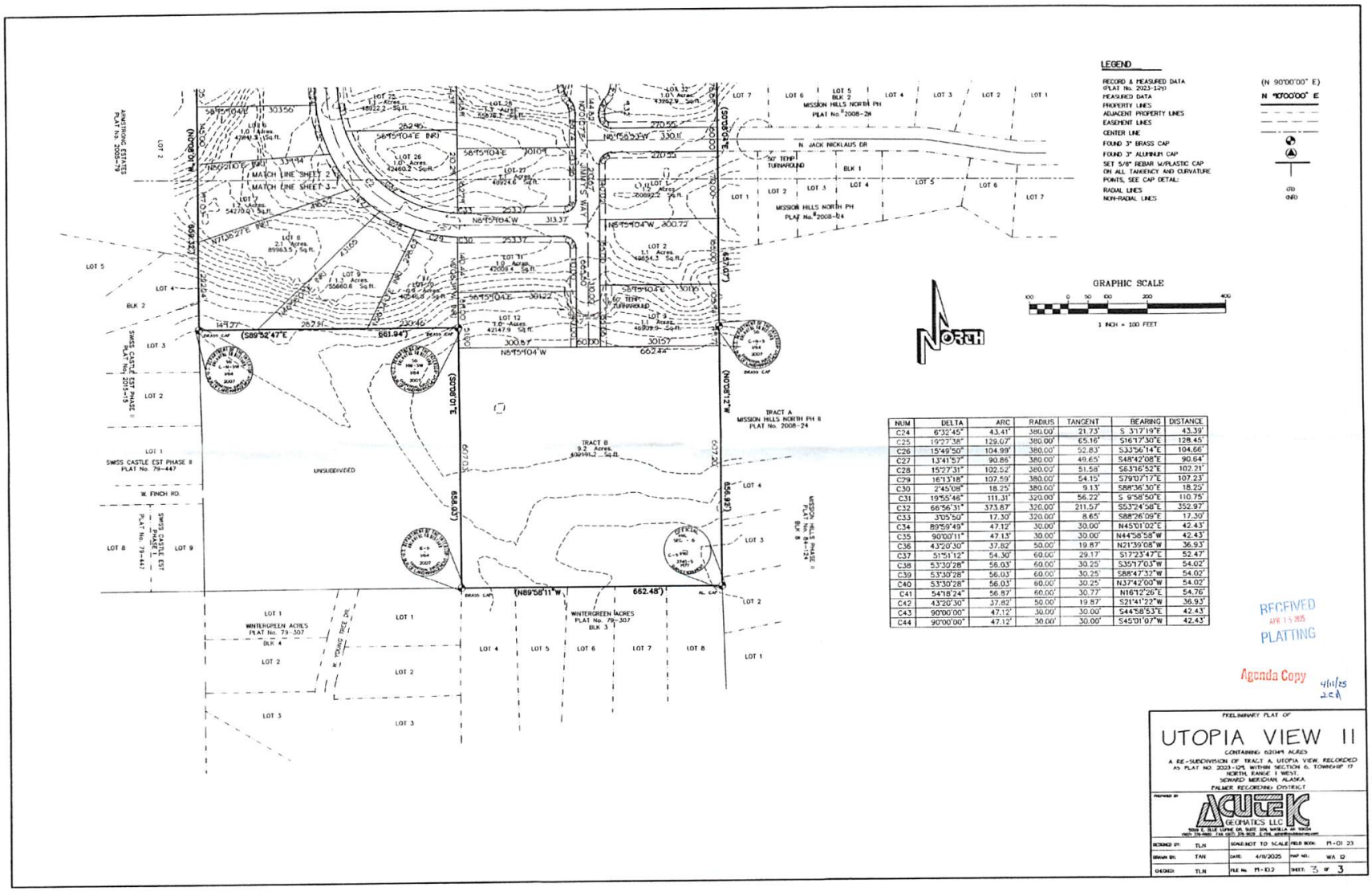
STATE OF ALASKA
NOTARY PUBLIC
Michelle Clapp
My Commission Expires Mar 12, 2023

Please Return To:
ENSTAR Natural Gas Company
Engineering Department, Right of Way Section
PO Box 190288
Anchorage, AK 99519-0288

Grid: NW3954 & NW3955
Prop: 8286


PLANNING AND LAND USE DIRECTOR'S CERTIFICATE
I CERTIFY THAT THE SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY THE PLAT RESOLUTION No. _____ DATED _____ 20___, AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.
_____ 20___
Date
Planning and Land Use Director
ATTEST: _____
Platting Clerk
CERTIFICATION OF PAYMENT OF TAXES
I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS, THROUGH _____ 20___, AGAINST THE PROPERTY INCLUDED IN THE SUBDIVISION, OR RESUBDIVISION, HEREON, HAVE BEEN PAID.
_____ 20___
Date
Tax Collection Official
@MATANUSKA-SUSITNA BOROUGH
OWNERSHIP & DEDICATION CERTIFICATE
WE CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT, AND WE HEREBY DEDICATE ALL RIGHTS-OF-WAY TO THE MATANUSKA-SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN
_____ _____
FOXGLOVE LLC Date
ASHLEE S. STETSON - MANAGER
332 E Turnstone Ave
WASILLA, AK 99654
NOTARY'S ACKNOWLEDGMENT
SUBSCRIBED AND SWORN TO ME THIS _____ DAY
OF _____, 20___,
FOR _____
MY COMMISSION EXPIRES: _____
NOTARY PUBLIC FOR ALASKA
GENERAL NOTES
1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. ALL RECORD INFORMATION DERIVED FROM UTOPIA MEADOWS PLAT NO. 2023-129, THE PALMER RECORDING DISTRICT.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
4. BLANKET EASEMENT GRANTED TO MATANUSKA ELECTRIC ASSOCIATION, INC., RECORDED SEPTEMBER 1, 2021, AS RECEPTION NO. 2021-025870-0 AND JUNE 23, 2023 AS RECEPTION NO. 2023-010747-0.
5. TERMS, COVENANTS, CONDITIONS AND PROVISIONS, INCLUDING RIGHTS-OF-WAY AND EASEMENTS AS CONTAINED IN THE ALASKA NATIVE CLAIMS SETTLEMENT ACT DATED DECEMBER 18, 1971, U.S. PUBLIC LAW 92-203, 85 STAT. 688, 43 U.S.C.A. 1601, ET SEQ, AND ANY AMENDMENTS AND ADDITIONS THERETO, AND ANY REGULATIONS ARISING THEREFROM.
6. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-009626-0.
NORTH
N. UTOPIA VIEW CIRCLE
E. JOSEB DR.
E. KALE DR.
W. ELVAS LAKE
N. JACK MCGLAIN DR
MATCH LINE SHEET 2
MATCH LINE SHEET 3
CAP DETAIL
N.T.S.
ACUTEK GEOMATICS
9106-S
THIS SURVEY
VICINITY MAP
1" = 1 MILE
WASILLA
LAKE LUCILLE
LEGEND
RECORD & MEASURED DATA PLAT No. 2023-129 (N 90°00'00" E)
MEASURED DATA N 90°00'00" E
PROPERTY LINES
ADJACENT PROPERTY LINES
EASEMENT LINES
CENTER LINE
FOUND 3" BRASS CAP
FOUND 3" ALUMINUM CAP
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL
RADIAL LINES GD
NON-RADIAL LINES GND
SURVEYOR'S CERTIFICATE
I, TERRY L. NICODEMUS, L.S. 9106, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.
Agenda Copy
RECEIVED
APR 1 5 2025
PLATTING
STATE OF ALASKA
49th
Terry L. Nicodemus
No. 9106-S
PRELIMINARY PLAT OF
UTOPIA VIEW II
CONTAINING 62.049 ACRES
A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA.
PALMER RECORDING DISTRICT
PREPARED BY
ACUTEK GEOMATICS LLC
DESIGNED BY: TLN
DRAWN BY: TAN
CHECKED: TLN
SCALE/HOT TO SCALE
DATE: 4/8/2025
FILE No. 19-102
FIELD BOOK: 19-01 23
MAP NO.: WA 12
SHEET: 1 OF 3


GRAPHIC SCALE
1 INCH = 100 FEET
NORTH
LEGEND
RECORD & MEASURED DATA (PLAT No. 2023-129) (N 90°00'00" E)
MEASURED DATA N 90°00'00" E
PROPERTY LINES
ADJACENT PROPERTY LINES
EASEMENT LINES
CENTER LINE
FOUND 3" BRASS CAP
FOUND 3" ALUMINUM CAP
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL: (PD)
RADIAL LINES
NON-RADIAL LINES (NRD)
BASIS OF BEARING
(N89°47'30"W 660.95')
(S89°47'23"E 661.02')
UNSUBDIVIDED US GOVERNMENT LOT 4
UNSUBDIVIDED US GOVERNMENT LOT 3
UNSUBDIVIDED US GOVERNMENT LOT 2
N. UTOPIA VIEW CIRCLE
E. JOSEB DR.
E. KALE CIR.
W. ELVAS LANE
N. JACK NICKLAUS DR
50' TOFP TURNAROUND
MATCH LINE SHEET 2
MATCH LINE SHEET 3
20' WIDE DRAINAGE EASEMENT
30' WIDE DRAINAGE EASEMENT
LOT 1 1.0 Acres 43955.1 Sq.ft.
LOT 2 1.0+ Acres 43684.7 Sq.ft.
LOT 3 1.0 Acres 43684.7 Sq.ft.
LOT 4 1.0 Acres 43684.7 Sq.ft.
LOT 5 1.0 Acres 43684.7 Sq.ft.
LOT 6 1.0 Acres 43684.7 Sq.ft.
LOT 7 1.0 Acres 43684.7 Sq.ft.
LOT 8 1.0 Acres 43684.7 Sq.ft.
LOT 9 1.0 Acres 43549.7 Sq.ft.
LOT 10 1.0 Acres 44776.7 Sq.ft.
LOT 11 1.0 Acres 49159.9 Sq.ft.
LOT 12 1.0 Acres 41982.3 Sq.ft.
LOT 13 2.8 Acres 120975.0 Sq.ft.
LOT 14 2.0 Acres 87000.8 Sq.ft.
LOT 15 1.0 Acres 43755.0 Sq.ft.
LOT 16 1.1 Acres 47676.6 Sq.ft.
LOT 17 1.0 Acres 43681.0 Sq.ft.
LOT 18 0.9 Acres 40545.9 Sq.ft.
LOT 19 1.0 Acres 45771.3 Sq.ft.
LOT 20 1.0 Acres 44570.3 Sq.ft.
LOT 21 0.9 Acres 41362.3 Sq.ft.
LOT 22 0.9 Acres 41152.9 Sq.ft.
LOT 23 1.1 Acres 47996.5 Sq.ft.
LOT 24 1.0 Acres 43684.7 Sq.ft.
LOT 25 1.1 Acres 48026.6 Sq.ft.
LOT 26 1.0 Acres 42460.2 Sq.ft.
LOT 27 1.1 Acres 48924.6 Sq.ft.
LOT 28 1.0 Acres 43676.2 Sq.ft.
LOT 29 1.0 Acres 44782.6 Sq.ft.
LOT 30 1.0 Acres 44782.6 Sq.ft.
LOT 31 1.0 Acres 45186.8 Sq.ft.
LOT 32 1.0 Acres 43962.9 Sq.ft.
LOT A 1.2 Acres 50892.2 Sq.ft.
MISSION HILLS NORTH PH PLAT No. 2008-24
MISSION HILLS NORTH PH PLAT No. 2008-64
ARMSTRONG ESTATES PLAT No. 2003-76
NUM DELTA ARC RADIUS TANGENT BEARING DISTANCE
C1 90°11'54" 550.99' 350.00' 351.21' S45°05'00"W 495.83'
C2 89°58'07" 549.59' 350.00' 349.81' S45°00'00"E 494.84'
C3 81°32'31" 498.11' 350.00' 301.80' S49°24'41"W 457.13'
C4 8°39'22" 52.88' 350.00' 26.49' S 4°16'44"W 52.83'
C5 1°10'59" 7.85' 380.00' 3.93' S89°35'27"W 7.85'
C6 20°24'37" 135.37' 380.00' 68.41' S78°47'40"W 134.65'
C7 14°56'53" 99.14' 380.00' 49.85' S61°06'55"W 98.86'
C8 18°30'07" 122.71' 380.00' 61.89' S44°23'25"W 122.18'
C9 9°55'43" 65.85' 380.00' 33.07' S30°10'30"W 65.77'
C10 9°16'17" 61.49' 380.00' 30.81' S20°34'30"W 61.42'
C11 3°48'19" 21.25' 320.00' 10.63' S88°16'47"W 21.25'
C12 65°07'21" 363.71' 320.00' 204.34' S53°48'57"W 344.45'
C13 21°16'13" 118.80' 320.00' 60.09' S10°37'10"W 118.11'
C14 74°04'34" 38.79' 30.00' 22.64' N52°58'39"E 36.14'
C15 89°58'07" 47.11' 30.00' 29.98' N45°00'00"W 42.41'
C16 90°00'00" 47.12' 30.00' 30.00' S45°00'57"E 42.43'
C17 90°00'00" 47.12' 30.00' 30.00' S44°59'03"W 42.43'
C18 43°20'30" 37.82' 50.00' 19.87' N68°18'48"E 36.93'
C19 72°24'15" 75.82' 60.00' 43.92' S82°50'40"W 70.88'
C20 42°58'19" 45.00' 60.00' 23.62' N39°28'03"W 43.95'
C21 52°25'59" 54.91' 60.00' 29.56' N 8°14'06"E 53.01'
C22 98°52'28" 103.54' 60.00' 70.10' N83°53'19"E 91.16'
C23 43°20'30" 37.82' 50.00' 19.87' N68°20'42"W 36.93'
Agenda Copy
RECEIVED
APR 15 2025
PLATTING
4/9/25 2CA
PRELIMINARY PLAT OF
UTOPIA VIEW II
CONTAINING 62049 ACRES
A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA
PALMER RECORDING DISTRICT
PREPARED BY
ACUTEK GEOMATICS LLC
3200 E. BLUE LUPINE DR. SUITE 204, WASILLA, AK 99654
(907) 376-8601 FAX (907) 376-8615 EMAIL: acutek@acutekgeo.com
DESIGNED BY: TLN
DRAWN BY: TAN
CHECKED: TLN
SCALE: NOT TO SCALE
DATE: 4/8/2025
FILE No. 19-102
FIELD BOOK: 19-01 23
MAP NO.: WA 12
SHEET: 2 OF 3


LEGEND
RECORD & MEASURED DATA (PLAT No. 2023-129)
MEASURED DATA
PROPERTY LINES
ADJACENT PROPERTY LINES
EASEMENT LINES
CENTER LINE
FOUND 3" BRASS CAP
FOUND 3" ALUMINUM CAP
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL
RADIAL LINES
NON-RADIAL LINES
(N 90°00'00" E)
N 90°00'00" E
(RD)
(RAD)
GRAPHIC SCALE
1 INCH = 100 FEET
NORTH
MATCH LINE SHEET 2
MATCH LINE SHEET 3
N. JACK NICKLAUS DR
50' TEMP. TURNAROUND
MISSION HILLS NORTH PH PLAT No. 2008-24
ARMSTRONG ESTATES PLAT No. 2005-79
SWISS CASTLE EST PHASE II PLAT No. 2015-19
SWISS CASTLE EST PLAT No. 79-447
W. FINCH RD.
UNSUBDIVIDED
TRACT A MISSION HILLS NORTH PH II PLAT No. 2008-24
TRACT B 9.2 Acres 401191.2 Sq.ft.
WINTERGREEN ACRES PLAT No. 79-307 BLK 3
WINTERGREEN ACRES PLAT No. 79-307 BLK 4
YOUNG RIDE DR.
(S89°52'47"E 661.94')
(S89°58'11"W 662.48')
N89°59'04"W 313.37'
N89°59'04"W 300.72'
N89°59'04"W 300.67'
N89°59'04"W 662.44'
S89°59'04"E (INT.)
S89°59'04"E
N89°59'04"W
N89°59'04"W 330.11'
N89°59'04"W 270.50'
S89°59'04"E 301.22'
S89°59'04"E 301.57'
S89°59'04"E 301.22'
S89°59'04"E 301.57'
N89°59'04"W 301.22'
N89°59'04"W 301.57'
N89°59'04"W 330.44'
N89°59'04"W 330.46'
N89°59'04"W 330.46'
N89°59'04"W 330.46

Matthew Goddard

From: OSP Design Group <ospdesign@gci.com>
Sent: Wednesday, July 16, 2025 10:41 AM
To: Matthew Goddard
Cc: OSP Design Group
Subject: RE: RFC Utopia View II (MG)
Attachments: Agenda Plat (54).PDF

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

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

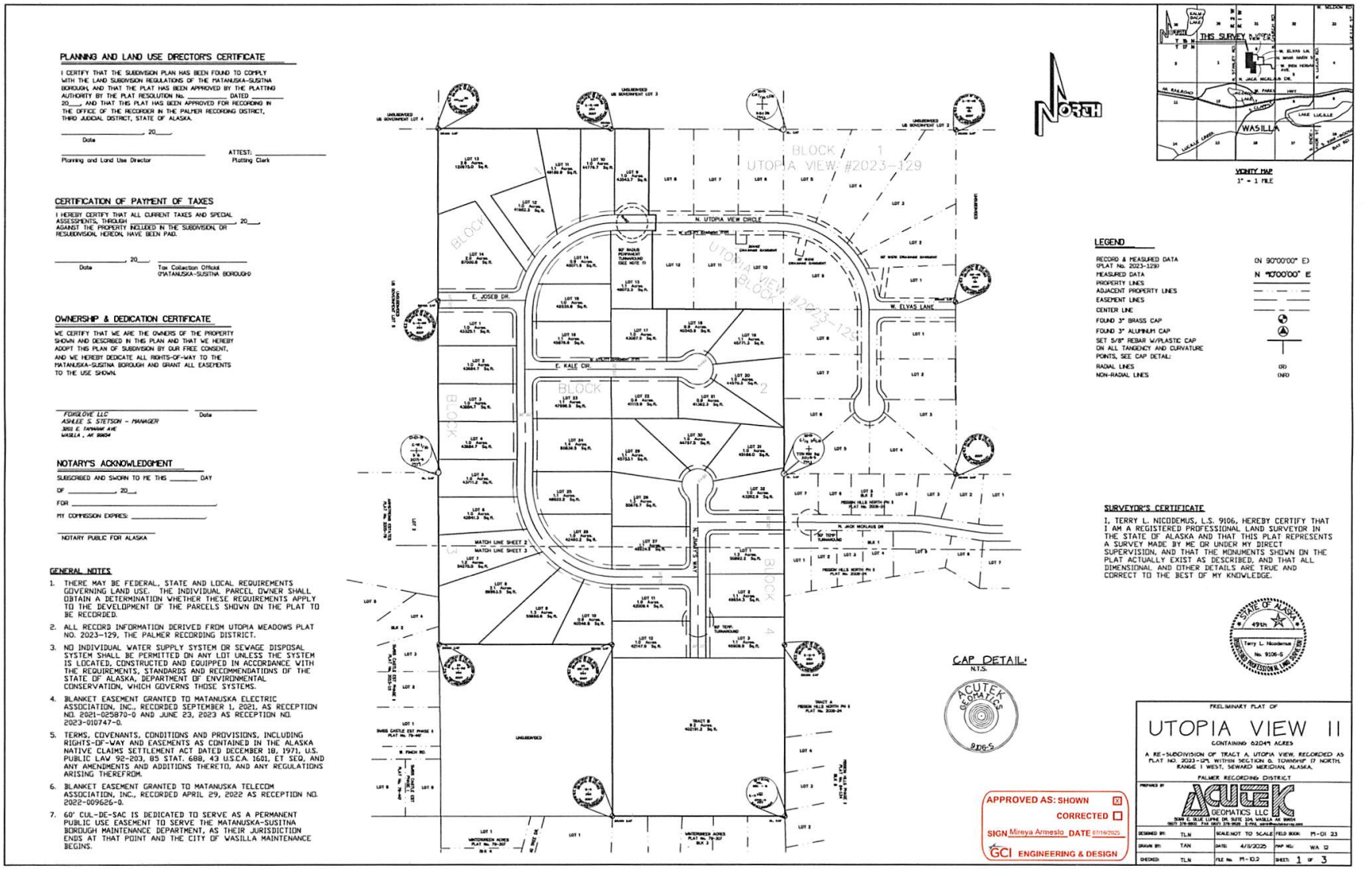
Thanks,
GCI | OSP Design
1001 Northway Dr., 1st Floor, Anchorage, AK 99508
e: OSPDesign@gci.com | **w:** www.gci.com

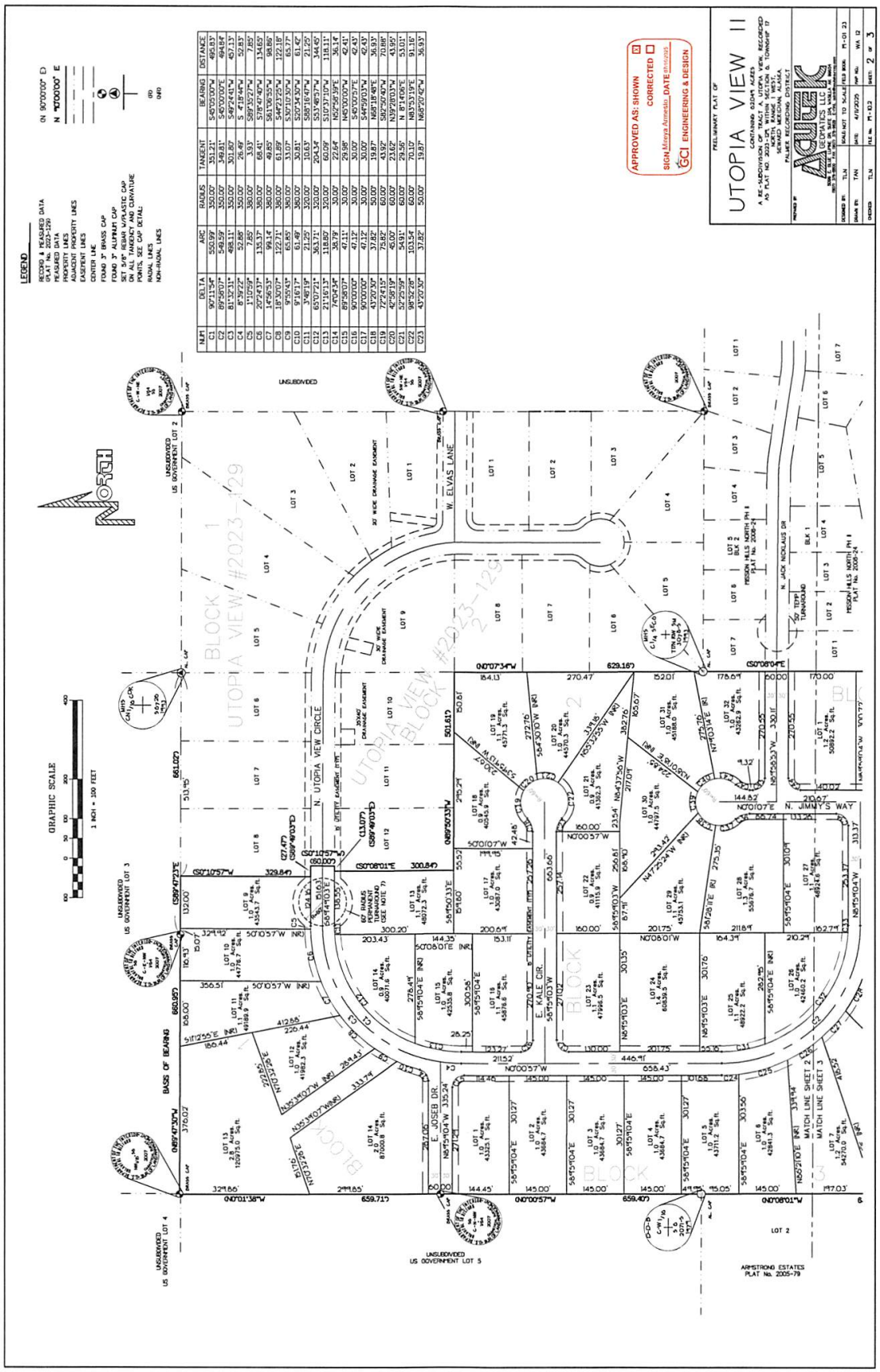
From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, July 2, 2025 11:44 AM
To: sarah.myers@alaska.gov; colton.percy@alaska.gov; Cindy Wellman <cwellman@cityofwasilla.gov>; Planning <planning@cityofwasilla.gov>; PW Shared <publicworks@cityofwasilla.gov>; Crystal Nygard <cnygard@cityofwasilla.gov>; jbarnett@cityofwasilla.gov; Tim Swezey <tim.swezey@mlccak.org>; Patricia Fisher <psfisherak49@gmail.com>; information@mlccak.org; camden.yehle@gmail.com; lana@mtaonline.net; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Utopia View II (MG)

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

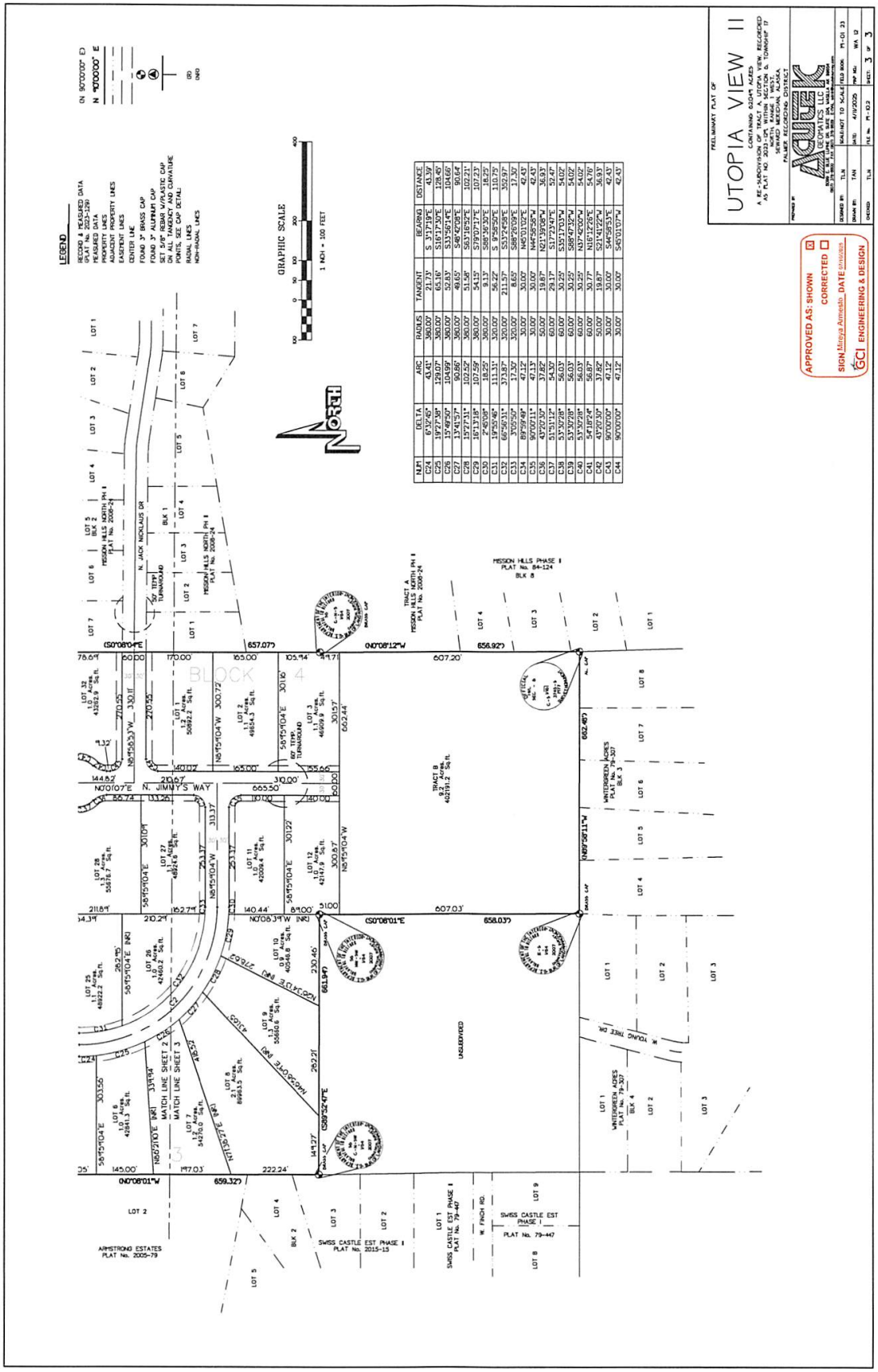
Hello,

The following link is a request for comments for the proposed Utopia View II.
This case is being brought back before the Platting Board at the Request of the Petitioner to modify Condition of Approval 4a.
Please ensure all comments have been submitted by July 18, 2025, so they can be incorporated in the staff report packet that will be presented at the platting board hearing.


PLANNING AND LAND USE DIRECTOR'S CERTIFICATE
I CERTIFY THAT THE SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY THE PLAT RESOLUTION No. _____ DATED _____ 20___, AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.
_____, 20___.
Date
Planning and Land Use Director
ATTEST: _____
Platting Clerk
CERTIFICATION OF PAYMENT OF TAXES
I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS, THROUGH _____, 20___, AGAINST THE PROPERTY INCLUDED IN THE SUBDIVISION, OR RESUBDIVISION, HEREON, HAVE BEEN PAID.
_____, 20___
Date
Tax Collection Official
OF MATANUSKA-SUSITNA BOROUGH
OWNERSHIP & DEDICATION CERTIFICATE
WE CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT, AND WE HEREBY DEDICATE ALL RIGHTS-OF-WAY TO THE MATANUSKA-SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN.
FOXGLOVE LLC
ASHLEE S. STETSON - MANAGER
3801 E. TAPWAW AVE
WASILLA, AK 99654
Date
NOTARY'S ACKNOWLEDGMENT
SUBSCRIBED AND SWORN TO ME THIS _____ DAY
OF _____, 20___,
FOR _____
MY COMMISSION EXPIRES: _____
NOTARY PUBLIC FOR ALASKA
GENERAL NOTES
1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. ALL RECORD INFORMATION DERIVED FROM UTOPIA MEADOWS PLAT NO. 2023-129, THE PALMER RECORDING DISTRICT.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
4. BLANKET EASEMENT GRANTED TO MATANUSKA ELECTRIC ASSOCIATION, INC., RECORDED SEPTEMBER 1, 2021, AS RECEPTION NO. 2021-025870-0 AND JUNE 23, 2023 AS RECEPTION NO. 2023-010747-0.
5. TERMS, COVENANTS, CONDITIONS AND PROVISIONS, INCLUDING RIGHTS-OF-WAY AND EASEMENTS AS CONTAINED IN THE ALASKA NATIVE CLAIMS SETTLEMENT ACT DATED DECEMBER 18, 1971, U.S. PUBLIC LAW 92-203, 85 STAT. 688, 43 U.S.C.A. 1601, ET SEQ, AND ANY AMENDMENTS AND ADDITIONS THERETO, AND ANY REGULATIONS ARISING THEREFROM.
6. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-009626-0.
7. 60' CUL-DE-SAC IS DEDICATED TO SERVE AS A PERMANENT PUBLIC USE EASEMENT TO SERVE THE MATANUSKA-SUSITNA BOROUGH MAINTENANCE DEPARTMENT, AS THEIR JURISDICTION ENDS AT THAT POINT AND THE CITY OF WASILLA MAINTENANCE BEGINS.
BLOCK 1
UTOPIA VIEW #2023-129
N. UTOPIA VIEW CIRCLE
E. JOSEB DR.
W. ELVAS LANE
E. KALE CIR.
N. JACK MCKLAUS DR
N. JANET WAY
MATCH LINE SHEET 2
MATCH LINE SHEET 3
UNSURVEYED
NORTH
THIS SURVEY
VICINITY MAP
1" = 1 MILE
WASILLA
LAKE LUCILLE
LEGEND
RECORD & MEASURED DATA (PLAT No. 2023-129)
MEASURED DATA
PROPERTY LINES
ADJACENT PROPERTY LINES
EASEMENT LINES
CENTER LINE
FOUND 3" BRASS CAP
FOUND 3" ALUMINUM CAP
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:
RADIAL LINES
NON-RADIAL LINES
(N 90°00'00" E)
N 90°00'00" E
(R)
(NR)
SURVEYOR'S CERTIFICATE
I, TERRY L. NICODEMUS, L.S. 9106, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.
STATE OF ALASKA
49th
Terry L. Nicodemus
No. 9106-S
REGISTERED PROFESSIONAL LAND SURVEYOR
CAP DETAIL:
N.T.S.
ACUTEK GEOMATICS
9106-S
APPROVED AS: SHOWN
CORRECTED
SIGN Mireya Armesto DATE 07/16/2025
GCI ENGINEERING & DESIGN
PRELIMINARY PLAT OF
UTOPIA VIEW II
CONTAINING 6.2049 ACRES
A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA.
PALMER RECORDING DISTRICT
PREPARED BY
ACUTEK GEOMATICS LLC
DESIGNED BY: TLN
DRAWN BY: TAN
CHECKED: TLN
SCALE: NOT TO SCALE
DATE: 4/3/2025
FILE No.: M-102
FIELD BOOK: M-01 23
MAP NO.: WA 12
SHEET: 1 OF 3



NUM	DELTA	ARC	RADIUS	TANGENT	BEARING	DISTANCE
C1	90°35'54"	550.99'	350.00'	351.21'	S45°05'00"W	496.83'
C2	89°24'06"	546.19'	350.00'	347.81'	S44°55'00"E	492.64'
C3	81°32'11"	498.11'	350.00'	301.89'	S49°24'45"W	457.13'
C4	8°52'22"	52.86'	350.00'	26.49'	S 4°18'46"W	52.83'
C5	1°09'09"	7.85'	380.00'	3.93'	S89°35'27"W	7.85'
C6	20°24'37"	135.37'	380.00'	68.41'	S78°47'42"W	134.65'
C7	14°46'53"	99.14'	380.00'	49.86'	S61°35'35"W	98.88'
C8	37°20'03"	247.55'	380.00'	129.12'	S36°13'30"W	243.19'
C9	9°55'44"	65.83'	380.00'	33.01'	S 5°51'53"W	65.74'
C10	9°16'17"	61.49'	380.00'	30.81'	S20°54'30"W	61.42'
C11	3°49'19"	21.29'	320.00'	10.63'	S88°16'47"W	21.29'
C12	63°07'21"	363.71'	330.00'	204.34'	S53°48'57"W	344.65'
C13	21°16'13"	118.86'	320.00'	60.09'	S31°01'10"W	118.17'
C14	74°14'48"	41.19'	30.00'	23.64'	N62°50'38"E	38.34'
C15	85°45'07"	44.89'	30.00'	27.64'	N67°53'39"W	40.81'
C16	90°00'00"	47.12'	30.00'	30.00'	S45°07'57"E	42.43'
C17	90°00'00"	47.12'	30.00'	30.00'	S44°52'03"W	42.43'
C18	43°20'30"	37.82'	50.00'	19.87'	N68°18'48"E	36.93'
C19	72°24'15"	75.82'	60.00'	43.92'	S87°59'40"W	70.88'
C20	42°56'19"	45.00'	60.00'	23.62'	N39°28'03"W	43.95'
C21	32°27'36"	50.80'	90.00'	26.06'	N 1°53'05"E	50.13'
C22	98°52'28"	103.54'	60.00'	70.10'	N83°53'19"E	91.16'
C23	43°20'30"	37.82'	50.00'	19.87'	N68°20'42"W	36.93'


UTOPIA VIEW II
PRELIMINARY PLAT OF
CONTAINING 63.041 ACRES
A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2022-137 IN SECTION 26, TOWNSHIP 57 NORTH, RANGE 1 WEST, SECOND PRINCIPAL MERIDIAN, PALMER RECORDING DISTRICT
PREPARED BY:
GCI ENGINEERING & DESIGN
APPROVED AS: SHOWN
CORRECTED
SIGN Mateya Almeida DATE 9/19/2025
LEGEND
GRAPHIC SCALE
1 INCH = 100 FEET
NORTH
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
BLK 1
BLK 2
BLK 3
BLK 4
TRACT A
MISSION HILLS NORTH, PH II PLAT No. 2008-24
MISSION HILLS PHASE I PLAT No. 84-124
N. JACK NICKLAUS DR
N. JIMMY'S WAY
W. FINCH RD.
W. TOMAHAWK TREE DR.
WINTERGREEN ACRES PLAT No. 79-307
SWISS CASTLE EST PHASE I PLAT No. 79-447
SWISS CASTLE EST PHASE I PLAT No. 2015-13
ARMSTRONG ESTATES PLAT No. 2005-79
UNSURVEYED
TRACT B 63.041 Acres 2746191.2 Sq.ft.
S0°08'01"E 658.03'
N0°08'12"W 658.92'
N0°08'01"W 659.32'
S0°08'01"E 657.07'
N0°07'07"E 660.74'
N0°08'39"W (INR) 660.67'
S89°52'47"E 2622.51'
N89°51'04"W 2622.51'
S89°51'04"E 2622.51'
N89°51'04"W 2622.51'
N89°56'53"W 330.11'
S89°51'04"E 330.00'
N89°51'04"W 330.00'
S89°51'04"E 330.00'
N89°51'04"W 330.00'
S89°51'04"E 330.00'
N89°51'04"W 330.00

PLANNING AND LAND USE DIRECTOR'S CERTIFICATE

I CERTIFY THAT THE SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY THE PLAT RESOLUTION No. _____ DATED _____ 20___, AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.

_____, 20____.
Date

_____ ATTEST: _____
Planning and Land Use Director — Platting Clerk

CERTIFICATION OF PAYMENT OF TAXES

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

_____, 20___. _____
Date — Tax Collection Official (MATANUSKA-SUSITNA BOROUGH)

OWNERSHIP & DEDICATION CERTIFICATE

WE CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT, AND WE HEREBY DEDICATE ALL RIGHTS-OF-WAY TO THE MATANUSKA-SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN.

_____ _____
Date

FOXGLOVE LLC
ASHLEE S. STETSON - MANAGER
3201 E. TAMARAK AVE
WASILLA , AK 99654

NOTARY'S ACKNOWLEDGMENT

SUBSCRIBED AND SWORN TO ME THIS _____ DAY

OF _____, 20__,

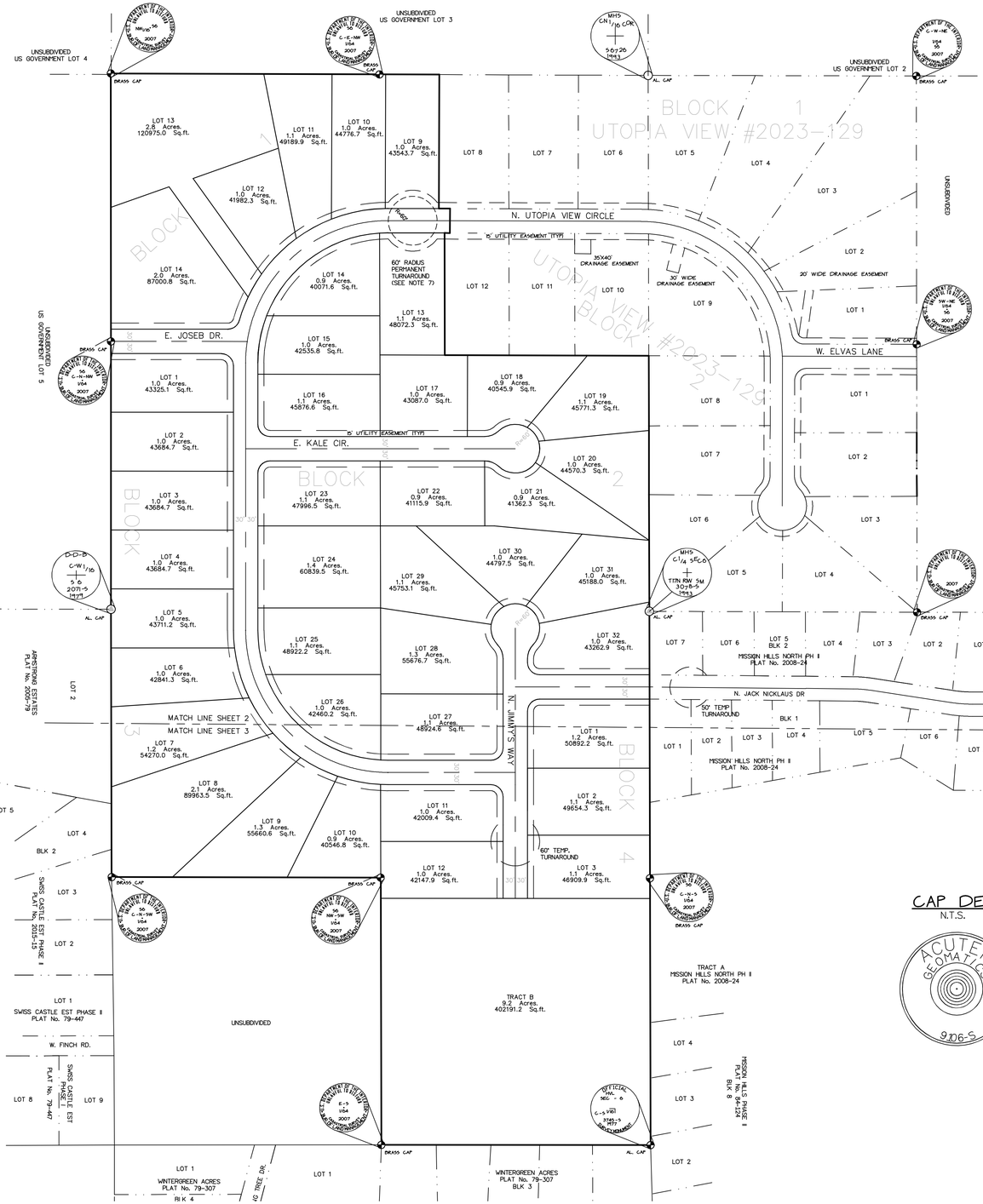
FOR _____.

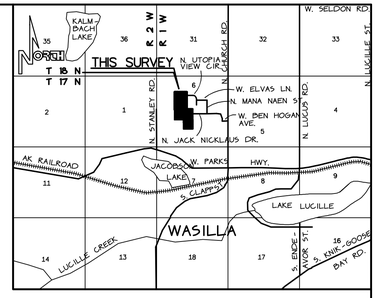
MY COMMISSION EXPIRES: _____.

_____
NOTARY PUBLIC FOR ALASKA

GENERAL NOTES

1. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF THE PARCELS SHOWN ON THE PLAT TO BE RECORDED.
2. ALL RECORD INFORMATION DERIVED FROM UTOPIA MEADOWS PLAT NO. 2023-129, THE PALMER RECORDING DISTRICT.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
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5. TERMS, COVENANTS, CONDITIONS AND PROVISIONS, INCLUDING RIGHTS-OF-WAY AND EASEMENTS AS CONTAINED IN THE ALASKA NATIVE CLAIMS SETTLEMENT ACT DATED DECEMBER 18, 1971, U.S. PUBLIC LAW 92-203, 85 STAT. 688, 43 U.S.C.A. 1601, ET SEQ, AND ANY AMENDMENTS AND ADDITIONS THERETO, AND ANY REGULATIONS ARISING THEREFROM.
6. BLANKET EASEMENT GRANTED TO MATANUSKA TELECOM ASSOCIATION, INC., RECORDED APRIL 29, 2022 AS RECEPTION NO. 2022-009626-0.
7. 60' CUL-DE-SAC IS DEDICATED TO SERVE AS A PERMANENT PUBLIC USE EASEMENT TO SERVE THE MATANUSKA-SUSITNA BOROUGH MAINTENANCE DEPARTMENT, AS THEIR JURISDICTION ENDS AT THAT POINT AND THE CITY OF WASILLA MAINTENANCE BEGINS.





VICINITY MAP
1" = 1 MILE

LEGEND

RECORD & MEASURED DATA (PLAT No. 2023-129)	(N 90°00'00" E)
MEASURED DATA	N 90°00'00" E
PROPERTY LINES	
ADJACENT PROPERTY LINES	
EASEMENT LINES	
CENTER LINE	
FOUND 3" BRASS CAP	
FOUND 3" ALUMINUM CAP	
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:	
RADIAL LINES	(R)
NON-RADIAL LINES	(NR)

SURVEYOR'S CERTIFICATE

I, TERRY L. NICODEMUS, L.S. 9106, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

STATE OF ALASKA — 49th — Terry L. Nicodemus — No. 9106-S — REGISTERED PROFESSIONAL LAND SURVEYOR

CAP DETAIL:
N.T.S.

ACUTEK GEOMATICS — 9106-S

PRELIMINARY PLAT OF

UTOPIA VIEW II

CONTAINING 62.049 ACRES

A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA.

PALMER RECORDING DISTRICT

PREPARED BY
ACUTEK GEOMATICS LLC
5099 E. BLUE LUPINE DR. SUITE 104, WASILLA, AK 99654
(907) 376-8800 FAX (907) 376-9629 E-MAIL admin@acuteksurvey.com

DESIGNED BY:	TLN	SCALE:	NOT TO SCALE	FIELD BOOK:	19-01 23
DRAWN BY:	TAN	DATE:	4/11/2025	MAP NO.:	WA 12
CHECKED:	TLN	FILE No.	19-10.2	SHEET:	1 OF 3

GRAPHIC SCALE

100 0 50 100 200 400

1 INCH = 100 FEET

NORTH

LEGEND

RECORD & MEASURED DATA (PLAT No. 2023-129)	(N 90°00'00" E)
MEASURED DATA	N 90°00'00" E
PROPERTY LINES	
ADJACENT PROPERTY LINES	
EASEMENT LINES	
CENTER LINE	
FOUND 3" BRASS CAP	
FOUND 3" ALUMINUM CAP	
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:	
RADIAL LINES	(R)
NON-RADIAL LINES	(NR)

NUM	DELTA	ARC	RADIUS	TANGENT	BEARING	DISTANCE
C1	90°11'54"	550.99'	350.00'	351.21'	S45°05'00"W	495.83'
C2	89°58'07"	549.59'	350.00'	349.81'	S45°00'00"E	494.84'
C3	81°32'31"	498.11'	350.00'	301.80'	S49°24'41"W	457.13'
C4	8°39'22"	52.88'	350.00'	26.49'	S 4°18'44"W	52.83'
C5	1°10'59"	7.85'	380.00'	3.93'	S89°35'27"W	7.85'
C6	20°24'37"	135.37'	380.00'	68.41'	S78°47'40"W	134.65'
C7	14°56'53"	99.14'	380.00'	49.85'	S61°06'55"W	98.86'
C8	18°30'07"	122.71'	380.00'	61.89'	S44°23'25"W	122.18'
C9	9°55'43"	65.85'	380.00'	33.07'	S30°10'30"W	65.77'
C10	9°16'17"	61.49'	380.00'	30.81'	S20°34'30"W	61.42'
C11	3°48'19"	21.25'	320.00'	10.63'	S88°16'47"W	21.25'
C12	65°07'21"	363.71'	320.00'	204.34'	S53°48'57"W	344.45'
C13	21°16'13"	118.80'	320.00'	60.09'	S10°37'10"W	118.11'
C14	74°04'34"	38.79'	30.00'	22.64'	N52°58'39"E	36.14'
C15	89°58'07"	47.11'	30.00'	29.98'	N45°00'00"W	42.41'
C16	90°00'00"	47.12'	30.00'	30.00'	S45°00'57"E	42.43'
C17	90°00'00"	47.12'	30.00'	30.00'	S44°59'03"W	42.43'
C18	43°20'30"	37.82'	50.00'	19.87'	N68°18'48"E	36.93'
C19	72°24'15"	75.82'	60.00'	43.92'	S82°50'40"W	70.88'
C20	42°58'19"	45.00'	60.00'	23.62'	N39°28'03"W	43.95'
C21	52°25'59"	54.91'	60.00'	29.56'	N 8°14'06"E	53.01'
C22	98°52'28"	103.54'	60.00'	70.10'	N83°53'19"E	91.16'
C23	43°20'30"	37.82'	50.00'	19.87'	N68°20'42"W	36.93'

BASIS OF BEARING

UNSUBDIVIDED US GOVERNMENT LOT 4

UNSUBDIVIDED US GOVERNMENT LOT 3

UNSUBDIVIDED US GOVERNMENT LOT 2

UNSUBDIVIDED US GOVERNMENT LOT 5

ARMSTRONG ESTATES PLAT No. 2005-79 LOT 2

BLOCK 1 UTOPIA VIEW #2023-129

BLOCK 2 UTOPIA VIEW #2023-129

BLOCK 3 UTOPIA VIEW #2023-129

N. UTOPIA VIEW CIRCLE

E. JOSEB DR.

E. KALE CIR.

W. ELVAS LANE

N. JACK NICKLAUS DR

15' UTILITY EASEMENT (TYP)

35'X40' DRAINAGE EASEMENT

30' WIDE DRAINAGE EASEMENT

20' WIDE DRAINAGE EASEMENT

60' RADIUS PERMANENT TURNAROUND (SEE NOTE 7)

50' TEMP TURNAROUND

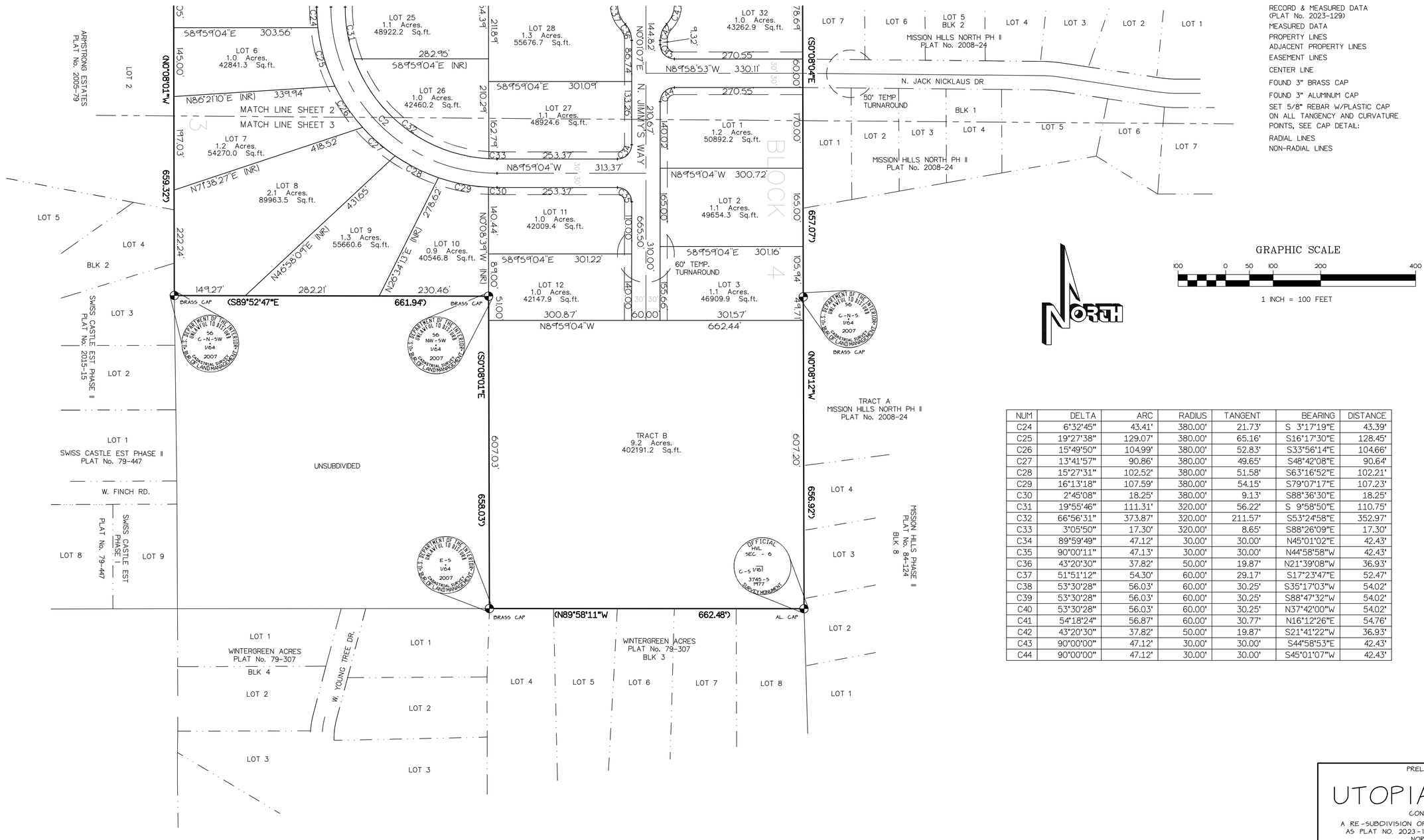
N. JIMMY'S WAY

MISSION HILLS NORTH PH II PLAT No. 2008-24

MATCH LINE SHEET 2

MATCH LINE SHEET 3

(N89°47'30"W 660.95')
(S89°47'23"E 661.02')
BRASS CAP
AL. CAP
MH5 CN1/16 COR S6 T26 1993
C-E-NW 1/64 2007
C-W-NE 1/64 2007
SW-NE 1/64 2007
C-N-NW 1/64 2007
NW1/16 2007
C-W 1/16 S6 2071-5 1979
MH5 C1/4 SEC6 + T17N R9W 3078-5 1993
U.S. DEPARTMENT OF THE INTERIOR UNLAWFUL TO DISTURB OR REMOVE CENTENNIAL SURVEY BLM BUREAU OF LAND MANAGEMENT
LOT 13 2.8 Acres. 120975.0 Sq.ft.
LOT 11 1.1 Acres. 49189.9 Sq.ft.
LOT 10 1.0 Acres. 44776.7 Sq.ft.
LOT 9 1.0 Acres. 43543.7 Sq.ft.
LOT 12 1.0 Acres. 41982.3 Sq.ft.
LOT 14 2.0 Acres. 87000.8 Sq.ft.
LOT 14 0.9 Acres. 40071.6 Sq.ft.
LOT 13 1.1 Acres. 48072.3 Sq.ft.
LOT 15 1.0 Acres. 42535.8 Sq.ft.
LOT 16 1.1 Acres. 45876.6 Sq.ft.
LOT 17 1.0 Acres. 43087.0 Sq.ft.
LOT 18 0.9 Acres. 40545.9 Sq.ft.
LOT 19 1.1 Acres. 45771.3 Sq.ft.
LOT 20 1.0 Acres. 44570.3 Sq.ft.
LOT 1 1.0 Acres. 43325.1 Sq.ft.
LOT 2 1.0 Acres. 43684.7 Sq.ft.
LOT 3 1.0 Acres. 43684.7 Sq.ft.
LOT 4 1.0 Acres. 43684.7 Sq.ft.
LOT 5 1.0 Acres. 43711.2 Sq.ft.
LOT 6 1.0 Acres. 42841.3 Sq.ft.
LOT 7 1.2 Acres. 54270.0 Sq.ft.
LOT 23 1.1 Acres. 47996.5 Sq.ft.
LOT 22 0.9 Acres. 41115.9 Sq.ft.
LOT 21 0.9 Acres. 41362.3 Sq.ft.
LOT 24 1.4 Acres. 60839.5 Sq.ft.
LOT 29 1.1 Acres. 45753.1 Sq.ft.
LOT 30 1.0 Acres. 44797.5 Sq.ft.
LOT 31 1.0 Acres. 45188.0 Sq.ft.
LOT 25 1.1 Acres. 48922.2 Sq.ft.
LOT 28 1.3 Acres. 55676.7 Sq.ft.
LOT 32 1.0 Acres. 43262.9 Sq.ft.
LOT 26 1.0 Acres. 42460.2 Sq.ft.
LOT 27 1.1 Acres. 48924.6 Sq.ft.
LOT 1 1.2 Acres. 50892.2 Sq.ft.
LOT 8
LOT 7
LOT 6
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1
LOT 12
LOT 11
LOT 10
LOT 9
UNSUBDIVIDED
N0°01'38"W 659.71'
S0°10'57"W 329.84'
S0°10'57"W 660.00'
S0°08'01"E 300.04'
N0°00'57"W 659.40'
N0°07'54"W 659.16'
S0°08'04"E 660.00'
N0°08'01"W 659.40'
N0°00'57"W 659.40'
(27.47') (S89°49'03"E)
(13.07') (S89°49'03"E)
(N89°50'33"W 501.61')
S89°49'03"E 151.63'
124.16'
138.55'
S11°12'55"E (NR) 186.44'
N70°32'28"E 222.85'
N70°32'28"E 151.76'
N35°39'07"W (NR) 333.74'
N35°39'07"W (NR) 284.43'
S0°10'57"W (NR) 356.51'
S0°10'57"W (NR) 329.92'
N0°00'57"W 356.51'
N0°00'57"W 329.92'
412.88'
226.44'
15.07'
168.00'
116.93'
132.00'
376.02'
513.95'
329.86'
299.85'
287.05'
278.49' S89°59'04"E (NR)
300.58' S89°59'04"E
270.90' S89°59'03"W
663.66'
271.02' S89°59'03"W
257.14'
256.81'
87.91'
168.90'
217.09'
382.76'
165.67'
23.54' N84°37'56"W
339.18' N55°32'55"W (NR)
230.67' S39°59'13"W (NR)
272.76' S84°30'10"W (NR)
257.26'
42.48'
N47°25'24"W (NR) 293.42'
N38°01'18"E (NR) 224.85'
S81°28'11"E (R) 275.35'
275.76' N79°03'14"E (R)
270.55'
N89°58'53"W 330.11'
N89°59'04"W 300.72'
S89°59'04"E 301.09'
N86°21'10"E (NR) 339.94'
N89°59'04"W 313.37'
253.37'
203.43'
300.20'
144.35'
200.64'
153.11'
199.95'
184.13'
270.47'
211.52'
418.52'
658.43'
446.91'
201.75'
164.39'
211.89'
178.69'
144.82'
86.74'
133.26'
210.67'
170.00'
401.07'
N0°01'07"E
S0°08'01"E (NR)
N0°00'57"W
S0°10'57"W
S0°08'01"E
N0°08'01"W
N0°07'54"W
S0°08'04"E
N0°00'57"W
N0°00'57"W
N0°08'01"W
N0°07'54"W
S0°08'04"E
N0°08'01"W



LEGEND

RECORD & MEASURED DATA (PLAT No. 2023-129)	(N 90°00'00" E)
MEASURED DATA	N 90°00'00" E
PROPERTY LINES	
ADJACENT PROPERTY LINES	
EASEMENT LINES	
CENTER LINE	
FOUND 3" BRASS CAP	
FOUND 3" ALUMINUM CAP	
SET 5/8" REBAR W/PLASTIC CAP ON ALL TANGENCY AND CURVATURE POINTS, SEE CAP DETAIL:	
RADIAL LINES	(R)
NON-RADIAL LINES	(NR)

GRAPHIC SCALE

100 0 50 100 200 400

1 INCH = 100 FEET

NUM	DELTA	ARC	RADIUS	TANGENT	BEARING	DISTANCE
C24	6°32'45"	43.41'	380.00'	21.73'	S 3°17'19"E	43.39'
C25	19°27'38"	129.07'	380.00'	65.16'	S16°17'30"E	128.45'
C26	15°49'50"	104.99'	380.00'	52.83'	S33°56'14"E	104.66'
C27	13°41'57"	90.86'	380.00'	49.65'	S48°42'08"E	90.64'
C28	15°27'31"	102.52'	380.00'	51.58'	S63°16'52"E	102.21'
C29	16°13'18"	107.59'	380.00'	54.15'	S79°07'17"E	107.23'
C30	2°45'08"	18.25'	380.00'	9.13'	S88°36'30"E	18.25'
C31	19°55'46"	111.31'	320.00'	56.22'	S 9°58'50"E	110.75'
C32	66°56'31"	373.87'	320.00'	211.57'	S53°24'58"E	352.97'
C33	3°05'50"	17.30'	320.00'	8.65'	S88°26'09"E	17.30'
C34	89°59'49"	47.12'	30.00'	30.00'	N45°01'02"E	42.43'
C35	90°00'11"	47.13'	30.00'	30.00'	N44°58'58"W	42.43'
C36	43°20'30"	37.82'	50.00'	19.87'	N21°39'08"W	36.93'
C37	51°51'12"	54.30'	60.00'	29.17'	S17°23'47"E	52.47'
C38	53°30'28"	56.03'	60.00'	30.25'	S35°17'03"W	54.02'
C39	53°30'28"	56.03'	60.00'	30.25'	S88°47'32"W	54.02'
C40	53°30'28"	56.03'	60.00'	30.25'	N37°42'00"W	54.02'
C41	54°18'24"	56.87'	60.00'	30.77'	N16°12'26"E	54.76'
C42	43°20'30"	37.82'	50.00'	19.87'	S21°41'22"W	36.93'
C43	90°00'00"	47.12'	30.00'	30.00'	S44°58'53"E	42.43'
C44	90°00'00"	47.12'	30.00'	30.00'	S45°01'07"W	42.43'

PRELIMINARY PLAT OF

UTOPIA VIEW II

CONTAINING 62.049 ACRES

A RE-SUBDIVISION OF TRACT A, UTOPIA VIEW, RECORDED AS PLAT NO. 2023-129, WITHIN SECTION 6, TOWNSHIP 17 NORTH, RANGE 1 WEST, SEWARD MERIDIAN, ALASKA, PALMER RECORDING DISTRICT

PREPARED BY

ACUTEK GEOMATICS LLC

5099 E. BLUE LUPINE DR. SUITE 104, WASILLA AK 99654
(907) 376-8800 FAX (907) 376-9629 E-MAIL admin@acuteksurvey.com

DESIGNED BY: TLN	SCALE: NOT TO SCALE	FIELD BOOK:	19-01 23
DRAWN BY: TAN	DATE: 4/11/2025	MAP NO:	WA 12
CHECKED: TLN	FILE No. 19-10.2	SHEET:	3 OF 3

4C

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 7, 2025

PRELIMINARY PLAT: SMITH SUBDIVISION MSP

LEGAL DESCRIPTION: SEC 06, T17N, R03E, SEWARD MERIDIAN AK

PETITIONERS: EKLUTNA INC

SURVEYOR/ENGINEER: S4 GROUP

ACRES: 474.893 ± PARCELS: 58

REVIEWED BY: MATTHEW GODDARD CASE #: 2025-065

REQUEST: The request is to create 57 lots and one tract from Tax Parcel A1, created by US patent #50-88-0395/0396, to be known as **SMITH,** containing 474.893 acres +/-. The property is located north of E. Maud Road, southeast of E. Smith Road Extension, and east of N. Old Glenn Highway (Tax ID #17N03E06A001); within Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska. In the Butte Community Council and in Assembly District #1.

EXHIBITS:

SUPPORTING DOCUMETATION:

Vicinity Map and Aerial Photos	**PAGES** – 1-7
As-Built & Topographic Mapping	**PAGE** – 8
Geotechnical Report-Lots	**PAGES** – 9-84
Plan and Profile	**PAGES** – 85-96
Geotechnical Report-Roads	**PAGES** – 97-127
Average Daily Traffic (ADT) Calculations	**PAGE** – 128
Section Line Easement Determination	**PAGES** – 129-141
July 3, 2025, Staff Report Packet & Handouts	**PAGES** – 142-180
July 3, 2025, Meeting Minutes	**PAGES** – 181-185
July 3, 2025, Platting Board Action Letter	**PAGE** – 186
AGENCY COMMENTS	
ADF&G	**PAGE** – 187
MSB DPW Pre-Design and Engineering Division	**PAGE** – 188
MSB Planning	**PAGE** – 189
MSB Development Services	**PAGES** – 190-191
Public Comments	**PAGES** – 192-198
Utilities	**PAGES** – 199-205

DISCUSSION: The proposed Smith Subdivision Master Plan was granted a continuation to August 7, 2025, during the July 3, 2025, Platting Board Meeting. The continuation was requested by the developer and staff to address concerns raised by MSB DPW Pre-Design and Engineering Division. A revised agenda

plat, plan and profile, and drainage plan has since been submitted addressing these concerns. The proposed subdivision is creating 57 lots and one tract by a three-phase master plan. Access to the proposed subdivision is from E. Smith Road Extension. The petitioner is proposing the dedication and construction of internal streets to serve as access for all proposed lots. The dedication of right of way and construction of an eight-lot parking area is being proposed to replace the existing McRoberts & Matanuska Peak Trailhead parking currently located within the Section Line Easement at the end of Smith Road Extension. The developer has been working with MSB land management with regards to the parking area and the trails on the property.

Access: Legal and physical access to the proposed lots are required pursuant to MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Access requirements will be met once the access road and interior streets are constructed.

Geotechnical Report-Lots: A geotechnical report was submitted (**Exhibit Pages 9-84**), pursuant to MSB 43.20.281(A). Clinton Banzhaf, Registered Professional Engineer, notes that a geotechnical engineering assessment of the project has been completed. The assessment suggests that the subgrade soils located across the project site are suitable for supporting the proposed improvements.
The project site is overlain with alluvial deposits from McRoberts Creek. The alluvial deposits generally consist of gravel with sand, gravel with silt and sand, and interbedded lenses of silt. There are lenses of material with rootlets and organic lenses interbedded with the alluvial deposits. Gravel with sand is the deepest material encountered with the material depth ranging from three feet below ground surface to 15 feet below ground surface.
Based on the findings of geotechnical engineering assessment, it is our conclusion that all lots contain at least 10,000 square feet of building area and at least 10,000 square feet of contiguous usable septic area.
As-built and topographic mapping were supplied and can be seen at **Exhibit Page 8**.

Plan and Profile: A plan and profile was submitted (**Exhibit Pages 85-96**), pursuant to MSB 2022 SCM F01.2.

Geotechnical Report-Roads: A geotechnical report for the proposed road improvements was submitted (**Exhibit Pages 97-127**). Clinton Banzhaf, Registered Professional Engineer, notes that their assessments suggest that the subgrade soils located across the project site are suitable for supporting the proposed improvements.

Average Daily Traffic Calculation (ADT): An average daily traffic calculation was submitted (**Exhibit Page 128**), Pursuant to SCM F01.1 Preliminary Plat Submittal and SCM A15 Average Daily Traffic.

Comments:

ADF&G (**Exhibit Page 187)** has no objections to the request with the following comment:
The area of subdivision development includes McRoberts Creek (AWC# 247-50-10200-2081-3025) which is catalogued as anadromous through a portion of the area. McRoberts Creek is catalogued for coho and sockeye salmon. A fish habitat permit may be required for activities that modify the bed or banks of this water body as well as water withdrawals. If the applicant has any questions they are welcome to reach out to our office at (907) 861-3200 or dfg.hab.infopaq@alaska.gov. The Habitat Section would also like to seek permission from Eklutna, Inc. to sample upstream of the catalogued area within the bounds of their property.

MSB DPW Pre-Design and Engineering Division (**Exhibit Page 188**) has the following comments:

Comments on the plan submitted 7/24/2025:

- In accordance with the ADT estimate, the following road construction standards are required:
  - Smith Road Extension from Harmony Avenue to Road 1 = Residential Subcollector.
  - Smith Road Extension east of Road 1 = Residential
  - Road 1 = Residential. PD&E requests horizontal alignment to meet Residential Subcollector due to potential for through traffic when connected to Dewys Street.
  - Road 2 = Residential.

- Submit full set of construction plans and drainage report prior to pre-construction conference. The construction plans should include cut/fill limits, and cross sections through the largest cut and largest fill. The grading plan shows a new ditch intercepting the seasonal runoff from the north and redirecting it down Smith Road Extension. The drainage report will need to show that the Smith Road Extension ditch has the appropriate capacity for this and that the overall post-development runoff does not exceed the pre-development runoff. Consider designing conveyances for a spring break-up condition when infiltration is limited due to frozen ground.

Platting staff notes that all drainage concerns will be resolved as a part of the pre-construction conference as seen at ***Recommendation #4a****.*

MSB Planning (**Exhibit Page 189**) notes that there are two types of flood risk areas in the Mat-Su Borough. The first is FEMA's mapped Special Flood Hazard Area (SFHA), which the MSB regulates development under MSB 17.29, and a permit is required before beginning any work.
The second is a non-mapped flood area. Both have a risk of flooding when enough precipitation enters the system.
FEMA has not studied and mapped McRoberts Creek and, therefore, is not required to be permitted. However, Using best practice information is recommended for any development within this natural floodplain area. This and other water bodies could be mapped in the future and using best practice information will help prevent flood damage to your developed investment and reduce your expenses and exposure to this hazard.

MSB Development Services (**Exhibit Pages 190-191**) has no objections.

Public Comments:

At the time the staff report was written, 24 public comments were received from the public in response to the notice of public hearing. 11 comments were received with concerns regarding the proposed development, 13 contained objections and concerns to the proposed development.

July 3, 2025, Public Comments (**Exhibit Pages 148-180**) 20 comments were received for the July 3, 2025, Platting Board Meeting.

August 7, 2025, Public Comments (**Exhibit Pages 192-198**) 4 comments were received for the August 7, 2025, Platting Board Meeting.

Objections from the public included:

Concerns	Objections
Limited school bus service due to road grades.	Lot density.
Impact on existing road systems.	Increased traffic.
Pedestrian safety due to increased traffic.	Loss of the rural feel.
Road safety due to speeding/traffic.	Insufficient trailhead parking.
Impact on existing infrastructure, schools, police, EMS, fire, & trash.	Effects of construction on the trail systems.
Limited access to the proposed development.	Public notification should have been expanded.
Increased noise due to increased traffic and construction.	Public notification should have contained more information.
Increased lot density.	Potential effects to public safety.
Small lot sizes.	Increased demand for road maintenance.
Proposed design does not fit the local aesthetic.	Increased demand overtaxing the aquifer.
The Old Glenn Highway is already overtaxed.	Effects on existing wells in the area.
Plan and Profile does not accurately represent the intended construction template.	Increased noise due to traffic and construction.
Area needed for proposed cut/grading to construct the roads and ditches in the Section Line Easement may be insufficient.	Security concerns due to trespassing.
Both surface and subsurface drainage concerns.	The reliability of the soils report.
Potential for sediment to obstruct the proposed drainage facilities, thus causing flooding and road obstruction.	Potential effects/contamination of McRoberts Creek.
Provide test hole monitoring information.	Flood management.
Location of utilities within the portion of smith road extension being utilized to access the subdivision.	Limited road access.
Increased issues with speeding on Smith Road.	Effects on local wildlife habitat.
Insufficient trailhead parking.	Construction/cut & fill on wetlands.
Potential effects on the trail systems.	Scheduling of the original hearing date.
Potential impacts to McRoberts Creek.	Proposed road grades are too steep.
Added draw on the aquifer.	The ability to construct the required improvements within existing easements.
Effects on existing wells.	Drainage/runoff leaving the development site.
Potential septic contamination	Potential erosion issues due to regrading.
Increased water run off leaving the site.	
Water setbacks.	
Seasonal drainage concerns.	

Utilities: (**Exhibit Pages 199-205**):

ENSTAR has no comments or recommendations.

GCI has no comments or recommendations.

MEA did not respond.

MTA would like to ensure the Utility Easements shown on the Plan and Profile are included in the final plat design.
Platting staff notes that the petitioner has included the utility easements on the revised agenda plat.

At the time of staff report write-up, there were no responses to the Request for Comments from DNR D/M/L/W; US Army Corps of Engineers; Community Council #5 Butte; Fire Service Area #2 Butte; Road Service Area #26 Greater Butte; MSB Emergency Services, Community Development, or Assessments; or MEA.

CONCLUSION: The preliminary master plan of Smith Subdivision is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There were 13 comments with objections to the plat received from the public in response to the Notice of Public Hearing. There were 11 comments received from the public with concerns in response to the notice of public hearing. Legal and physical access will exist to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.218(A)(1).

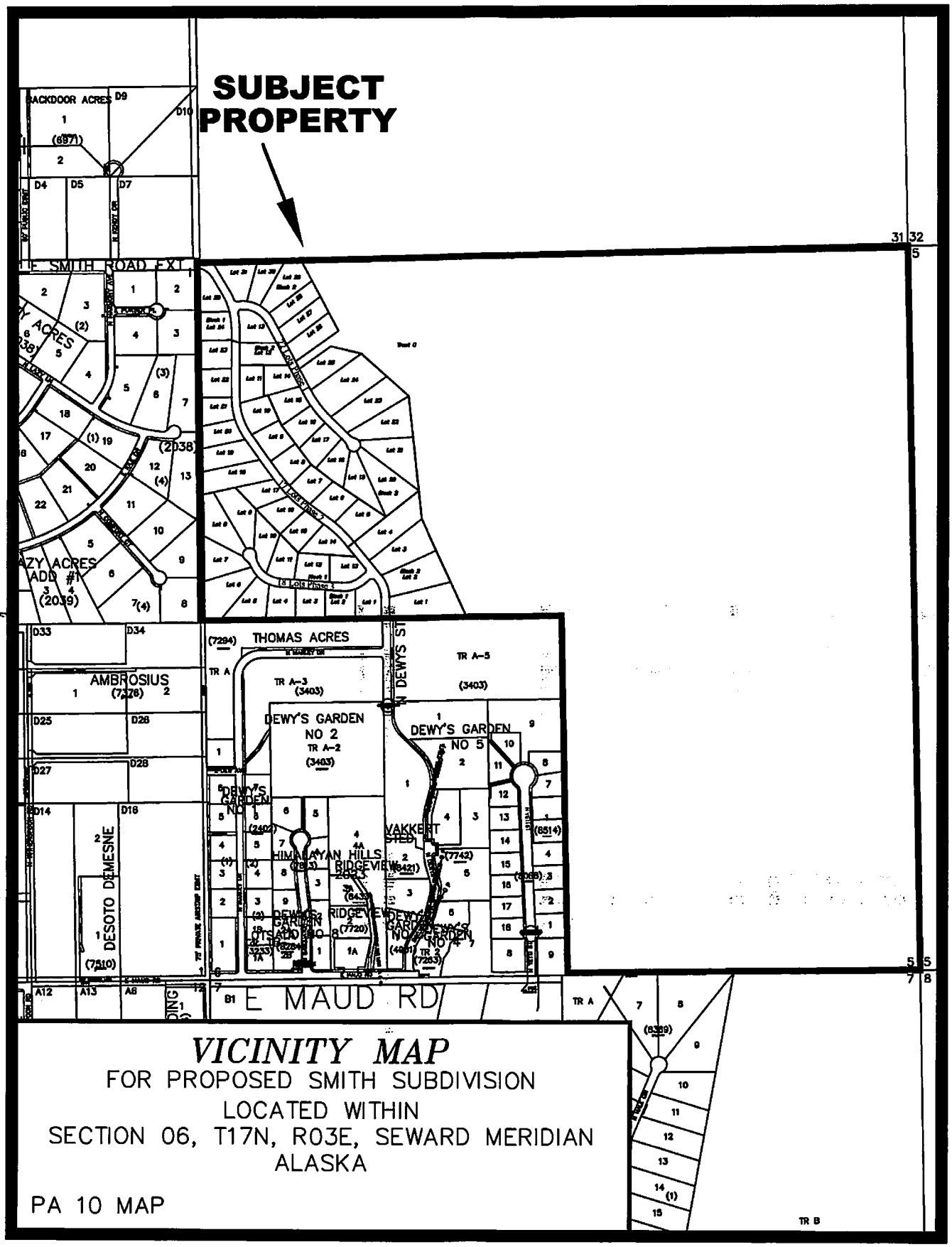
FINDINGS OF FACT

1. The preliminary master plan of Smith Subdivision was continued from the July 3, 2025, Platting Board Meeting.
2. The master plan of Smith Subdivision is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
3. A soils report was submitted, pursuant to MSB 43.20.281(A)(1).
4. All lots will have the required frontage pursuant to MSB 43.20.320.
5. All lots will have the required legal and physical access pursuant to MSB 43.20.100, 43.20.120, & 43.20.140.
6. At the time of staff report write-up, there were no responses to the Request for Comments from DNR D/M/L/W; US Army Corps of Engineers; Community Council #5 Butte; Fire Service Area #2 Butte; Road Service Area #26 Greater Butte; MSB Emergency Services, Community Development, or Assessments; or MEA.
7. There were no objections from any federal or state agencies, Borough departments, or utilities.
8. At the time the staff report was written, there were 13 comments with objections received from the public in response to the Notice of Public Hearing.
9. At the time the staff report was written, there were 11comments with concerns received from the public in response to the notice of public hearing.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the preliminary master plan of Smith Subdivision, Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska, contingent on staff recommendations

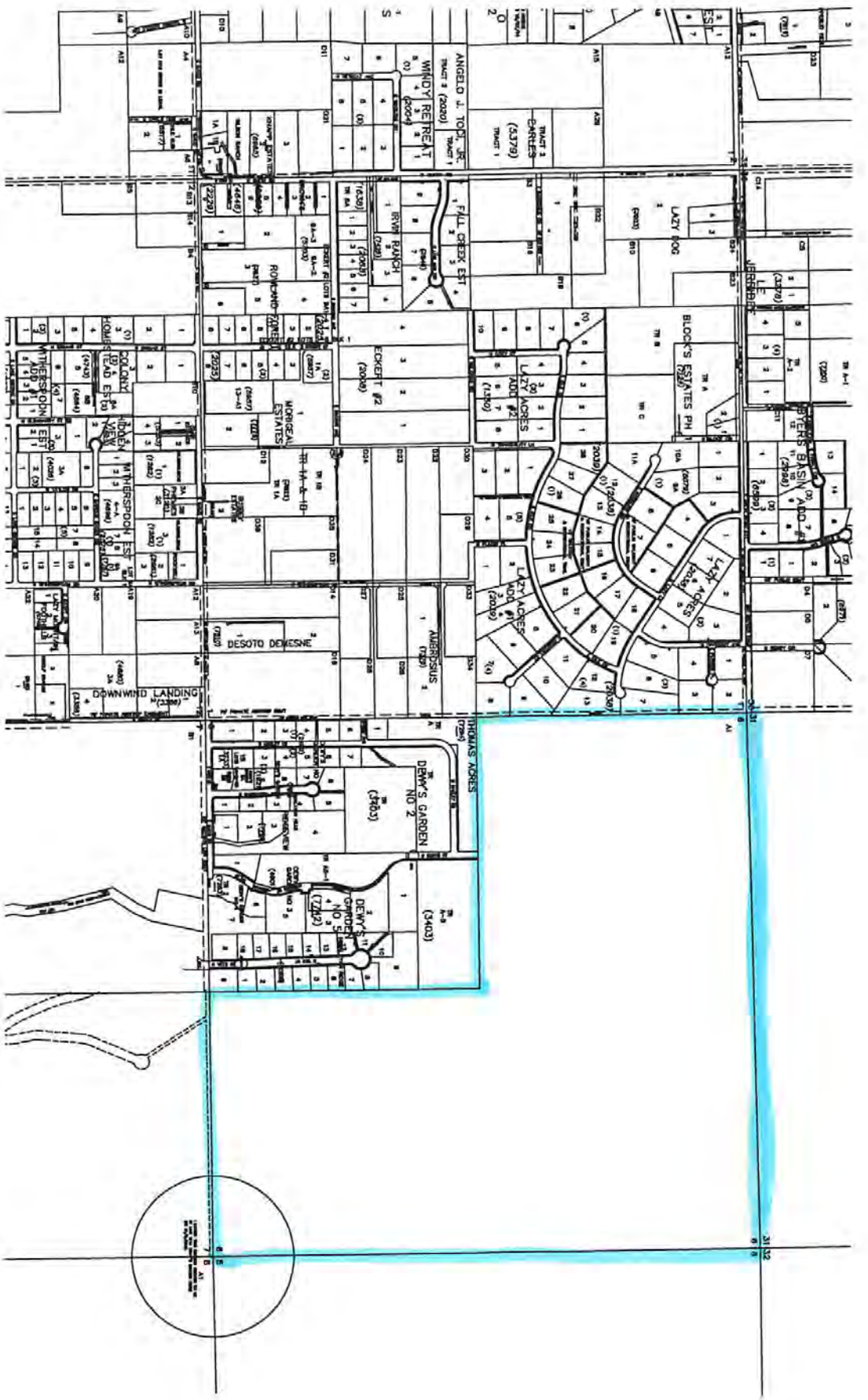
1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Construct the access road and cul-de-sac to Borough Street Standards according to the 2022 Subdivision Construction Manual (SCM) for each phase of the master plan:
   a) Construct Smith Road Extension from Harmony Avenue to Road 1 to Residential Subcollector Street standards.
   b) Construct Smith Road Extension East of Road 1 to Residential Subcollector street standards.
   c) Construct Road 1 to Residential Street standards.
   d) Construct Road 2 to Residential Street standards.
   e) Submit drainage report and other construction plans to Department of Public Works (DPW) prior to the pre-construction conference pursuant to SCM F01.2;
   f) Arrange preconstruction conference with DPW per SCM F01.3, sign Subdivision Construction Plan, pay inspection fee, and obtain Notice to Proceed from Platting staff;
   g) Arrange Pre-Final and Final Inspections with DPW per SCM F01.6 and F01.7 and submit Final Report to Platting per F01.8;
   h) Obtain Certificate of Construction Acceptance from DPW per F01.9.
   i) Submit as-built of streets and drainage improvements to Platting staff once construction is complete.
   j) Obtain approval of street names from Platting Assistant.
5. Show all easements of record on final plat for each phase of the master plan.
6. Submit recording fees, payable to Department of Natural Resources (DNR) for each phase of the master plan.
7. Submit each phase plat in full compliance with Title 43.

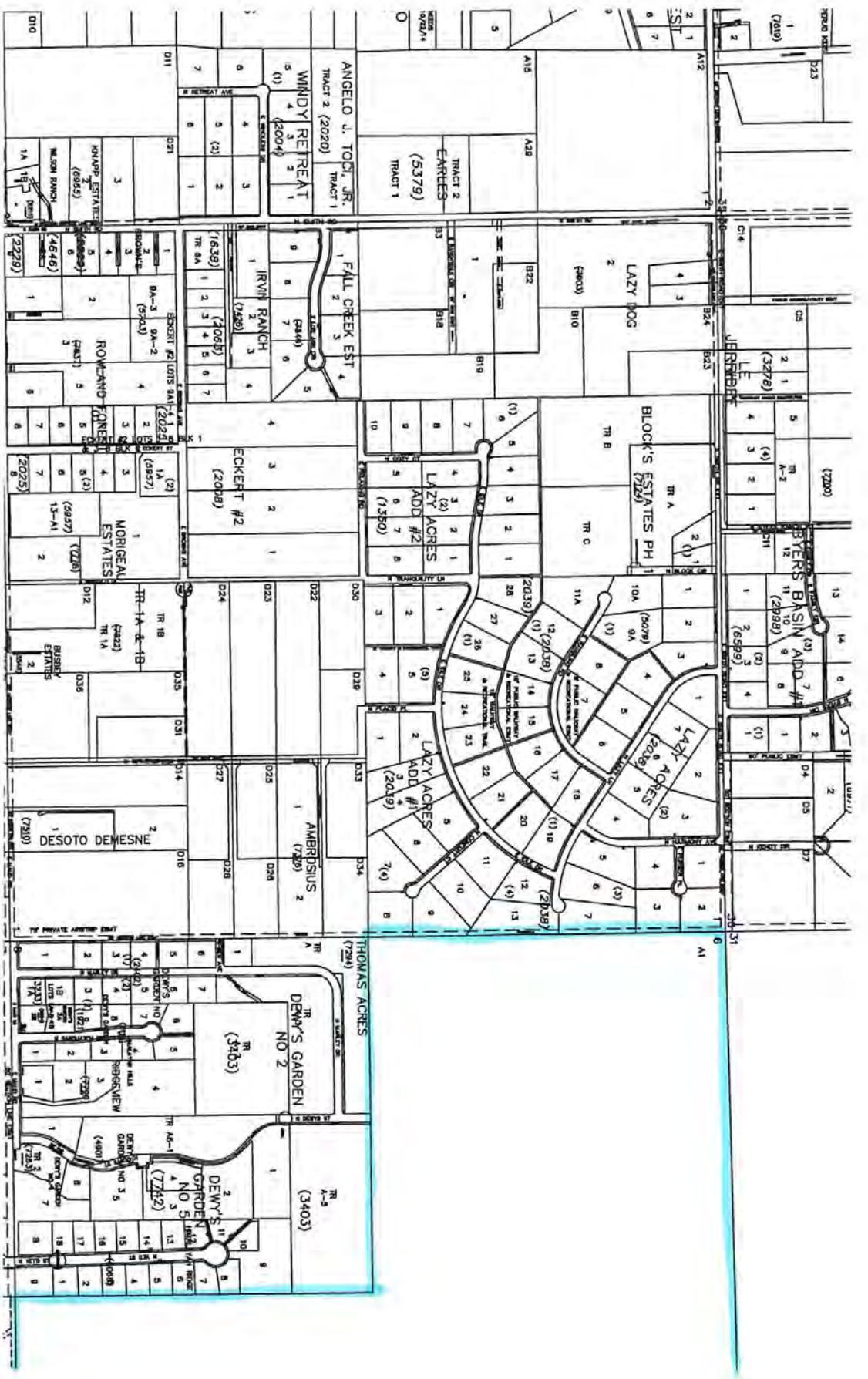


VICINITY MAP

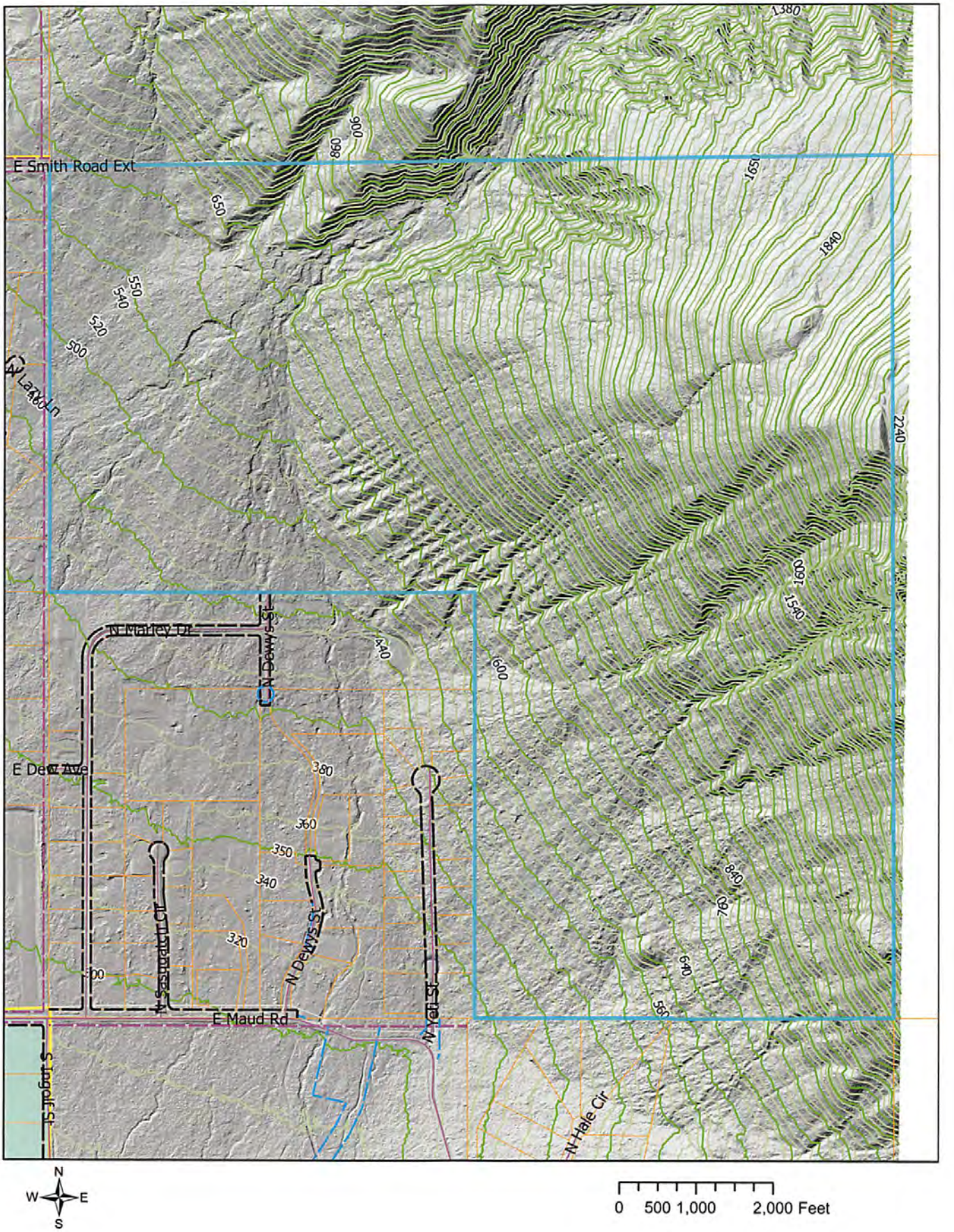
FOR PROPOSED SMITH SUBDIVISION
LOCATED WITHIN
SECTION 06, T17N, R03E, SEWARD MERIDIAN
ALASKA

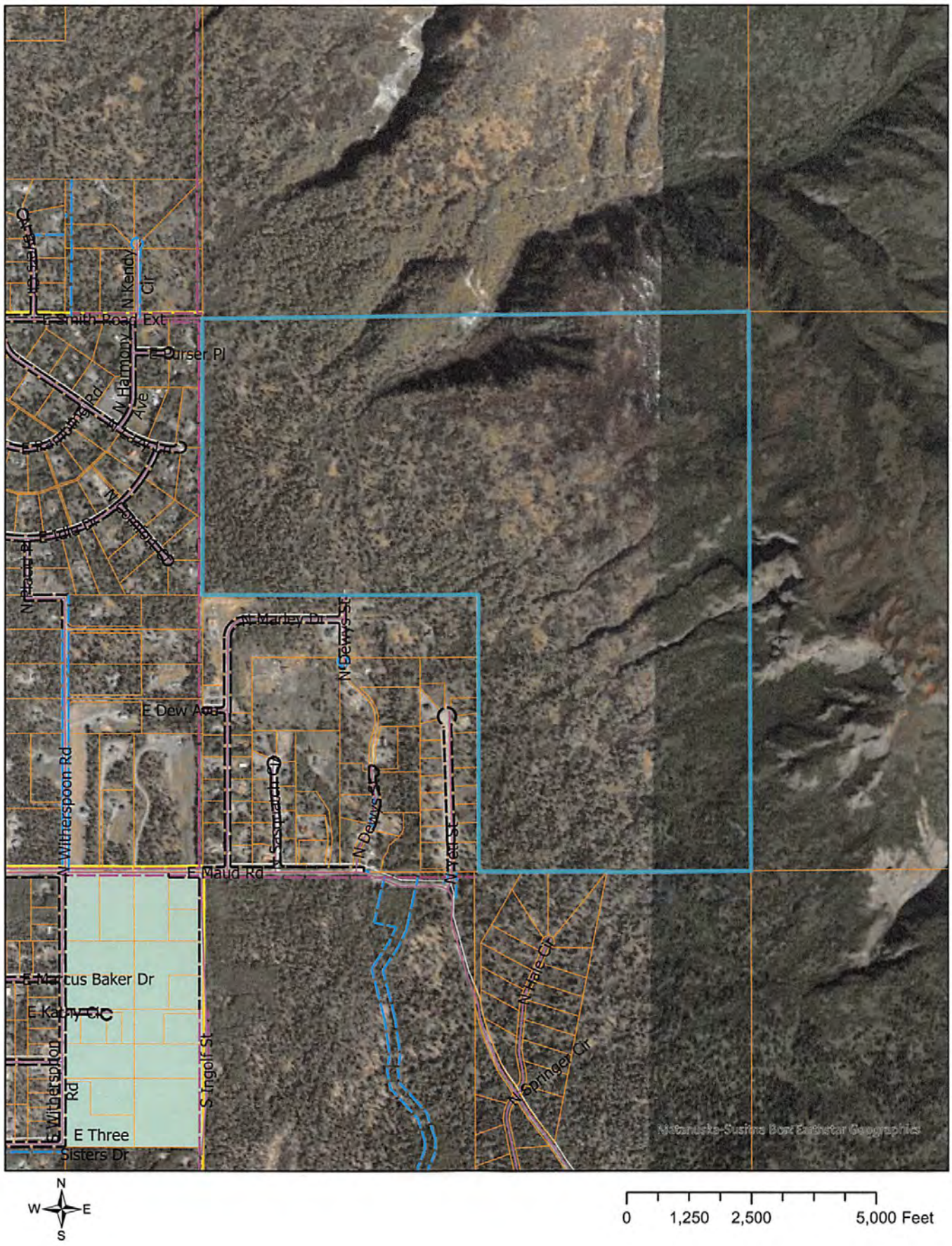
PA 10 MAP

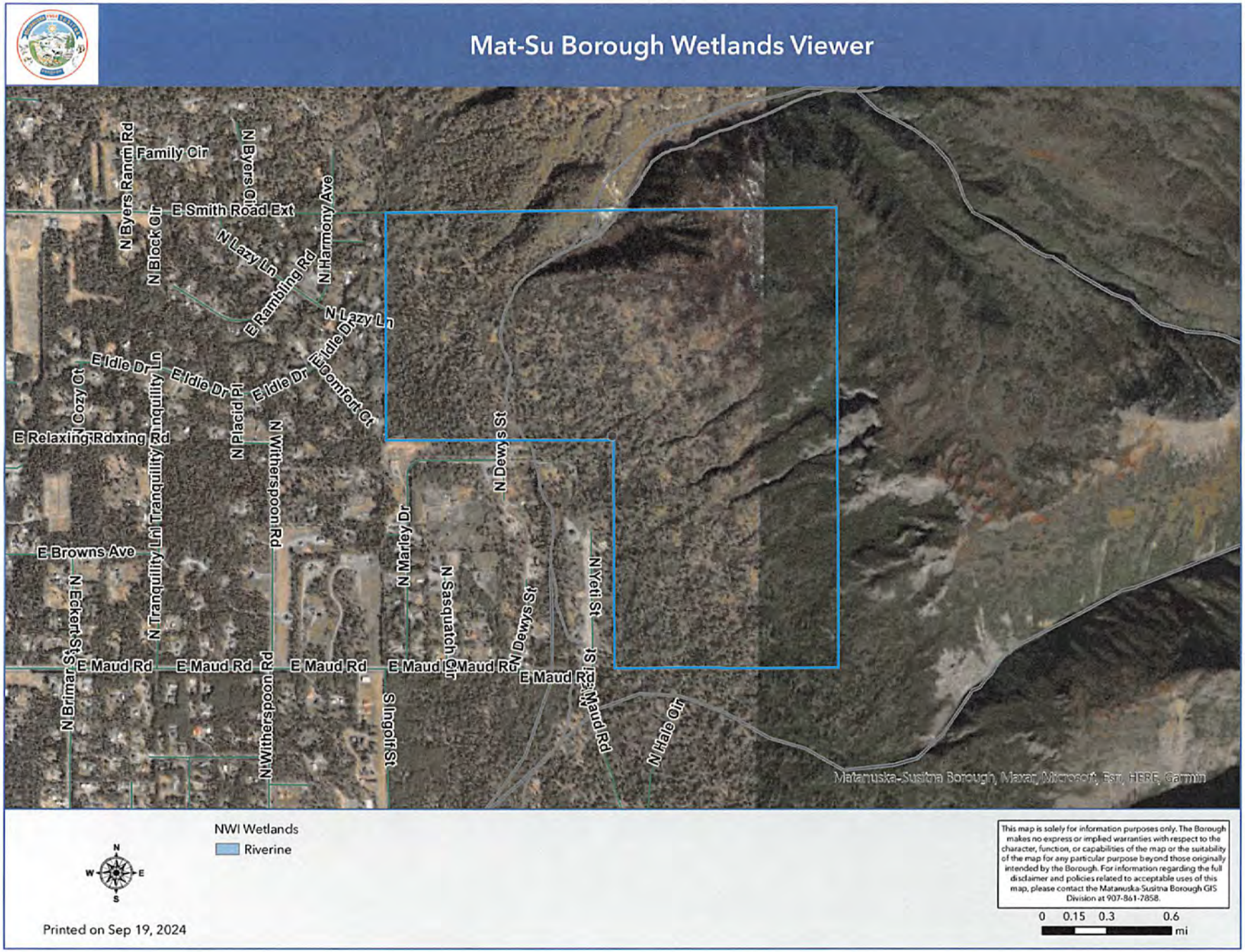

WINDY RETREAT
ANGELO J. TOPE JR.
FALL CREEK EST
IRVIN RANCH
ROWLAND FOREST
ECKERT #2
LAZY FOG
LAZY 10 ACRES ADD #2
LAZY 10 ACRES
BLOCK'S ESTATES PH 2
BYERS BASIN ADD #2
MORGEAU ESTATES
COLONY HEAD EST
HIDDEN VIEW
WITHERSPOON EST
WITHERSPOON ADD #1
DESOTO DEMESNE
DOWNWIND LANDING
AMBROSIUS
THOMAS ACRES
DENNY'S GARDEN NO 2
DENNY'S GARDEN NO 3


ANGELO J. TOCI, JR. TRACT 2 (2020)
WINDY RETREAT
FALL CREEK EST
IRVIN RANCH
ROWLAND FOREST
ECKERT #2 (2008)
MORIGEAU ESTATES
DESOTO DEMESNE
AMBRIDSIUS
LAZY DOG
BLOCK'S ESTATES PH 1
LAZY ACRES ADD #2
LAZY ACRES ADD #1
LAZY 10 ACRES
BEYERS BASIN ADD #1
THOMAS ACRES
DENY'S GARDEN NO 2
DEWY'S GARDEN NO 3
RIBBONVIEW


E Smith Road Ext
W Lazy Ln
N Marley Dr
N Dewys St
E Dee Ave
N Dewys St
E Maud Rd
S Iroquois St
N Hale Cir
0 500 1,000 2,000 Feet


E Smith Road Ext
N Lazy Ln
N Marley Dr
N Dewys St
E Dewey Ave
N Sagebrush Ct
E Maud Rd
S Jogle St
N Hale Cir
1380
900
860
650
550
540
520
500
1650
1840
2240
1600
1540
600
440
380
360
350
340
320
300
840
760
640
560
N
W
E
S
0 500 1,000 2,000 Feet


E Smith Road Ext
E Durser Pl
N Harmony Ave
N Kendy Cir
E Dew Ave
N Marley Dr
N Dewys St
N Dewys Cir
N Sasquatch Ct
N Withers Ct
N Withers Ct
N Withers Ct
N Witherspoon Rd
E Maud Rd
N Trail St
E Marcus Baker Dr
E Kathy Cir
E Witherspoon Rd
S Ingolf St
E Three Sisters Dr
N Hale Cir
N Springer Cir
Matanuska-Susitna Borough Enterprise Geographies
N
W
E
S
0
1,250
2,500
5,000 Feet


Mat-Su Borough Wetlands Viewer
N Byers Ranch Rd
E Family Cir
N Byers Cir
E Smith Road Ext
N Block Cir
N Lazy Ln
N Harmony Ave
E Rambling Rd
N Lazy Ln
E Idle Dr
E Idle Dr Ln
E Idle Dr
E Idle Dr
Idle Dr
Cozy Ct
Comfort Ct
E Relaxing Rd
N Placid Pl
N Tranquility Ln
N Tranquility Ln
N Witherspoon Rd
N Dewys St
N Marley Dr
E Browns Ave
N Eckert St
N Sasquatch Ct
N Dewys St
N Yeti St
N Brimar St
E Maud Rd
E Maud Rd
E Maud Rd
E Maud Rd
E Maud Rd
E Maud Rd
N Witherspoon Rd
S Ingolf St
N Hale Cir
Matanuska-Susitna Borough, Maxar, Microsoft, Esri, HERE, Garmin
NWI Wetlands
Riverine
N
W
E
S
Printed on Sep 19, 2024
This map is solely for information purposes only. The Borough makes no express or implied warranties with respect to the character, function, or capabilities of the map or the suitability of the map for any particular purpose beyond those originally intended by the Borough. For information regarding the full disclaimer and policies related to acceptable uses of this map, please contact the Matanuska-Susitna Borough GIS Division at 907-861-7858.
0 0.15 0.3 0.6
mi



LEGEND

- BOUNDARY LINE
- ADJACENT LOT LINE
- EASEMENT
- MAJOR CONTOUR
- INTERMEDIATE CONTOUR
- TRAIL

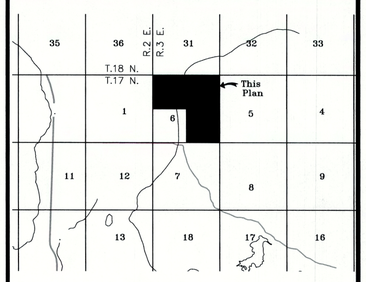
STATE OF ALASKA 49TH
STEVEN CALLAGHAN
LS-12034
Licensed Professional Land Surveyor
4/26/2025

Survey Certification: I hereby certify that a Mortgagee's Inspection was performed on the described property.
Notes: It is the owner's responsibility to determine the existence of any easements, covenants, or restriction which are not on the recorded subdivision plat.
It is the contractor's responsibility to check top of foundation grade & building setbacks in relation to property lines and easements

Notes:
1. This site is not developed.
2. The topography is from the MSB 2019 LiDAR GIS data, and no topography survey was completed.
3. The topography contours are shown at 10 foot intervals.
4. Survey Monuments are not shown.
5. This as-built is for the purpose of a preliminary plat submittal to the Mat-Su Borough.
6. Under no circumstances shall this drawing be used for any other purpose.

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Vicinity Map Scale: 1" = 1 Mile



As-Built

Government Lot 1 in Section 6, Township 17 North, Range 3 East, Seward Meridian, being located in the Palmer Recording District, Third Judicial District, State of Alaska.
EXCEPTING THEREFROM THE SUBSURFACE ESTATE and all rights, privileges, immunities and appurtenances of whatsoever nature accruing unto said estate pursuant to the Alaska Native Claims Settlement Act of December 18, 1971 (85 Stat 688,704; 43 USC 1601,1613(f)(1976)) as reserved by the United States of America in the Patent to said land.
Containing 474.893 acres more or less.

S4 Group
Land Surveying
Land Development Consultants
Subdivision Specialists
Construction Surveying
124 E 7th Avenue
Anchorage,
Alaska 99501
(907) 306-8104
mail@S4AK.com

Scale 1" = 300'	Job No: 2021-90	AECC 173042
Field Book: 129	Sheet 1 of 1	Date: 4/28/2025

RECEIVED
JUL 24 2025
PLATTING

GEOTECHNICAL ENGINEERING REPORT
for
PROPOSED SMITH SUBDIVISION
BUTTE, ALASKA

Prepared for:
Eklutna, Inc.
16515 Centerfield Drive, Suite 201
Eagle River, AK 99577

Prepared by:
Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing

---

DECEMBER 2024

Lots

NGE-TFT Project # 7242-24

December 24, 2024 NGE-TFT Project # 7242-24

Eklutna, Inc.
16515 Centerfield Drive, Suite 201
Eagle River, AK 99577

Attn: Noel Aspiras – Real Estate & Land Development Specialist

RE: GEOTECHNICAL ENGINEERING ASSESSMENT OF THE PROPOSED SMITH SUBDIVISION IN BUTTE, ALASKA.

Noel,

We (Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing) have completed a geotechnical engineering assessment of the aforementioned project. Our assessment suggests that the subgrade soils located across the project site are suitable for supporting the proposed improvements.

The project site is overlain with alluvial deposits from McRoberts Creek. The alluvial deposits generally consist of gravel with sand, gravel with silt and sand, and interbedded lenses of silt. There are lenses of material with rootlets and organic lenses interbedded with the alluvial deposits. Gravel with sand is the deepest material encountered with the material depth ranging from three (3) feet bgs to 15 feet bgs.

Based on the findings of geotechnical engineering assessment, it is our conclusion that all lots contain at least 10,000 square feet of useable building area and at least 10,000 square feet of contiguous useable septic area.

Subsurface conditions can vary across a project site. As such, we recommend that The Observational Method (described in more detail in Appendix A of this report) be followed.

We greatly appreciate the opportunity to provide you with our professional service. Please contact us directly with any questions or comments you may have regarding the information that we present in this report, or if you have any other questions, comments, and/or requests.

Sincerely,
Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing

Clinton J. Banzhaf, P.E.
Senior Project Engineer

Peer Review:
Keith F. Mobley
President



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3.0 SITE CHARACTERIZATION ACTIVITIES 1
4.0 LABORATORY TESTING 2
5.0 DESCRIPTION OF SUBSURFACE CONDITIONS 2
5.1 General Subsurface Profile 2
6.0 ENGINEERING CONCLUSIONS 2
7.0 CLOSURE 3

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Figure 2 ..... Proposed Site Layout and Approximate Exploration Locations

List of Appendices

Appendix A ..... Observational Method
Appendix B ..... Graphical Exploration Logs
Appendix C ..... Laboratory Test

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1.0 INTRODUCTION

Project Site: Proposed Smith Road Subdivision

Client: Eklutna, Inc.

Service Fee Proposal: 24-194(G)R1

Authorization of Services: Signed proposal dated October 30, 2024

Scope:

- Characterize the subsurface conditions;
- Evaluate usable building area of each lot; and
- evaluate usable septic area.

2.0 PROJECT OVERVIEW

Project Name: Proposed Smith Subdivision

Project Site Location: 1193 N Dewys St, Butte, Alaska (Figure 1)

Legal Description of Project Site: Township 17N, Range 3E, Section 6, Lot A1

Project Site Size: Appx 472 acres - Lot A1, (Appx. 90 - Proposed Smith Subd.)

Proposed Subdivision Location: Northwest portion of the project site

Current Site Conditions:

- Undeveloped except a few hiking trails
- Native vegetation and large mature trees

Proposed Improvements to Site:

- Subdivide Lot A1
  - Additional 57 lots (0.9 acres to 3 acres) Figure 2
  - Three streets

3.0 SITE CHARACTERIZATION ACTIVITIES

Subsurface Exploration Contractor: Dirtworks, Inc

Number and Type of Soil Explorations: 31 test pits

Exploration Locations: Figure 2 of this report

Exploration Depths: Approximately 9 to 17 feet below the ground surface (bgs)

Sampling Method: Grab samples

Monitoring Well: Open ended, 1-inch PVC with slots near the bottom were installed to the bottom of all explorations

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Graphical Test Pit Logs: Appendix B of this report

4.0 LABORATORY TESTING

We tested select soil samples in general accordance with the respective ASTM standard test methods including:

- moisture content analysis (ASTM D-2216);
- determination of fines content (a.k.a. P200 – ASTM D-1140); and
- grain size sieve and hydrometer analysis (ASTM D-6913 & D-7928).

Laboratory Test Results: Appendices B (graphical exploration logs) and C (laboratory data sheets)

5.0 DESCRIPTION OF SUBSURFACE CONDITIONS

We compiled our field observations with the results from our laboratory analyses to produce graphical logs of each subsurface exploration (Appendix B). The graphical exploration logs depict the subsurface conditions that we identified at each exploration location and help us to interpret/extrapolate the subsurface conditions for areas adjacent to, and immediately surrounding, each exploration location across the project site.

5.1 General Subsurface Profile

The project site is overlain with alluvial deposits from McRoberts Creek. The alluvial deposits generally consist of gravel with sand, gravel with silt and sand, and interbedded lenses of silt. There are lenses of material with rootlets and organic lenses interbedded with the alluvial deposits. Gravel with sand is the deepest material encountered with the material depth ranging from three (3) feet bgs to 15 feet bgs.

6.0 ENGINEERING CONCLUSIONS

Based on the findings of our field, laboratory, and engineering analysis efforts it is our conclusion that:

General:

1. All lots meet Matanuska-Susitna Borough Code for both minimum area for useable wastewater disposal and useable building.
    a. minimum of 10,000 sqft of contiguous useable wastewater disposal area
    b. minimum of 10,000 sqft of usable building area

Wastewater disposal area:

2. At all exploration (except Blk 2 lt14&15 and Blk2 lt27) a layer of well or poorly graded gravel with sand (GW/GP) were visually classified

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3. At exploration Blk 2 lt14&15, material is classified as well-graded gravel with silt and sand (GW-GM) by sieve analysis.
4. At exploration Blk 2 lt27, material is classified as well-graded sand with silt and gravel (SW-SM) by sieve analysis.
5. All fine content testing is lest than 8.4% by mass

Buildable area:

1. At all explorations granular material with sufficient bearing capacity provided proper engineering controls are used.
2. There are multiple layers of alluvial deposits in various areas with some lenses of organics between deposits.
    a. Building foundations should be placed on granular material below any organic lenses.
    b. We recommend a test pit be completed next to any foundation to determine if there are any organics that need to be removed.

7.0 CLOSURE

We (Northern Geotechnical Engineering, Inc. d.b.a. Terra Firma Testing) prepared this report exclusively for the use Eklutna, Inc. and their consultants/contractors/etc. for use in the design and construction of the proposed improvements. We should be notified if significant changes are to occur in the nature, design, or location of the proposed improvements in order that we may review our conclusions and recommendations that we present in this report and, if necessary, modify them to satisfy the proposed changes.

This report should always be read and/or distributed in its entirety (including all figures, exploration logs, appendices, etc.) so that all of the pertinent information contained within is effectively disseminated. Otherwise, an incomplete or misinterpreted understanding of the site conditions and/or our engineering recommendations may occur. Our recommended best practice is to make this report accessible, in its entirety, to any design professional and/or contractor working on the project. Any part of this report (e.g., exploration logs, calculations, material values, etc.) which is presented in the design/construction plans and/or specifications for the project should have an adequate reference which clearly identifies where the report can be obtained for further review.

Due to the natural variability of earth materials, variations in the subsurface conditions across the project site may exist other than those we identified during the course of our geotechnical assessment. Therefore, a qualified geotechnical engineer, geologist, and/or special inspector be on-site during construction activities to provide corrective recommendations for any unexpected conditions revealed during construction (see our discussion of the Observational Method in Appendix A of this report for more detail). Furthermore, the construction budget should allow for any unanticipated conditions that may be encountered during construction activities.

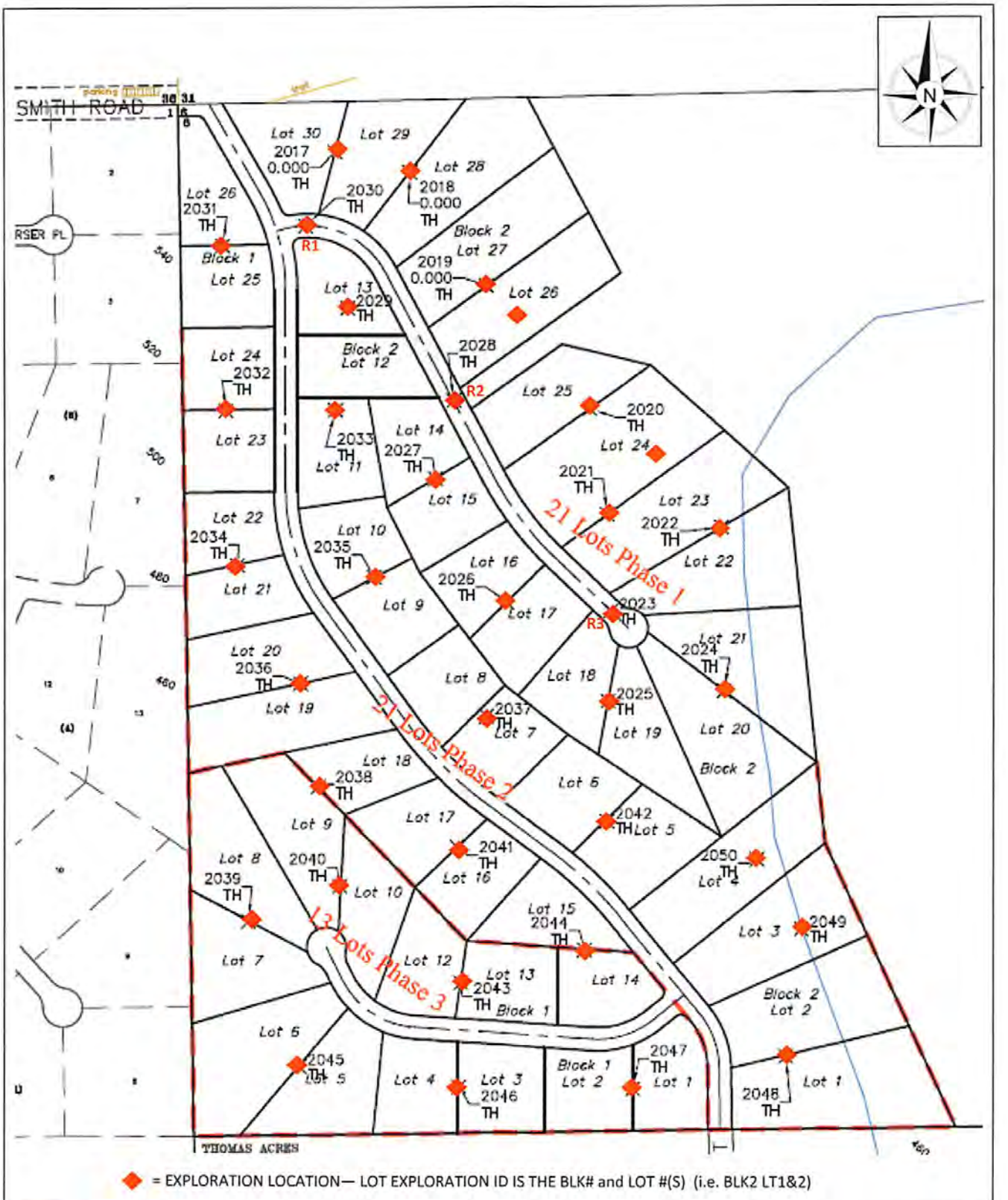
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We conducted this evaluation following the standard of care expected of professionals undertaking similar work in the State of Alaska under similar conditions. No warranty, expressed or implied, is made.

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NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

FIGURE TITLE:	PROJECT SITE LOCATION MAP
PROJECT NAME:	SMITH SUBDIVISION
PROJECT LOCATION:	BUTTE, ALASKA
PROJECT ID:	7242-24
FIGURE NUMBER:	1



◆ = EXPLORATION LOCATION— LOT EXPLORATION ID IS THE BLK# and LOT #(S) (i.e. BLK2 LT1&2)

NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

FIGURE TITLE: APPROX. EXPLORATION LOCATIONS	
PROJECT NAME: SMITH SUBDIVISION	PROJECT ID: 7242-24
PROJECT LOCATION: BUTTE, ALASKA	FIGURE NUMBER: 2

APPENDIX A

OBSERVATIONAL METHOD

APPENDIX A

1.0 THE OBSERVATIONAL METHOD

A comprehensive geoprofessional service (e.g., geotechnical, geological, civil, and/or environmental engineering, etc.) should consist of an interdependent, two-part process comprised of:

Part I - pre-construction site assessment, engineering, and design; and

Part II - continuous construction oversight and design support.

This process, commonly referred to in the geoprofessional industry as "The Observational Method", was developed to reduce the costs required to complete a construction project, while simultaneously reducing the overall risk associated with the design and construction of the project.

In geotechnical engineering, Part I of the Observational Method (OM) begins with a geotechnical assessment of the site, which typically consists of some combination of literature research, site reconnaissance, subsurface exploration, laboratory testing, and geotechnical engineering. These efforts are usually documented in a formal report (e.g., such as this report) that summarizes the findings of the geotechnical assessment, and presents provisional geotechnical engineering recommendations for design and construction. Geotechnical assessment reports (and the findings and recommendations contained within) are considered provisional due to the fact that their contents are typically based primarily on limited subsurface information for a site. Most conventional geotechnical exploration programs only physically characterize a very small percentage of a given site, as it is typically cost prohibitive to conduct extensive (i.e. high density/frequency) exploration programs. As an alternative, geoprofessionals use the subsurface information available for a site to extrapolate subsurface conditions between exploration locations and develop appropriate provisional recommendations based on the inferred site conditions. As a result, the geoprofessional of record cannot be certain that the provisional recommendations will be wholly applicable to the site, as subsurface conditions other than those identified during the geotechnical assessment may exist at the site which could present obstacles and/or increased risk to the proposed design and construction.

Part II of the OM is employed by geoprofessionals to help reduce the risk associated with unidentified and/or unexpected subsurface conditions. Geoprofessionals accomplish Part II of the OM by providing construction oversight (e.g., construction observation, inspection, and testing). Part II of the OM is a valuable service, as the geoprofessional of record is available if unexpected conditions are encountered during the construction process (e.g., during excavation, fill placement,

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etc.) to make timely assessments of the unexpected conditions and modify their design and construction recommendations accordingly; thus reducing considerable cost resulting from potential construction delays and reducing the risk of future problems resulting from inappropriate design and construction practices.

Oftentimes, a client may be persuaded to use an alternative geoprofessional firm to conduct Part II of the OM for a given project; as some geoprofessional firms offer the same services at discounted prices in order to help them obtain the overall construction materials engineering and testing (CoMET) commission. The geoprofessional industry as a whole recommends against this practice. An alternative geoprofessional firm cannot provide the same level of service as the geoprofessional of record. The geoprofessional of record has (amongst other things) a unique familiarity with the project including; an intimate understanding of the subsurface conditions, the proposed design, and the client's unique concerns and needs, as well as other factors that could impact the successful completion of a construction project. An alternative geoprofessional firm is not aware of the inferences made and the judgment applied by the geoprofessional of record in developing the provisional recommendations, and may overlook opportunities to provide extra value during Part II of the geoprofessional service.

Clients that prevent the geoprofessional of record from performing a complete service can be held solely liable for any complications stemming from engineering omissions as a result of unidentified conditions. The geoprofessional of record may not be liable for any resulting complications that occur, as the geoprofessional of record was not able to complete their services. Furthermore, the replacement geoprofessional firm may also be found to have no liability for the same reasons.

We are available at any time to discuss the OM in more detail, or to provide you with an estimate for any additional construction observation and testing services required.

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APPENDIX B

GRAPHICAL EXPLORATION LOGS

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

EXPLORATION BLK1LT12LT13 TH2043

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/19/2024 @ 9:30:00 AM
DATE/TIME COMPLETED: 11/19/2024 @ 9:50:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Sunny, 13°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), with cobbles, loose to medium dense, olive, moist									
5					S1	N/A	N/A	N/A		S1	S1 MC = 4.5% P200 = 2.0%	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT14LT15 TH2044

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/18/2024 @ 3:15:00 PM
DATE/TIME COMPLETED: 11/18/2024 @ 3:40:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Sunny, 15°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			POORLY GRADED SAND (SP), loose, olive, moist										
			POORLY GRADED GRAVEL WITH SILT (GP-GM), with roots, loose, brown, moist										
			WELL GRADED GRAVEL WITH SAND (GW), with cobbles, and boulders, medium dense, olive, moist										
5					S1	N/A	N/A	N/A		S1	S1 MC = 5.6% 62.3% gravel, 35.6% sand, 2.1% silt		
10												Refusal on boulders.	

Bottom of borehole at 12.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT16LT17 TH2041

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/17/2024 @ 11:05:00 AM
DATE/TIME COMPLETED: 11/17/2024 @ 11:30:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Sunny, 13°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), loose, olive, moist									
			WELL GRADED GRAVEL WITH SAND (GW), loose to medium dense, olive brown, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 5.5% 48.1% gravel, 47.1% sand, 4.8% silt	
5												
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK1LT19LT20 TH2036

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/12/2024 @ 3:40:00 PM
DATE/TIME COMPLETED: 11/12/2024 @ 4:30:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), soft, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), with roots, loose, olive, moist									
5			**WELL GRADED GRAVEL WITH SAND** (GW), medium dense, olive, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 5.3% P200 = 3.1%	
10												
					S2	N/A	N/A	N/A		S2	S2 MC = 6.2% 54.8% gravel, 41.9% sand, 3.3% silt	
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils. Set 4" open end PVC to 8'. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT1LT2 TH2047

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/18/2024 @ 2:20:00 PM
DATE COMPLETED: 11/18/2024
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Sunny, 15°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED SAND (SP), loose, olive, moist									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
5			**POORLY GRADED GRAVEL WITH SAND** (GP), medium dense, olive, moist									
			SILT (ML), with roots, soft, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), medium dense, olive, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 8.1% 55.2% gravel, 40.2% sand, 4.6% silt	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC 13 ft bgs. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT21LT22 TH2034

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 9:30:00 AM
DATE/TIME COMPLETED: 11/13/2024 @ 10:19:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 9°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), with cobbles, medium dense, brown, moist									
5			**POORLY GRADED GRAVEL WITH SAND** (GP), with cobbles, and boulders, medium dense, olive, moist									
10					S1	N/A	N/A	N/A		S1	S1 MC = 6.8% 52.4% gravel, 43.8% sand, 3.8% silt	
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT23LT24 TH2032

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 11:50:00 AM
DATE/TIME COMPLETED: 11/13/2024 @ 12:30:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY SAND WITH ORGANICS (SM), loose, brown, moist									
			POORLY GRADED GRAVEL WITH SAND INTERBEDDED WITH SILT (GP/ML), olive brown, moist, loose and soft									
5												
10												
15					S1	N/A	N/A	N/A		S1	S1 MC = 5.5% P200 = 4.8%	
			POORLY GRADED GRAVEL WITH SAND (GP), medium dense, olive, moist									

Bottom of borehole at 17.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK1LT25LT26 TH2031

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 11:30:00 AM
DATE/TIME COMPLETED: 11/14/2024 @ 12:00:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED SAND WITH GRAVEL (SP), with roots, loose, olive, moist									
5			**WELL GRADED GRAVEL WITH SAND** (GW), loose, olive, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 5.7% 54.3% gravel, 41.0% sand, 4.7% silt	
			SILT WITH ORGANICS (ML), soft, brown, moist									
10			**POORLY GRADED GRAVEL WITH SAND** (GP), loose, olive, moist									
			SILT (ML), soft, brown, moist									
15			**POORLY GRADED GRAVEL WITH SAND** (GP), medium dense, olive, moist									

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT3LT4 TH2046

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/12/2024 @ 9:45:00 AM
DATE/TIME COMPLETED: 11/12/2024 @ 10:30:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), soft, brown, moist, roots									
			POORLY GRADED GRAVEL WITH SAND (GP), loose to medium dense, brown, moist, with cobbles and boulders									
5			**SILT** (ML), soft, brown, moist, roots									
			POORLY GRADED GRAVEL WITH SAND (GP), medium dense, brown, moist									
10					S1	N/A	N/A	N/A		S1	S1 MC = 5.2% P200 = 4.4%	
15					S2	N/A	N/A	N/A		S2	S2 MC = 6.8% P200 = 1.9%	

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils. Set 4" open end PVC to 9'. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT5LT6 TH2045

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/12/2024 @ 11:35:00 AM
DATE/TIME COMPLETED: 11/12/2024 @ 12:15:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			SILT (ML), with roots, soft, brown, moist										
			POORLY GRADED SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SAND (SP/GP), loose, brown, moist, with cobbles and boulders									Boulders up to 3 ft in diameter.	
5					S1	N/A	N/A	N/A		S1	S1 MC = 3.9% 46.1% gravel, 50.4% sand, 3.5% silt		
10			Medium dense		S2	N/A	N/A	N/A		S2	S2 MC = 4.1% P200 = 4.4%		
15			Bottom of borehole at 15.0 ft bgs. Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils. Set 4" open end PVC to 5'. Backfilled with spoils.										

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT7LT8 TH2039

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/12/2024 @ 12:35:00 PM
DATE/TIME COMPLETED: 11/12/2024 @ 1:20:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), with roots, soft, brown, moist									
			WELL GRADED GRAVEL WITH SAND INTERBEDDED WITH POORLY GRADED SAND (GW/SP), loose, olive, moist, varying amounts of roots from none to some									
5					S1	N/A	N/A	N/A		S1	S1 MC = 2.2% 66.9% gravel, 32.4% sand, 0.7% silt	
10			**WELL GRADED GRAVEL WITH SAND** (GW), with boulders, medium dense to dense, olive, moist		S2	N/A	N/A	N/A		S2	S2 MC = 3.8% P200 = 1.5%	

Bottom of borehole at 14.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils. Set 4" open end PVC to 4'. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT9LT10 TH2040

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/12/2024 @ 1:30:00 PM
DATE/TIME COMPLETED: 11/12/2024 @ 2:15:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), with roots, soft, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), some cobbles, trace boulders, medium dense, olive, moist									
5					S1	N/A	N/A	N/A		S1	S1 MC = 4.6% 58.7% gravel, 39.9% sand, 1.4% silt	
10			**POORLY GRADED GRAVEL WITH SAND AND SILT** (GP), with rootlets, loose, brown									
			WELL GRADED GRAVEL WITH SAND (GW), medium dense, olive, moist									
15					S2	N/A	N/A	N/A		S2	S2 MC = 2.6% 66.3% gravel, 31.6% sand, 2.1% silt	

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils. Set 4" open end PVC to 4'. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK1LT9LT18 TH2038

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE STARTED: 11/12/2024
DATE/TIME COMPLETED: 11/12/2024 @ 3:30:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS:

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL INTERBEDDED WITH SILT (GP/ML), loose, olive to brown, moist									
5			**POORLY GRADED GRAVEL WITH SAND** (GP), medium dense, olive, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 3.4% P200 = 2.2%	
10												
					S2	N/A	N/A	N/A		S2	S2 MC = 3.1% P200 = 1.9%	
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to 13 ft bgs. Hand slotted bottom 5' of casing. Backfilled with spoils. Set 4" open end PVC to 7'. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT11 TH2033

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 11:00:00 AM
DATE/TIME COMPLETED: 11/13/2024 @ 11:30:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 21°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), with roots, soft, brown, moist									
5			**POORLY GRADED GRAVEL WITH SAND** (GP), with cobbles, and boulders, medium dense, olive, moist									
10				G	S1	N/A	N/A	N/A		S1	S1 MC = 9.0% P200 = 2.6%	
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT13 TH2029

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 10:30:00 AM
DATE/TIME COMPLETED: 11/14/2024 @ 11:00:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Overcast, 19°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL WITH SAND AND SILT (GP), with roots, loose, brown, moist									
5												
					S1	N/A	N/A	N/A		S1	S1 MC = 8.9% P200 = 8.4%	
10												
			SILT (ML), soft, brown, moist									
15			**POORLY GRADED GRAVEL WITH SAND** (GP), medium dense, olive, moist									

Bottom of borehole at 17.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT14LT15 TH2027

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 12:45:00 PM
DATE COMPLETED: 11/13/2024
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 30°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL WITH SAND (GP), loose, olive, moist									
			SILT (ML), soft, brown, moist									
			WELL GRADED GRAVEL WITH SAND AND SILT (GW), medium dense, olive, moist									
5												
10					S1	N/A	N/A	N/A		S1	S1 MC = 6.4% 57.5% gravel, 36.8% sand, 5.7% silt	
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK2LT16LT17 TH2026

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 1:40:00 PM
DATE/TIME COMPLETED: 11/13/2024 @ 2:15:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 30°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED SAND (SP), with roots, loose, olive									
5			**WELL GRADED GRAVEL WITH SAND** (GW), with cobbles, and boulders, medium dense to dense, olive									
					S1	N/A	N/A	N/A		S1	S1 MC = 5.4% 54.7% gravel, 43.1% sand, 2.2% silt	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT18LT19 TH2025

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 2:30:00 PM
DATE/TIME COMPLETED: 11/15/2024 @ 2:55:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED SAND (SP), loose, brown, moist									
			SILTY GRAVEL (GM), with roots, soft, brown, moist									
5			**POORLY GRADED GRAVEL WITH SAND** (GP), with roots, with boulders, medium dense, olive / brown, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 9.3% 58.7% gravel, 39.0% sand, 2.3% silt	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK2LT1LT2 TH2048

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/18/2024 @ 11:35:00 AM
DATE COMPLETED: 11/18/2024
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 10°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL (GP), with roots, loose, olive, moist									
			ORGANICS (OL), brown									
			POORLY GRADED GRAVEL WITH SAND (GP), with cobbles, and boulders, medium dense, olive, moist									
5												
				G	S1	N/A	N/A	N/A		S1	S1 MC = 5.2% P200 = 2.9%	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK2LT20LT21 TH2024

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 3:15:00 PM
DATE/TIME COMPLETED: 11/15/2024 @ 3:40:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			POORLY GRADED GRAVEL WITH SAND (GP), with boulders, loose to medium dense, olive, moist										
5					S1	N/A	N/A	N/A		S1	S1 MC = 3.8% P200 = 2.9%		
10												Refusal on boulders.	

Bottom of borehole at 10.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK2LT22LT23 TH2022

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 12:55:00 PM
DATE COMPLETED: 11/15/2024
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			WELL GRADED GRAVEL WITH SAND (GW), with cobbles, and boulders, medium dense, olive, moist										
5					S1	N/A	N/A	N/A		S1	S1 MC = 2.9% 68.1% gravel, 29.9% sand, 2.0% silt		
10												Refusal on boulders.	

Bottom of borehole at 10.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK2LT23LT24 TH2021

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 12:03:00 PM
DATE/TIME COMPLETED: 11/15/2024 @ 12:40:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), with cobbles, and boulders, with roots, loose, brown, moist										
			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), with cobbles, and boulders, medium dense, olive, moist										
5													
					S1	N/A	N/A	N/A		S1	S1 MC = 7.0% P200 = 6.2%	Refusal on boulders.	

Bottom of borehole at 9.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION BLK2LT24LT25 TH2020

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 10:10:00 AM
DATE/TIME COMPLETED: 11/15/2024 @ 11:05:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 26°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY SAND (SM), with roots, brown, moist									
			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), with roots, loose, brown, moist									
5			**POORLY GRADED GRAVEL WITH SAND** (GP), medium dense, olive, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 4.7% P200 = 2.4%	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT27 TH2019

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 2:55:00 PM
DATE/TIME COMPLETED: 11/14/2024 @ 3:30:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 20°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), with roots, brown, moist									
			WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM), medium dense to dense, olive, moist									
5												
					S1	N/A	N/A	N/A		S1	S1 MC = 6.4% 43.4% gravel, 49.3% sand, 7.3% silt	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT28LT29 TH2018

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 2:20:00 PM
DATE/TIME COMPLETED: 11/14/2024 @ 2:45:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 20°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL WITH SAND (GP), with roots, loose to medium dense, brown, moist									
5												
10				G	S1	N/A	N/A	N/A		S1	S1 MC = 3.9% P200 = 3.2%	

Bottom of borehole at 14.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT29LT30 TH2017

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 1:35:00 PM
DATE/TIME COMPLETED: 11/14/2024 @ 1:55:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 22°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
5			**WELL GRADED GRAVEL WITH SAND** (GW), with roots, loose to medium dense, olive, moist									
					S1	N/A	N/A	N/A		S1	S1 MC = 7.2% 55.1% gravel, 41.0% sand, 3.9% silt	
10			No organics									
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT3 TH2049

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/18/2024 @ 10:40:00 AM
DATE/TIME COMPLETED: 11/18/2024 @ 11:15:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): Approx. 10.0 ft bgs
▼ GROUNDWATER (7/24/2025): Not Encountered
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, -3°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			WELL GRADED GRAVEL WITH SAND (GW), with cobbles, and boulders, medium dense, olive, moist									
5					S1	N/A	N/A	N/A		S1	S1 MC = 18.4% 63.0% gravel, 34.6% sand, 2.4% silt	
10		▽										
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT4 TH2050

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/18/2024 @ 9:45:00 AM
DATE/TIME COMPLETED: 11/18/2024 @ 10:20:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): Approx. 11.0 ft bgs
GROUNDWATER (7/24/2025): Not Encoutered
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, -3°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			WELL GRADED GRAVEL WITH SAND (GW), with cobbles, and boulders, with roots, loose to dense, olive, moist									
5			No organics									
					S1	N/A	N/A	N/A		S1	S1 MC = 3.4% 69.7% gravel, 28.1% sand, 2.2% silt	
10												

Bottom of borehole at 12.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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11301 Olive Lane
Anchorage, AK 99515

EXPLORATION BLK2LT5LT6 TH2042

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/19/2024 @ 10:20:00 AM
DATE/TIME COMPLETED: 11/19/2024 @ 10:45:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Sunny, 14°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), with roots, soft to medium dense, olive brown, moist									
5			No organics									
10				G	S1	N/A	N/A	N/A		S1	S1 MC = 4.9% P200 = 3.5%	
15			Bottom of borehole at 15.0 ft bgs. Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.									

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT7 TH2037

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 3:30:00 PM
DATE/TIME COMPLETED: 11/13/2024 @ 4:00:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 28°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			POORLY GRADED GRAVEL WITH SAND (GP), with cobbles, and boulders, medium dense, brown, moist									
5												
					S1	N/A	N/A	N/A		S1	S1 MC = 3.2% 59.0% gravel, 39.1% sand, 1.9% silt	
10												

Bottom of borehole at 10.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils. Refusal on boulders.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION BLK2LT9LT10 TH2035

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/13/2024 @ 2:25:00 PM
DATE/TIME COMPLETED: 11/13/2024 @ 3:00:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Clear, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			WELL GRADED GRAVEL WITH SAND (GW), with cobbles, and boulders, with roots, medium dense, brown / olive									
			No organics		S1	N/A	N/A	N/A		S1	S1 MC = 3.0% 67.9% gravel, 30.9% sand, 1.2% silt	
5												
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION R1

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 12:40:00 PM
DATE/TIME COMPLETED: 11/14/2024 @ 1:05:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 23°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), with roots, soft, brown, moist									
			WELL GRADED SAND WITH SILT AND GRAVEL INTERBEDDED WITH SILT (SW-SM/ML), loose to medium dense, olive / brown, moist									
5												
					S1	N/A	N/A	N/A		S1	S1 MC = 10.8% 43.6% gravel, 45.3% sand, 11.1% silt P0.02 = 7.0% FC = F2	
10												
			WELL GRADED GRAVEL WITH SAND (GW), olive, moist									
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

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EXPLORATION R2

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 9:10:00 AM
DATE/TIME COMPLETED: 11/15/2024 @ 9:55:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 25°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), with cobbles, and boulders, medium dense, olive, moist									
5					S1	N/A	N/A	N/A		S1	S1 MC = 3.9% 56.8% gravel, 40.4% sand, 2.8% silt P0.02 = 1.8% FC = PFS	
10												
15			Bottom of borehole at 15.0 ft bgs. Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.									

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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EXPLORATION R3

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 1:45:00 PM
DATE/TIME COMPLETED: 11/15/2024 @ 2:15:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			SILTY GRAVEL (GM), with roots, brown, moist										
			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), with boulders, dense, olive, moist										
5													
					S1	N/A	N/A	N/A		S1	S1 MC = 3.6% 70.5% gravel, 23.7% sand, 5.8% silt P0.02 = 3.8% FC = S1		
10												Refusal on boulders.	

Bottom of borehole at 10.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

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and Terra Firma Testing
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Anchorage, AK 99515

EXPLORATION LEGEND

CLIENT Eklutna, Inc.

NGE-TFT PROJECT NAME Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24

PROJECT LOCATION Palmer, AK

LITHOLOGIC SYMBOLS
(Unified Soil Classification System)


GM: USCS Silty Gravel


GP: USCS Poorly-graded Gravel


GP-GM: USCS Poorly-graded Gravel with Silt


GPS: Sandy Gravel


GW-GM: USCS Well-graded Gravel with Silt


GWS: USCS Well-graded Sandy Gravel


ML: USCS Silt


OH: USCS High Plasticity Organic silt or clay


OL: USCS Low Plasticity Organic silt or clay


SM: USCS Silty Sand


SP: USCS Poorly-graded Sand


SPG: Gravelly Sand


SW-SM: USCS Well-graded Sand with Silt

SAMPLER SYMBOLS


Grab Sample

WELL CONSTRUCTION SYMBOLS


Slough Backfill


Slotted Pipe Backfilled with Slough

ABBREVIATIONS

LL - LIQUID LIMIT (%)
PI - PLASTIC INDEX (%)
MC - MOISTURE CONTENT (%)
DD - DRY DENSITY (PCF)
NP - NON PLASTIC
P200 - PERCENT PASSING NO. 200 SIEVE
P0.02- PERCENT PASSING 0.02mm SIEVE
PP - POCKET PENETROMETER (tons/ft^2)
S/U - CASING STICK-UP

▽ Water Level at Time Drilling, or as Shown

▼ Water Level After 24 Hours, or as Shown

TV - TORVANE
PID - PHOTOIONIZATION DETECTOR
UC - UNCONFINED COMPRESSION
ppm - PARTS PER MILLION
N/E - NOT ENCOUNTERED
N/R - NOT REPRESENTATIVE
N/A - NOT APPLICABLE
$I_{s(50)}$ - POINT LOAD INDEX
S_c - UNCONFINED COMPRESSIVE STRENGTH

SOIL CLASSIFICATION CHART

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc.

PROJECT NAME Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24

PROJECT LOCATION Palmer, AK

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE			GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE			SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.
DIAGONAL LINES INDICATE UNKNOWN DEPTH OF SOIL TRANSITION.

EXPLORATION LOG KEY

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc.

PROJECT NAME Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24

PROJECT LOCATION Palmer, AK

SAMPLER SYMBOLS

- SPT w/ 140# Hammer 30" Drop and 2.0" O.D. Sampler
- Modified SPT w/ 340# Hammer 30" Drop and 3.0 O.D. Sampler
- Grab Sample
- Shelby Tube Sample
- Rock Core Sample
- Direct Push Sample
- No Recovery
- N/E Not Encountered

WELL SYMBOLS

- 1" Slotted Pipe Backfilled with Silica Sand
- 1" PVC Pipe Backfilled with Auger Cuttings
- 1" PVC Pipe with Bentonite Seal
- Capped Riser

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No. 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No. 4 (4.5 mm)
Sand	No. 4 (4.5 mm) to No. 200
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1-5%
Few	5-10%
Little	10-20%
Some	20-35%
And	35-50%

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
DENSITY	N (BLOWS/FT)	APPROXIMATE RELATIVE DENSITY (%)	CONSISTENCY	N (BLOWS/FT)	APPROXIMATE UNDRAINED SHEAR STRENGTH (PSF)
VERY LOOSE	0-4	0-15	VERY SOFT	0-1	< 250
LOOSE	5-10	15-35	SOFT	2-4	250-500
MEDIUM DENSE	11-25	35-65	MEDIUM STIFF	5-8	500-1000
DENSE	26-50	65-85	STIFF	9-15	1000-2000
VERY DENSE	> 50	85-100	VERY STIFF	16-30	2000-4000
			HARD	> 30	> 4000

EXPLORATION LOG KEY

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc. PROJECT NAME Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24 PROJECT LOCATION Palmer, AK

FROST DESIGN SOIL CLASSIFICATION

FROST GROUP (USACOE)	FROST GROUP (M.O.A.)	SOIL TYPE	% FINER THAN 0.02mm BY MASS	TYPICAL SOIL TYPES UNDER UNIFIED SOIL CLASSIFICATION SYSTEM
NFS*	NFS*	(A) GRAVELS CRUSHED STONE CRUSHED ROCK (B) SANDS	0 - 1.5 0 - 3	GW, GP SW, SP
PFS*	NFS*	(A) GRAVELS CRUSHED STONE CRUSHED ROCK	1.5 - 3	GW, GP
	F2	(B) SANDS	3 - 10	SW, SP
S1	F1	GRAVELLY SOILS	3 - 6	GW, GP, GW-GM, GP-GM
S2	F2	SANDY SOILS	3 - 6	SW, SP, SW-SM, SP-SM
F1	F1	GRAVELLY SOILS	6 - 10	GM, GW-GM, GP-GM
F2	F2	(A) GRAVELLY SOILS (B) SANDS	10 - 20 6 - 15	GM, GW-GM, GP-GM SM, SW-SM, SP-SM
F3	F3	(A) GRAVELLY SOILS (B) SANDS, EXCEPT VERY FINE SILTY SANDS (C) CLAYS, PI>12	Over 20 Over 15 ------	GM, GC SM, SC CL, CH
F4	F4	(A) ALL SILTS (B) VERY FINE SILTY SANDS (C) CLAYS, PI<12 (D) VARVED CLAYS AND OTHER FINE GRAINED, BANDED SEDIMENTS	------ Over 15 ------ ------	ML, MH SM CL, CL-ML CL & ML; CL, ML, & SM; CL, CH, & ML; CL, CH, ML, & SM

*Non-frost susceptible
*Possibly frost susceptible, but requires lab testing to determine frost design soils classification.

ICE CLASSIFICATION SYSTEM

GROUP	ICE VISIBILITY	DESCRIPTION		SYMBOL	
N	SEGREGATED ICE NOT VISIBLE BY EYE	POORLY BONDED OR FRIABLE		Nf	
		WELL BONDED	NO EXCESS ICE	Nb	Nbn
			EXCESS MICROSCOPIC ICE		Nbe
V	SEGREGATED ICE IS VISIBLE BY EYE AND IS ONE INCH OR LESS IN THICKNESS	INDIVIDUAL ICE CRYSTALS OR INCLUSIONS		Vx	
		ICE COATINGS ON PARTICLES		Vc	
		RANDOM OR IRREGULARY ORIENTED ICE		Vr	
		STRATIFIED OR DISTINCTLY ORIENTED ICE		Vs	
		UNIFORMLY DISTRIBUTED ICE		Vu	
ICE	ICE IS GREATER THAN ONE INCH IN THICKNESS	ICE WITH SOILS INCLUSIONS		ICE + Soil Type	
		ICE WITHOUT SOILS INCLUSIONS		ICE	

APPENDIX C

LABORATORY TEST RESULTS

Summary of Laboratory Test Results

Smith Subd.

NGE-TFT Project #:7242-24

Exploration ID	Sample Number	Depth Interval (ft) Top	Depth Interval (ft) Bottom	Moisture Content ASTM D2216 (% By Dry Mass)	Particle Size Analysis ASTM C136/D7928/D6913 (% By Mass) Gravel	Sand	Silt/Clay	Passing #200 ASTM D1140 (% By Mass)	Passing 0.02mm ASTM D7928 (% By Mass)	Frost Class.	Unified Soil Classification ASTM D2487
BK1LT12	S1	8.0	9.0	8.1	55.2	40.2	4.6		N/A	N/A	(GP) Poorly-graded gravel w/ sand
BK1LT3LT4	S1	10.0	11.0	5.2				4.4			
BK1LT3LT4	S2	14.0	15.0	6.8				1.9			
BK1LT5LT6	S1	5.0	6.0	3.9	46.1	50.4	3.5		N/A	N/A	(SP) Poorly-graded sand w/ gravel
BK1LT5LT6	S2	12.0	13.0	4.1				4.4			
BK1LT7LT8	S1	4.0	5.0	2.2	66.9	32.4	0.7		N/A	N/A	(GW) Well-graded gravel w/ sand
BK1LT7LT8	S2	13.0	14.0	3.8				1.5			
BK1LT9LT10	S1	4.0	5.0	4.6	58.7	39.9	1.4		N/A	N/A	(GP) Poorly-graded gravel w/ sand
BK1LT9LT10	S2	14.0	15.0	2.6	66.3	31.6	2.1		N/A	N/A	(GW) Well-graded gravel w/ sand
BK1LT12LT13	S1	7.0	8.0	4.5				2.0			
BK1LT14LT15	S1	7.0	8.0	5.6	62.3	35.6	2.1		N/A	N/A	(GW) Well-graded gravel w/ sand
BK1LT16LT17	S1	8.0	9.0	5.5	48.1	47.1	4.8		N/A	N/A	(GW) Well-graded gravel w/ sand
BK1LT9LT18	S1	7.0	8.0	3.4				2.2			
BK1LT9LT18	S2	13.0	14.0	3.1				1.9			
BK1LT19LT20	S1	8.0	9.0	5.3				3.1			
BK1LT19LT20	S2	13.0	14.0	6.2	54.8	41.9	3.3		N/A	N/A	(GW) Well-graded gravel w/ sand
BK1LT21LT22	S1	9.0	10.0	6.8	52.4	43.8	3.8		N/A	N/A	(GP) Poorly-graded gravel w/ sand
BK1LT23LT24	S1	14.5	15.5	5.5				4.8			
BK1LT25LT26	S1	7.0	8.0	5.7	54.3	41.0	4.7		N/A	N/A	(GW) Well-graded gravel w/ sand
BK2LT1LT2	S1	9.0	10.0	5.2				2.9			
BK2LT3	S1	4.0	5.0	18.4	63.0	34.6	2.4		N/A	N/A	(GW) Well-graded gravel w/ sand
BK2LT4	S1	6.0	7.0	3.4	69.7	28.1	2.2		N/A	N/A	(GW) Well-graded gravel w/ sand
BK2LT5LT6	S1	10.0	11.0	4.9				3.5			
BK2LT7	S1	8.0	9.0	3.2	59.0	39.1	1.9		N/A	N/A	(GP) Poorly-graded gravel w/ sand
BK2LT9LT10	S1	4.0	5.0	3.0	67.9	30.9	1.2		N/A	N/A	(GW) Well-graded gravel w/ sand
BK2LT11	S1	10.0	11.0	9.0				2.6			
BK2LT13	S1	8.0	9.0	8.9				8.4			
BK2LT14LT15	S1	10.0	11.0	6.4	57.5	36.8	5.7		N/A	N/A	(GW-GM) Well-graded gravel w/ silt and sand
BK2LT16LT17	S1	6.0	7.0	5.4	54.7	43.1	2.2		N/A	N/A	(GW) Well-graded gravel w/ sand
BK2LT18LT19	S1	5.0	6.0	9.3	58.7	39.0	2.3		N/A	N/A	(GP) Poorly-graded gravel w/ sand
BK2LT20LT21	S1	6.0	7.0	3.8				2.9			
BK2LT22LT23	S1	4.0	5.0	2.9	68.1	29.9	2.0		N/A	N/A	(GW) Well-graded gravel w/ sand
BK2LT23LT24	S1	7.0	8.0	7.0				6.2			
BK2LT24LT25	S1	8.0	9.0	4.7				2.4			
BK2LT27	S1	8.0	9.0	6.4	43.4	49.3	7.3		N/A	N/A	(SW-SM) Well-graded sand w/ silt and gravel
BK2LT28LT29	S1	13.0	14.0	3.9				3.2			
BK2LT29LT30	S1	6.0	7.0	7.2	55.1	41.0	3.9		N/A	N/A	(GW) Well-graded gravel w/ sand
R1	S1	8.0	9.0	10.8	43.6	45.3	11.1		7.0	F2	(SW-SM) Well-graded sand w/ silt and gravel
R2	S1	6.0	7.0	3.9	56.8	40.4	2.8		1.8	PFS	(GP) Poorly-graded gravel w/ sand
R3	S1	6.0	7.0	3.6	70.5	23.7	5.8		3.8	S1	(GP-GM) Poorly-graded gravel w/ silt and sand

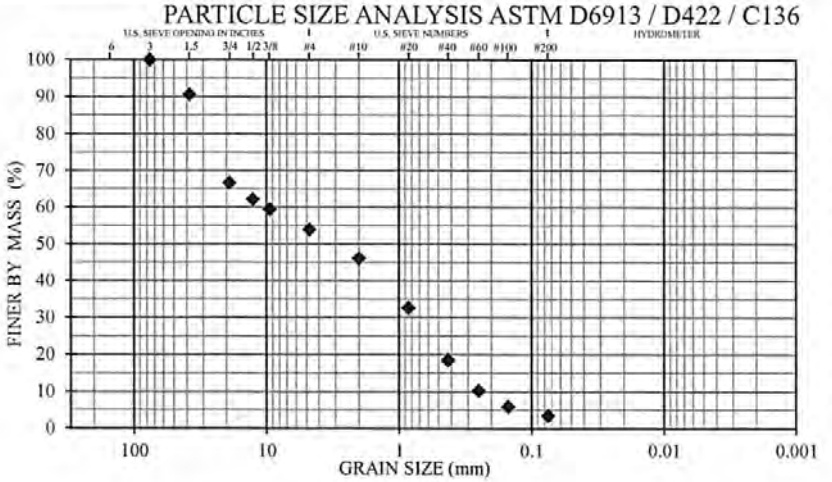
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT5LT6
NUMBER/ DEPTH:	S1 / 5 - 6'
DESCRIPTION:	Poorly-graded sand w/ gravel
DATE RECEIVED:	11/20/2024
TESTED BY:	Paul Santillana
REVIEWED BY:	CJB

% GRAVEL	46.1	USCS	SP
% SAND	50.4	USACOE FC	N/A
% SILT/CLAY	3.5	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	3.9	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		41.7	
COEFFICIENT OF GRADATION (C_c)		0.2	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

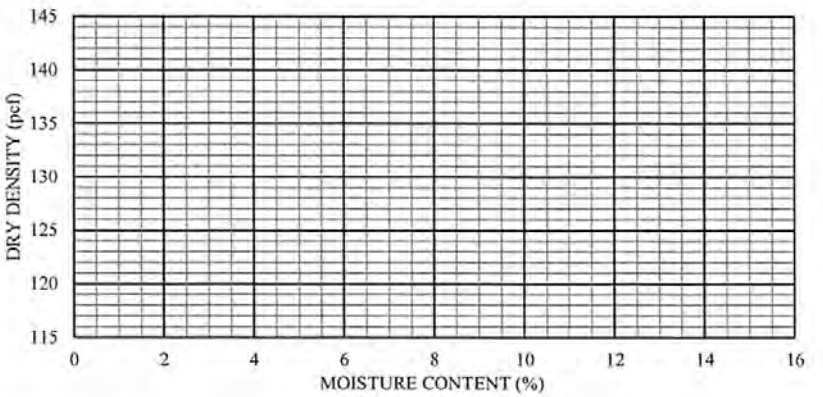


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	91	
19.00	3/4"	67	
12.70	1/2"	62	
9.50	3/8"	59	
4.75	#4	54	
2.00	#10	46	
0.85	#20	33	
0.43	#40	19	
0.25	#60	10	
0.15	#100	6	
0.075	#200	3.5	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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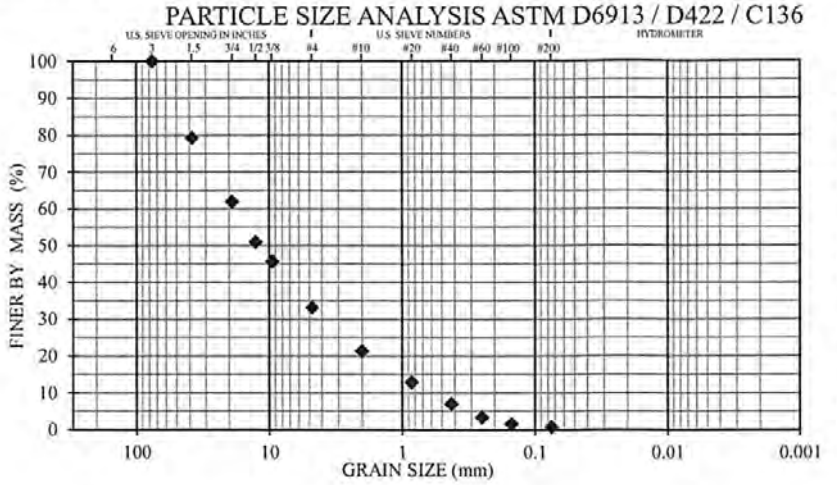
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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT7LT8
NUMBER/ DEPTH:	S1 / 4 - 5'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	66.9	USCS	GW
% SAND	32.4	USACOE FC	N/A
% SILT/CLAY	0.7	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	2.2	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	28.0
COEFFICIENT OF GRADATION (C_c)	1.4
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

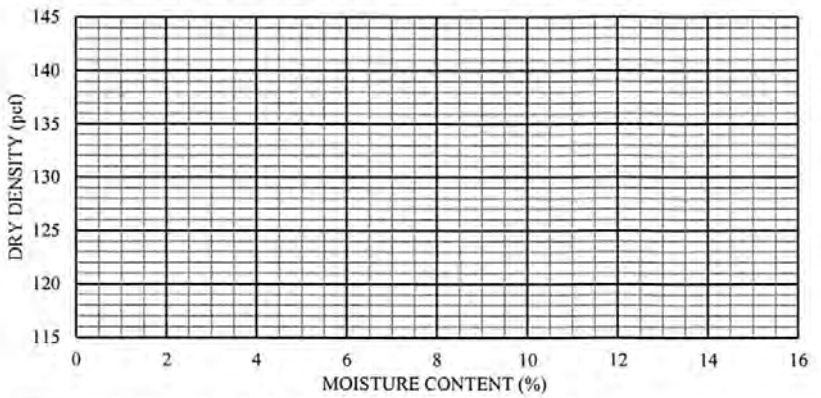
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	79	
19.00	3/4"	62	
12.70	1/2"	51	
9.50	3/8"	46	
4.75	#4	33	
2.00	#10	21	
0.85	#20	13	
0.43	#40	7	
0.25	#60	3	
0.15	#100	2	
0.075	#200	0.7	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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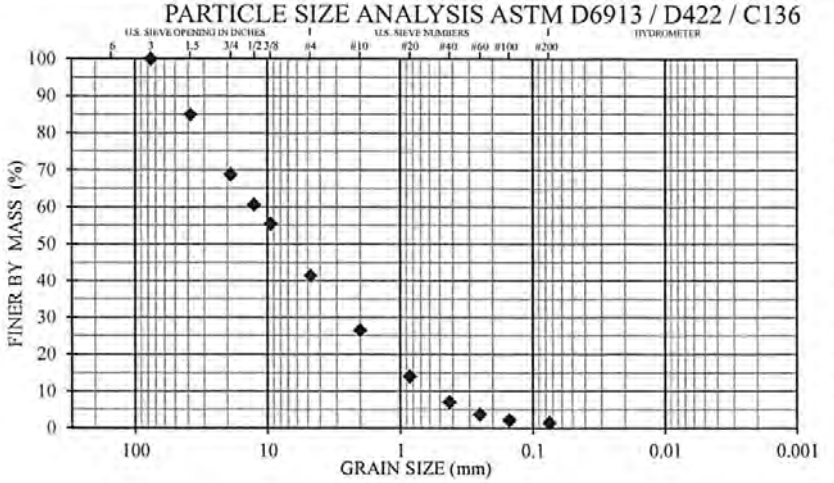
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT9LT10
NUMBER/ DEPTH:	S1 / 4 - 5'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Isaac Logo
REVIEWED BY:	CJB

% GRAVEL	58.7	USCS	GP
% SAND	39.9	USACOE FC	N/A
% SILT/CLAY	1.4	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	4.6	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		20.4	
COEFFICIENT OF GRADATION (C_c)		0.9	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

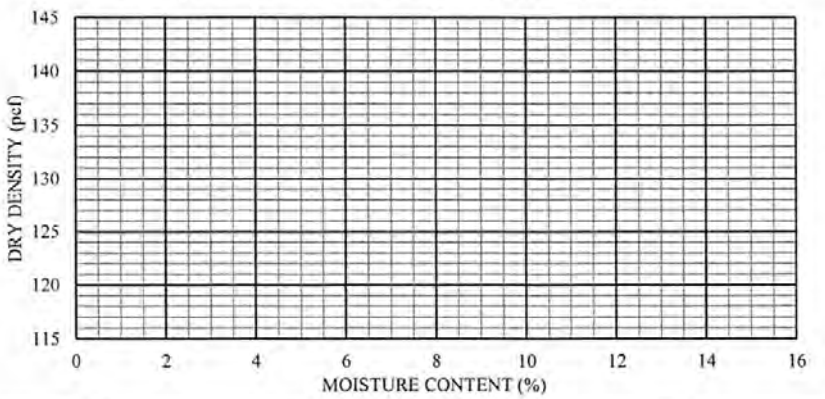


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	85	
19.00	3/4"	69	
12.70	1/2"	61	
9.50	3/8"	55	
4.75	#4	41	
2.00	#10	27	
0.85	#20	14	
0.43	#40	7	
0.25	#60	4	
0.15	#100	2	
0.075	#200	1.4	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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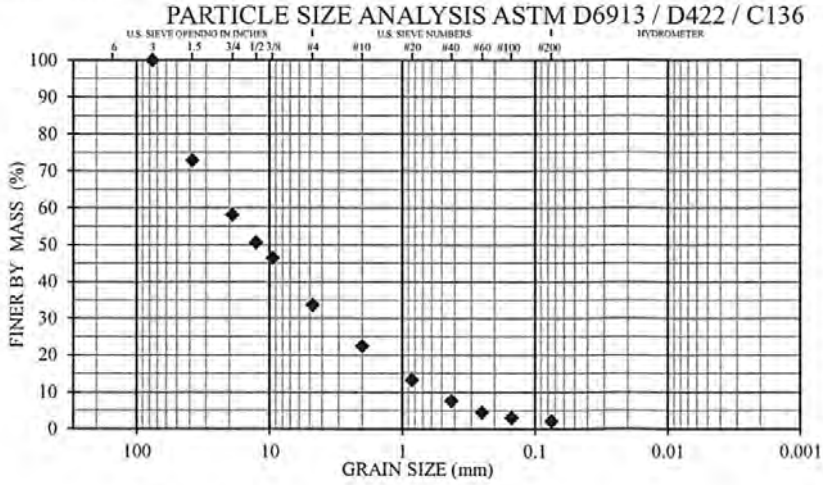
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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT9LT10
NUMBER/ DEPTH:	S2 / 14 - 15'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Isaac Logo
REVIEWED BY:	CJB

% GRAVEL	66.3	USCS	GW
% SAND	31.6	USACOE FC	N/A
% SILT/CLAY	2.1	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	2.6	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	35.4
COEFFICIENT OF GRADATION (C_c)	1.1
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

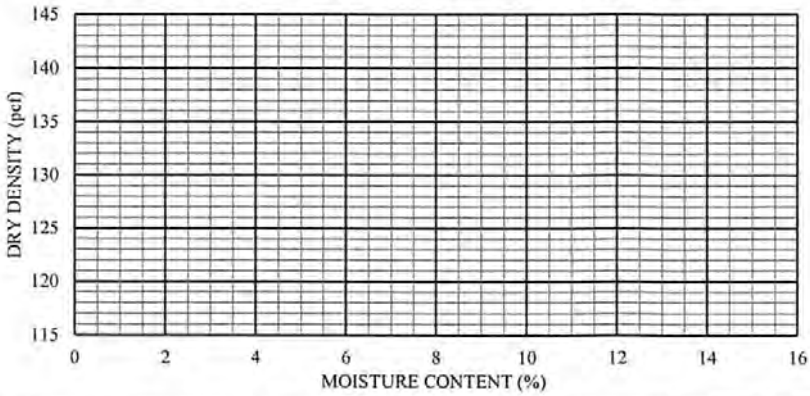
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	73	
19.00	3/4"	58	
12.70	1/2"	51	
9.50	3/8"	46	
4.75	#4	34	
2.00	#10	22	
0.85	#20	13	
0.43	#40	8	
0.25	#60	5	
0.15	#100	3	
0.075	#200	2.1	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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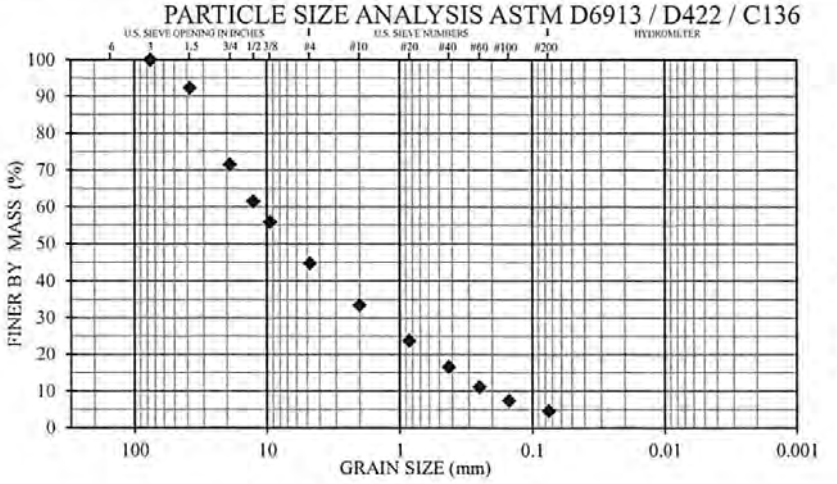
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT12
NUMBER/ DEPTH:	S1 / 8 - 9'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Paul Santillana
REVIEWED BY:	CJB

% GRAVEL	55.2	USCS	GP
% SAND	40.2	USACOE FC	N/A
% SILT/CLAY	4.6	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	8.1	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		54.2	
COEFFICIENT OF GRADATION (C_c)		1.0	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

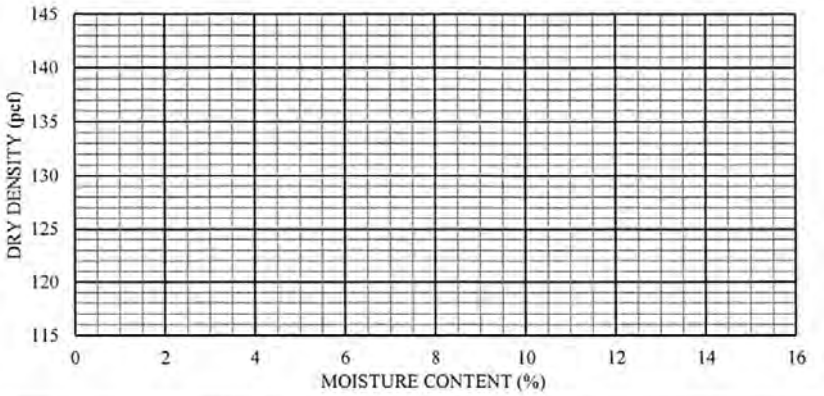
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	92	
19.00	3/4"	71	
12.70	1/2"	61	
9.50	3/8"	56	
4.75	#4	45	
2.00	#10	33	
0.85	#20	24	
0.43	#40	17	
0.25	#60	11	
0.15	#100	7	
0.075	#200	4.6	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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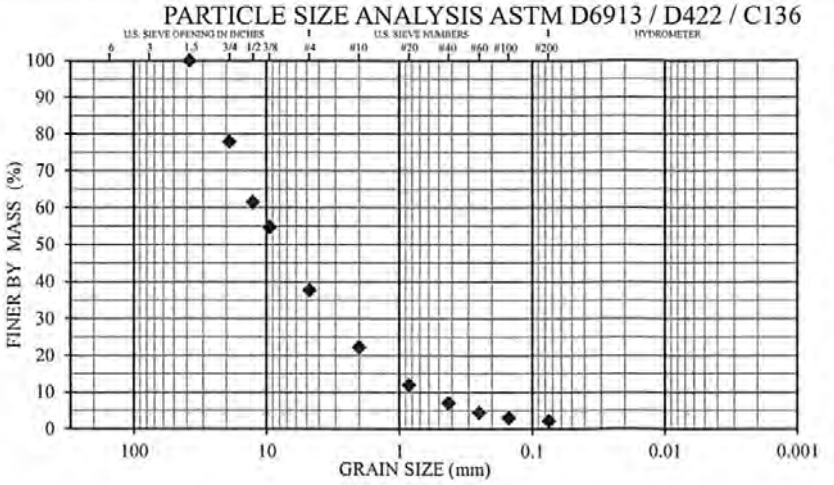
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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT14LT15
NUMBER/ DEPTH:	S1 / 7 - 8'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Chris Gerboth
REVIEWED BY:	CJB

% GRAVEL	62.3	USCS	GW
% SAND	35.6	USACOE FC	N/A
% SILT/CLAY	2.1	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	5.6	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		17.6	
COEFFICIENT OF GRADATION (C_c)		1.4	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

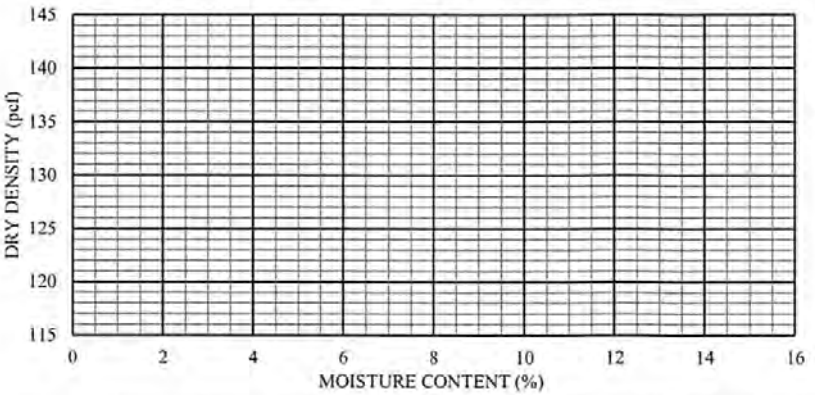
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"		
38.10	1.5"	100	
19.00	3/4"	78	
12.70	1/2"	61	
9.50	3/8"	55	
4.75	#4	38	
2.00	#10	22	
0.85	#20	12	
0.43	#40	7	
0.25	#60	4	
0.15	#100	3	
0.075	#200	2.1	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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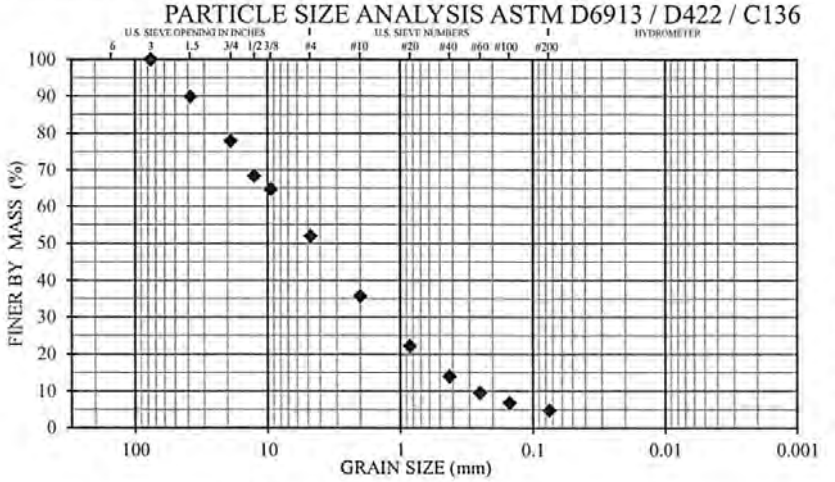
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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT16LT17
NUMBER/ DEPTH:	S1 / 8 - 9'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Isaac Logo
REVIEWED BY:	CJB

% GRAVEL	48.1	USCS	GW
% SAND	47.1	USACOE FC	N/A
% SILT/CLAY	4.8	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	5.5	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	28.7
COEFFICIENT OF GRADATION (C_c)	1.1
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

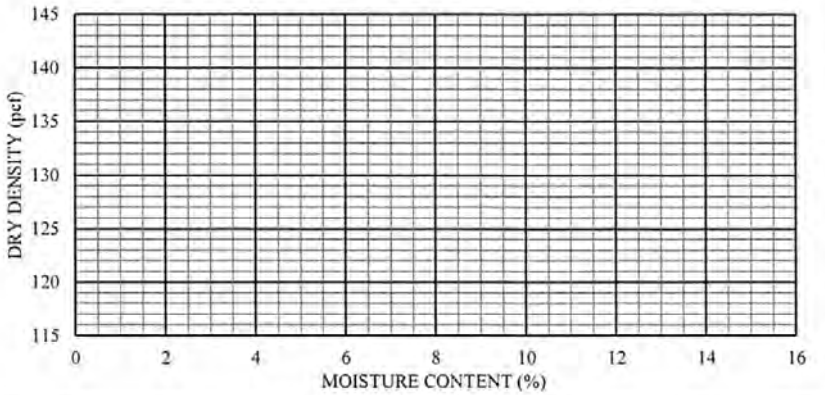


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	90	
19.00	3/4"	78	
12.70	1/2"	68	
9.50	3/8"	65	
4.75	#4	52	
2.00	#10	36	
0.85	#20	22	
0.43	#40	14	
0.25	#60	9	
0.15	#100	7	
0.075	#200	4.8	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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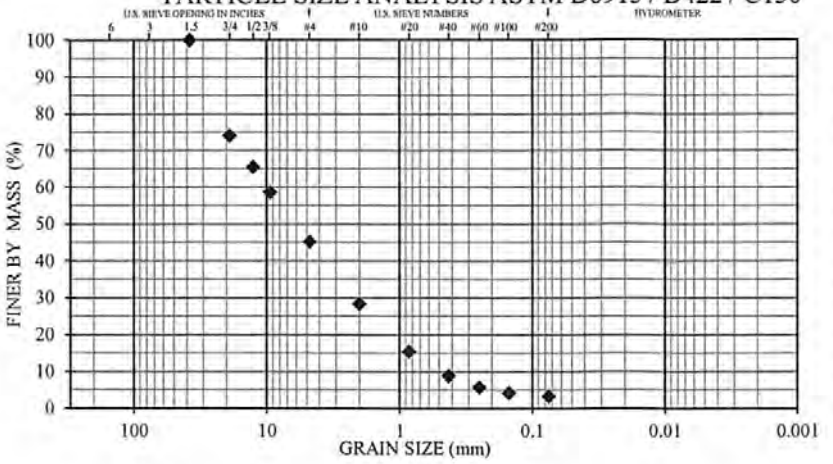
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT19LT20
NUMBER/ DEPTH:	S2 / 13 - 14'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Chris Gerboth
REVIEWED BY:	CJB

% GRAVEL	54.8	USCS	GW
% SAND	41.9	USACOE FC	N/A
% SILT/CLAY	3.3	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	6.2	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		20.4	
COEFFICIENT OF GRADATION (C_c)		1.0	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

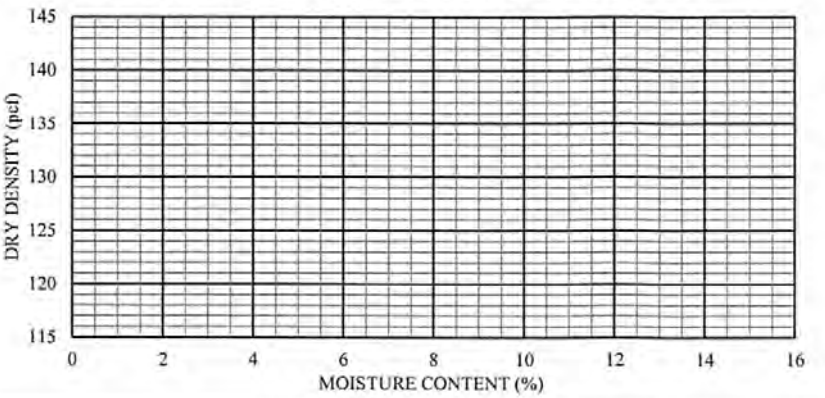
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"		
38.10	1.5"	100	
19.00	3/4"	74	
12.70	1/2"	65	
9.50	3/8"	59	
4.75	#4	45	
2.00	#10	28	
0.85	#20	15	
0.43	#40	9	
0.25	#60	6	
0.15	#100	4	
0.075	#200	3.3	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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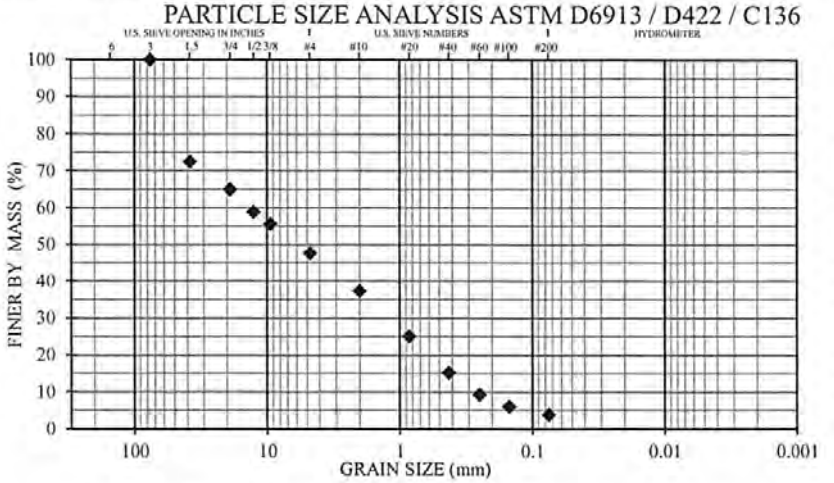
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT21LT22
NUMBER/ DEPTH:	S1 / 9 - 10'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	52.4	USCS	GP
% SAND	43.8	USACOE FC	N/A
% SILT/CLAY	3.8	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	6.8	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		51.0	
COEFFICIENT OF GRADATION (C_c)		0.5	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

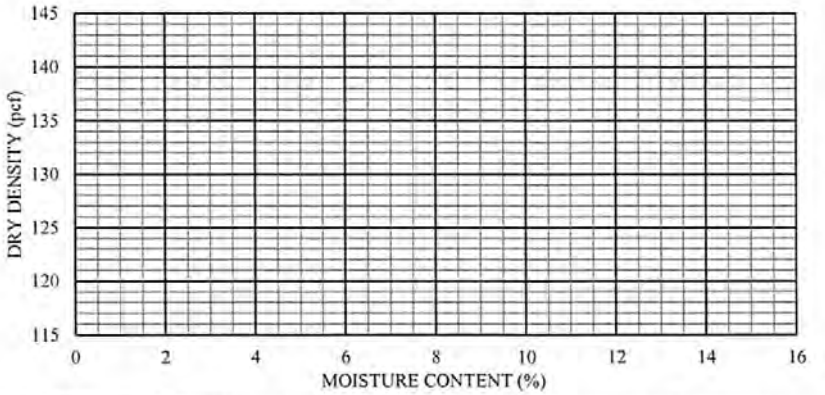
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	72	
19.00	3/4"	65	
12.70	1/2"	59	
9.50	3/8"	56	
4.75	#4	48	
2.00	#10	37	
0.85	#20	25	
0.43	#40	15	
0.25	#60	9	
0.15	#100	6	
0.075	#200	3.8	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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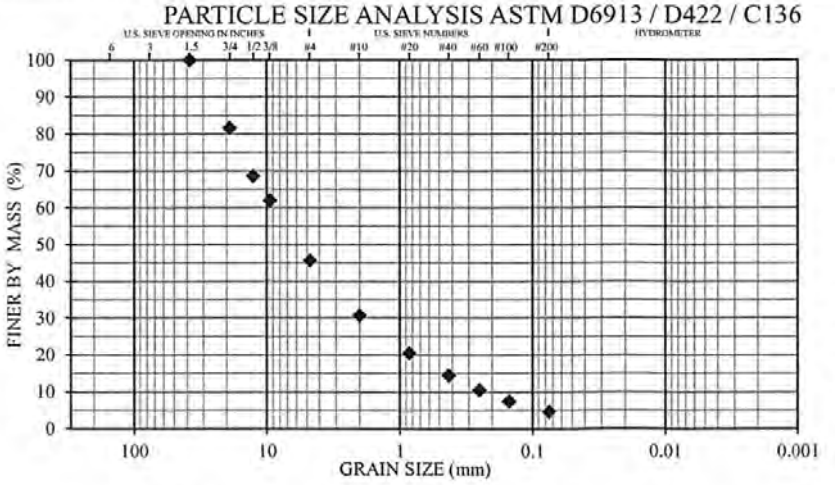
Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK1LT25LT26
NUMBER/ DEPTH:	S1 / 7 - 8'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Paul Santillana
REVIEWED BY:	CJB

% GRAVEL	54.3	USCS	GW
% SAND	41.0	USACOE FC	N/A
% SILT/CLAY	4.7	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	5.7	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	38.0
COEFFICIENT OF GRADATION (C_c)	1.8
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

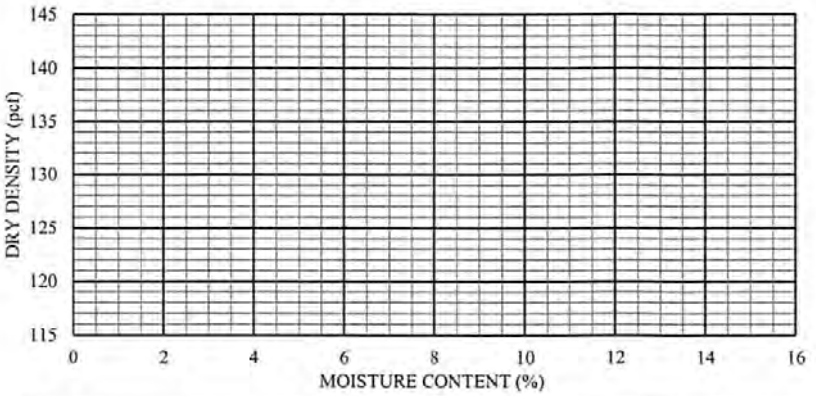


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"		
38.10	1.5"	100	
19.00	3/4"	82	
12.70	1/2"	69	
9.50	3/8"	62	
4.75	#4	46	
2.00	#10	31	
0.85	#20	20	
0.43	#40	14	
0.25	#60	10	
0.15	#100	7	
0.075	#200	4.7	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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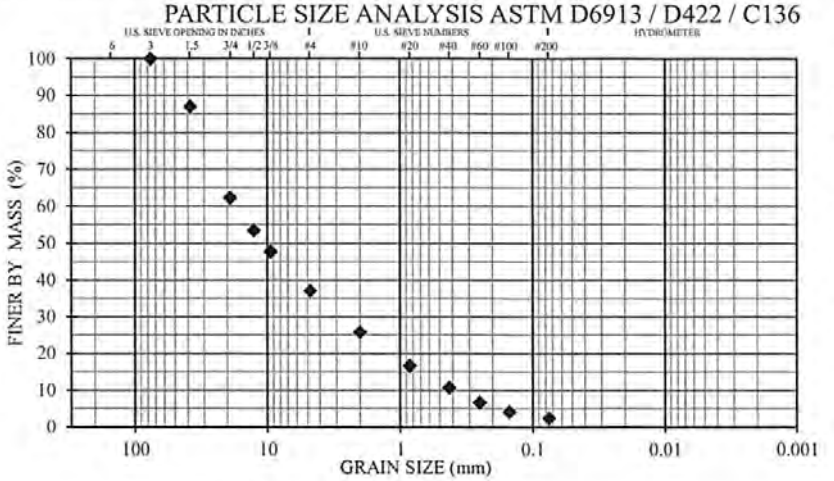
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Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT3
NUMBER/ DEPTH:	S1 / 4 - 5'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Paul Santillana
REVIEWED BY:	CJB

% GRAVEL	63.0	USCS	GW
% SAND	34.6	USACOE FC	N/A
% SILT/CLAY	2.4	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	3.6	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		43.8	
COEFFICIENT OF GRADATION (C_c)		1.3	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

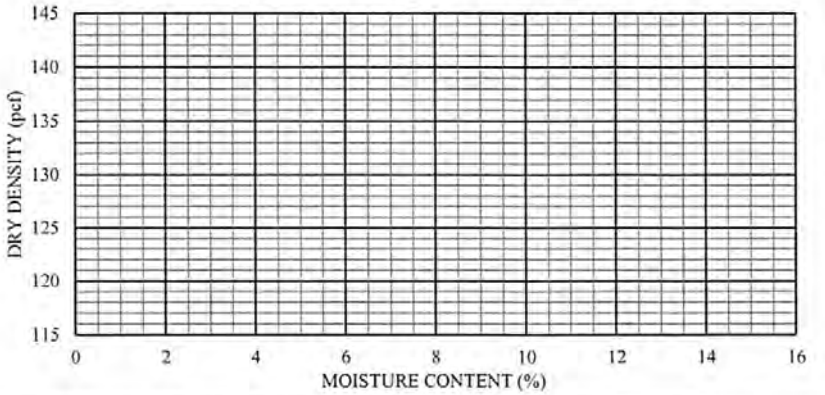
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	87	
19.00	3/4"	62	
12.70	1/2"	53	
9.50	3/8"	48	
4.75	#4	37	
2.00	#10	26	
0.85	#20	17	
0.43	#40	11	
0.25	#60	7	
0.15	#100	4	
0.075	#200	2.4	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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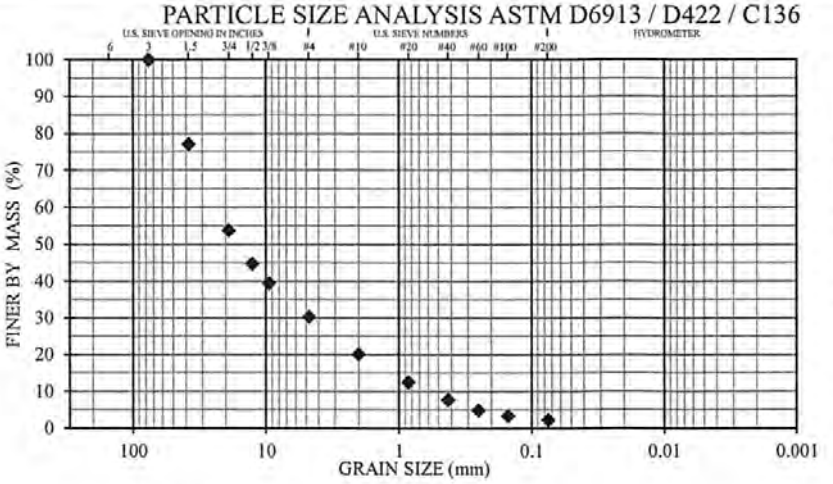
Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT4
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Chris Gerboth
REVIEWED BY:	CJB

% GRAVEL	69.7	USCS	GW
% SAND	28.1	USACOE FC	N/A
% SILT/CLAY	2.2	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	3.4	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	38.2
COEFFICIENT OF GRADATION (C_c)	1.4
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

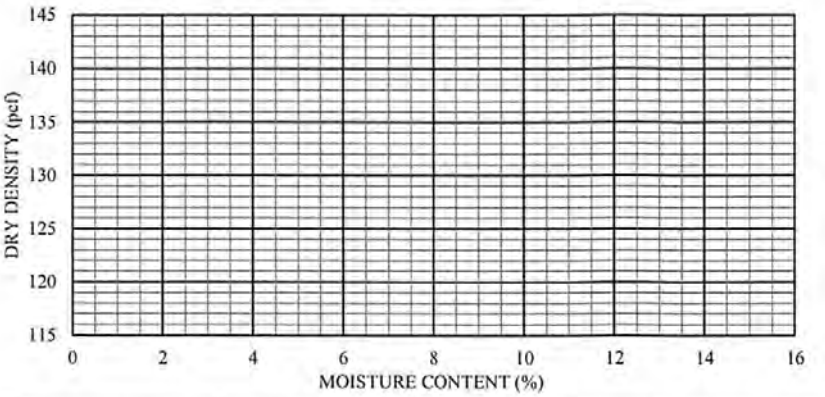
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	77	
19.00	3/4"	54	
12.70	1/2"	45	
9.50	3/8"	39	
4.75	#4	30	
2.00	#10	20	
0.85	#20	12	
0.43	#40	8	
0.25	#60	5	
0.15	#100	3	
0.075	#200	2.2	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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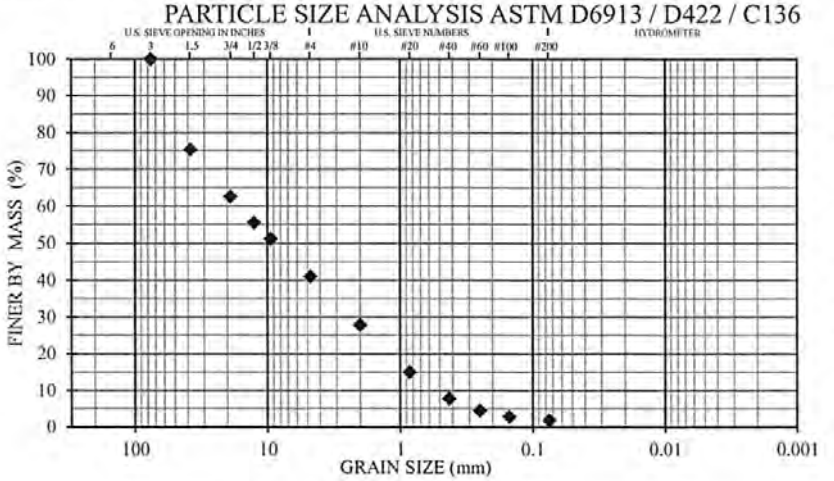
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT7
NUMBER/ DEPTH:	S1 / 8 - 9'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	59.0	USCS	GP
% SAND	39.1	USACOE FC	N/A
% SILT/CLAY	1.9	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	3.2	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		30.1	
COEFFICIENT OF GRADATION (C_c)		0.7	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

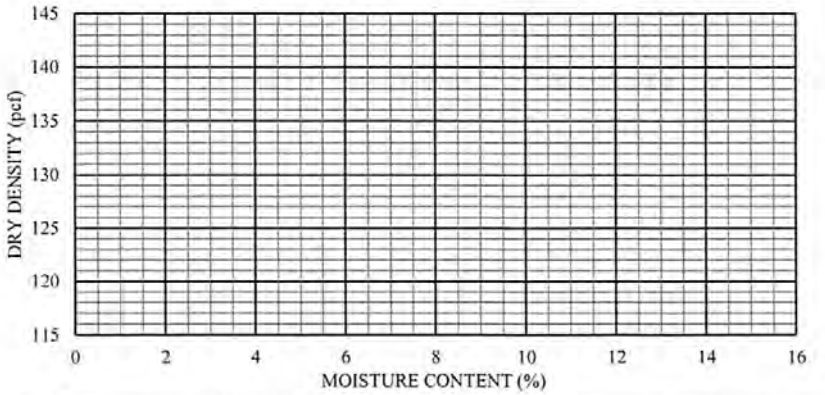
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	75	
19.00	3/4"	63	
12.70	1/2"	56	
9.50	3/8"	51	
4.75	#4	41	
2.00	#10	28	
0.85	#20	15	
0.43	#40	8	
0.25	#60	5	
0.15	#100	3	
0.075	#200	1.9	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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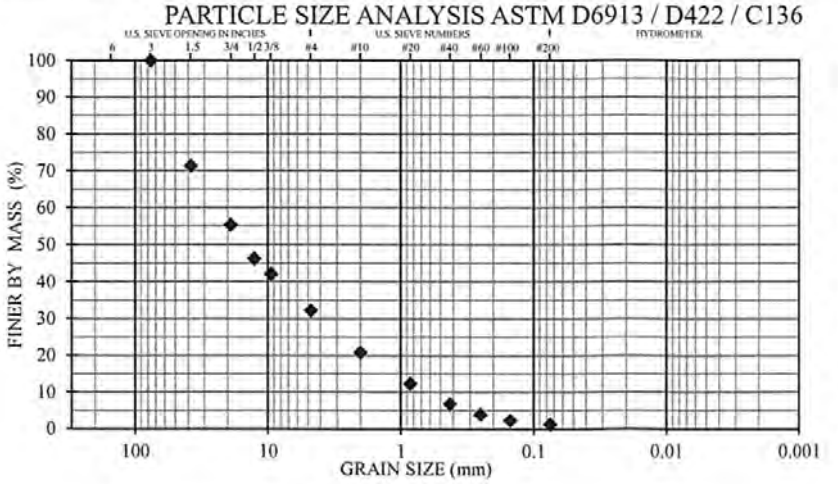
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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT9LT10
NUMBER/ DEPTH:	S1 / 4 - 5'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Isaac Logo
REVIEWED BY:	CJB

% GRAVEL	67.9	USCS	GW
% SAND	30.9	USACOE FC	N/A
% SILT/CLAY	1.2	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	3.0	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	36.7
COEFFICIENT OF GRADATION (C_c)	1.1
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

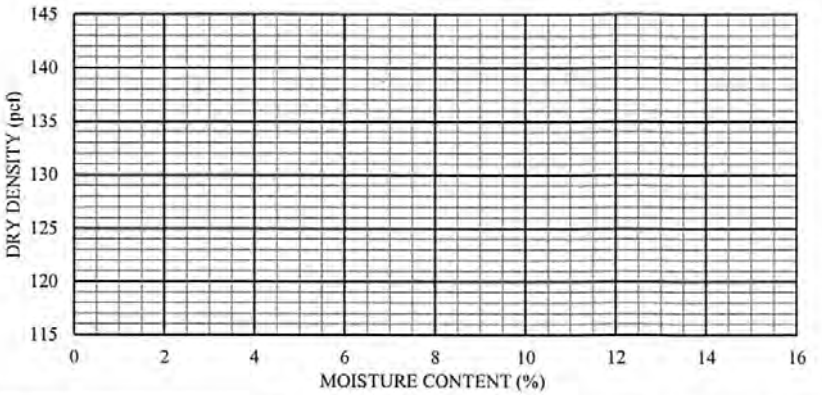
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	71	
19.00	3/4"	55	
12.70	1/2"	46	
9.50	3/8"	42	
4.75	#4	32	
2.00	#10	21	
0.85	#20	12	
0.43	#40	7	
0.25	#60	4	
0.15	#100	2	
0.075	#200	1.2	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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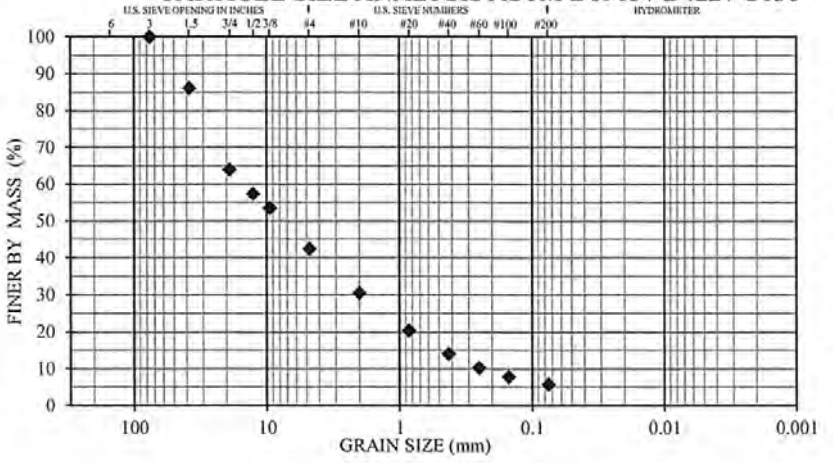
Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT14LT15
NUMBER/ DEPTH:	S1 / 10 - 11'
DESCRIPTION:	Well-graded gravel w/ silt and sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Chris Gerboth
REVIEWED BY:	CJB

% GRAVEL	57.5	USCS	GW-GM
% SAND	36.8	USACOE FC	N/A
% SILT/CLAY	5.7	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	6.4	% PASS. 0.002 mm	N/A

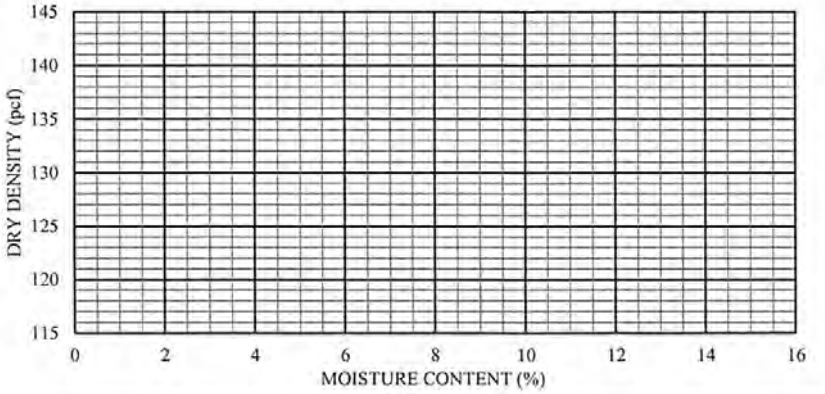
UNIFORMITY COEFFICIENT (C_u)	63.1
COEFFICIENT OF GRADATION (C_c)	1.0
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	86	
19.00	3/4"	64	
12.70	1/2"	57	
9.50	3/8"	53	
4.75	#4	42	
2.00	#10	30	
0.85	#20	20	
0.43	#40	14	
0.25	#60	10	
0.15	#100	8	
0.075	#200	5.7	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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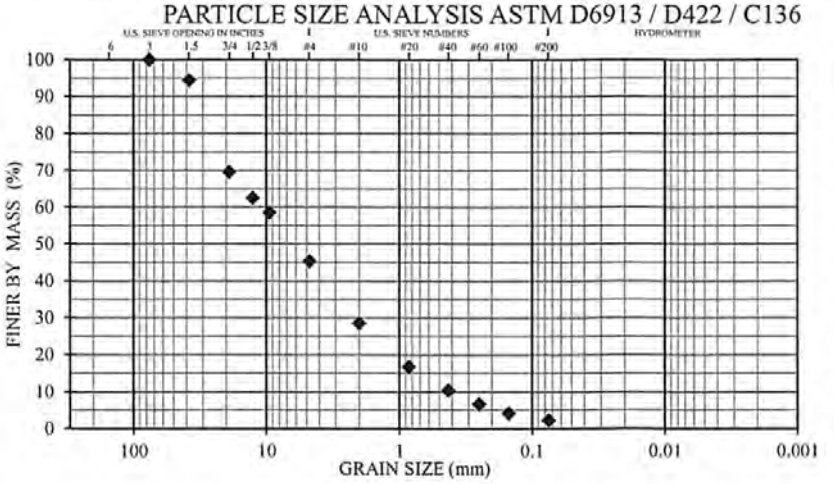
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT16LT17
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Isaac Logo
REVIEWED BY:	CJB

% GRAVEL	54.7	USCS	GW
% SAND	43.1	USACOE FC	N/A
% SILT/CLAY	2.2	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	5.4	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		26.2	
COEFFICIENT OF GRADATION (C_c)		1.2	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

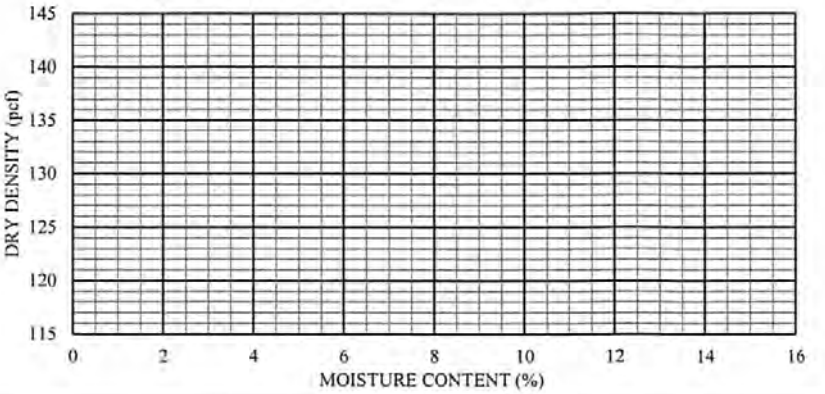


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	94	
19.00	3/4"	70	
12.70	1/2"	62	
9.50	3/8"	59	
4.75	#4	45	
2.00	#10	29	
0.85	#20	17	
0.43	#40	10	
0.25	#60	7	
0.15	#100	4	
0.075	#200	2.2	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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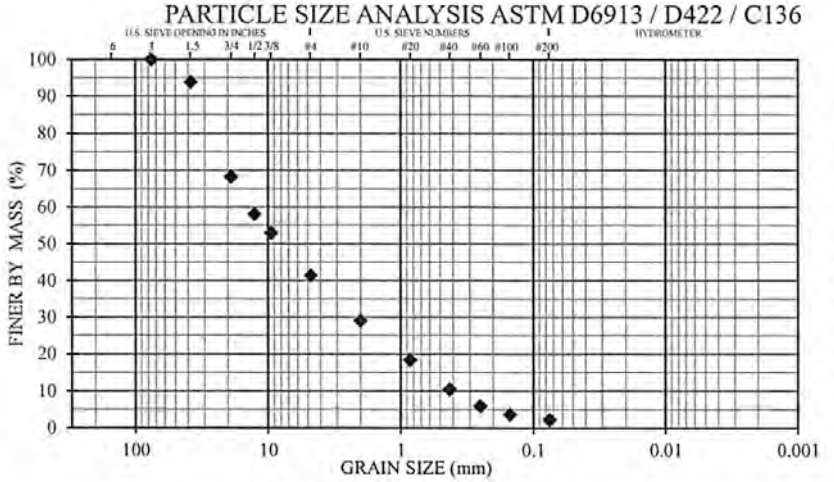
Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT18LT19
NUMBER/ DEPTH:	S1 / 5 - 6'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Paul Santillana
REVIEWED BY:	CJB

% GRAVEL	58.7	USCS	GP
% SAND	39.0	USACOE FC	N/A
% SILT/CLAY	2.3	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	9.3	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	34.0
COEFFICIENT OF GRADATION (C_c)	0.9
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

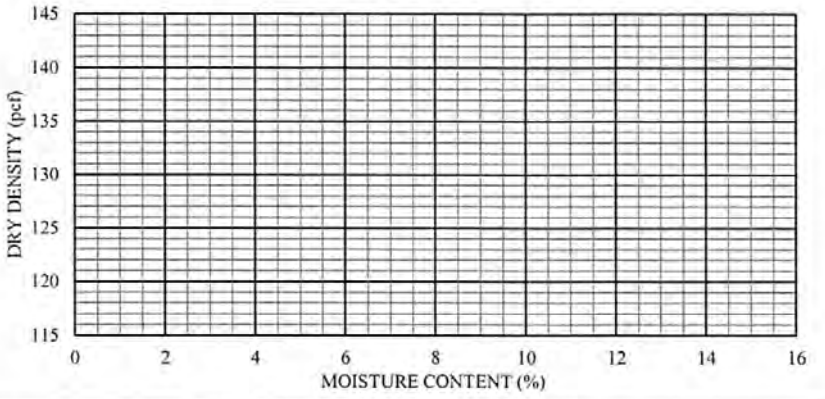


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	94	
19.00	3/4"	68	
12.70	1/2"	58	
9.50	3/8"	53	
4.75	#4	41	
2.00	#10	29	
0.85	#20	18	
0.43	#40	10	
0.25	#60	6	
0.15	#100	4	
0.075	#200	2.3	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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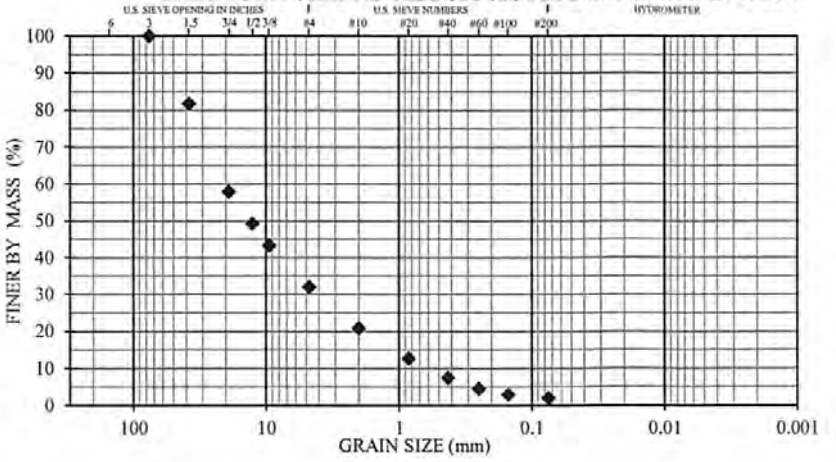
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT22LT23
NUMBER/ DEPTH:	S1 / 4 - 5'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Isaac Logo
REVIEWED BY:	CJB

% GRAVEL	68.1	USCS	GW
% SAND	29.9	USACOE FC	N/A
% SILT/CLAY	2.0	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	2.9	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		32.6	
COEFFICIENT OF GRADATION (C_c)		1.4	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

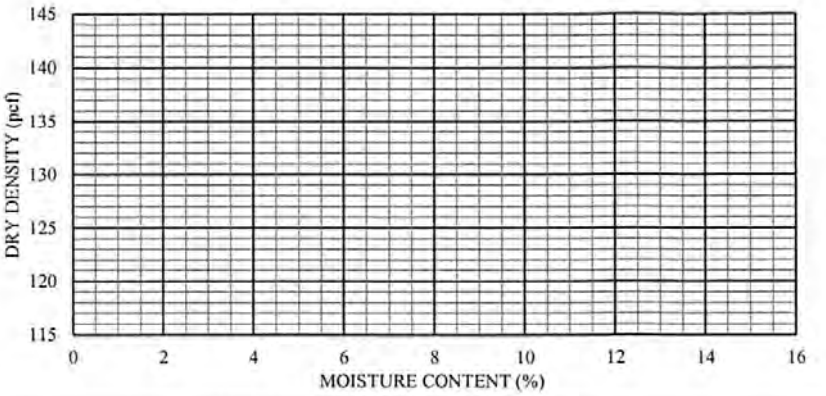


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	82	
19.00	3/4"	58	
12.70	1/2"	49	
9.50	3/8"	43	
4.75	#4	32	
2.00	#10	21	
0.85	#20	13	
0.43	#40	7	
0.25	#60	5	
0.15	#100	3	
0.075	#200	2.0	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

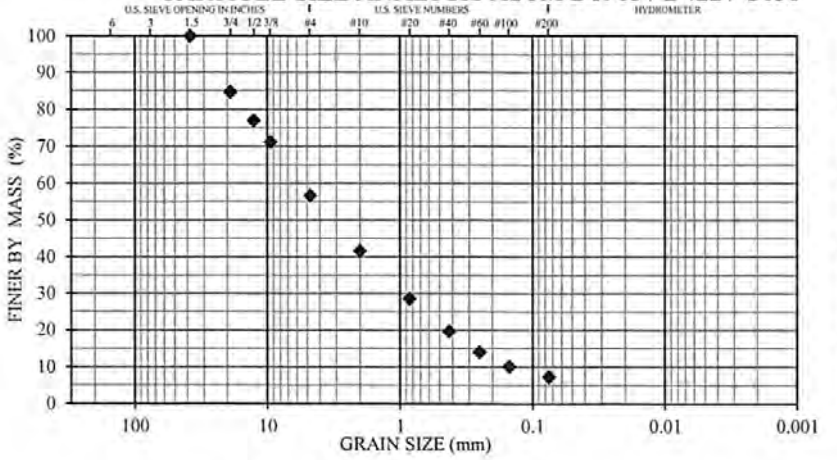
Laboratory Testing Geotechnical Engineering Instrumentation Construction Monitoring Services Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT27
NUMBER/ DEPTH:	S1 / 8 - 9'
DESCRIPTION:	Well-graded sand w/ silt and gravel
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	43.4	USCS	SW-SM
% SAND	49.3	USACOE FC	N/A
% SILT/CLAY	7.3	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	6.5	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	40.2
COEFFICIENT OF GRADATION (C_c)	1.1
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

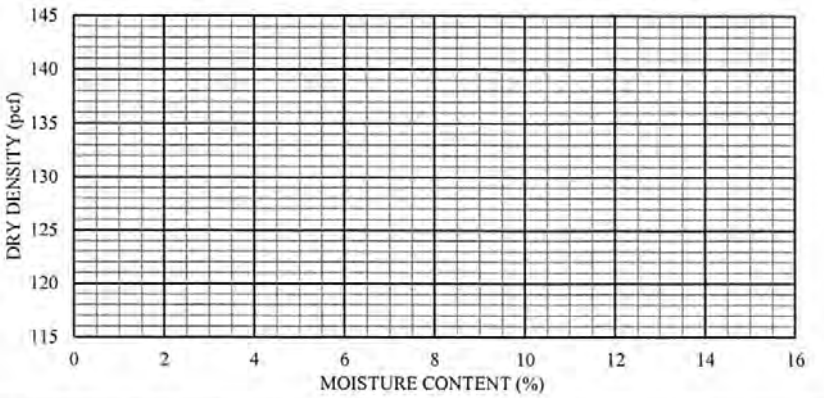


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"		
38.10	1.5"	100	
19.00	3/4"	85	
12.70	1/2"	77	
9.50	3/8"	71	
4.75	#4	57	
2.00	#10	42	
0.85	#20	29	
0.43	#40	20	
0.25	#60	14	
0.15	#100	10	
0.075	#200	7.3	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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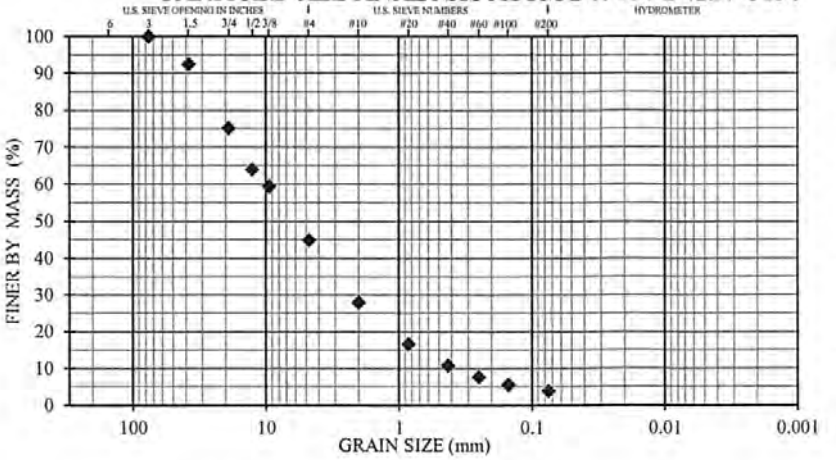
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing | Geotechnical Engineering | Instrumentation | Construction Monitoring Services | Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	BK2LT29LT30
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Well-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Chris Gerboth
REVIEWED BY:	CJB

% GRAVEL	55.1	USCS	GW
% SAND	41.0	USACOE FC	N/A
% SILT/CLAY	3.9	% PASS. 0.02 mm	N/A
% MOIST. CONTENT	7.2	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		26.0	
COEFFICIENT OF GRADATION (C_c)		1.4	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

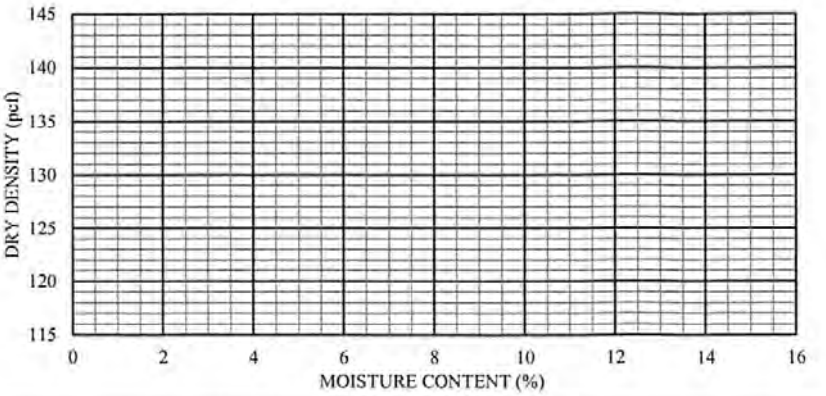
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	92	
19.00	3/4"	75	
12.70	1/2"	64	
9.50	3/8"	59	
4.75	#4	45	
2.00	#10	28	
0.85	#20	17	
0.43	#40	11	
0.25	#60	8	
0.15	#100	6	
0.075	#200	3.9	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1		
2		
5		
8		
15		
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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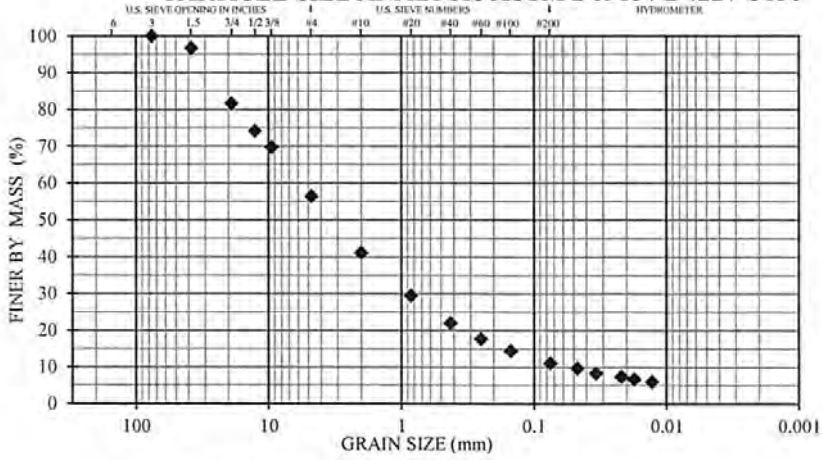
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

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PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	R1
NUMBER/ DEPTH:	S1 / 8 - 9'
DESCRIPTION:	Well-graded sand w/ silt and gravel
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	43.6	USCS	SW-SM
% SAND	45.3	USACOE FC	F2
% SILT/CLAY	11.1	% PASS. 0.02 mm	7.0
% MOIST. CONTENT	10.8	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		114.7	
COEFFICIENT OF GRADATION (C_c)		2.5	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

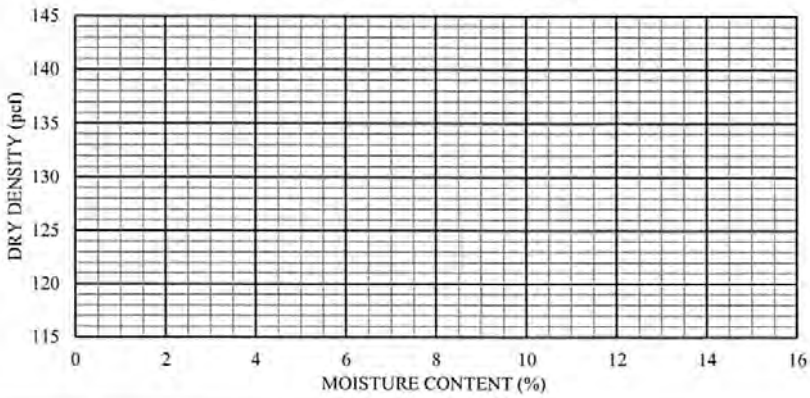


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	97	
19.00	3/4"	82	
12.70	1/2"	74	
9.50	3/8"	70	
4.75	#4	56	
2.00	#10	41	
0.85	#20	30	
0.43	#40	22	
0.25	#60	18	
0.15	#100	14	
0.075	#200	11.1	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1	0.0469	9.7
2	0.0340	8.3
5	0.0219	7.4
8	0.0175	6.7
15	0.0129	6.0
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

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NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

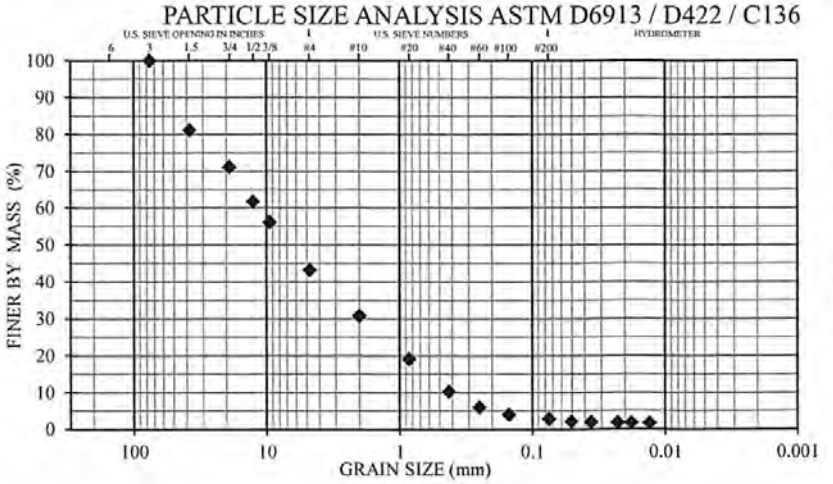
Laboratory Testing · Geotechnical Engineering · Instrumentation · Construction Monitoring Services · Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	R2
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	56.8	USCS	GP
% SAND	40.4	USACOE FC	PFS
% SILT/CLAY	2.8	% PASS. 0.02 mm	1.8
% MOIST. CONTENT	3.9	% PASS. 0.002 mm	N/A

UNIFORMITY COEFFICIENT (C_u)	28.3
COEFFICIENT OF GRADATION (C_c)	0.8
ASTM D1557 (uncorrected)	N/A
ASTM D4718 (corrected)	N/A
OPTIMUM MOIST. CONTENT. (corrected)	N/A

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

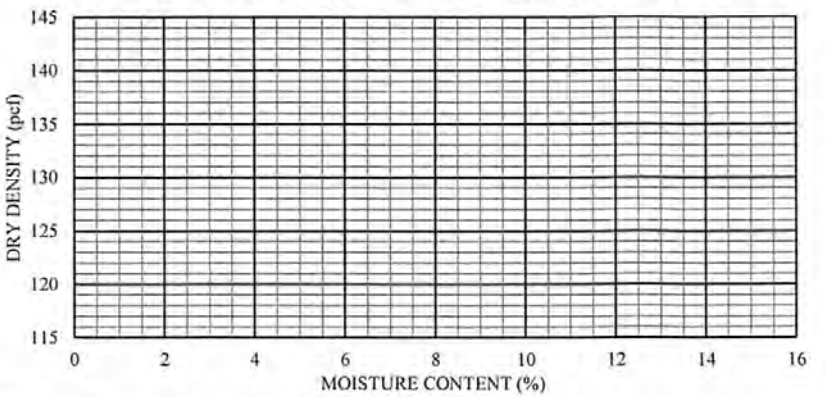
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	81	
19.00	3/4"	71	
12.70	1/2"	62	
9.50	3/8"	56	
4.75	#4	43	
2.00	#10	31	
0.85	#20	19	
0.43	#40	10	
0.25	#60	6	
0.15	#100	4	
0.075	#200	2.8	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1	0.0505	2.1
2	0.0360	1.9
5	0.0228	1.8
8	0.0180	1.7
15	0.0131	1.6
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

The testing services reported herein have been performed to recognized industry standards, unless otherwise noted. No other warranty is made. Should engineering interpretation or opinion be required, NGE-TFT will provide upon written request.

11301 Olive Lane Anchorage, Alaska 99515 · Phone: 907-344-5934 · Fax: 907-344-5993 · www.nge-tft.com

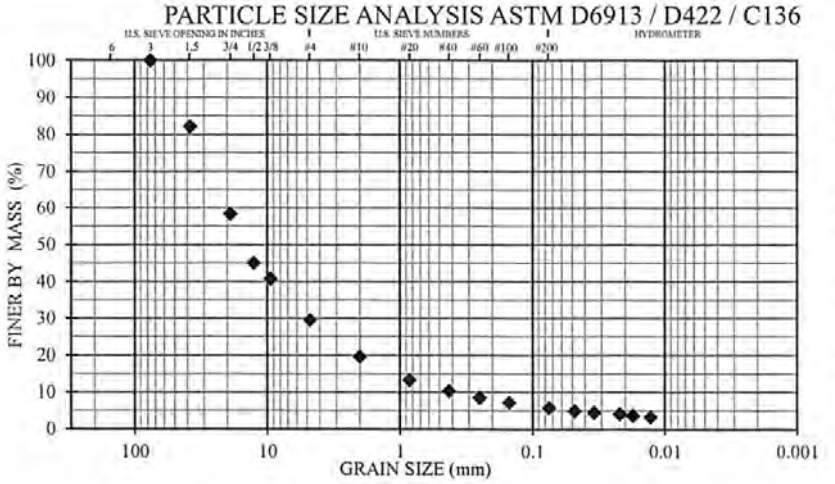
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing · Geotechnical Engineering · Instrumentation · Construction Monitoring Services · Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	R3
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Poorly-graded gravel w/ silt and sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	70.5	USCS	GP-GM
% SAND	23.7	USACOE FC	S1
% SILT/CLAY	5.8	% PASS. 0.02 mm	3.8
% MOIST. CONTENT	3.6	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		51.7	
COEFFICIENT OF GRADATION (C_c)		3.1	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

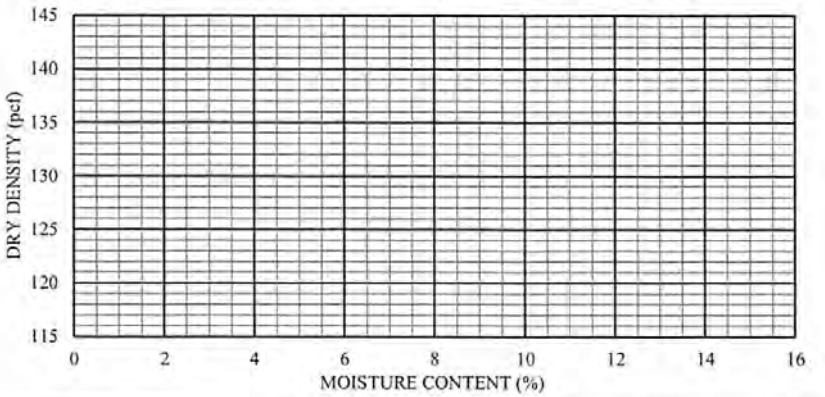
SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	82	
19.00	3/4"	58	
12.70	1/2"	45	
9.50	3/8"	41	
4.75	#4	29	
2.00	#10	20	
0.85	#20	13	
0.43	#40	10	
0.25	#60	9	
0.15	#100	7	
0.075	#200	5.8	

HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1	0.0481	4.9
2	0.0343	4.5
5	0.0219	4.1
8	0.0175	3.7
15	0.0129	3.3
30		
60		
250		
1440		

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

The testing services reported herein have been performed to recognized industry standards, unless otherwise noted. No other warranty is made. Should engineering interpretation or opinion be required, NGE-TFT will provide upon written request.

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SMITH SUBDIVISION, PHASE 1
LOT 26, BLOCK 1,
LOTS 14-31, BLOCK 2
STREET & DRAINAGE IMPROVEMENTS

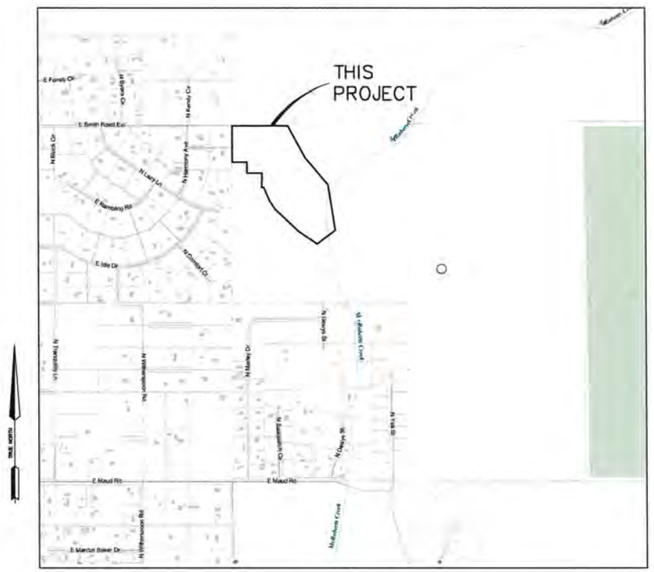
JULY 2025

ENGINEERED BY:
TRIAD ENGINEERING, LLC
P.O. BOX 111989
ANCHORAGE, AK 99511
(907) 561-6537

SURVEYED BY:
S4 GROUP, LLC
124 E. 7TH AVENUE
ANCHORAGE, AK 99501
(907) 306-8104

OWNER:
EKLUTNA, INC
16515 CENTERFIELD DRIVE,
SUITE 201
EAGLE RIVER, AK 99577
(907) 696-2828

CONTACT PERSON:
KYLE SMITH,
DIRECTOR OF LAND ASSETS



LOCATION MAP
SCALE : 1 Inch = 1/2 Mile

INDEX

DESCRIPTION	SHEET
TITLE SHEET	C1 of 7
KEY MAP, NOTES & LEGEND	C2 of 7
TYPICAL SECTIONS	C2 of 7
GRADING PLAN	C3 of 7
STREET IMPROVEMENTS - E. SMITH RD	C4 of 7
STREET IMPROVEMENTS - E. SMITH RD CONT'D	C5 of 7
STREET IMPROVEMENTS - E. SMITH RD CONT'D	C6 of 7

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P.O. Box 111989
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(907) 561-6537
www.triadengr.com
COA# 128535

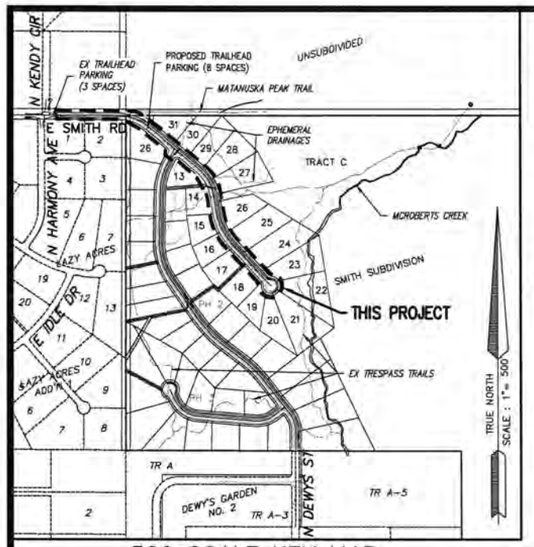
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BY: _____
COMPANY: _____
BY: _____
TITLE: _____ DATE: _____

SMITH SUBDIVISION, PH 1
TITLE SHEET

REVISIONS	DATE	BY/CKD
REVISED ROAD T.O.	7/9/25	CRM/CRM

DESIGNED CRM | DRAWN CRM | CHECKED ELM
FILE: EKLUTNA SMITH ROAD
JOB NO. 24-133 | CASE: TBD | DATE: JUL 2025
SCALE: HORIZ: VERT: | GRID: NA

SHEET C1 OF 7



500 SCALE KEY MAP

SURVEY NOTES

1. THE CONTRACTOR SHALL CONTACT CRAIG BENNETT, OF SA GROUP, LLC, A MINIMUM OF THREE WORKING DAYS IN ADVANCE TO SCHEDULE SURVEY/STAKING OF THE FOLLOWING:

   A. DEMO LIMITS
   B. CLEARING LIMITS
   C. SLOPE STAKING
   D. LIMITS OF EXCAVATION
   E. STORM DRAIN
   F. RED TOPS (TOP OF TYPE IIA)
   G. BLUE TOPS (TOP OF LEVELING COURSE)

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE INSTALLED AS SPECIFIED BY THE 2022 MATANUSKA-SUSITNA BOROUGH SUBDIVISION CONSTRUCTION MANUAL.
2. CONTRACTOR SHALL VERIFY AND RECORD THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD AND RECORD ANY CHANGES ON THE CONTRACTOR RECORD DRAWINGS.
3. CONTRACTOR SHALL RESTORE ALL PROPERTY, INCLUDING DRAINAGE SWALES, DISTURBED BY CONTRACT ACTIVITIES, TO PRECONSTRUCTION CONDITION.
4. IN CASE OF CONFLICT BETWEEN STATIONING LOCATION OF PIPE OR FITTINGS, AND DIMENSIONED LOCATIONS RELATIVE TO CENTERLINE AND PROPERTY LINE, THE DIMENSIONED LOCATIONS SHALL GOVERN.
5. THE CONTRACTOR SHALL RECORD SURVEY NOTES FOR SUBMITTAL WITH RECORD DRAWING PLANS PRIOR TO CONTRACT FINAL PAYMENT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AS NECESSARY TO COMPLY WITH FEDERAL, STATE, AND MUNICIPAL LAWS THAT PROHIBIT UNPERMITTED DISCHARGE OF POLLUTANTS, INCLUDING SEDIMENTS, THAT ARE A RESULT OF EROSION AND OTHER CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONDUCT ALL WORK SO SEDIMENT IS NOT TRANSPORTED ONTO THE ROADWAY OR ADJACENT PROPERTY, AT A MINIMUM.
7. SOILS DATA WAS PROVIDED BY NORTHERN GEOTECHNICAL ENGINEERING SERVICES, DATED DECEMBER 2024.
8. THE CONTRACTOR SHALL CONSPICUOUSLY POST ALL REQUIRED BOROUGH, STATE AND FEDERAL PERMITS NEAR THE JOB ENTRANCE (S). THE CONTRACTOR/ENGINEER SHALL MAINTAIN ON THE JOBSITE AT ALL TIMES A CURRENT COPY OF THE APPROVED PLAN SET, THE APPROVED SWPPP/ESCP, AND A CURRENT MATERIALS TESTING LOG.

STREET NOTES

1. WATER RESULTING FROM THE CONTRACTOR'S DEWATERING EFFORT MAY NOT BE PUMPED OR OTHERWISE DIVERTED INTO EXISTING STORM DRAINS UNLESS REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO, THE MUNICIPALITY OF ANCHORAGE STORMWATER PLAN REVIEW OFFICE, ARE OBTAINED BY CONTRACTOR. UNDER NO CIRCUMSTANCES WILL CONTRACTOR BE ALLOWED TO DIVERT WATER FROM THE EXCAVATION ONTO ROADWAYS. THE CONTRACTOR SHALL PROVIDE DISPOSAL SITE FOR EXCESS WATER AND BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS AND APPROVALS. CONTRACTOR SHALL PROVIDE COPIES OF PERMITS AND APPROVALS TO THE MOA ROW PERMIT OFFICE.
2. LIMITS OF EXCAVATION SHOWN ON THE PLANS ARE APPROXIMATE. FINAL LIMITS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. ALL FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED BY AASHTO T-180-METHOD-D.

STORM DRAIN NOTES

1. ALL STORM DRAIN SHALL BE HIGH DENSITY CORRUGATED POLYPROPYLENE (HP) SMOOTH INTERIOR PIPE, ADS "HP STORM" OR APPROVED EQUAL.
2. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURES RECOMMENDATION AND ASTM D 2321-89 WITH PROPER PLACEMENT AND COMPACTION OF BEDDING, HAUNCHING AND BACKFILL.
3. ALL CULVERTS SHALL BE INSTALLED COMPLETE WITH FLARED END SECTIONS AND IN ACCORDANCE WITH MASS 55.20.
4. ALL FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED BY AASHTO T-180-METHOD-D.
5. ALL CULVERTS SHALL BE BEDDED IN A MINIMUM OF 6 INCHES OF CLASS C BEDDING MATERIAL. BACKFILL SHALL BE TYPE IIA CLASSIFIED BACKFILL COMPACTED TO 95% MAX DENSITY.

EXISTING UTILITIES

1. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES (GAS, ELECTRIC, TELEPHONE, CABLE) PRIOR TO GRADING AND/OR CONSTRUCTION.
2. THE CONTRACTOR SHALL SCHEDULE ALL NECESSARY UTILITY RELOCATIONS (GAS, ELECTRIC, TELEPHONE, CABLE) PRIOR TO GRADING AND/OR CONSTRUCTION.

QUALITY CONTROL & QUALITY ASSURANCE PROGRAM

1. FREQUENCY OF COMPACTION TESTS SHALL BE PER SECTION C02.5.4 OF THE 2022 MATANUSKA-SUSITNA BOROUGH SUBDIVISION CONSTRUCTION MANUAL.
2. COMPACTION TESTING SHALL BE PER AASHTO T-238.
3. OVERVIEW BY A QUALIFIED TECHNICIAN, UNDER THE DIRECT SUPERVISION OF THE PROJECT ENGINEER, SHALL OCCUR DURING CONSTRUCTION.
4. PROCEDURES LISTED IN AMCR 21.90.003.E.2-4 SHALL BE CONSIDERED PART OF THE QUALITY CONTROL AND QUALITY ASSURANCE PLAN.

LEGEND

- STREET CENTERLINE STATION (36+00)
- EXISTING & PROPOSED STREET LIGHT & J-BOX
- DRAINAGE FLOW ARROW
- EXISTING & PROPOSED STORM MAIN
- PROPOSED TYPE 2 CURB & GUTTER
- CULVERT
- OHE — EXISTING OVERHEAD ELECTRIC & TELEPHONE
- UGE — EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING & PROPOSED MAJOR CONTOURS
- EXISTING & PROPOSED MINOR CONTOURS
- EXISTING & PROPOSED ELECTRICAL PEDESTAL & TRANSFORMER
- EXISTING/PROPSOED GAS MAIN
- TV — EXISTING UNDERGROUND TV CABLE
- FO — EXISTING FIBER OPTIC CABLE
- EXISTING FENCE
- LOT LINES/EDGE OF ROW
- EASEMENT
- PROPERTY LINE
- PROPERTY LINE (FUTURE)
- DITCH LINE
- EXISTING & PROPOSED WELL
- EXISTING & PROPOSED WELL RADIUS
- PROPOSED SIGN
- TOP OF CUT
- TOE OF FILL
- SEPTIC SYSTEM RESERVE AREA
- SOILS TEST PIT/BORHOLE LOCATION
- CLASS 1 RIP RAP

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BOP	BEGINNING OF PROJECT
BSB	BUILDING SETBACK
CL	CLASS OR CENTERLINE
CR	CURVE RETURN
D	DITCH
EG	EXISTING GROUND
ER	EDGE OF ROAD
EOP	END OF PROJECT
ESMT	EASEMENT
FLD	FIELD SURVEYED INFORMATION
FF	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FL	FLOW LINE
G	ENSTAR GAS
GB	GRADEBREAK
HDPE	HIGH DENSITY POLYETHYLENE PIPE
LF	LINEAL FOOT
MPOC	MID POINT ON CURVE
NGWE	NO GROUND WATER ENCOUNTERED
PC	POINT OF CURVATURE
PC	PROPERTY CORNER
PCC	POINT OF COMPOUND CURVATURE
PL	PROPERTY LINE
POC	POINT ON CURVE
PP	HIGH DENSITY POLYPROPYLENE PIPE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
RAP	RECYCLED ASPHALT PAVEMENT
RP	RADIUS POINT
SI	STREET INTERSECTION
ST	STREET
T	TELEPHONE
T&E	TELECOMMUNICATIONS & ELECTRICAL
TH	TEST HOLE
TP	TEST PIT
TR	TRAFFIC
UGU	UNDERGROUND ELECTRIC, TELEPHONE & CABLE

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ENSTAR NATURAL GAS COMPANY - MUNICIPAL LIGHT & POWER DEPARTMENT
MUNICIPAL PUBLIC WORKS DEPT. (TRAFFIC LIGHTS, STORM DRAINS & TRAFFIC SIGNALS)
PRIME CABLE TELEVISION - TESORO PETROLEUM CORP. - UNICAL OIL COMPANY
ALASKA RAILROAD CORPORATION - ALYESKA CABLE (CHICHOOD)
STATE OF ALASKA, DOT & PF (STREET LIGHTS & STORM DRAIN)
MATANUSKA ELECTRIC ASSOCIATION - MATANUSKA TELEPHONE ASSOCIATION

U.S. ARMY (POL) MILITARY PETROLEUM FUEL LINES 552-1650

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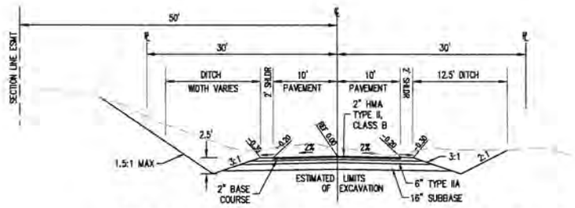
SMITH SUBDIVISION, PH 1
KEY MAP, NOTES & LEGEND

BY	CKD
DNM	DNM

REVISIONS
DATE
7/2/25 REVISED ROAD 1 CL

DESIGNED: GNM
DRAWN: GNM
CHECKED: B.M
FILE: DILLYNA SMITH ROAD
JOB NO.: 24-133
CASE: TBD
DATE: JUL 2025
SCALE: HORIZ:
VERT:
GRID: NA

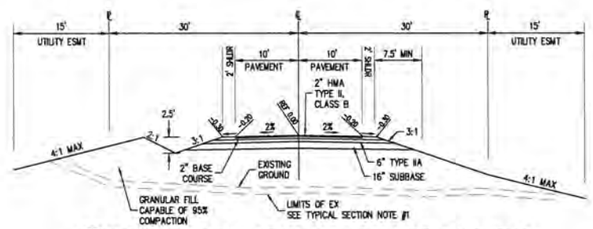
SHEET C2 OF 7



Ⓐ TYPICAL STREET SECTION – 20' WIDE PAVEMENT

SCALE: 1" = 10'

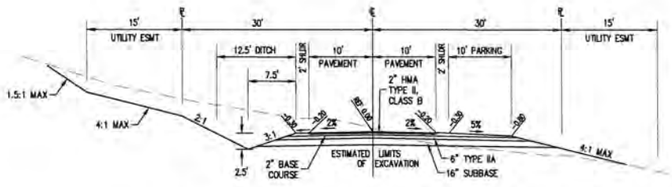
E SMITH RD ST STA 10+00.00 to ST STA 18+64.90



Ⓓ TYPICAL STREET SECTION – 20' WIDE PAVEMENT

SCALE: 1" = 10'

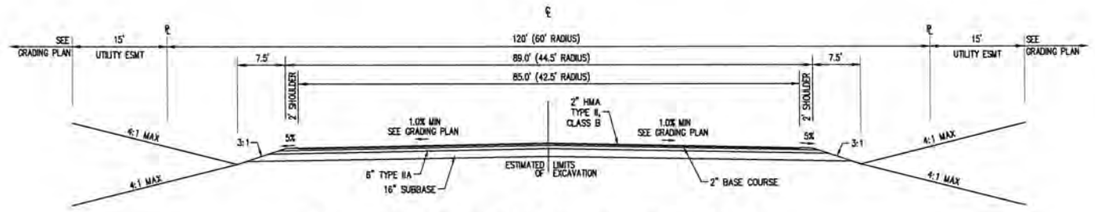
E SMITH RD ST STA 29+65.20 to ST STA 31+51.00



Ⓑ TYPICAL STREET SECTION – 20' WIDE PAVEMENT

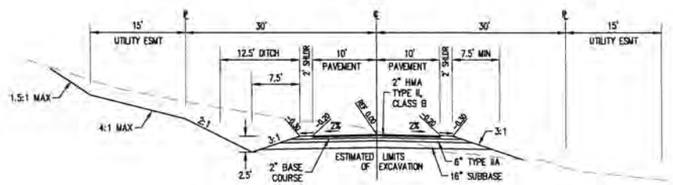
SCALE: 1" = 10'

E SMITH RD ST STA 16+64.90 to ST STA 19+31.85



Ⓔ TYPICAL CUL-DE-SAC SECTION – 42.5' RADIUS

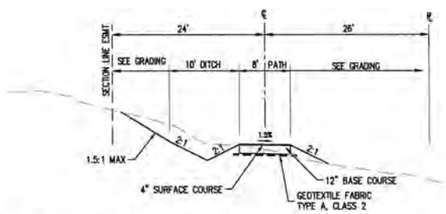
SCALE: 1" = 10'



Ⓒ TYPICAL STREET SECTION – 20' WIDE PAVEMENT

SCALE: 1" = 10'

E SMITH RD ST STA 19+31.85 to ST STA 29+65.20
E SMITH RD ST STA 31+51.00 to ST STA 34+21.94



Ⓕ TYPICAL TRAIL SECTION – MATANUSKA PEAK TRAIL

SCALE: 1" = 10'

TYPICAL SECTION NOTES

1. ALL ORGANICS SHALL BE REMOVED BENEATH THE ROAD PRISM.
2. DISTURBED AREAS BEYOND SHOULDERS SHALL BE PERMANENTLY STABILIZED.
3. ALL DIMENSIONS AND ELEVATIONS AS SHOWN ARE TYPICAL BUT MAY VARY IN SPECIFIC INSTANCES AS SHOWN ON PLAN/PROFILE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
4. ALL FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED BY AASHTO T-180-METHOD-D.

AGGREGATE GRADATIONS

Sieve Designation	Subbase	Base Course	Surface Course
1 1/2 inch			100
1 inch		100	
3/4 inch		70 to 100	70 to 100
3/8 inch		50 to 80	50 to 85
No. 4	20 to 60	35 to 65	35 to 75
No. 8		20 to 50	20 to 60
No. 50		6 to 30	15 to 30
No. 200	0 to 10	0 to 6	7 to 13

(Percent Passing By Weight)

AGGREGATE PROPERTIES FOR BASE COURSE

Property	Test Method	Base Course
L.A. Wear, %	AASHTO T 96	50, max
Degradation Value	ATM 313	45, min
Fracture, %	ATM 305	70, min
Plastic Index	ATM 205	6, max
Sodium Sulfate Loss, %	AASHTO T 104	9, max (5 cycles)

STATE OF ALASKA — 4918 — CRAIG M. MARLOW — ISSUED IN MATANUSKA-SUSITNA BOROUGH

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COA# 126535

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COMPANY: _____
BY: _____
TITLE: _____ DATE: _____

SMITH SUBDIVISION, PH 1
TYPICAL SECTIONS

DESIGNED	DRAWN	CHECKED
CRM	CRM	BJM

FILE: EKUTINA SMITH ROAD
JOB NO. 24-133 | CASE: 180 | DATE: JUL 2025
SCALE: HORIZ: VERT: | GRID: NA

DATE	REVISIONS	BY CKD
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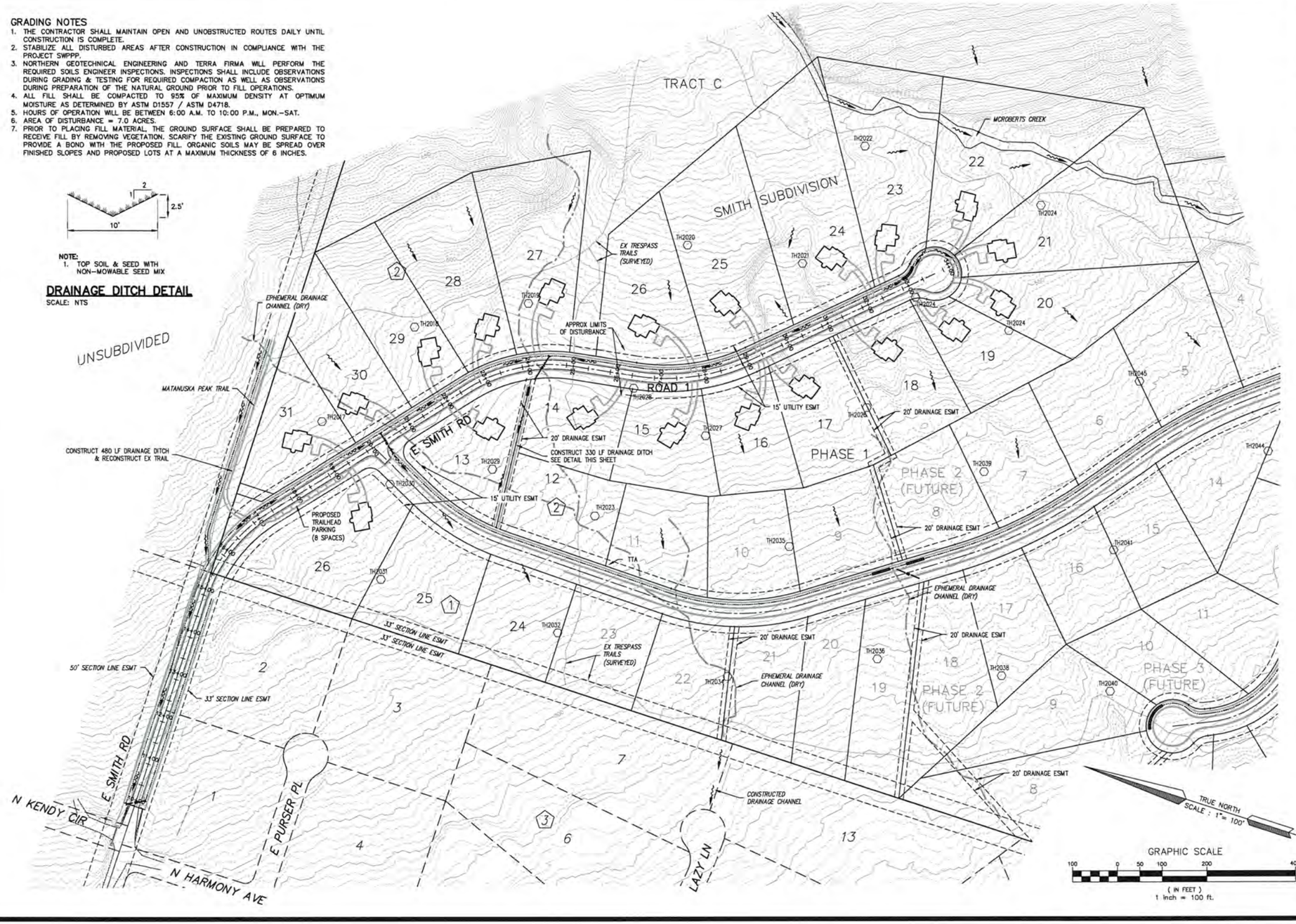
SHEET C3 OF 7

GRADING NOTES

1. THE CONTRACTOR SHALL MAINTAIN OPEN AND UNOBSTRUCTED ROUTES DAILY UNTIL CONSTRUCTION IS COMPLETE.
2. STABILIZE ALL DISTURBED AREAS AFTER CONSTRUCTION IN COMPLIANCE WITH THE PROJECT SWPPP.
3. NORTHERN GEOTECHNICAL ENGINEERING AND TERRA FIRMA WILL PERFORM THE REQUIRED SOILS ENGINEER INSPECTIONS. INSPECTIONS SHALL INCLUDE OBSERVATIONS DURING GRADING & TESTING FOR REQUIRED COMPACTION AS WELL AS OBSERVATIONS DURING PREPARATION OF THE NATURAL GROUND PRIOR TO FILL OPERATIONS.
4. ALL FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED BY ASTM D1557 / ASTM D4718.
5. HOURS OF OPERATION WILL BE BETWEEN 6:00 A.M. TO 10:00 P.M., MON.–SAT.
6. AREA OF DISTURBANCE = 7.0 ACRES.
7. PRIOR TO PLACING FILL MATERIAL, THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION. SCARIFY THE EXISTING GROUND SURFACE TO PROVIDE A BOND WITH THE PROPOSED FILL. ORGANIC SOILS MAY BE SPREAD OVER FINISHED SLOPES AND PROPOSED LOTS AT A MAXIMUM THICKNESS OF 6 INCHES.

NOTE:
1. TOP SOIL & SEED WITH NON–MOWABLE SEED MIX

DRAINAGE DITCH DETAIL
SCALE: NTS



NORTHERN GEOTECHNICAL ENGINEERING, LLC
P.O. Box 190569
Anchorage, Alaska 99519
(907) 561-6537
www.ngeotech.com
COA# 126535

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2. DATA TRANSFERRED
BY: _____
COMPANY: _____
DATE: _____

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BY: _____
COMPANY: _____
BY: _____
TITLE: _____ DATE: _____

SMITH SUBDIVISION, PH 1
GRADING PLAN

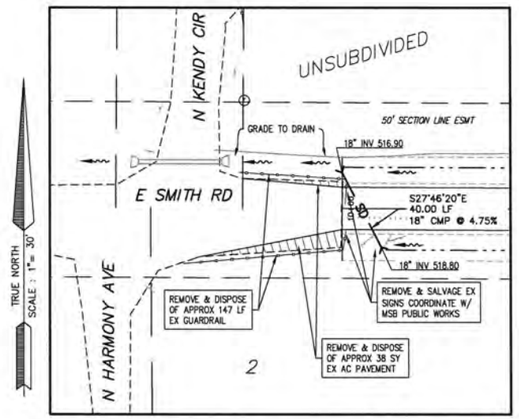
DESIGNED	DRAWN	CHECKED
CNM	CNM	EJM

FILE: EKLUTNA SMITH ROAD
JOB NO. 24-133 | CASE: TBD | DATE: JUL 2025
SCALE: HORIZ: | VERT: | GRID: NA

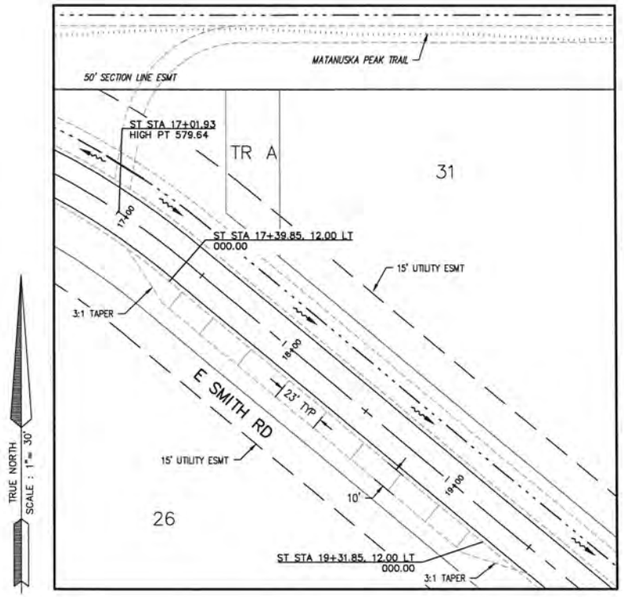
BY	CKD
CNM	CNM

DATE	REVISIONS
7/9/25	REVISED ROAD T.O.

SHEET C4 OF 7

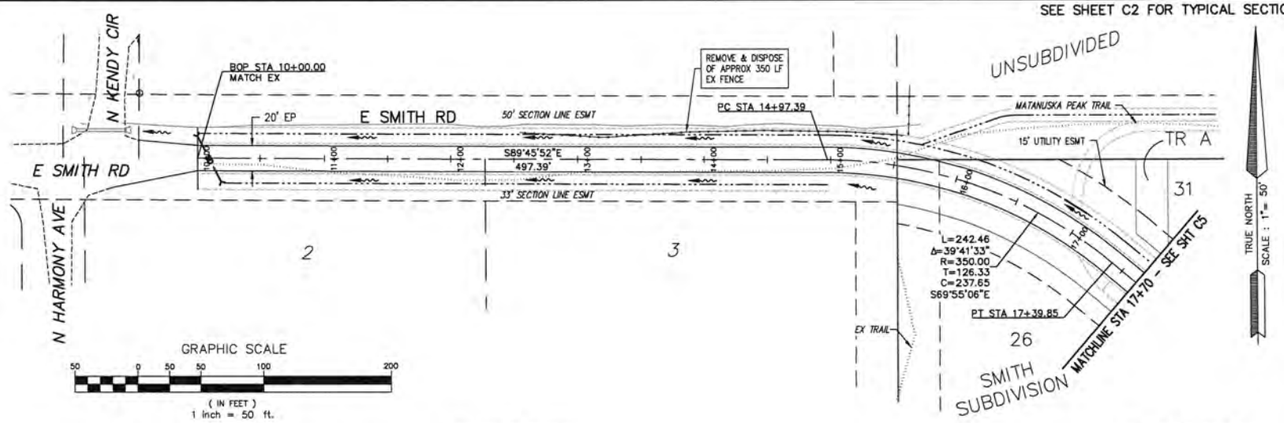


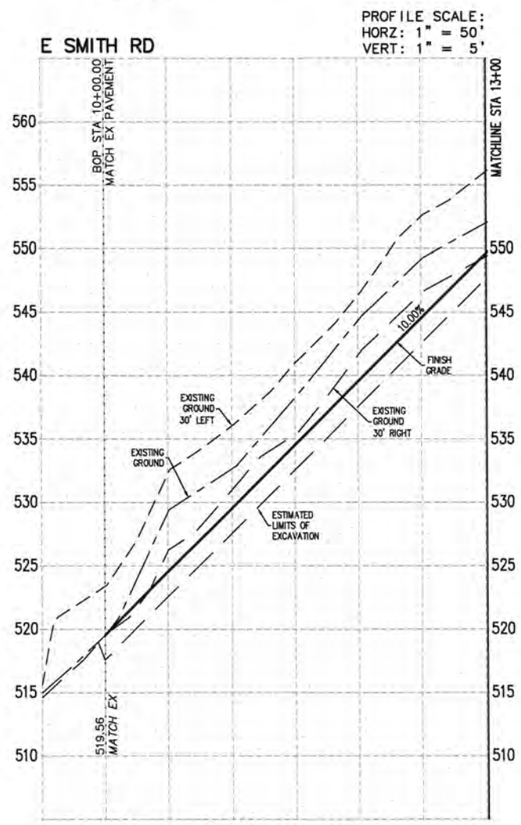
E SMITH RD INTERSECTION DETAIL
SCALE: 1" = 30'

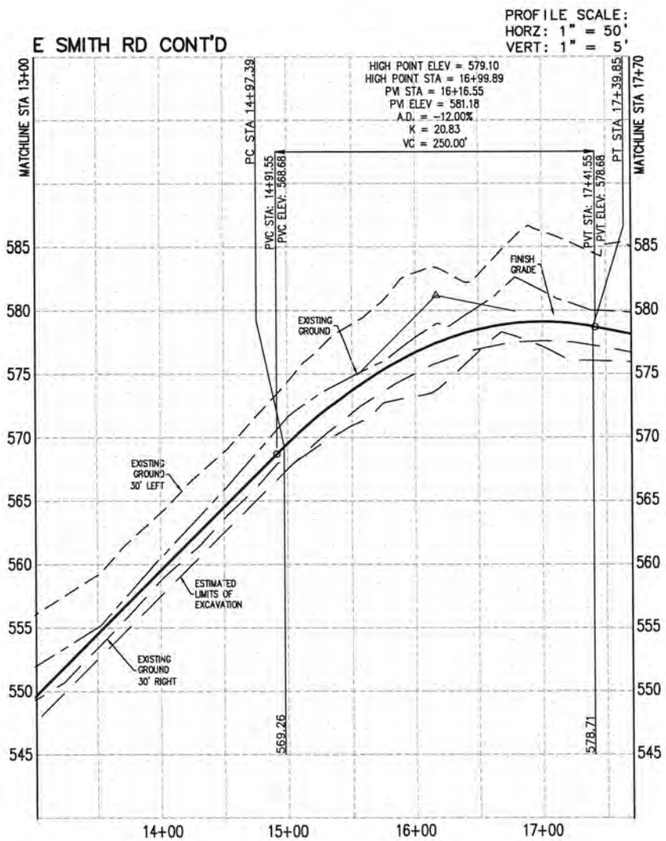


TEMPORARY TRAILHEAD PARKING DETAIL
SCALE: 1" = 30'

SEE SHEET C2 FOR TYPICAL SECTIONS







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Anchorage, Alaska 99511
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www.drakeengineering.com
COA# 128635

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BY: _____
COMPANY: _____
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COMPANY: _____
BY: _____
TITLE: _____ DATE: _____

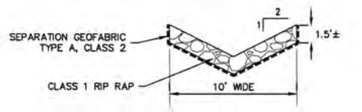
SMITH SUBDIVISION, PH 1
STREET IMPROVEMENTS
E SMITH ROAD

BY	CKD	REVISIONS	DATE
GRM	GRM	REVISED ROAD T.C.	7/7/25

DESIGNED GRM | DRAWN GRM | CHECKED ELM
FILE: E:\ELITINA SMITH ROAD
JOB NO.: 24-133 | CASE: 180 | DATE: JUL 2025
SCALE: HORIZ: 1"=50' VERT: 1"=5' | GRID: NA

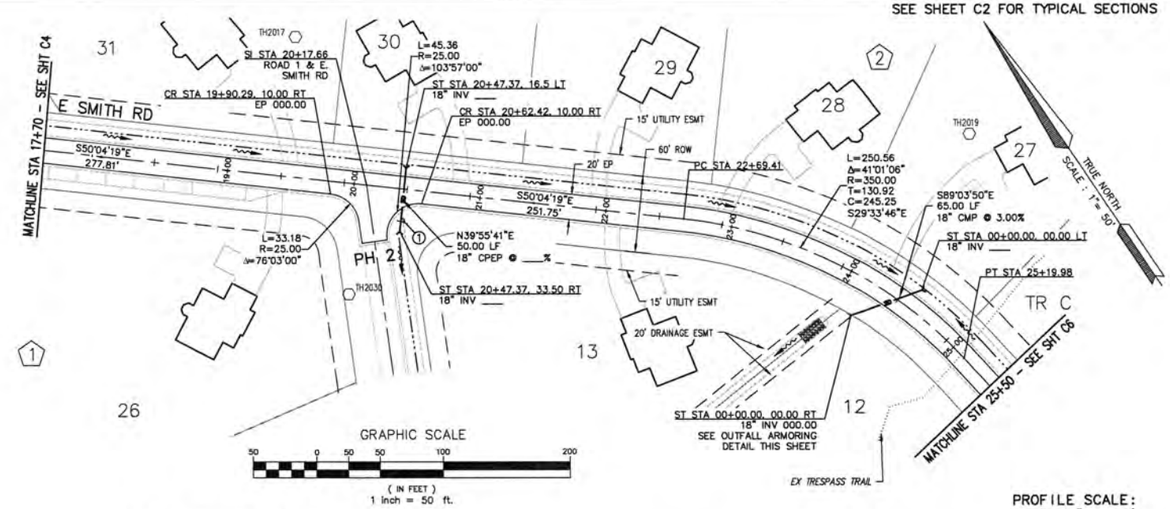
SHEET C5 OF 7

CULVERT NOTE
ALL CULVERTS SHALL BE INSTALLED WITH FLARED END SECTIONS



LENGTH SHALL BE 20' LONG OR AS SHOWN.

OUTFALL ARMORING DETAIL
SCALE: NTS

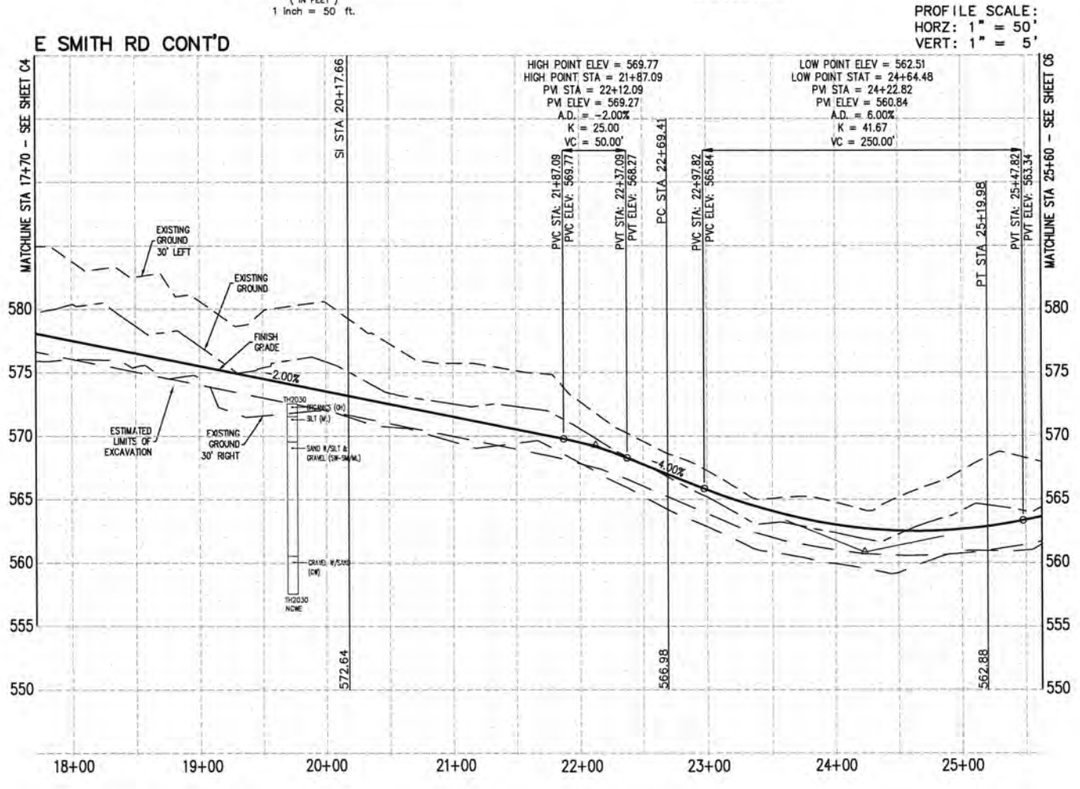


SIGN SCHEDULE

POST	SHT	POST SIZE (TELSPAR)	DIRECTION SIGN FACES	STREET	STATION	OFFSET	NAME	SIGN CODE	SIZE	AREA(SF)	STREET BLOCK NO.
1	C6	2.5"x2.5"	E/W	ROAD 1	10+23.40	24.40 LT	TBD	D3-101	8"xVARIES	VARIES	–
			N/S				E. SMITH RD	D3-101	8"xVARIES	VARIES	–
			EAST				STOP	R1-1	30"x30"	6.25	–

PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'

E SMITH RD CONT'D



RECORD DRAWING
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BY:
COMPANY:
DATE:
3. DATA TRANSFER CHECKED
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BY:
COMPANY:
BY:
TITLE: DATE:

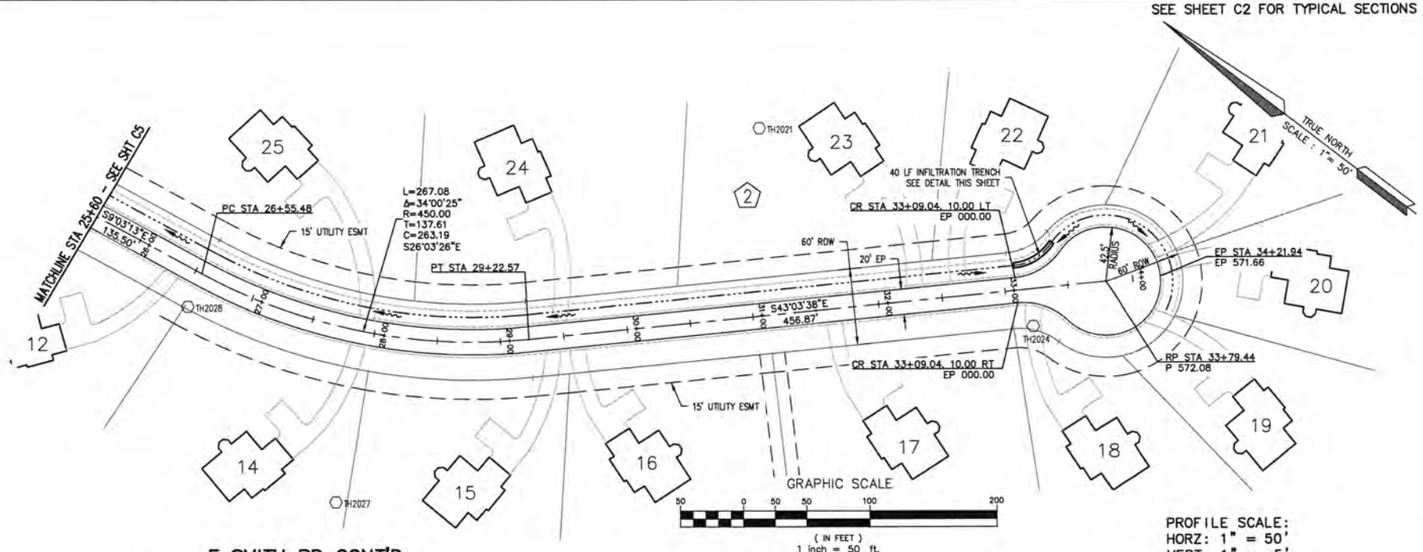
DESIGNED CNM | DRAWN CNM | CHECKED BJM
FILE: EXULTRA SMITH ROAD
JOB NO: 24-133 | CASE: TBD | DATE: JUL 2025
SCALE: HORIZ: 1"=50' VERT: 1"=5' | GRID: NA

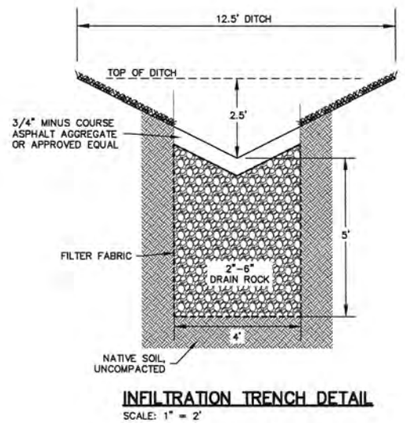
REVISIONS	DATE	BY CKD
REVISED ROAD 1 CL	7/7/25	CNM CNM

SMITH SUBDIVISION, PH 1
STREET IMPROVEMENTS
E SMITH RD CONT'D

SHEET C6 OF 7

SEE SHEET C2 FOR TYPICAL SECTIONS

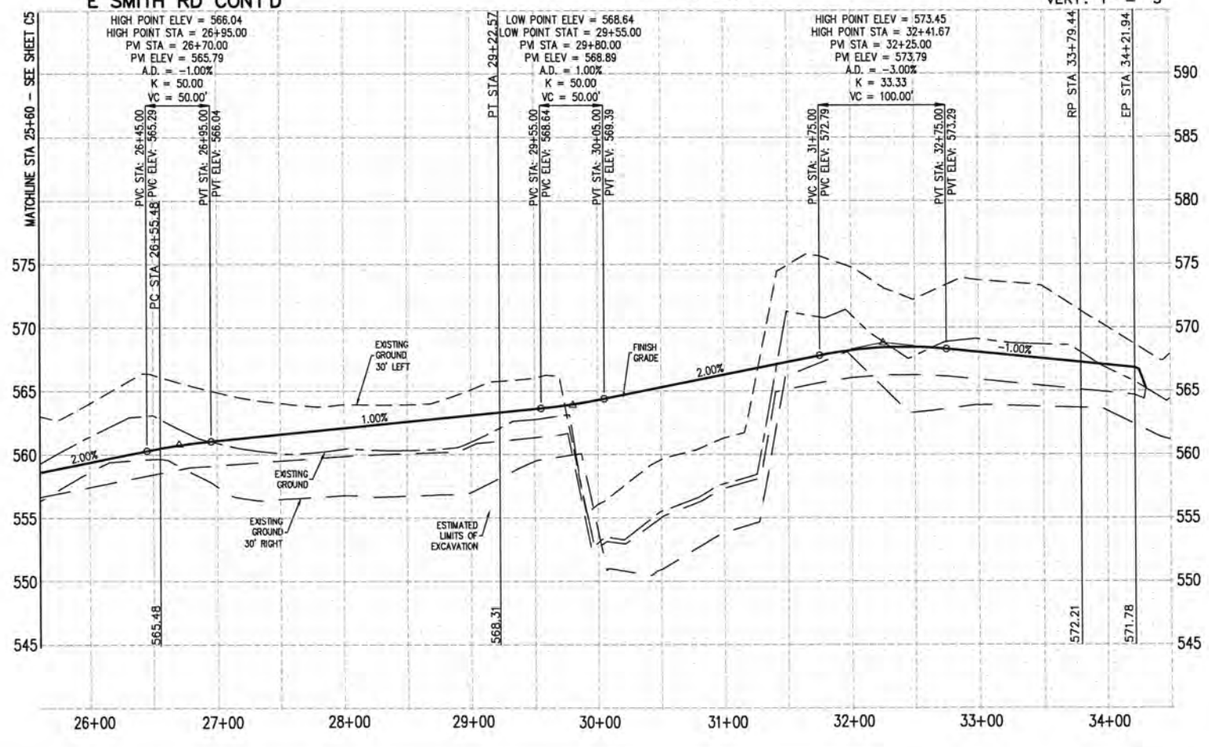




INFILTRATION TRENCH DETAIL
SCALE: 1" = 2'

E SMITH RD CONT'D

PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'



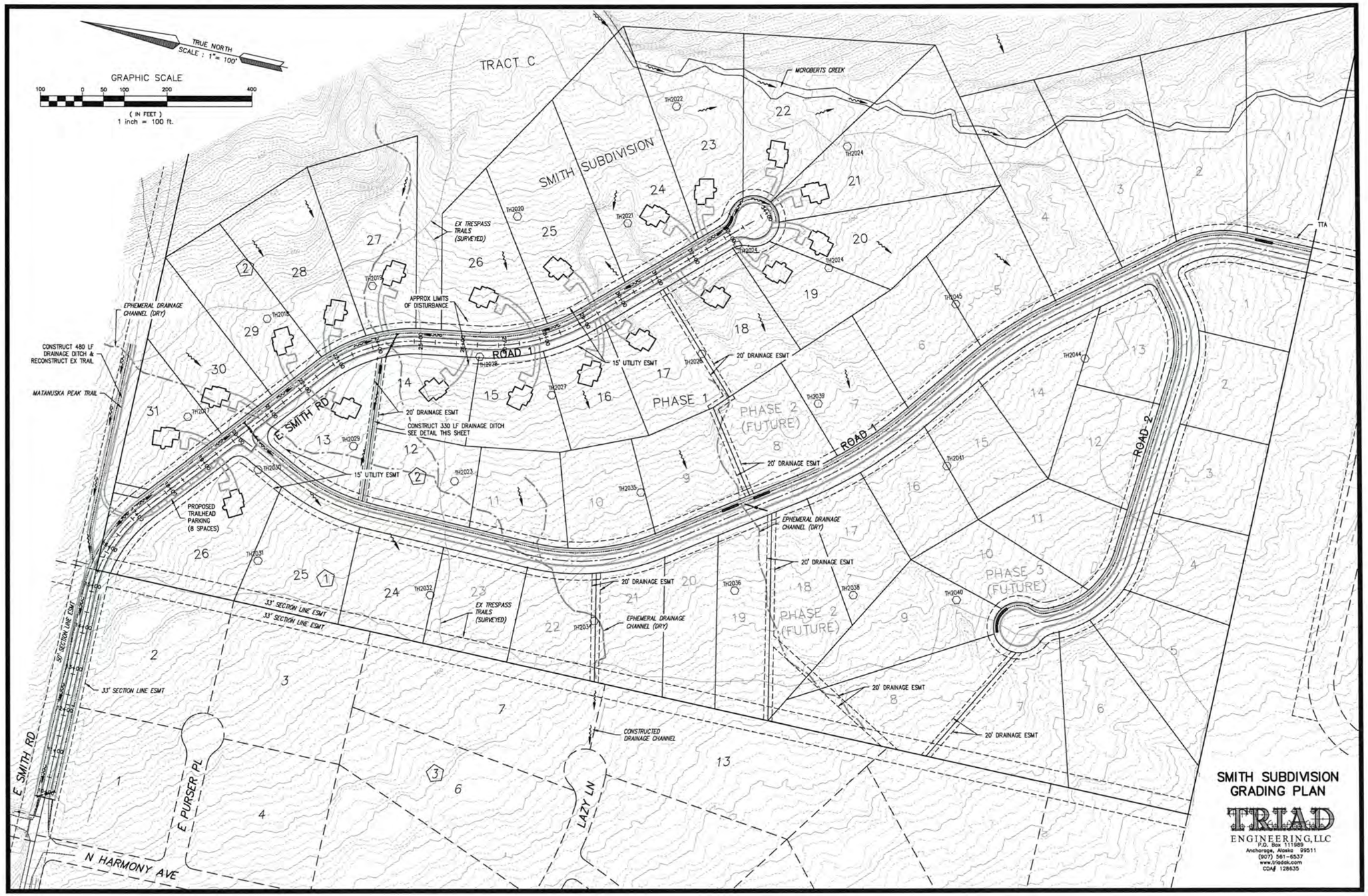
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COMPANY:
DATE: _____
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COMPANY:
BY: _____
TITLE: _____ DATE: _____

SMITH SUBDIVISION, PH 1
STREET IMPROVEMENTS
ROAD 1 CONT'D

REVISIONS	DATE	BY	CK'D
REVISED ROAD 1 GL	7/7/25	GNM	GNM

DESIGNED GNM | DRAWN GNM | CHECKED BJM
FILE: EXJUTNA SMITH ROAD
JOB NO. 24-133 | CASE: 180 | DATE: JUL 2025
SCALE: HORIZ: 1"=50' VERT. 1"=5' | GRID: NA

SHEET C7 OF 7



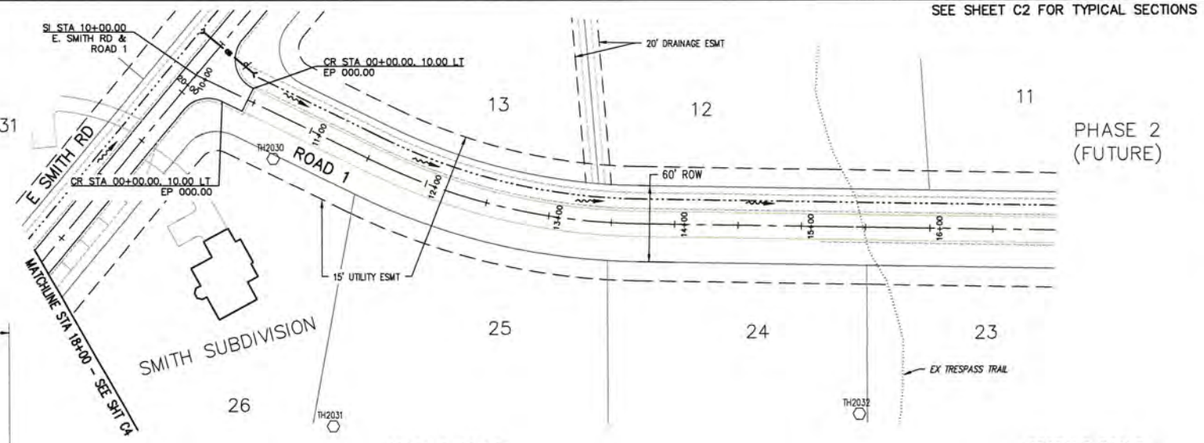
SMITH SUBDIVISION GRADING PLAN

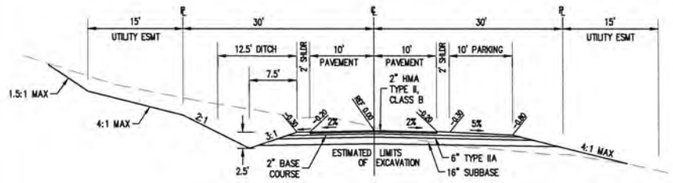
TRIAD ENGINEERING, LLC
P.O. Box 111989
Anchorage, Alaska 99511
(907) 561-6537
www.triadak.com
COA# 128635

SEE SHEET C2 FOR TYPICAL SECTIONS

TRUE NORTH
SCALE : 1"= 50'

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

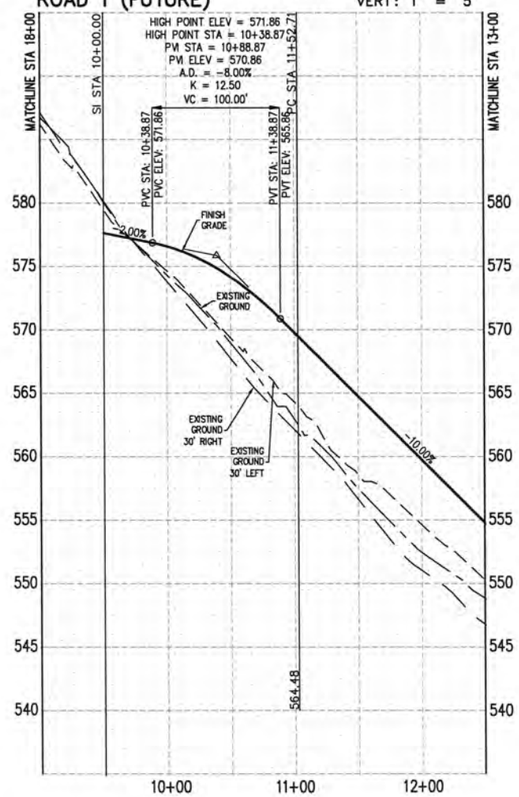




TYPICAL STREET SECTION – 20' WIDE PAVEMENT
SCALE: 1" = 10'
ROAD 1 & ROAD 2

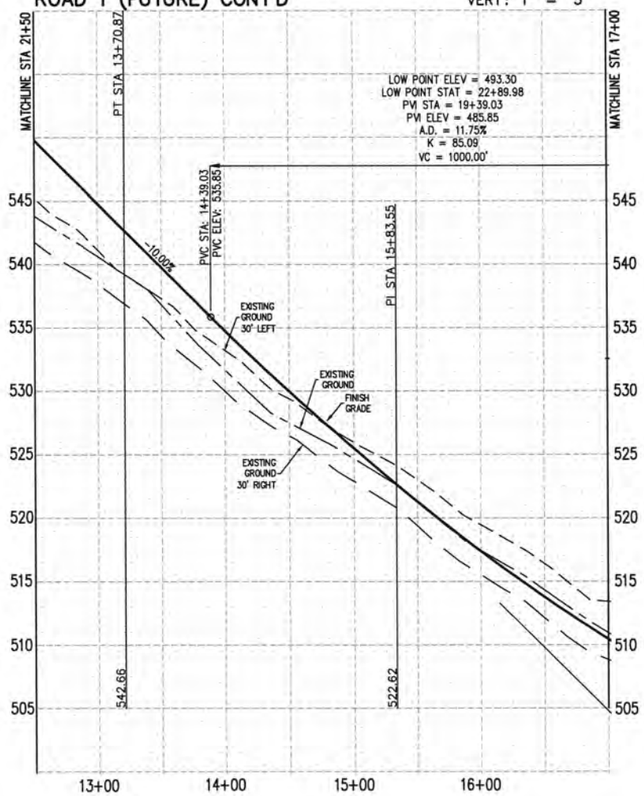
PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'

ROAD 1 (FUTURE)



PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'

ROAD 1 (FUTURE) CONT'D

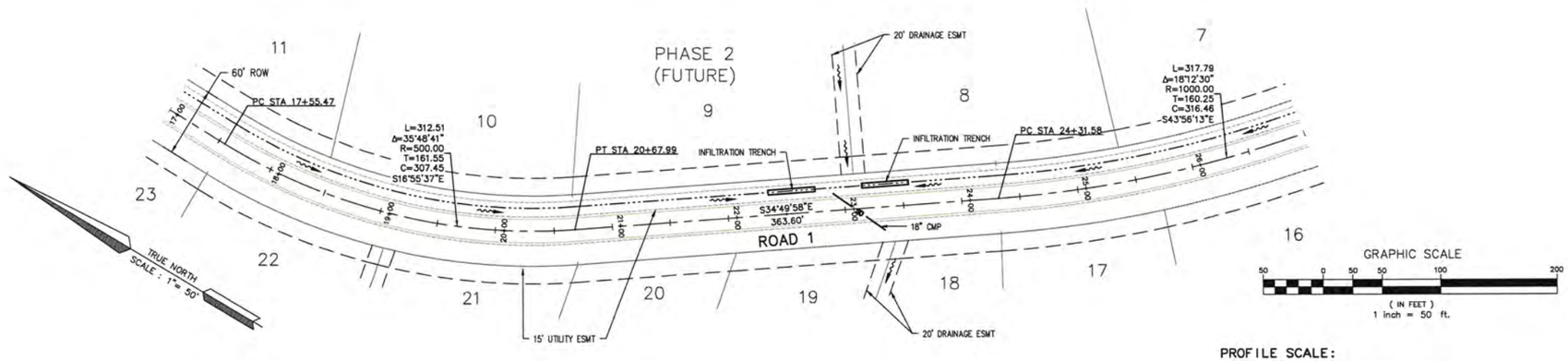


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COMPANY:
BY: _____
TITLE: _____ DATE: _____

DESIGNED CWM | DRAWN CWM | CHECKED SJM
FILE: EKLUTNA SMITH ROAD
JOB NO: 24-133 | CASE: BD | DATE: JUL 2025
SCALE: HORIZ: 1"=50' VERT: 1"=5' | GRID: NA

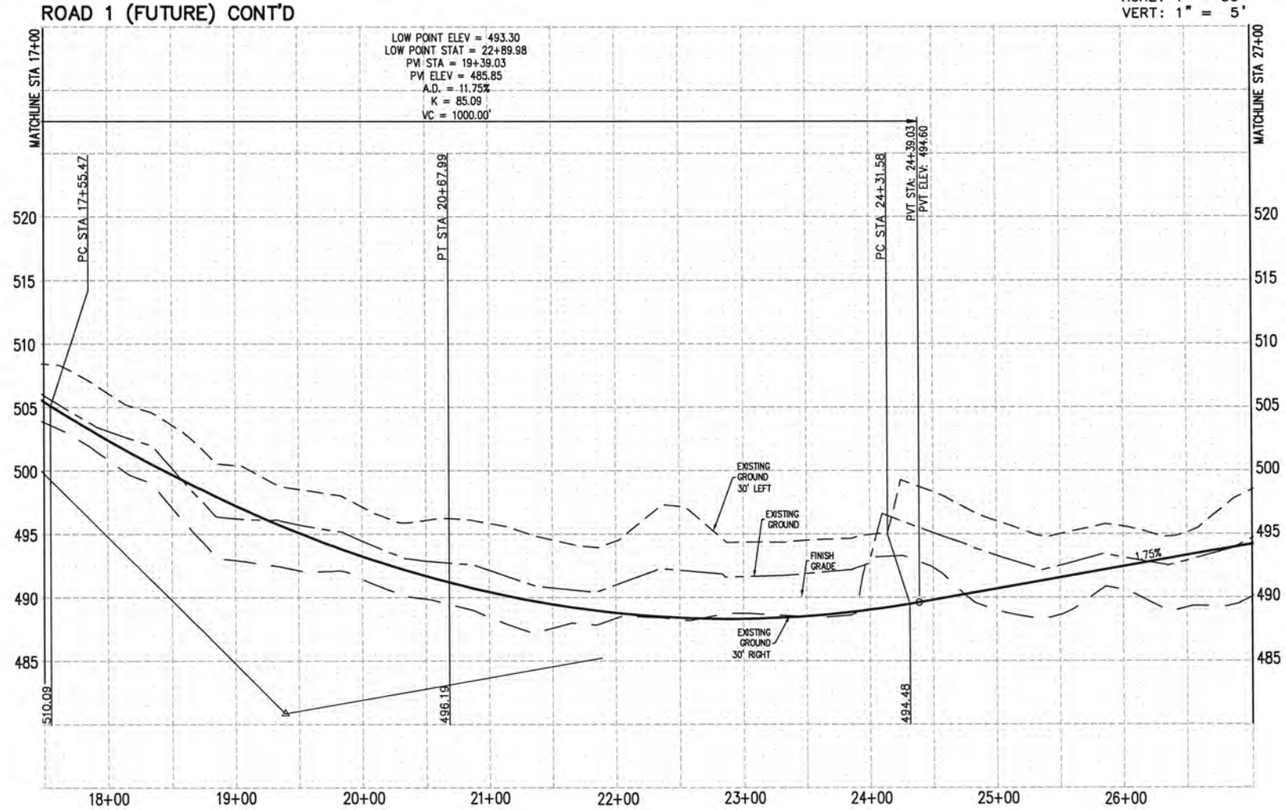
SMITH SUBDIVISION, PH 1
ROAD 1 PLAN/ PROFILE

SHEET 1 OF 3



ROAD 1 (FUTURE) CONT'D

PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'



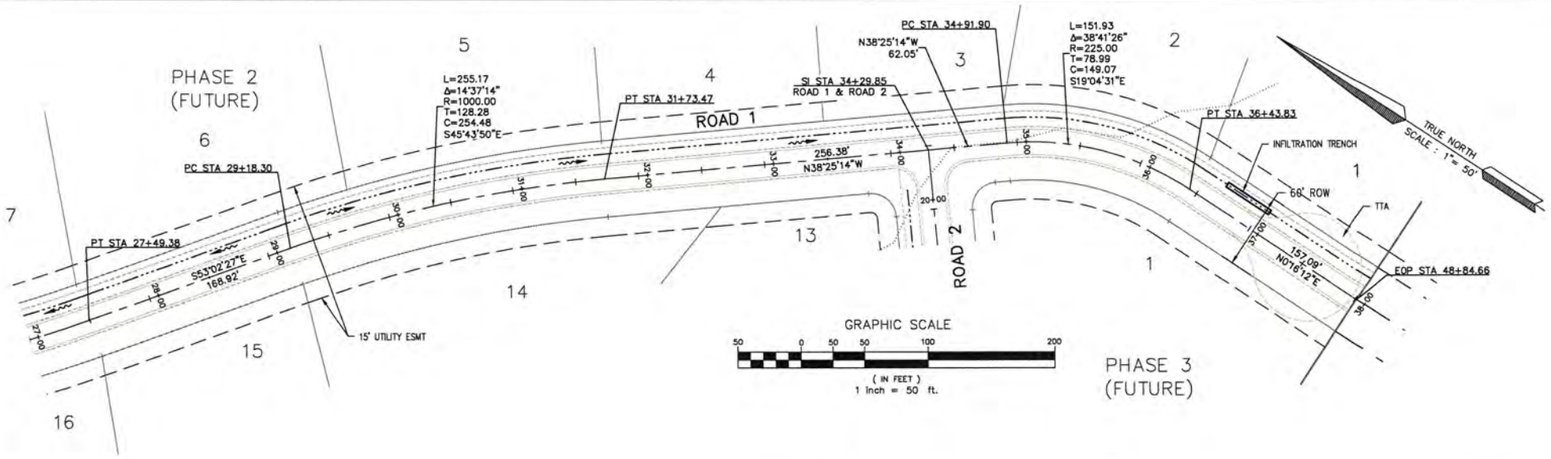
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SMITH SUBDIVISION
FUTURE PHASES
ROAD 1 PLAN/ PROFILE

BY	CKD	REVISIONS	DATE

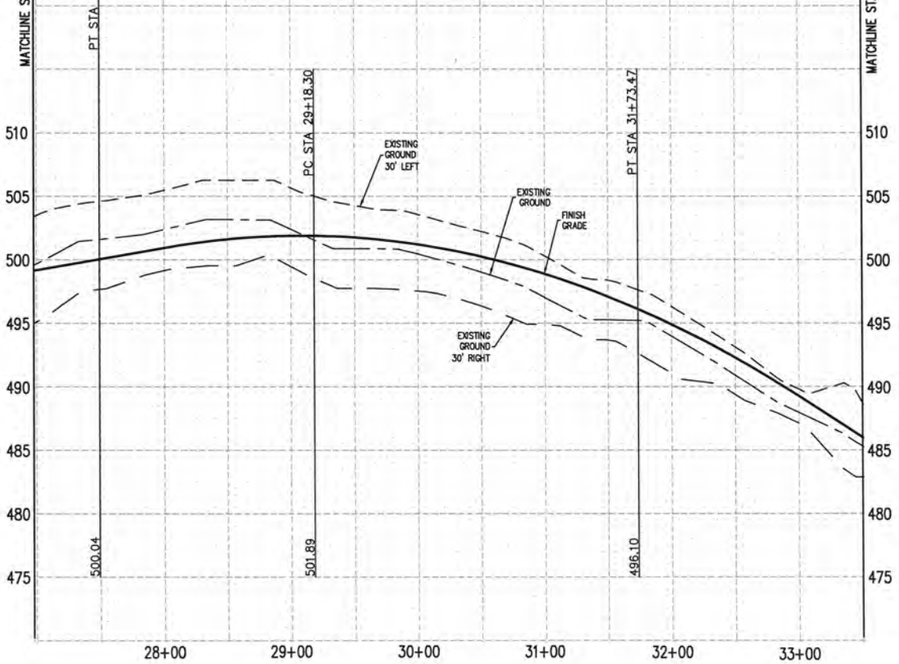
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FILE: EKLUTNA SMITH ROAD
JOB NO.: 24-133 | CASE: TBD | DATE: JUL 2025
SCALE: HORIZ: 1"=50' VERT: 1"=5' | GRID: NA

SHEET 2 OF 3



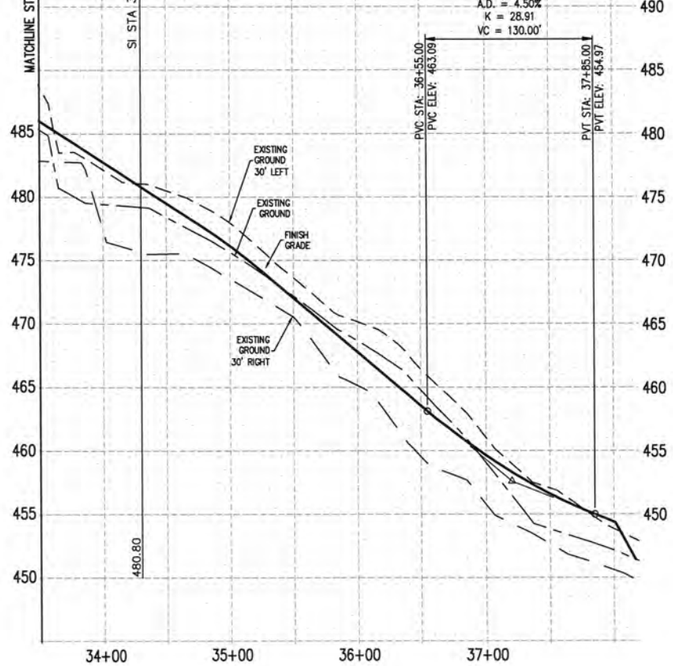
ROAD 1 (FUTURE) CONT'D

PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'



ROAD 1 (FUTURE) CONT'D

PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 5'



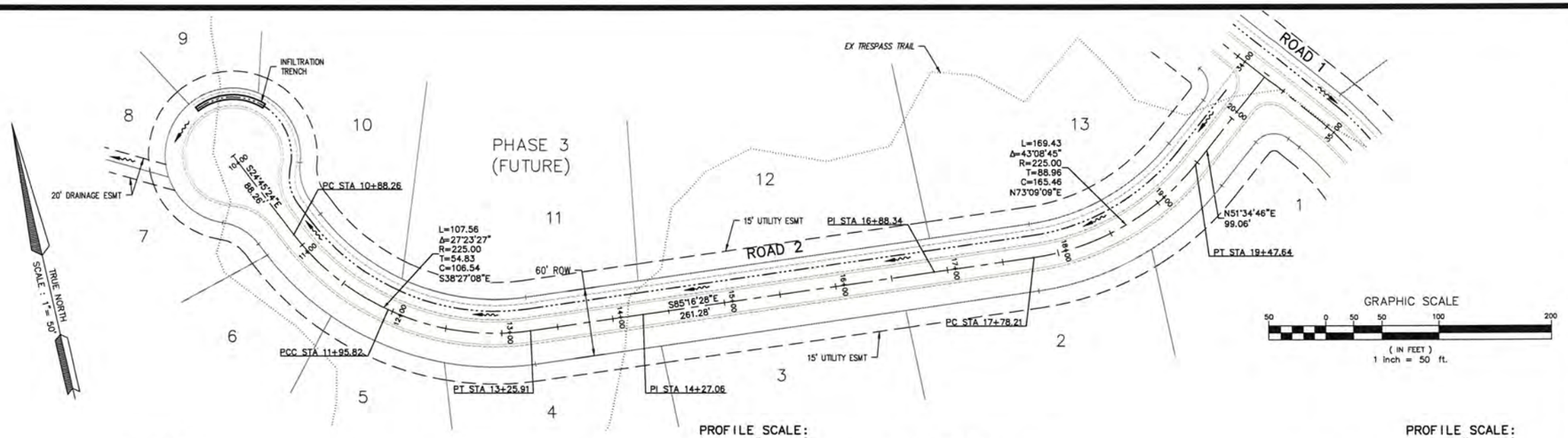
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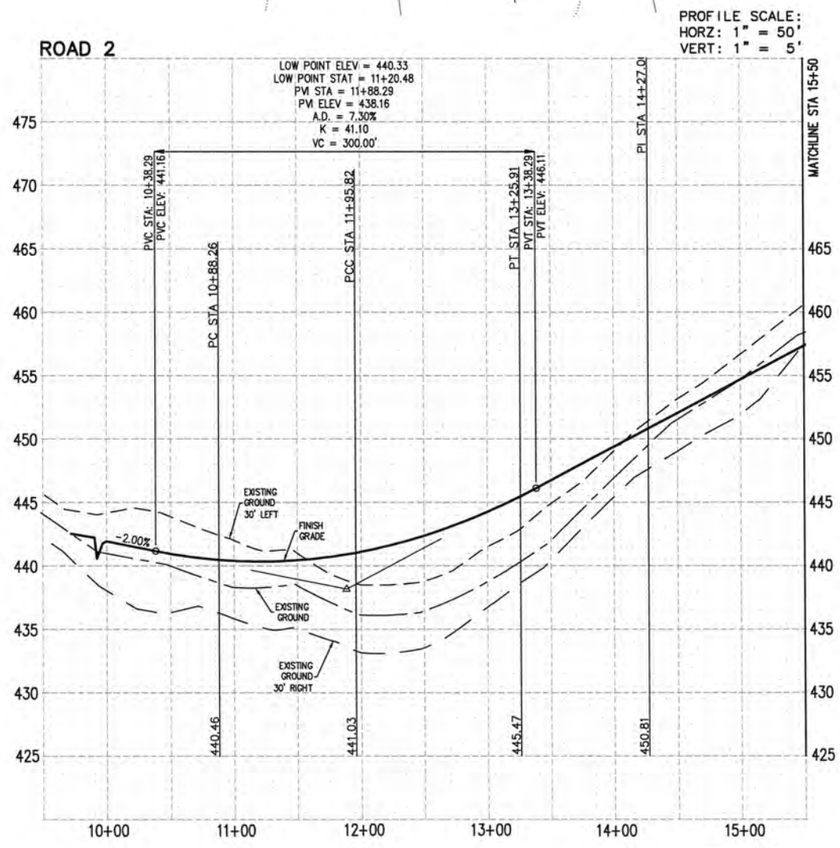
SMITH SUBDIVISION
FUTURE PHASES
ROAD 1 PLAN/ PROFILE

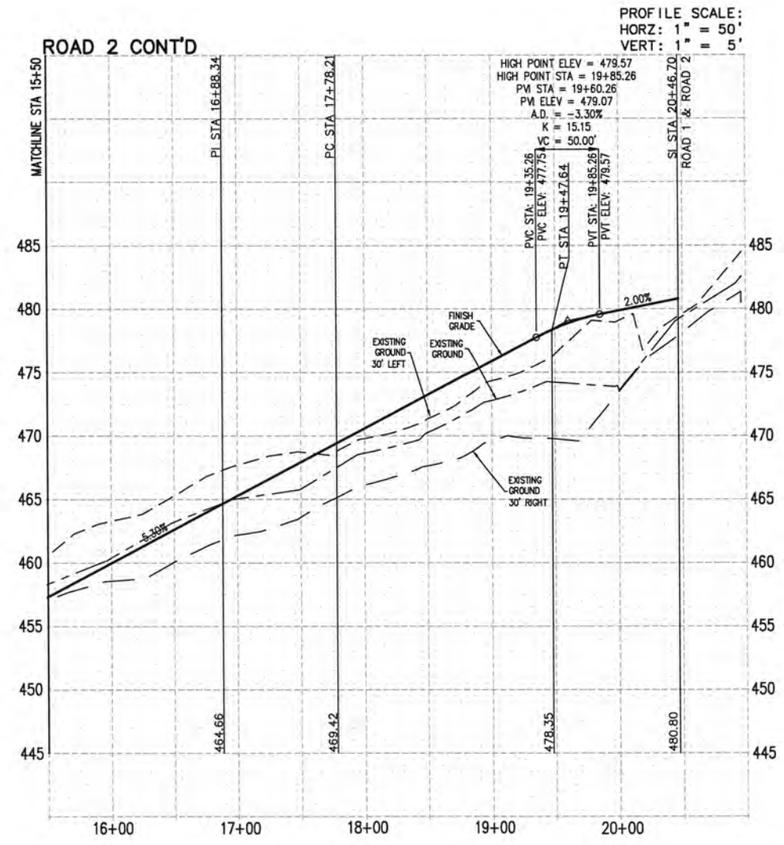
REVISIONS | DATE | BY | CKD

DESIGNED: CRM | DRAWN: CRM | CHECKED: BJM | DATE: JUL 2025
FILE: EKLUTNA SMITH ROAD | JOB NO.: 24-133 | CASE: TBD | SCALE: HORIZ. 1"=50' VERT. 1"=5' | GRID: NA

SHEET 3 OF 3







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2207 Spenard Road
Anchorage, Alaska 99503
(907) 561-5537
www.eraddesign.com
COA# 128535

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COMPANY: _____
BY: _____
TITLE: _____ DATE: _____

SMITH SUBDIVISION
FUTURE PHASES
ROAD 2 PLAN/PROFILE

BY	CKD

REVISIONS

DATE

DESIGNED: DRM | DRAWN: DRM | CHECKED: BJM
FILE: EKLUTNA SMITH ROAD
JOB NO.: 24-133 | CASE: TBD | DATE: JULY, 2025
SCALE: HORIZ: 1"=50' VERT: 1"=5' | GRID: NA

SHEET 1 OF 1

RECEIVED
APR 2 2 2025
PLATTING

GEOTECHNICAL ENGINEERING REPORT
for
SMITH ROAD SUBDIVISION
STREET PHASE I
BUTTE, ALASKA

Prepared for:
Eklutna, Inc.
16515 Centerfield Drive, Suite 201
Eagle River, AK 99577

Prepared by:
Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing

---

DECEMBER 2024

Roads

NGE-TFT Project # 7242-24

December 24, 2024 NGE-TFT Project # 7242-24

Eklutna, Inc.
16515 Centerfield Drive, Suite 201
Eagle River, AK 99577

Attn: Noel Aspiras – Real Estate & Land Development Specialist

RE: GEOTECHNICAL ENGINEERING ASSESSMENT OF THE PROPOSED SMITH SUBDIVISION ROAD PHASE I IN BUTTE, ALASKA.

Noel,

We (Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing) have completed a geotechnical engineering assessment of the aforementioned project. Our assessment suggests that the subgrade soils located across the project site are suitable for supporting the proposed improvements.

The project site is overlain with alluvial deposits from McRoberts Creek. The alluvial deposits generally consist of gravel with sand, gravel with silt and sand, and interbedded lenses of silt. There are lenses of material with rootlets and organic lenses interbedded with the alluvial deposits. Gravel with sand and gravel with silt and sand was encountered within the proposed road. The road section design needs to consider the subsurface frost classification ranged from possible frost susceptible (PFS) to moderately frost susceptible (F2). We recommend frost classification testing during construction to determine the appropriate pavement section.

Subsurface conditions can vary across a project site. As such, we recommend that The Observational Method (described in more detail in Appendix A of this report) be followed.

We greatly appreciate the opportunity to provide you with our professional service. Please contact us directly with any questions or comments you may have regarding the information that we present in this report, or if you have any other questions, comments, and/or requests.

Sincerely,
Northern Geotechnical Engineering, Inc. *d.b.a.* Terra Firma Testing



Clinton J. Banzhaf, P.E.
Senior Project Engineer

Peer Review:
Keith F. Mobley
President

11301 Olive Lane Anchorage, Alaska 99515 · Phone: (907) 344-5934 · Fax: (907) 344-5993 · Website: www.nge-tft.com

Table of Contents

1.0 INTRODUCTION 1
2.0 PROJECT OVERVIEW 1
3.0 SITE CHARACTERIZATION ACTIVITIES 1
4.0 LABORATORY TESTING 2
5.0 DESCRIPTION OF SUBSURFACE CONDITIONS 2
5.1 General Subsurface Profile 2
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Figure 2 ..... Proposed Site Layout and Approximate Exploration Locations
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Appendix B ..... Graphical Exploration Logs
Appendix C ..... Laboratory Test

11301 Olive Lane Anchorage, Alaska 99515 · Phone: (907) 344-5934 · Fax: (907) 344-5993 · Website: www.nge-tft.com

1.0 INTRODUCTION

Project Site: Proposed Smith Road Subdivision

Client: Eklutna, Inc.

Service Fee Proposal: 24-194(G)R1

Authorization of Services: Signed proposal dated October 30, 2024

Scope:

- Characterize the subsurface conditions;
- Evaluate usable building area of each lot; and
- evaluate usable septic area.

2.0 PROJECT OVERVIEW

Project Name: Proposed Smith Subdivision

Project Site Location: 1193 N Dewys St, Butte, Alaska (Figure 1)

Legal Description of Project Site: Township 17N, Range 3E, Section 6, Lot A1

Project Site Size: Appx 472 acres - Lot A1, (Appx. 90 - Proposed Smith Subd.)

Proposed Subdivision Location: Northwest portion of the project site

Current Site Conditions:

- Undeveloped except a few hiking trails
- Native vegetation and large mature trees

Proposed Improvements to Site:

- Subdivide Lot A1
  - Additional 57 lots (0.9 acres to 3 acres) (Figure 2)
- Three Streets
  - Phase I Street is the focus of this report (Figure 2)

3.0 SITE CHARACTERIZATION ACTIVITIES

Subsurface Exploration Contractor: Dirtworks, Inc

Number and Type of Soil Explorations: 3 test pits

Exploration Locations: Figure 2 of this report

Exploration Depths: Approximately 10 to 15 feet below the ground surface (bgs)

Sampling Method: Grab samples

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Monitoring Well: Open ended, 1-inch PVC with slots near the bottom were installed to the bottom of all explorations

Graphical Test Pit Logs: Appendix B of this report

Additional Explorations: Additional subsurface explorations for the entire project site can be found in our report titled "Geotechnical Engineering Report for the Proposed Smith Subdivision Butte, Alaska", dated December 2024.

4.0 LABORATORY TESTING

We tested select soil samples in general accordance with the respective ASTM standard test methods including:

- moisture content analysis (ASTM D-2216); and
- grain size sieve and hydrometer analysis (ASTM D-6913 & D-7928).

Laboratory Test Results: Appendices B (graphical exploration logs) and C (laboratory data sheets)

5.0 DESCRIPTION OF SUBSURFACE CONDITIONS

We compiled our field observations with the results from our laboratory analyses to produce graphical logs of each subsurface exploration (Appendix B). The graphical exploration logs depict the subsurface conditions that we identified at each exploration location and help us to interpret/extrapolate the subsurface conditions for areas adjacent to, and immediately surrounding, each exploration location across the project site.

5.1 General Subsurface Profile

The project site is overlain with alluvial deposits from McRoberts Creek. The alluvial deposits generally consist of gravel with sand, gravel with silt and sand, and interbedded lenses of silt. There are lenses of material with rootlets interbedded with the alluvial deposits. Gravel with sand is the deepest material encountered with the material depth ranging from three (3) feet bgs to 15 feet bgs.

6.0 ENGINEERING CONCLUSIONS

Based on the findings of our field, laboratory, and engineering analysis efforts it is our conclusion that:

General:

1. The gravel with sand soils are generally suitable to support the proposed improvements provided that our concerns and recommendations are addressed by the design and construction processes.

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Earthworks:

2. Coarse-grained material may be re-used on-site as structural fill assuming that the material is free of any organic material (or other deleterious debris) and that the material is compactible.

Pavement:

3. The pavement section design needs to consider the possibly frost susceptible to moderately frost susceptible (PFS to F2) USCOE frost classification of the near surface subgrade soils.

7.0 DESIGN RECOMMENDATIONS

We have presented our design recommendations in the general order that the project site will most likely be developed. Our design recommendations can be used in parts (as needed) for the final design configuration.

7.1 Earthworks

Our general recommendations for earthworks are:

- Structural fill materials should be compacted to a minimum of 95 percent of the modified Proctor density.
- To reuse excavated coarse-grained material as structural fill it:
  - should have less than approximately 15 percent passing the #200 sieve; and
  - must not contain any organic/deleterious material.

Slopes at the project site should:

- not exceed a 2:1 slope (if constructed);
- have properly keyed in fill; and
- have erosion control.

We recommend the following quality control inspections:

- bottom-of-hole inspections;
- frost susceptibility confirmation tests;
- fill gradation classification; and
- in-situ compaction testing.

A bottom-of-hole inspection should be conducted (by a qualified geotechnical engineer, geologist, or special inspector) before any foundation construction begins.

7.2 Pavement Sections

Design Considerations:

- There are cut and fill activities planned at the project site

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- The near surface subgrade soils classify as possibly (PFS) to moderately (F2) on the USCOE frost classification scale.

We provide more details about frost development in pavement sections in Appendix A (Section 1.1) of this report. We detailed our recommended pavement section for construction on above mentioned soils types in Table 1 and 2 of this report.

Table 1: Uninsulated Pavement Section for PFS subgrade

SECTION THICKNESS	MATERIAL
2 INCHES MIN.	ASPHALT CONCRETE (AC) PAVEMENT
2 INCHES MAX.	NFS LEVELING COURSE (A.K.A. "D-1")
12 INCHES	TYPE A
N/A	GEOTEXTILE FABRIC (OPTIONAL)
N/A	PFS SUBGRADE (NATIVE OR FILL)

Table 2: Uninsulated Pavement Section for F2 subgrade

SECTION THICKNESS	MATERIAL
2 INCHES MIN.	ASPHALT CONCRETE (AC) PAVEMENT
2 INCHES MAX.	NFS LEVELING COURSE (A.K.A. "D-1")
12 INCHES	TYPE II-A
12 INCHES	TYPE II or II-A
N/A	GEOTEXTILE FABRIC (OPTIONAL)
N/A	F2 SUBGRADE (NATIVE OR FILL)

7.2.1 Confirmation Testing

PFS subgrades will only require a leveling course layer, as there is little to no potential for ice lens development in the subgrade soils at the project site. Confirmation frost classification testing of the subgrade soils located along the proposed street alignment should be conducted after the completion of all overburden removal and any utility installation activities at a frequency of:

- one test per 100 lineal feet along the exposed subgrade surface, and
- one test per 200 lineal feet at a depth of approximately 12 inches below the exposed subgrade surface.

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The results of the confirmation frost classification testing can be used to ensure that the proper pavement section is used for the soil conditions exposed.

The leveling course, Type A, and Type C materials used should conform to the specifications we provide in Figure 3 of this report and be placed in thin lifts compacted to a minimum of 95 % of the modified Proctor density.

Any leveling course used should be NFS; however, it is our experience that the "D-1" leveling course material currently available in Matanuska-Susitna area may not be NFS following compaction, and as such we recommend:

- using two inches of recycled asphalt pavement (RAP) for the leveling course; or
- keeping the leveling course thickness to two inches or less.

We provide more details about pavement material specifications in Appendix A (Section 1.1) of this report.

8.0 CONSTRUCTION RECOMMENDATIONS

We have presented our construction recommendations in the general order that the project site will most likely be developed. Our construction recommendations are intended to aid the construction contractor(s) during the construction process.

8.1 Earthwork

Structural fill should be:

- compacted to a minimum of 95 percent of the modified Proctor density as determined by ASTM D-1557 (unless specifically stated otherwise in other sections of this report); and
- placed in individual lifts of less than one-foot in thickness (typical);
    - thickness will be determined based on the equipment used, the soil type, and existing soil moisture content.

All earthworks should be completed with quality control inspection.

Excavated coarse-grained material should:

- have less than approximately 10 to 15 percent passing the #200 sieve and not contain any organic/deleterious material to be used as structural fill; and
- be protected from additional moisture inputs (precipitation, etc.) through the use of plastic tarps, etc. if stockpiled on-site.

8.1.1 Winter Construction

To ensure proper placement and compaction of structural fill during winter months the following additional guidelines should be followed:

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- ambient soil temperatures need to be above 37 °F;
- fill material needs to be completely thawed before placement; and
- subgrade soils (fill or native) need to be completely thawed prior to the placement and compaction of additional lifts of thawed fill material.

8.2 Pavement

The following are our construction recommendations for pavement sections:

- Confirmation frost classification testing of the exposed subgrade should be completed.
- All of the earthwork within any areas to be paved should be completed as early in the construction schedule as possible, and the pavement placed as late in the construction schedule as possible.
    - Underground utility piping should be installed prior to construction of any pavement sections such that trenching is done through the subgrade soils only.
    - This will give the subgrade soils time to settle, compress, and stabilize prior to placement of the pavement.
- Any structural fill used should be placed in thin lifts (less than one foot in thickness) and each lift should be compacted to a minimum of 95 percent of the modified Proctor density.
- Prior to paving, any surface fill material should be re-leveled and re-compacted.
- All backfill and paving materials should be inspected and tested for material specification compliance and compaction.

The minimum thickness for any asphalt concrete (AC) pavement surfaces is two inches. The minimum thickness of any Portland cement concrete (PCC) pavement surfaces will be a function of the reinforcement required. All applicable ACI and IBC standards should be followed.

9.0 CLOSURE

We (Northern Geotechnical Engineering, Inc. d.b.a. Terra Firma Testing) prepared this report exclusively for the use Eklutna, Inc. and their consultants/contractors/etc. for use in the design and construction of the proposed improvements. We should be notified if significant changes are to occur in the nature, design, or location of the proposed improvements in order that we may review our conclusions and recommendations that we present in this report and, if necessary, modify them to satisfy the proposed changes.

This report should always be read and/or distributed in its entirety (including all figures, exploration logs, appendices, etc.) so that all of the pertinent information contained within is effectively disseminated. Otherwise, an incomplete or misinterpreted understanding of the site conditions and/or our engineering recommendations may occur. Our recommended best practice is to make this report accessible, in its entirety, to any design professional and/or contractor working on the project. Any part of this report (e.g., exploration logs, calculations, material values, etc.) which is presented in the design/construction plans and/or specifications for the project should

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have an adequate reference which clearly identifies where the report can be obtained for further review.

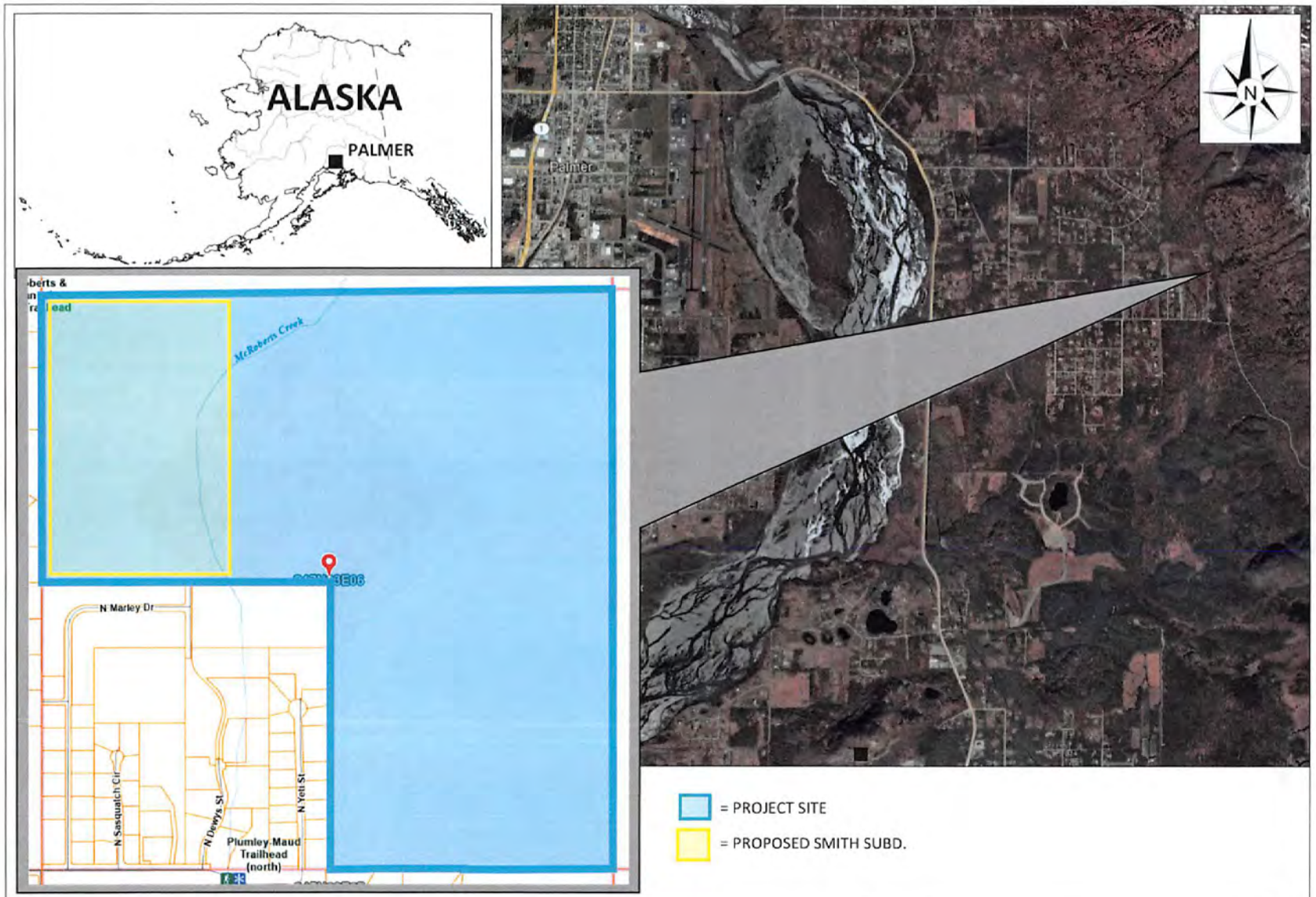
Due to the natural variability of earth materials, variations in the subsurface conditions across the project site may exist other than those we identified during the course of our geotechnical assessment. Therefore, a qualified geotechnical engineer, geologist, and/or special inspector be on-site during construction activities to provide corrective recommendations for any unexpected conditions revealed during construction (see our discussion of the Observational Method in Appendix A of this report for more detail). Furthermore, the construction budget should allow for any unanticipated conditions that may be encountered during construction activities.

We conducted this evaluation following the standard of care expected of professionals undertaking similar work in the State of Alaska under similar conditions. No warranty, expressed or implied, is made.

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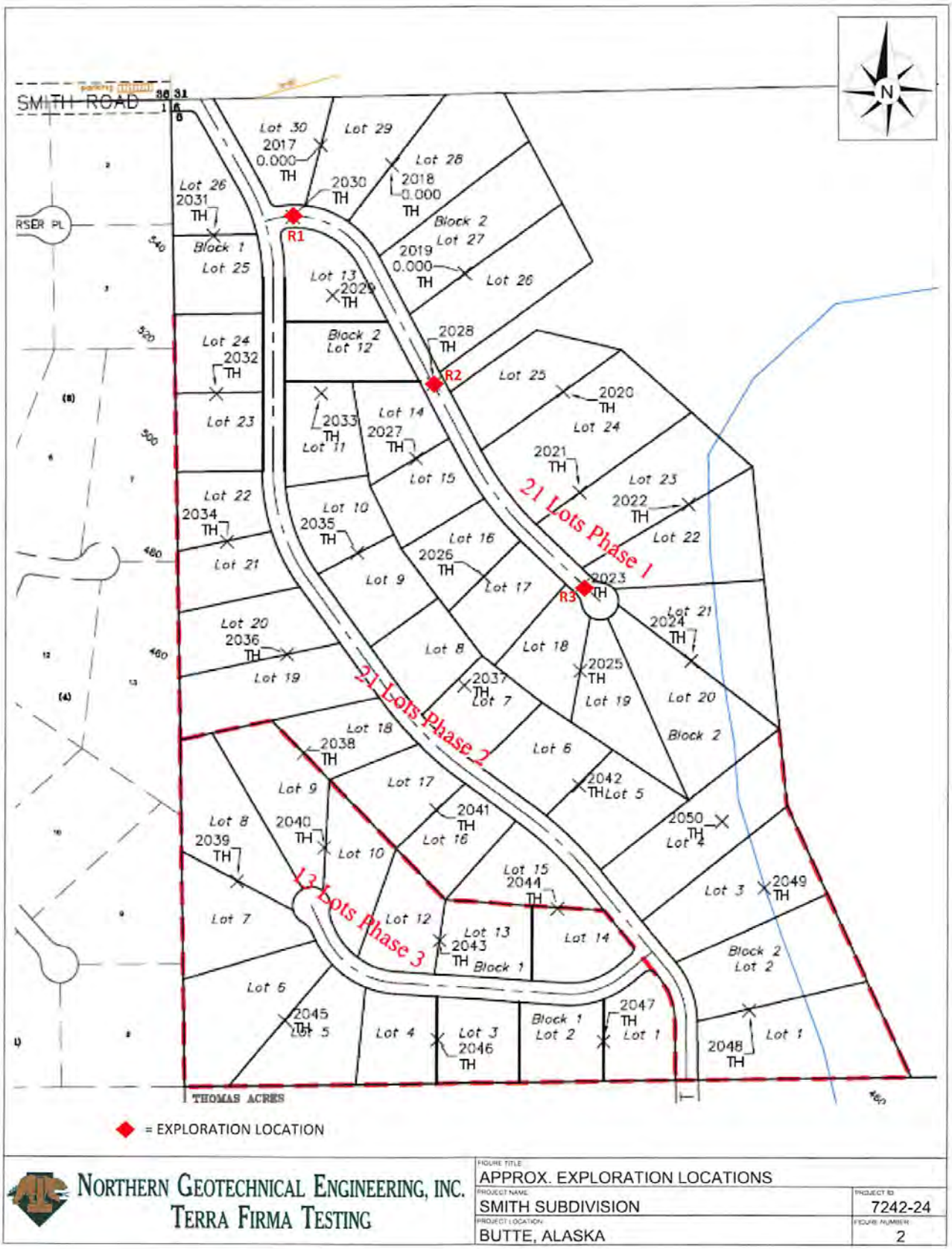
REPORT
FIGURES

NGE-TFT Project #7242-24



NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

FIGURE TITLE: PROJECT SITE LOCATION MAP	
PROJECT NAME: SMITH SUBDIVISION	PROJECT ID: 7242-24
PROJECT LOCATION: BUTTE, ALASKA	FIGURE NUMBER: 1



NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

FIGURE TITLE: APPROX. EXPLORATION LOCATIONS	
PROJECT NAME: SMITH SUBDIVISION	PROJECT ID: 7242-24
PROJECT LOCATION: BUTTE, ALASKA	FIGURE NUMBER: 2

AGGREGATE GRADATION FOR BASE AND SURFACE COURSE

SIEVE SIZE	GRADATION - % BY MASS PASSING			
	BASE - (C-1)	BASE - (D-1)	SURFACE - (E-1)	SURFACE - (F-1)
1-1/2"	100			
1"	70-100	100	100	100
3/4"	60-90	70-100	70-100	85-100
3/8"	45-75	50-80	50-85	60-100
#4	30-60	35-65	35-65	50-85
#8	22-52	20-50	20-50	40-70
#50	6-30	6-30	15-30	25-45
#200	0-6	0-6	8-15	8-20
0.02	0-3	0-3	0-3	0-3

MATERIALS LISTED ABOVE MUST CONSIST OF CRUSHED STONE OR CRUSHED GRAVEL CONSISTING OF SOUND, TOUGH, DURABLE PEBBLES OR ROCK FRAGMENTS OF UNIFORM QUALITY. MUST BE FREE FROM CLAY BALLS, VEGTABLE MATTER AND OTHER DELETE-

SELECTED MATERIAL

TYPE A. AGGREGATE CONTAINING NO MUCK, FROZEN MATERIAL, ROOTS, SOD OR OTHER DELETERIOUS MATTER AND WITH A PLASTICITY INDEX NOT GREATER THAN 6 AS TESTED BY ATM 204 AND ATM 205. MEET THE FOLLOWING GRADATION AS TESTED BY ATM 304:

SIEVE	% BY MASS PASSING
#4	20-60
#200*	0-6

TYPE B. AGGREGATE CONTAINING NO MUCK, FROZEN MATERIAL, ROOTS, SOD OR OTHER DELETERIOUS MATTER AND WITH A PLASTICITY INDEX NOT GREATER THAN 6 AS TESTED BY ATM 204 AND ATM 205. MEET THE FOLLOWING GRADATION AS TESTED BY ATM 304:

SIEVE	% BY MASS PASSING
#200*	0-10

TYPE C. EARTH, SAND, GRAVEL, ROCK, OR COMBINATIONS THEREOF CONTAINING NO MUCK, PEAT, FROZEN,MATERIAL, ROOTS, SOD, OR OTHER DELETERIOUS MATTER AND IS COMPACTABLE UNDER THE PROVISIONS OF SUBSECTIONS 203-3.04 OR 203-3.05.

* GRADATION SHALL BE DETERMINED ON THAT PORTION PASSING THE 3" SCREEN

AGGREGATE GRADATION FOR SUBBASE

SIEVE SIZE	GRADATION - % BY MASS PASSING				
	A	B	C	D	E
4"	100	--	--	--	--
2"	85-100	100	--	--	--
1"	--	--	100	--	--
3/4"	--	--	--	100	--
#4	15-60	15-60	40-75	45-80	--
#16	--	--	20-43	23-50	--
#200*	0-10	0-6	4-10	4-12	0-6
0.02*	0-3	0-3	0-3	0-3	0-3

* GRADATION SHALL BE DETERMINED ON THAT PORTION PASSING THE 3" SCREEN

MODIFIED FROM SECTIONS 703-2.03, 703-2.07 AND 703-2.9 OF AK DOT & PF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - 2015

NORTHERN GEOTECHNICAL ENGINEERING, INC.
TERRA FIRMA TESTING

FIGURE TITLE: MATERIAL SPECIFICATIONS
PROJECT NAME: SMITH SUBDIVISION
PROJECT ID: 7242-24
PROJECT LOCATION: BUTTE, ALASKA
FIGURE NUMBER: 3

APPENDIX A

ADDITIONAL REPORT DETAILS

APPENDIX A – ADDITIONAL REPORT DETAILS

1.0 DESIGN RECOMMENDATIONS

1.1 Pavement Sections

Construction of the pavement section for the proposed parking areas will be guided (in part) by the amount of cut/fill needed to achieve the final grade. The composition, structure, and thickness of the pavement section will be further controlled by the frost susceptibility of, and overall potential for ice lens development within, the subgrade soils.

There are three primary factors that influence the potential for ice lens formation at a given site:

1. soil gradation (i.e., ability to draw up moisture through capillary tension);
2. the presence of sufficient volumes of water (surface water, pore water, or groundwater) near the freeze front to foster ice lens development; and
3. the rate and duration of freeze-front advancement due to air temperature and wind variations.

All three factors need to occur simultaneously in order for ice lenses to develop in the subgrade.

Materials:

As we discuss in the report, it is our experience that the "D-1" leveling course may not be NFS following compaction, because the compaction with a vibratory compactor further increases the frost susceptibility of the leveling course by increasing the percentage of fine-grained material (due to degradation of the soil particles from the impact of the compaction equipment).

RAP has a low frost susceptibility, making it a suitable alternative for D-1 as the leveling course material.

DOT Type C materials can be used as a substitute for Type A materials. However, no Type A materials should be placed within 12 inches of any pavement surfaces to help reduce the risk of pavement dimpling (from oversized particles contained within the Type A material).

2.0 THE OBSERVATIONAL METHOD

A comprehensive geoprofessional service (e.g., geotechnical, geological, civil, and/or environmental engineering, etc.) should consist of an interdependent, two-part process comprised of:

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Part I - pre-construction site assessment, engineering, and design; and

Part II - continuous construction oversight and design support.

This process, commonly referred to in the geoprofessional industry as "The Observational Method", was developed to reduce the costs required to complete a construction project, while simultaneously reducing the overall risk associated with the design and construction of the project.

In geotechnical engineering, Part I of the Observational Method (OM) begins with a geotechnical assessment of the site, which typically consists of some combination of literature research, site reconnaissance, subsurface exploration, laboratory testing, and geotechnical engineering. These efforts are usually documented in a formal report (e.g., such as this report) that summarizes the findings of the geotechnical assessment, and presents provisional geotechnical engineering recommendations for design and construction. Geotechnical assessment reports (and the findings and recommendations contained within) are considered provisional due to the fact that their contents are typically based primarily on limited subsurface information for a site. Most conventional geotechnical exploration programs only physically characterize a very small percentage of a given site, as it is typically cost prohibitive to conduct extensive (i.e. high density/frequency) exploration programs. As an alternative, geoprofessionals use the subsurface information available for a site to extrapolate subsurface conditions between exploration locations and develop appropriate provisional recommendations based on the inferred site conditions. As a result, the geoprofessional of record cannot be certain that the provisional recommendations will be wholly applicable to the site, as subsurface conditions other than those identified during the geotechnical assessment may exist at the site which could present obstacles and/or increased risk to the proposed design and construction.

Part II of the OM is employed by geoprofessionals to help reduce the risk associated with unidentified and/or unexpected subsurface conditions. Geoprofessionals accomplish Part II of the OM by providing construction oversight (e.g., construction observation, inspection, and testing). Part II of the OM is a valuable service, as the geoprofessional of record is available if unexpected conditions are encountered during the construction process (e.g., during excavation, fill placement, etc.) to make timely assessments of the unexpected conditions and modify their design and construction recommendations accordingly; thus reducing considerable cost resulting from potential construction delays and reducing the risk of future problems resulting from inappropriate design and construction practices.

Oftentimes, a client may be persuaded to use an alternative geoprofessional firm to conduct Part II of the OM for a given project; as some geoprofessional firms offer the same services at discounted prices in order to help them obtain the overall construction materials engineering and testing (CoMET) commission. The geoprofessional industry as a whole recommends against this practice. An alternative geoprofessional firm cannot provide the same level of service as the geoprofessional of record. The geoprofessional of record has (amongst other things) a unique

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familiarity with the project including; an intimate understanding of the subsurface conditions, the proposed design, and the client's unique concerns and needs, as well as other factors that could impact the successful completion of a construction project. An alternative geoprofessional firm is not aware of the inferences made and the judgment applied by the geoprofessional of record in developing the provisional recommendations, and may overlook opportunities to provide extra value during Part II of the geoprofessional service.

Clients that prevent the geoprofessional of record from performing a complete service can be held solely liable for any complications stemming from engineering omissions as a result of unidentified conditions. The geoprofessional of record may not be liable for any resulting complications that occur, as the geoprofessional of record was not able to complete their services. Furthermore, the replacement geoprofessional firm may also be found to have no liability for the same reasons.

We are available at any time to discuss the OM in more detail, or to provide you with an estimate for any additional construction observation and testing services required.

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APPENDIX B

GRAPHICAL EXPLORATION LOGS

NGE-TFT Project #7242-24

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and Terra Firma Testing
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Anchorage, AK 99515

EXPLORATION R1

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/14/2024 @ 12:40:00 PM
DATE/TIME COMPLETED: 11/14/2024 @ 1:05:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
▽ GROUNDWATER (ATD): N/E
▼ GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 23°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N1)60	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILT (ML), with roots, soft, brown, moist									
			WELL GRADED SAND WITH SILT AND GRAVEL INTERBEDDED WITH SILT (SW-SM/ML), loose to medium dense, olive / brown, moist									
5												
					S1	N/A	N/A	N/A		S1	S1 MC = 10.8% 43.6% gravel, 45.3% sand, 11.1% silt P0.02 = 7.0% FC = F2	
10												
			WELL GRADED GRAVEL WITH SAND (GW), olive, moist									
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

EXPLORATION R2

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 9:10:00 AM
DATE/TIME COMPLETED: 11/15/2024 @ 9:55:00 AM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 25°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	$(N_1)_{60}$	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	WELL DIAGRAM
0			**ORGANIC MAT** (OH)									
			SILTY GRAVEL (GM), with roots, loose, brown, moist									
			POORLY GRADED GRAVEL WITH SAND (GP), with cobbles, and boulders, medium dense, olive, moist									
5												
					S1	N/A	N/A	N/A		S1	S1 MC = 3.9% 56.8% gravel, 40.4% sand, 2.8% silt P0.02 = 1.8% FC = PFS	
10												
15												

Bottom of borehole at 15.0 ft bgs.
Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
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Anchorage, AK 99515

EXPLORATION R3

NGE-TFT PROJECT NAME: Smith Subdivision - Butte
NGE-TFT PROJECT NUMBER: 7242-24
PROJECT LOCATION: Palmer, AK
EXPLORATION CONTRACTOR: Dirtworks, Inc.
EXPLORATION EQUIPMENT: Hitachi Zaxis 135
EXPLORATION METHOD: Test Pit Excavation
SAMPLING METHOD: Grab Sample
LOGGED BY: C. Banzhaf
DATE/TIME STARTED: 11/15/2024 @ 1:45:00 PM
DATE/TIME COMPLETED: 11/15/2024 @ 2:15:00 PM
EXPLORATION LOCATION: See report Figure 2
GROUND ELEVATION: Not Known
GROUNDWATER (ATD): N/E
GROUNDWATER (): N/E
EXPLORATION COMPLETION: See completion comments at end of log
WEATHER CONDITIONS: Cloudy, 29°F

DEPTH (ft bgs)	GRAPHIC LOG	FROZEN SOILS	MATERIAL DESCRIPTION	SAMPLE TYPE	FIELD SAMPLE ID	RECOVERY (in)	FIELD BLOWS	(N1)60	SAMPLE INT. COLLECT	LAB SAMPLE ID	LAB RESULTS	REMARKS/NOTES	WELL DIAGRAM
0			**ORGANIC MAT** (OH)										
			SILTY GRAVEL (GM), with roots, brown, moist										
			POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), with boulders, dense, olive, moist										
5				S1	S1	N/A	N/A	N/A		S1	S1 MC = 3.6% 70.5% gravel, 23.7% sand, 5.8% silt P0.02 = 3.8% FC = S1		
10			Bottom of borehole at 10.0 ft bgs. Set 1" open end PVC to BOH. Hand slotted bottom 5' of casing. Backfilled with spoils.									Refusal on boulders.	

Always refer to our complete geotechnical report for this project for a more detailed explanation of the subsurface conditions at the project site and how they may affect any existing and/or prospective project site development.

EXPLORATION LEGEND

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc.

NGE-TFT PROJECT NAME Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24

PROJECT LOCATION Palmer, AK

LITHOLOGIC SYMBOLS
(Unified Soil Classification System)

- GM: USCS Silty Gravel
- GP: USCS Poorly-graded Gravel
- GP-GM: USCS Poorly-graded Gravel with Silt
- GPS: Sandy Gravel
- GW-GM: USCS Well-graded Gravel with Silt
- GWS: USCS Well-graded Sandy Gravel
- ML: USCS Silt
- OH: USCS High Plasticity Organic silt or clay
- OL: USCS Low Plasticity Organic silt or clay
- SM: USCS Silty Sand
- SP: USCS Poorly-graded Sand
- SPG: Gravelly Sand
- SW-SM: USCS Well-graded Sand with Silt

SAMPLER SYMBOLS

- Grab Sample

WELL CONSTRUCTION SYMBOLS

- Slough Backfill
- Slotted Pipe Backfilled with Slough

ABBREVIATIONS

LL - LIQUID LIMIT (%)
PI - PLASTIC INDEX (%)
MC - MOISTURE CONTENT (%)
DD - DRY DENSITY (PCF)
NP - NON PLASTIC
P200 - PERCENT PASSING NO. 200 SIEVE
P0.02 - PERCENT PASSING 0.02mm SIEVE
PP - POCKET PENETROMETER (tons/ft^2)
S/U - CASING STICK-UP

▽ Water Level at Time Drilling, or as Shown

▼ Water Level After 24 Hours, or as Shown

TV - TORVANE
PID - PHOTOIONIZATION DETECTOR
UC - UNCONFINED COMPRESSION
ppm - PARTS PER MILLION
N/E - NOT ENCOUNTERED
N/R - NOT REPRESENTATIVE
N/A - NOT APPLICABLE
$I_{s(50)}$ - POINT LOAD INDEX
S_c - UNCONFINED COMPRESSIVE STRENGTH

SOIL CLASSIFICATION CHART

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc. **PROJECT NAME** Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24 **PROJECT LOCATION** Palmer, AK

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.
DIAGONAL LINES INDICATE UNKNOWN DEPTH OF SOIL TRANSITION.

EXPLORATION LOG KEY

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc. **PROJECT NAME** Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24 **PROJECT LOCATION** Palmer, AK

SAMPLER SYMBOLS

- SPT w/ 140# Hammer 30" Drop and 2.0" O.D. Sampler
- Modified SPT w/ 340# Hammer 30" Drop and 3.0 O.D. Sampler
- Grab Sample
- Shelby Tube Sample
- Rock Core Sample
- Direct Push Sample
- No Recovery
- **N/E** Not Encountered

WELL SYMBOLS

- 1" Slotted Pipe Backfilled with Silica Sand
- 1" PVC Pipe Backfilled with Auger Cuttings
- 1" PVC Pipe with Bentonite Seal
- Capped Riser

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No. 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No. 4 (4.5 mm)
Sand	No. 4 (4.5 mm) to No. 200
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1-5%
Few	5-10%
Little	10-20%
Some	20-35%
And	35-50%

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS			COHESIVE SOILS		
DENSITY	N (BLOWS/FT)	APPROXIMATE RELATIVE DENSITY (%)	CONSISTENCY	N (BLOWS/FT)	APPROXIMATE UNDRAINED SHEAR STRENGTH (PSF)
VERY LOOSE	0-4	0-15	VERY SOFT	0-1	< 250
LOOSE	5-10	15-35	SOFT	2-4	250-500
MEDIUM DENSE	11-25	35-65	MEDIUM STIFF	5-8	500-1000
DENSE	26-50	65-85	STIFF	9-15	1000-2000
VERY DENSE	> 50	85-100	VERY STIFF	16-30	2000-4000
			HARD	> 30	> 4000

EXPLORATION LOG KEY

Northern Geotechnical Engineering, Inc.
and Terra Firma Testing
11301 Olive Lane
Anchorage, AK 99515

CLIENT Eklutna, Inc. **PROJECT NAME** Smith Subdivision - Butte

NGE-TFT PROJECT NUMBER 7242-24 **PROJECT LOCATION** Palmer, AK

FROST DESIGN SOIL CLASSIFICATION

FROST GROUP (USACOE)	FROST GROUP (M.O.A.)	SOIL TYPE	% FINER THAN 0.02mm BY MASS	TYPICAL SOIL TYPES UNDER UNIFIED SOIL CLASSIFICATION SYSTEM
NFS*	NFS*	(A) GRAVELS CRUSHED STONE CRUSHED ROCK (B) SANDS	0 - 1.5 0 - 3	GW, GP SW, SP
PFS*	NFS*	(A) GRAVELS CRUSHED STONE CRUSHED ROCK	1.5 - 3	GW, GP
	F2	(B) SANDS	3 - 10	SW, SP
S1	F1	GRAVELLY SOILS	3 - 6	GW, GP, GW-GM, GP-GM
S2	F2	SANDY SOILS	3 - 6	SW, SP, SW-SM, SP-SM
F1	F1	GRAVELLY SOILS	6 - 10	GM, GW-GM, GP-GM
F2	F2	(A) GRAVELLY SOILS (B) SANDS	10 - 20 6 - 15	GM, GW-GM, GP-GM SM, SW-SM, SP-SM
F3	F3	(A) GRAVELLY SOILS (B) SANDS, EXCEPT VERY FINE SILTY SANDS (C) CLAYS, PI>12	Over 20 Over 15 ------	GM, GC SM, SC CL, CH
F4	F4	(A) ALL SILTS (B) VERY FINE SILTY SANDS (C) CLAYS, PI<12 (D) VARVED CLAYS AND OTHER FINE GRAINED, BANDED SEDIMENTS	------ Over 15 ------ ------	ML, MH SM CL, CL-ML CL & ML; CL, ML, & SM; CL, CH, & ML; CL, CH, ML, & SM

*Non-frost susceptible
*Possibly frost susceptible, but requires lab testing to determine frost design soils classification.

ICE CLASSIFICATION SYSTEM

GROUP	ICE VISIBILITY	DESCRIPTION		SYMBOL	
N	SEGREGATED ICE NOT VISIBLE BY EYE	POORLY BONDED OR FRIABLE		Nf	
		WELL BONDED	NO EXCESS ICE	Nb	Nbn
			EXCESS MICROSCOPIC ICE		Nbe
V	SEGREGATED ICE IS VISIBLE BY EYE AND IS ONE INCH OR LESS IN THICKNESS	INDIVIDUAL ICE CRYSTALS OR INCLUSIONS		Vx	
		ICE COATINGS ON PARTICLES		Vc	
		RANDOM OR IRREGULARY ORIENTED ICE		Vr	
		STRATIFIED OR DISTINCTLY ORIENTED ICE		Vs	
		UNIFORMLY DISTRIBUTED ICE		Vu	
ICE	ICE IS GREATER THAN ONE INCH IN THICKNESS	ICE WITH SOILS INCLUSIONS		ICE + Soil Type	
		ICE WITHOUT SOILS INCLUSIONS		ICE	

APPENDIX C

LABORATORY TEST RESULTS

NGE-TFT Project #7242-24

Summary of Laboratory Test Results

Smith Subd.

NGE-TFT Project #:7242-24

Exploration ID	Sample Number	Depth Interval (ft) Top	Depth Interval (ft) Bottom	Moisture Content ASTM D2216 (% By Dry Mass)	Particle Size Analysis ASTM C136/D7928/D6913 (% By Mass) Gravel	Sand	Silt/Clay	Passing #200 ASTM D1140 (% By Mass)	Passing 0.02mm ASTM D7928 (% By Mass)	Frost Class.	Unified Soil Classification ASTM D2487
R1	S1	8.0	9.0	10.8	43.6	45.3	11.1		7.0	F2	(SW-SM) Well-graded sand w/ silt and gravel
R2	S1	6.0	7.0	3.9	56.8	40.4	2.8		1.8	PFS	(GP) Poorly-graded gravel w/ sand
R3	S1	6.0	7.0	3.6	70.5	23.7	5.8		3.8	S1	(GP-GM) Poorly-graded gravel w/ silt and sand

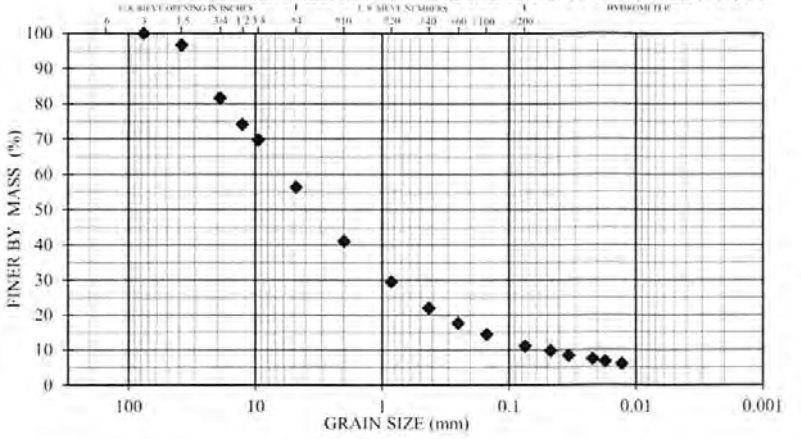
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing · Geotechnical Engineering · Instrumentation · Construction Monitoring Services · Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	R1
NUMBER/ DEPTH:	S1 / 8 - 9'
DESCRIPTION:	Well-graded sand w/ silt and gravel
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	43.6	USCS	SW-SM
% SAND	45.3	USACOE FC	F2
% SILT/CLAY	11.1	% PASS. 0.02 mm	7.0
% MOIST. CONTENT	10.8	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		114.7	
COEFFICIENT OF GRADATION (C_c)		2.5	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

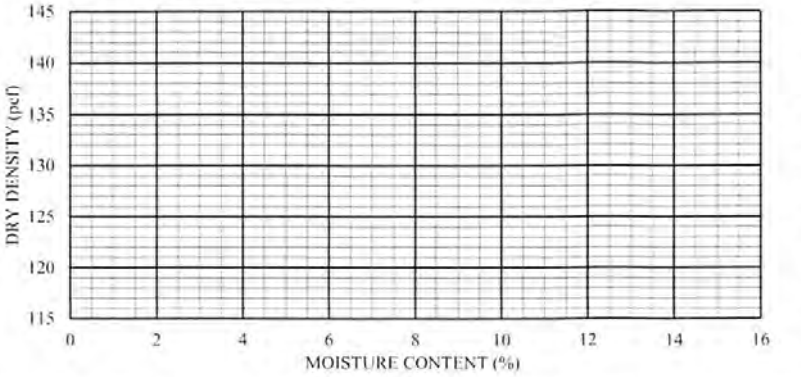


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	97	
19.00	3/4"	82	
12.70	1/2"	74	
9.50	3/8"	70	
4.75	#4	56	
2.00	#10	41	
0.85	#20	30	
0.43	#40	22	
0.25	#60	18	
0.15	#100	14	
0.075	#200	11.1	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1	0.0469	9.7
2	0.0340	8.3
5	0.0219	7.4
8	0.0175	6.7
15	0.0129	6.0
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

The testing services reported herein have been performed to recognized industry standards, unless otherwise noted. No other warranty is made. Should engineering interpretation or opinion be required, NGE-TFT will provide upon written request.

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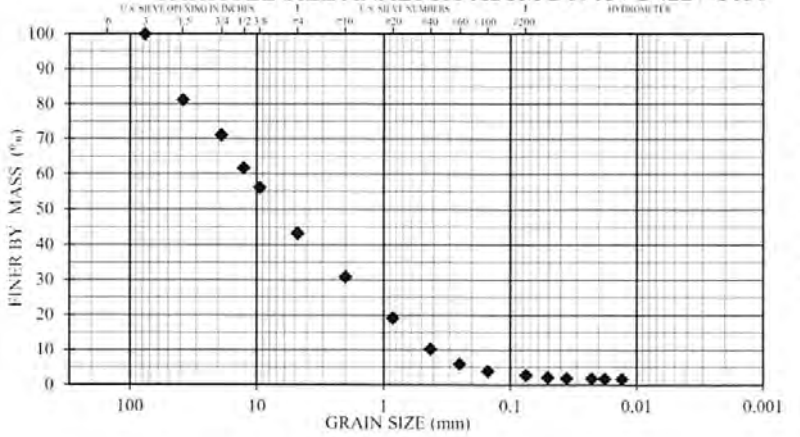
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing · Geotechnical Engineering · Instrumentation · Construction Monitoring Services · Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	R2
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Poorly-graded gravel w/ sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	56.8	USCS	GP
% SAND	40.4	USACOE FC	PFS
% SILT/CLAY	2.8	% PASS. 0.02 mm	1.8
% MOIST. CONTENT	3.9	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		28.3	
COEFFICIENT OF GRADATION (C_c)		0.8	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT. (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

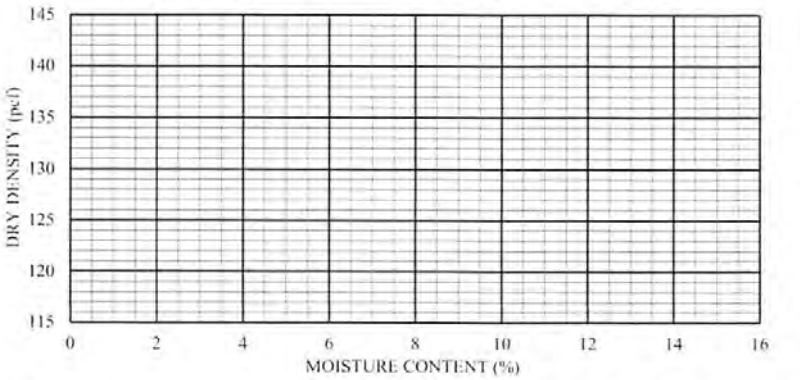


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	81	
19.00	3/4"	71	
12.70	1/2"	62	
9.50	3/8"	56	
4.75	#4	43	
2.00	#10	31	
0.85	#20	19	
0.43	#40	10	
0.25	#60	6	
0.15	#100	4	
0.075	#200	2.8	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1	0.0505	2.1
2	0.0360	1.9
5	0.0228	1.8
8	0.0180	1.7
15	0.0131	1.6
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

The testing services reported herein have been performed to recognized industry standards, unless otherwise noted. No other warranty is made. Should engineering interpretation or opinion be required, NGE-TFT will provide upon written request.

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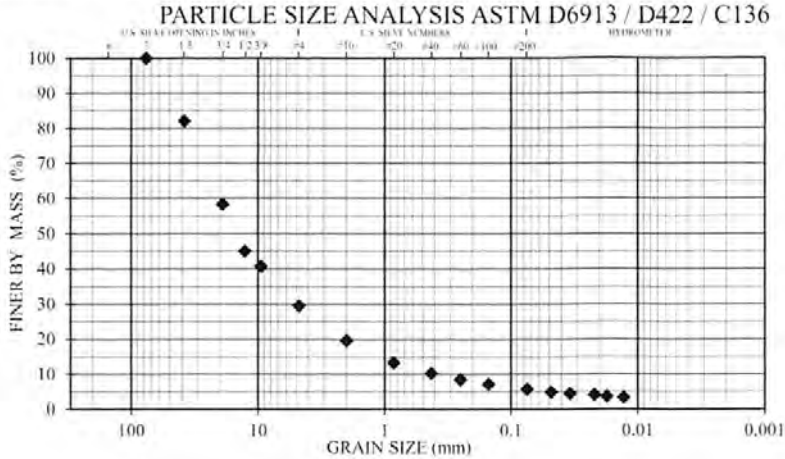
NORTHERN GEOTECHNICAL ENGINEERING, INC. / TERRA FIRMA TESTING

Laboratory Testing · Geotechnical Engineering · Instrumentation · Construction Monitoring Services · Thermal Analysis

PROJECT CLIENT:	Triad Engineering, LLC
PROJECT NAME:	Smith Subd.
PROJECT NO.:	7242-24
SAMPLE LOC.:	R3
NUMBER/ DEPTH:	S1 / 6 - 7'
DESCRIPTION:	Poorly-graded gravel w/ silt and sand
DATE RECEIVED:	11/20/2024
TESTED BY:	Gunner Bergstedt
REVIEWED BY:	CJB

% GRAVEL	70.5	USCS	GP-GM
% SAND	23.7	USACOE FC	S1
% SILT/CLAY	5.8	% PASS. 0.02 mm	3.8
% MOIST. CONTENT	3.6	% PASS. 0.002 mm	N/A
UNIFORMITY COEFFICIENT (C_u)		51.7	
COEFFICIENT OF GRADATION (C_c)		3.1	
ASTM D1557 (uncorrected)		N/A	
ASTM D4718 (corrected)		N/A	
OPTIMUM MOIST. CONTENT, (corrected)		N/A	

PARTICLE SIZE ANALYSIS ASTM D6913 / D422 / C136

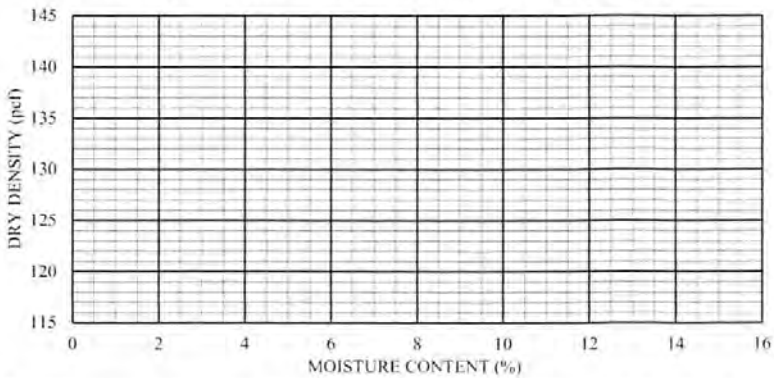


COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

SIEVE ANALYSIS RESULT

SIEVE SIZE (mm)	SIEVE SIZE (U.S.)	TOTAL % PASSING	SPECIFICATION (% PASSING)
152.40	6"		
76.20	3"	100	
38.10	1.5"	82	
19.00	3/4"	58	
12.70	1/2"	45	
9.50	3/8"	41	
4.75	#4	29	
2.00	#10	20	
0.85	#20	13	
0.43	#40	10	
0.25	#60	9	
0.15	#100	7	
0.075	#200	5.8	

MOISTURE-DENSITY RELATIONSHIP ASTM D1557



HYDROMETER RESULT

ELAPSED TIME (MIN)	DIAMETER (mm)	TOTAL % PASSING
0		
1	0.0481	4.9
2	0.0343	4.5
5	0.0219	4.1
8	0.0175	3.7
15	0.0129	3.3
30		
60		
250		
1440		

HYDRAULIC COND. (ASTM D2434)	N/A
DEGRADATION (ATM T-313)	N/A
PLASTICITY INDEX ASTM 4318	N/A

The testing services reported herein have been performed to recognized industry standards, unless otherwise noted. No other warranty is made. Should engineering interpretation or opinion be required, NGE-TFT will provide upon written request.

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571 ADT
(55 Lots + Trailhead)

530 ADT
(53 Lots)

180 ADT
(18 Lots)

370 ADT
(37 Lots)

160 ADT
(16 Lots)

130 ADT
(13 Lots)

S4 Group
Land Surveying
Land Development Consultants
Subdivision Specialists
Construction Surveying
124 E 7th Avenue, Anchorage, Alaska 99501 www.S4AK.com 907-306-8104

S4 Group

Section Line Analysis T17N R3E, Section 6, S.M. AK

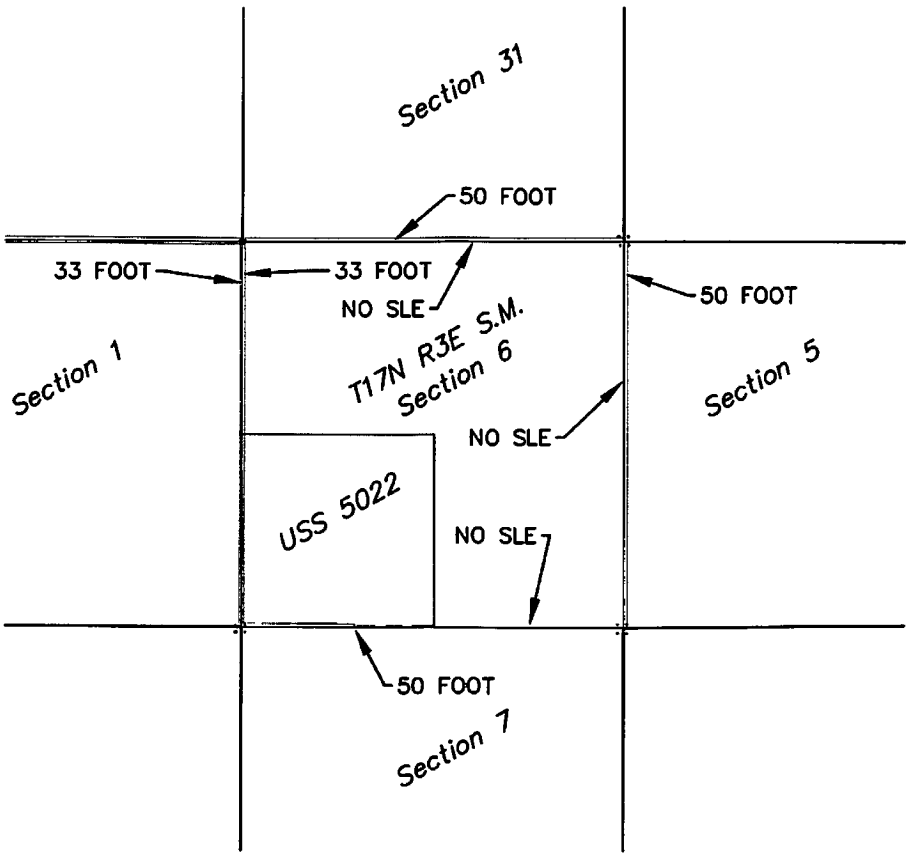
Smith Road Subdivision, MSB Case PA20240144
S4 Project No. 21-090



Steven Callaghan
4-14-2025

Contents

T17N, R3E, S.M. Alaska, Section 6 North Boundary 2
T17N, R3E, S.M. Alaska, Section 6 East Boundary 4
T17N, R3E, S.M. Alaska, Section 6 South Boundary 6
T17N, R3E, S.M. Alaska, Section 6 West Boundary 8



Research compiled using the AK DNR SLED Manual and ASPLS Standards of Practice, in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. Protracted Sections are not included in this analysis.

T17N, R3E, S.M. Alaska, Section 6 North Boundary

Section-Line Easement Determination

South side of the North Boundary of Section 6, T17N, R3E, S.M.

- Research indicates the Non-existence of a Section Line Easement along the South Side of the North Boundary of Section 6 in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7

Research:

1) **U.S.R.S. Plat Acceptance:**
   February 28, 1979 -This is the acceptance date of the earliest U.S. GLO plat (T17N,R3E,SM) which surveyed and accepted the subject section/township line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   December 17, 1975 **(Application filed per AKAA 01115321)**
   Patent 50-88-0395 – **Conveyance to Cook Inlet Region Inc**
   Date of Patent 50-88-0395: September 28, 1988

Conclusion:

Because the approval of the survey of the subject land in question was subsequent to entry, it is our opinion that there does not exist a Section Line Easement along the South side of the North boundary of Section 6, T17NR3E, S.M. Conveyed from the US Government directly to CIRI/Eklutna.

North side of the North Boundary of Section 6, T17N, R3E, S.M. Contiguous with South Boundary of Section 31, T18N, R3E, S.M.

- Research indicates that a **50 foot wide RS2477 Section Line Easement exists** within Section 31 on the North side of the North boundary of Section 6, T17N, R3E, S.M. in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7

Research:

1) **U.S.R.S. Plat Acceptance:**
   February 28, 1979 -This is the acceptance date of the earliest U.S. GLO plat (T18N, R3E, SM) which surveyed and accepted the subject section/township line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   June 23, 1961 **(Application filed per AKAA 01115321)**
   Patent 50-86-0320 – **Conveyance to the State of Alaska**
   Date of Patent 50-86-0320: July 18, 1986

Conclusion:

Because Section 31 is or was owned by the state after enactment of AS 19.10.010 (July 1, 1960), it is our opinion that a 50-foot wide state SLE exists on the north side of the section-line along the north side of the north boundary of Section 6, T17NR3E, S.M., contiguous with the south boundary of Section 31, T18NR3E. Conveyed from the US Government directly to the State of Alaska.

T17N, R3E, S.M. Alaska, Section 6 East Boundary

Section-Line Easement Determination

West side of the East Boundary of Section 6, T17N, R3E, S.M.

- Research indicates the Non-existence of a Section Line Easement along the West Side of the East Boundary of Section 6 in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7

Research:

1) **U.S.R.S. Plat Acceptance:**
   February 28, 1979 -This is the acceptance date of the earliest U.S. GLO plat (T17N, R3E, SM) which surveyed and accepted the subject section line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   December 17, 1975 **(Application filed per AKAA 01115321)**
   Patent 50-88-0395 – **Conveyance to Cook Inlet Region Inc**
   Date of Patent 50-88-0395: September 28, 1988

Conclusion:

Because the approval of the survey of the subject land in question was subsequent to entry, it is our opinion that there does not exist a Section Line Easement along the West side of the East boundary of Section 6, T17NR3E, S.M. Conveyed from the US Government directly to CIRI/Eklutna.

East side of the West Boundary of Section 5, T17N, R3E, S.M. Contiguous with the East Boundary of Section 6, T17N, R3E, S.M.

- Research indicates that a **50 foot wide State Section Line Easement exists** within Section 5 on the East side of the West Boundary in accordance with AS 19.10.010.

AS 19.10.010. Dedication of land for public highways. A tract one hundred feet wide between each section of land owned by the state, or acquired from the state, and a tract four rods wide between all other sections in the state, is dedicated for use as public highways. The section line is the center of the dedicated right-of-way. If the highway is vacated, title to the strip inures to the owner of the tract of which it formed a part by the original survey. Approved July 1, 1960.

Research:

1) **U.S.R.S. Plat Acceptance:**
   February 28, 1979 -This is the acceptance date of the earliest U.S. GLO plat (T17N,R3E,SM) which surveyed and accepted the subject section line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   June 23, 1961 **(Application filed per AKA 054941)**
   Patent 50-92-0169 – **Conveyance to the State of Alaska**
   Date of Patent 50-92-0169: January 29, 1992

Conclusion:

Because Section 5 is or was owned by the state after the enactment of AS 19.10.010 (July 1, 1960), it is our opinion that a 50 foot wide State SLE exists on the East side of the West Boundary of subject Section 5 in accordance with AS 19.10.010.

T17N, R3E, S.M. Alaska, Section 6 South Boundary

Section-Line Easement Determination

North side of the South Boundary of Section 6, T17N, R3E, S.M.

- Research indicates the Non-existence of a Section Line Easement along the North Side of the South Boundary of Section 6 in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7

Research:

1) **U.S.R.S. Plat Acceptance:**
   February 28, 1979 -This is the acceptance date of the earliest U.S. GLO plat, (T17N,R3E,SM), which surveyed and accepted the subject section line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   December 17, 1975 **(Application filed per AKAA 01115321)**
   Patent 50-88-0395 – **Conveyance to Cook Inlet Region Inc**
   Date of Patent 50-88-0395: September 28, 1988

Conclusion:

Because the approval of the survey of the subject land in question was subsequent to entry, it is our opinion that there does not exist a Section Line Easement along the North side of the South boundary of Section 6, T17NR3E, S.M. Conveyed from the US Government directly to CIRI/Eklutna.

South side of the North Boundary of Section 7, T17N, R3E, S.M. Contiguous with the South Boundary of Section 6, T17N, R3E, S.M.

- Research indicates that a **50 foot wide State Section Line Easement exists** within the west half of Section 7 on the South side of the North Boundary in accordance with AS 19.10.010.
  AS 19.10.010. Dedication of land for public highways. A tract one hundred feet wide between each section of land owned by the state, or acquired from the state, and a tract four rods wide between all other sections in the state, is dedicated for use as public highways. The section line is the center of the dedicated right-of-way. If the highway is vacated, title to the strip inures to the owner of the tract of which it formed a part by the original survey. Approved July 1, 1960.

Research:

1) **U.S.R.S. Plat Acceptance:**
   February 28, 1979 -This is the acceptance date of the earliest U.S. GLO plat (T17N,R3E,SM) which surveyed and accepted the subject section line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   June 23, 1961 **(Application filed per AKA 054941)**
   Patent 50-92-0169 – **Conveyance to the State of Alaska**
   Date of Patent 50-92-0169: January 29, 1992
3) **The Date of Entry** (date of application noted on BLM abstract)
   December 17, 1975 **(Application filed per AKAA 01115321)**
   Patent 50-88-0395 – **Conveyance to Cook Inlet Region Inc**
   Date of Patent 50-88-0395: September 28, 1988

Conclusion:

Because the west half of Section 7 is or was owned by the state after the enactment of AS 19.10.010 (July 1, 1960), it is our opinion that a 50 foot wide State SLE exists on the west half of the South side of the North Boundary of subject Section 7 in accordance with AS 19.10.010.

Because the approval of the survey of the subject land in question was subsequent to entry by Cook Inlet Region Inc and outside a period of acceptance and offer of RS2477, it is our opinion that there does not exist an RS 2477 Section Line Easement along the East half of the South side of the North boundary of Section 7, T17NR3E, S.M.

T17N, R3E, S.M. Alaska, Section 6 West Boundary

Section-Line Easement Determination

East side of the West Boundary of Section 6, T17N, R3E, S.M.

- Research indicates that a **33 foot wide RS2477 Section Line Easement exists** within Section 6 on the East side of the West boundary in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7

Research:

1) **U.S.R.S. Plat Acceptance:**
   August 10,1916-This is the acceptance date of the earliest U.S. GLO plat (T17N,R2E,SM) which surveyed and accepted the subject section/township line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   December 17, 1975 **(Application filed per AKAA 01115321)**
   Patent 50-88-0395 – **Conveyance to Cook Inlet Region Inc**
   Date of Patent 50-88-0395: September 28, 1988

Conclusion:

Because the subject land in question was unreserved subsequent to survey and prior to entry, it is our opinion that there exists a 33 foot wide RS2477 Section Line Easement along the East side of the West boundary of Section 6, T17NR3E, S.M.

West side of the West Boundary of Section 6, T17N, R3E, S.M. Contiguous with the East Boundary of Section 1, T17N, R2E, S.M.

- Research indicates that a **33 foot wide RS2477 Section Line Easement exists** within Section 1 on the West side of the West boundary in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7

Research:

1) **U.S.R.S. Plat Acceptance:**
   August 10,1916-This is the acceptance date of the earliest U.S. GLO plat (T17N, R2E, SM) which surveyed and accepted the subject section/township line.
2) **The Date of Entry** (date of application noted on BLM abstract)
   October 31, 1946 **(Application filed per BLM Abstract)**
   Patent 1123369 – **Conveyance to Charles Purser**
   Date of Patent 112369: March 24, 1948
3) **The Date of Entry** (date of application noted on BLM abstract)
   October 12, 1945 **(Application filed per BLM Abstract)**
   Patent 1133729 – **Conveyance to Andrew Packer**
   Date of Patent 1133729: January 23, 1952

Conclusion:

Because the subject land in question was unreserved subsequent to survey and prior to entry, it is our opinion that there exists a 33 foot wide RS2477 Section Line Easement along the West side of the West boundary of Section 6, T17NR3E, S.M., contiguous with the East boundary of Section 1, T17NR2E, S.M. The land was not transferred or owned by the State of Alaska.

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

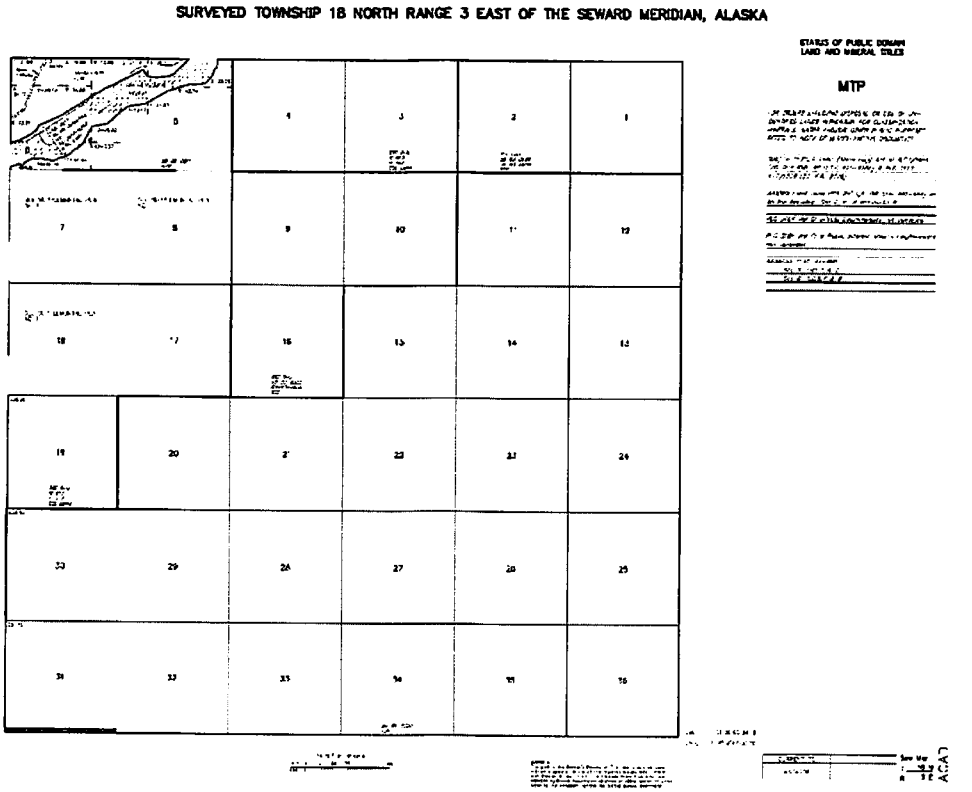
Section-Line Easement Determination

North side (within Sec 31) of the Section Line on the South Boundary of Section 31, T18N, R3E, Seward Meridian, Alaska

Date Requested : December 14, 2021
Requested By: S4 Group (Ben H.)
File: N/A
*Charge Code: N/A

Determination By: George Horton
Date Completed: 1/14/2022

Documentation needed to offer an opinion on a State Section-Line easement, excepting documentation confirming the "Date of Entry" was provided 12/14/2021.



This Section-Line Easement Determination is based on the 1969 Opinions of the Attorney General No. 7. Certification of the existence/non-existence of the subject section line easement and/or permits - as applicable - should first be obtained prior to any development within its bounds.

Summary of Research:

- For the reasons noted below, and pertaining only to the area researched within this document, research indicates that **a 50-foot wide State Section-Line Easement exists** within Section 31 on the north side of the south boundary in accordance with AS 19.10.010.

  AS 19.10.010. Dedication of land for public highways. *A tract one hundred feet wide between each section of land owned by the state, or acquired from the state, and a tract four rods wide between all other sections in the state, is dedicated for use as public highways. The section line is the center of the dedicated right-of-way. If the highway is vacated, title to the strip inures to the owner of the tract of which it formed a part by the original survey. Approved July 1, 1960.*

- A 33-foot wide RS-2477 Section-Line Easement *(in accordance with AS 19.10.010 and the 1969 Opinions of the Attorney General No. 7)* may also underlie this 50-foot State Section-Line Easement as well. However, BLM Historical Index research is required to determine if the land in question was unappropriated and unreserved federal land immediately prior to the date of entry. And since the "Date of Entry" predates USRS plat acceptance, I would be using the dates of BLM Protraction Survey diagram approval and the date of the associated Federal Register "Notice of Filing" (6/7/60 & 9/8/60 respectively) in accordance with Footnote 15 of the 1969 Opinions of the Attorney General No. 7. That research is not necessarily needed nor is it included in this document.

Research:

North side of the south boundary of Section 31 T18N, R3E, SM, AK.

1) **USRS Plat Acceptance:**

   February 28, 1979 – This is the acceptance date of the earliest USRS plat (T17N, R3E, SM) which surveyed and accepted the subject section/township line.

   Protraction Survey (Diagram S1-15) Approval & Federal Register Notice:

   June 7, 1960 - BLM PS approval

   September 8, 1960 - FR "Notice of Filing"

2) **The Date of Entry** *(date of application noted on BLM abstract)*

   June 23, 1961 (Application filed per AKA 054942)

   Patent 50-86-0320 – **Conveyance to the State of Alaska**

   Date of Patent 50-86-0320: July 18, 1986

To reiterate AS 19.10.010: Dedication of land for public highways.

A tract one hundred feet wide between each section of ***land owned by the state, or acquired from the state,*** *and a tract four rods wide between all other sections in the state, is dedicated for use as public highways. The section line is the center of the dedicated right-of-way. If the highway is vacated, title to the strip inures to the owner of the tract of which it formed a part by the original survey. Emphasis added*

State Section-Line Easement:

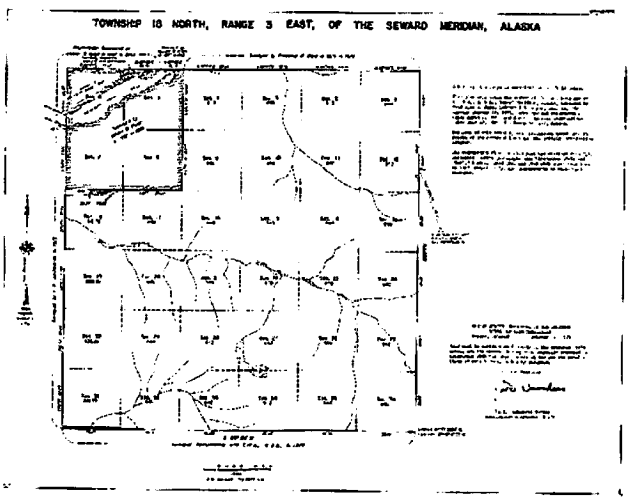
Because Section 31 is or was owned by the state after the enactment of AS 19.10.010 (July 1, 1960), it is our opinion that a 50-foot wide State SLE exists on the north side of the section-line along the south boundary of subject Section 31 in accordance with AS 19.10.010.

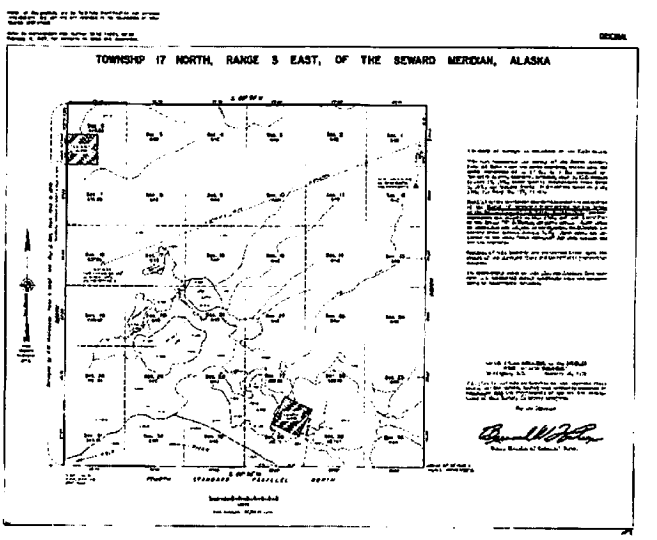
A SECTION-LINE EASEMENT – ONCE ESTABLISHED – CAN ONLY BE VACATED BY PROPER AUTHORITY.

This Section-Line Easement Determination is based on the 1969 Opinions of the Attorney General No. 7. Certification of the existence/non-existence of the subject section line easement and/or permits - as applicable - should first be obtained prior to any development within its bounds.

I researched the south boundary of Section 31 T18N, R3E, SM, AK as well as the abutting north boundary within Section 6, T17N, R2E, SM. No records were found in LAS to indicate the subject section-line easements were previously vacated.

Conclusion:
Because Section 31 is or was owned by the state after the enactment of AS 19.10.010 (July 1, 1960), **it is our opinion that a 50-foot wide State SLE's exists on the north side of the section-line along the south boundary of subject Section 31** in accordance with AS 19.10.010.





This Section-Line Easement Determination is based on the 1969 Opinions of the Attorney General No. 7. Certification of the existence/non-existence of the subject section line easement and/or permits - as applicable - should first be obtained prior to any development within its bounds.

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
JULY 3, 2025

PRELIMINARY PLAT:	**SMITH SUBDIVISION**
LEGAL DESCRIPTION:	**SEC 06, T17N, R03E, SEWARD MERIDIAN AK**
PETITIONERS:	**EKLUTNA INC**
SURVEYOR/ENGINEER:	**S4 GROUP**
ACRES: 474.893 ±	**PARCELS: 58**
REVIEWED BY:	**MATTHEW GODDARD** **CASE #: 2025-065**

REQUEST: **The request is to create 57 lots and one tract from Tax Parcel A1, created by US patent #50-88-0395/0396, to be known as SMITH SUBDIVISION, containing 474.893 acres +/-. The property is located north of E. Maud Road, southeast of E. Smith Road Extension, and east of N. Old Glenn Highway (Tax ID #17N03E06A001); within Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska. In the Butte Community Council and in Assembly District #1.**

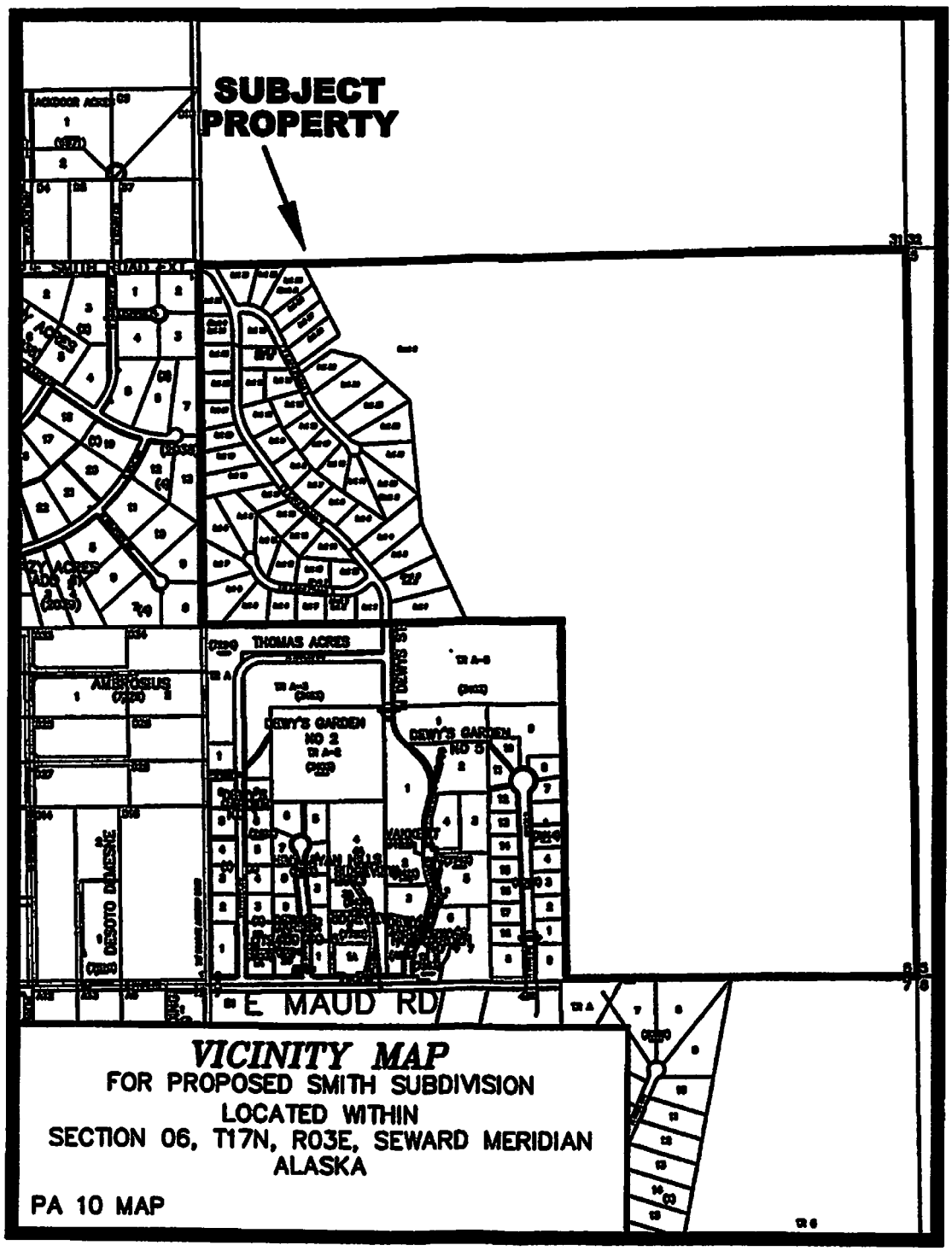
EXHIBITS:

SUPPORTING DOCUMETATION:
Vicinity Map and Aerial Photos **PAGE – 1**
Request for Continuation **PAGE – 2**
AGENCY COMMENTS
MSB DPW Pre-Design and Engineering Division **PAGES – 3-5**
Public Comments **PAGES – 6-9**

DISCUSSION: **The petitioner is requesting the case be continued to the July 17, 2025, Platting Board to allow adequate time to address concerns raised by MSB Department of Public Works, Pre-Design and Engineering Division. Staff recommends the Board grant the continuance to July 17, 2025.**

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the continuance of the preliminary plat of Smith Subdivision, Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska, to July 17, 2025.



Smith Subdivision
Exhibit Page 1 of 9

Matthew Goddard

From:	Craig Bennett <craigb@s4ak.com>
Sent:	Monday, June 23, 2025 3:52 PM
To:	Matthew Goddard
Cc:	Kate Sauve; Fred Wagner; Jamie Taylor
Subject:	Re: FW: Smith Civil Update

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Matthew,
Lets move it to the 17th to try and address these concerns. Can we please set up a meeting with the departments. Would Monday afternoon work for Planning and DPW to go over all of these comments?
Thanks

On Mon, Jun 23, 2025 at 1:15 PM Matthew Goddard <Matthew.Goddard@matsugov.us> wrote:

Craig/Kate,

I received the comments from Public Works below.

Based on the concerns listed, Platting staff and DPW are thinking this should be continued to allow the time needed to resolve any existing concerns prior to the public hearing.

We could continue it to a date certain of either the next meeting (July 17th), or if you think more time is needed to resolve the issues present, to a later meeting date.

Please let me know your thought on this matter.

Have a great day,

Matthew Goddard

Platting Technician

907-861-7881

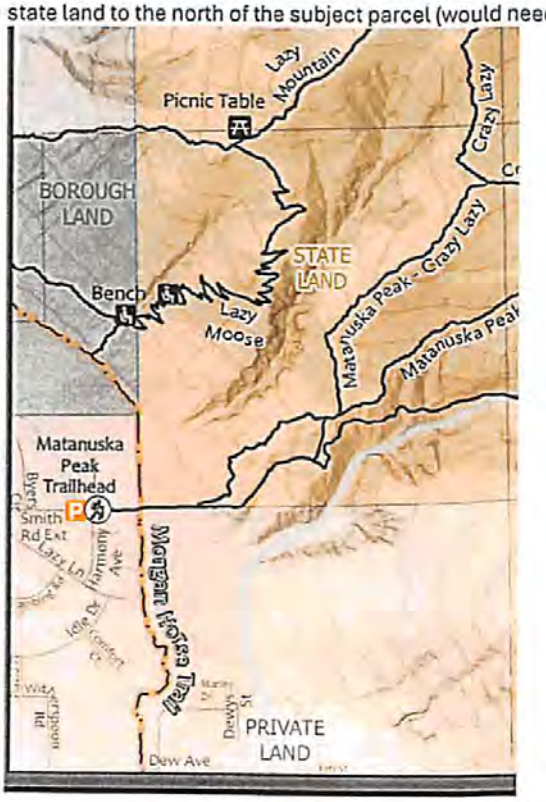
Matthew.Goddard@matsugov.us

Matthew Goddard

From:	Jamie Taylor
Sent:	Friday, June 20, 2025 12:41 PM
To:	Matthew Goddard
Cc:	Brad Sworts; Tammy Simmons; Tom Adams; Jillian Morrissey
Subject:	Re: Smith Civil Update

Hi Matthew,

PD&E comments please ensure the Community Development Department has reviewed these plans in regard to the trailhead, parking, and trespass trails. MSB trail map for the Lazy Mountain, Matanuska Peak, and McRoberts Creek trails aren't shown on the subject property, however the Morgan Horse Trail is shown within the subject property. The applicant should coordinate with Community Development. The parking area is currently shown at the concurrence of a crest vertical curve and sharp horizontal curve. Consider redesigning to avoid traffic from needing to back out onto the traveled way on a potentially blind corner. Consider a driveway from Smith Road Extension to a parking area in the SLE on state land to the north of the subject parcel (would need to coordinate the with DNR and MSB).



1

Based on the provided ADT estimate Smith Road Extension shall be constructed to residential subcollector standard. C1 on the preliminary plat shows a radius of 225' which does not meet the minimum centerline radius for a residential subcollector road. An option could be to redesign the subdivision so that Smith Road Extension terminates as a cul-de-sac (currently shown as Road 1), then extend Dewys Street from the south to T into Smith Road Extension.

Construction of a turnaround meeting 2022 SCM will be required at the end of the road constructed for this subdivision. This could be a temporary cul-de-sac at the southern boundary of the subject parcel or an offset T-turnaround at the intersection of Dewys Street and Marley Drive. If the connection is made to Marley Drive, the ADT estimate will need to be updated to reflect this connection and the potential for through traffic. This connection could thereby necessitate the upgrade of Marley Drive to support the anticipated traffic. For this reason, PD&E recommends dedication and construction of a temporary turnaround within the subdivision. At a later date when Marley Drive is upgraded, the connection between the subdivisions can be made.

For consideration, school busses may not be able to travel on the proposed 10% grades.

The minimum K value for crest vertical curves on Residential roads per 2022 SCM A05 is 12 (11.43 is shown for Road 1 on sheet C6).

The minimum diameter of cul-de-sacs per 2022 SCM A07.1 is 85' (81' is shown on sheet C2). The maximum grade throughout the surface of the cul-de-sac is 4% per the 2022 SCM A07.1 (4.4% is shown on sheet C7).

Per 2022 SCM D05.1(e) culverts shall be corrugated metal pipe (CPEP is called out on the plans). Sheet C6 shows the cross culvert extending through the utility easement. Per D03(f)(3) culverts crossing utility easements require a letter of non-objection from all utility companies. PD&E recommends ending the culvert within the ROW. It appears there is an existing drainage channel being accommodated by the culvert and proposed drainage easement. Ensure the channel within the drainage easement is stable for the anticipated flows. It appears the water flowing out of this drainage easement would flow down the ditch line of Smith Road Extension. Redesign to allow this drainage to pass through the right-of-way of Smith Road Extension rather than flowing down the ditch line. The post development increase in runoff from the subdivision roads should be detained prior to reaching the natural pass-through drainage channels. It is Borough policy to not allow soil infiltration facilities adjacent to the road embankment without an overflow path away from the road. The infiltration trench and drainage arrows shown on sheet C7 do not appear to match the road profile. It appears a culvert will be needed at approximate station 21+00.

PD&E will wait for road profiles for the additional phases for further review.

Thank you.

PD&E Review Team

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, June 11, 2025 3:55 PM
To: Jamie Taylor <Jamie.Taylor@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Brad Sworts

<Brad.Sworts@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>
Subject: FW: Smith Civil Update

Hello,

Please find attached the requested plan/profile update for Smith Subdivision. Please let me know if there are any further questions/concerns at your earliest convenience.

Thank you,

Matthew Goddard
Platting Technician
907-861-7881
Matthew.Goddard@matsugov.us

From: Craig Bennett <craigb@s4ak.com>
Sent: Wednesday, June 11, 2025 3:48 PM
To: Matthew Goddard <Matthew.Goddard@matsugov.us>
Subject: Smith Civil Update

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

Please see the attached updated plans for Smith. Do you need anything else prior to the hearing?
Thanks

Craig Bennett, Land Planner
907 350-2602
S4 Group
Land Surveying & Land Development Consultants
Veteran Owned Small Business

124 E 7th Avenue
Anchorage, Alaska 99501
office 907 306-8104
e: CraigB@s4ak.com

Matthew Goddard

From: Matthew Goddard
Sent: Monday, June 23, 2025 10:22 AM
To: Mark Boutwell
Cc: U Kragl
Subject: RE: Proposed Eklutna Inc Housing Development Plat (Smith Subdivision)

Hello Mr. Boutwell,

Please find answers to your questions below. All responses are in red.

Thank you for your comments and have a great day,
Matthew Goddard
Platting Technician
907-861-7881
Matthew.Goddard@matsugov.us

From: Mark Boutwell <markboutwell@gmail.com>
Sent: Sunday, June 15, 2025 1:58 PM
To: Platting <platting@matsugov.us>
Cc: Mark Boutwell <markboutwell@gmail.com>; U Kragl <kragl.u@gmail.com>
Subject: Proposed Eklutna Inc Housing Development Plat (Smith Subdivision)

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

Ute and I greatly appreciate the opportunity to comment on the E. Smith Road housing development initiative. We compiled our input provided below and look forward to your responses.

1. Will all of N. Marley Dr and N. Dewys St be upgraded and paved prior to the start of the housing development construction to accommodate the increased traffic volume to include the appropriate signage (e.g., speed limit, stop signs, Moose crossings, children at play)?
   At this time the upgrade/certification of N. Marley Drive is not part of the proposed platting action.
2. Will N. Dewys St become a single street throughway for connection to E. Maud Rd prior to the start of the housing development construction?
   The proposed development is not constructing/upgrading N. Marley Drive. The proposed design will either dedicate a temporary cul-de-sac at the southern end of the project site or construct a t-turnaround at the junction of Dewy's Street and Marley Drive. This will be determined during the pre-construction meeting between the developer and MSB Public Works department prior to the commencement of Phase Three of this project.
3. Will a stop sign intersection be created at N. Marley Dr and N. Dewys St prior to the start of the housing development construction to address congestion and accidents? This is crucial to the safety of the new and current residents entering the traffic pattern.

If the T-Turnaround is the method used, then any appropriate signage would be required. The upgrades/signs would be determined between MSB Public Works and the developer.

4. Will N. Marley Dr and N. Dewys St be maintained by the Borough or State (e.g., repairs, snow removal) with official agreement approved prior to start of the housing development construction?
   As N. Marley Drive is not being considered for upgrade/certification as a part of this proposal, no it would not be maintained. If Dewys Street is used to construct the T-Turnaround, then that portion that is certified would be maintained.
5. Will a permanent commercial barrier be installed between the property at 1143 N. Dewys St and the housing development, and along the new N. Dewys St extension entering the housing development, prior to the start of the housing development construction?
   To the best of my knowledge, no, a barrier would not be considered a requirement as part of this process.
6. What mitigations and control measures are planned prior to start of the housing development construction to manage and address implications to hunting in the immediate and surrounding areas?
   Any road construction would be planned between the developer and MSB Public Works pursuant to the 2022 Subdivision Construction Manual. For information on this process, feel free to contact our Public Works department.
7. Will the streaming data and Internet infrastructures be upgraded for the E. Maud Rd, N. Marley Dr, E. Smith Rd, and N. Dewys St areas for current residents prior to the start of the housing development construction?
   Installation of utilities is a land use issue, as such this is not something Platting has an answer for.
8. Will the power and gas infrastructures be upgraded for the E. Maud Rd, N. Marley Dr, E. Smith Rd, and N. Dewys St areas for current residents prior to the start of the housing development construction?
   Installation of utilities is a land use issue, as such this is not something Platting has an answer for.
9. Will the degradation to the creek and Salmon spawning as well as negative impacts on existing water wells to include drinking water quality and volume be addressed prior to start of the housing development construction?
   Any work that would affect waters of the U.S. would need permitting from the US Army Corps of Engineers. For wells, Platting does not contemplate the ability to obtain water. The DEC handles installation and regulation of wells.
10. Will water drainage patterns, sanitary septic systems, storm sewer system, potential for flooding, and erosion issues be addressed in response to the added demands on the area by the new housing development prior to start of the housing development construction?
    The developer has supplied Drainage plans and will work with MSB Department of Public Works to ensure all drainage requirements are met during the development process.
11. Will required environmental studies and proposed mitigation measures to minimize negative impacts be provided to E. Maud Rd, N. Marley Dr, E. Smith Rd, and N. Dewys St area residents, and the general public, prior to the start of the housing development construction?
    The materials provided will be included in the staff report packet that will be presented during the public hearing. Environmental studies are not a requirement of platting. Any development after the lots are created (home construction) is a land use issue and as such is not part of the platting process.

12. Will the capacity of public services, and whether there are adequate provisions for these services, be addressed like schools, fire departments, EMS, trash pickup, and police prior to the start of the housing development construction?
    This is not something that is contemplated during the platting process.
13. What, if any, requested variances or waivers to standard regulations have been received related to the new housing development, E. Maud Rd, N. Marley Dr, E. Smith Rd, and N. Dewys St areas of interest related to the new housing development and its construction? Will the request descriptions be made public for review and comment?
    No variance requests have been made for this proposed development.
14. How will the existing neighborhood aesthetics, density, and open spaces be addressed prior to start of the housing development construction to ensure those, and other relevant factors, are maintained in response to the impact of the new subdivision on the existing neighborhood character and quality of life to prevent increased noise, decreased property values, and so on?
    The proposed design meets minimum lot size requirements per MSB Title 43. Any construction/design choices of the developer are a land use issue and as such not contemplated by Platting Code.
15. How will concerns about the accuracy and completeness of plats be addressed prior to the start of the housing development construction for N. Marley Dr, N. Dewys St, and 1143 N. Dewys St (e.g., property descriptions, boundaries, and easements)? Will the current "official" plats be available to those residents with a period for review and comment prior to plat approval and start of the housing development construction?
    After the public hearing, if the proposed subdivision is approved, the surveyor and platting staff work through a review process to ensure the final plat will meet code requirements. Our GIS department reviews the plat for closure. MSB DPW reviews the plat and road designs to ensure all appropriate drainage easement/improvements are in place and the rights of way meet Borough requirements.

Our hope is all stakeholders are focused upon "do no harm and make better".

Thank you,
Ute and Mark

1143 N. Dewys St.
Palmer, AK 99645
907.414.8155
907.414.8154

RECEIVED
JUN 18 2025
PLATTING

Objection to Proposed Smith Subdivision (Case #2025-065)
[X] Objection

Name: John and Susan DeLoach

Address: 1801 N. Kendy Circle, Palmer AK 99645

Comments:

I am writing to express my objection to the proposed Smith Subdivision (Case #2025-065). The proposed development of 57 lots in this area is incompatible with the current rural character of the neighborhood. Increasing population density on this scale will dramatically alter the quiet, low-traffic setting that residents value.

Additionally, the proposed trailhead parking of only 10 spaces is wholly inadequate. Currently, 15 or more cars often park haphazardly along the road, creating traffic hazards and obstructing emergency vehicle access. Reducing the available road shoulder for future parking without significantly increasing dedicated parking will only worsen this safety issue.

I urge the Platting Board to reconsider this proposal or require significant modifications to address the impacts on traffic, safety, and rural character.

Matanuska-Susitna Borough: Platting Board Meeting 1:00 P.M. July 3, 2025

Public Hearings
Smith Subdivision: Tax ID #17N03E06A001
Andrew Garry
Date Submitted: June 24, 2025

I strongly encourage the Platting Board to consider reducing the number of lots on the Smith Subdivision tract. It should be noted upfront that the Borough's public notice for this project, as written, is very misleading and suggests that the 57 lots would be divided over approximately 474 acres, which is not accurate. The actual acreage that these 57 proposed lots will encompass is likely around 70 acres. Furthermore, once roadways and utility easements are accounted for, this is likely to put the average size of each lot at around 1 acre.

1) It is very irresponsible of the Platting Board to support this highly congested subdivision project. An already overtaxed Old Glenn Highway traffic corridor exists between Maud Rd. and Palmer. Existing infrastructure is straining to accommodate the growing traffic volumes. Adding 57 homes and potentially hundreds of vehicles will significantly increase traffic congestion. Increasing traffic congestion in this area will lead to more collisions and exacerbate already dangerous conditions for vehicles, cyclists and pedestrians.

2) It is very shortsighted for the Platting Board to support a project that will drastically alter the spacious appeal of the Lazy Mtn. area. A subdivision of this scale will turn Smith Rd. and Maud Rd. into the next Anchorage O'Malley and Huffman. 57 homes built on less than 70 acres will diminish the existing aesthetic value and rural qualities of the area. Attractive recreational areas like Lazy Mtn. and Matanuska Peak will be significantly altered, negatively affecting both residents and visitors.

3) Prior to approving a subdivision on this scale, I suggest that the State and the Borough work together to modernize the Old. Glenn Highway corridor from Maud Rd. to Palmer. This effort should include expanding the roadway, enhancing bike paths for cycling and pedestrian traffic, and reducing the highway speed limits by incorporating roundabouts like what has been done on Trunk and Bogard.

4) Lastly, I suggest dividing the parcel into buildable lots of approximately 5 acres with covenants that prohibit future subdividing. This would result in the construction of approximately 12 homes. Please keep in mind that there are already subdivisions in the area that have yet to be fully developed. By limiting the total number of lots, planners would prevent overburdening existing infrastructure and maintain quality of life for current residents.

Please consider reevaluating the scale of Smith Subdivision by reducing the number of buildable lots and making much needed improvements to street and highway infrastructure. Thank you for the opportunity to comment.

HANDOUT #1
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: Kathryn McQuade <ktmcquade@icloud.com>
Sent: Tuesday, June 24, 2025 8:44 PM
To: Platting
Subject: Smith Rd subdivision

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

I live off of N Dewys st and the construction for the beginning of the subdivision has been very intrusive. It's destroyed what used to be a beautiful walking path by a creek. Do not build the subdivis

HANDOUT #2
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

2039B01L020 28
STRAHAN PAMELA
17855 E IDLE DR
PALMER, AK 99645

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER/OWNER: EKLUTNA INC.

REQUEST: The request is to create 57 lots and one tract from Tax Parcel A1, created by US patent #50-88-0395/0396, to be known as **SMITH SUBDIVISION,** containing 474.893 acres +/-. The property is located north of E. Maud Road, southeast of E. Smith Road Extension, and east of N. Old Glenn Highway (Tax ID #17N03E06A001); within Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska. In the Butte Community Council and in Assembly District #1.

The Matanuska-Susitna Borough **Platting Board** will hold a public hearing in the **Assembly Chambers** at the **Dorothy Swanda Jones Building**, 350 E. Dahlia Avenue, Palmer, Alaska on the proposed **Subdivision.** The public hearing is scheduled for **July 3, 2025,** starting at 1:00 p.m. We are sending you this notice as required by State Law and Borough Ordinances.

For comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mail this notice to the MSB Platting Division, 350 E. Dahlia Avenue, Palmer, Alaska 99645 or e-mail: platting@matsugov.us. Comments received from the public after the platting packet has been written will be given to the Platting Board in a "Hand-Out" the day of the meeting. **All public comments are due one (1) day prior, by 12:00 p.m.** To request additional information please contact the Platting Technician, ***Matthew Goddard*** at (907) 861-7881.
To view the agenda or meeting packet please go to the following link: www.matsugov.us/boards/platting.

[ ] No Objection [X] Objection [X] Concern

Name: PAM STRAHAN *Address:* 17855 E Idle DR, PALMER

Comments: COMMENTS ATTACHED

Case # 2025-065 MG *Note: Vicinity map Located on Reverse Side*

HANDOUT #3
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

CASE # 2025-065

COMMENTS FOR PROPOSED SMITH SUBDIVISION

People constantly develope their land & create problems (IT IS THEIR WORLD). But the boards job is to recommend development that won't require extensive money & resources to fix problem they have created FOR THE REST of THE WORLD.

Borough code gives you, the platting board, the responsibility to consider requests & plans meeting certain conditions.

1. Public Safety
2. Operation & reasonable maintenance of roads & public use areas,
3. Future development.

THIS PLAN PROVIDES NONE of the ABOVE.

FACTS:

1. THE PUBLIC NOTICE WAS POORLY PREPARED & PROVIDED NO INFORMATION in which to make informed comment. ADDITIONALLY, the impacts of this plan reach far beyond the notice requirements.
2. CURRENT TRAILHEAD & PARKING IS NOT SHOWN.
3. FUTURE RELOCATION of the trailhead & parking that has already been designed is not shown. will the new area meet the current use of 10 to 20+ vehicles per day?
4. McROBERTS CREEK & drainages not shown.

CONCERNS:

1. PROTECTION & RESERVATION of McRoberts Creek & existing trails. What public access is planned?
2. who will assume responsibility for protecting owners from the springs & runoffs that pop up & flood different areas every spring.
3. Alternate constructed access for ingress & egress & public safety.
4. PLAN to control speed down Smith Road. The existing sign says 25 but people go between 40 & 65+ mph.

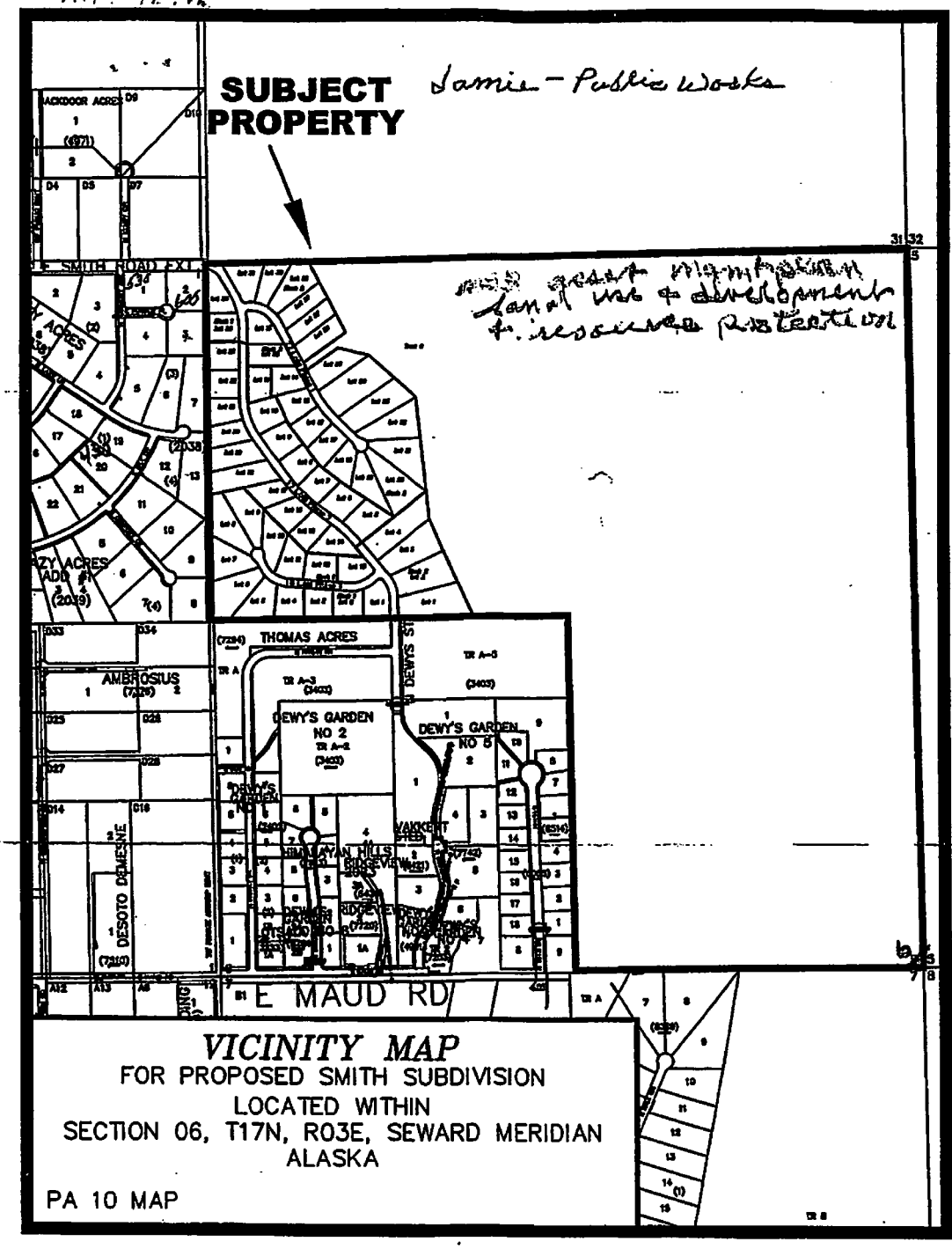
HANDOUT #3
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

RESOLUTION

AT A MINIMUM Reduce the PROPOSED Density

IF YOU AREN'T FAMILIAR with this AREA YOU ARE NOT INFORMED ENOUGH to MAKE AN INTelligent decision. This PLAN is on the side of the MOUNTAIN & will IMPACT the public & existing use of the AREA FOREVER.

HANDOUT #3
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025



VICINITY MAP
FOR PROPOSED SMITH SUBDIVISION
LOCATED WITHIN
SECTION 06, T17N, R03E, SEWARD MERIDIAN
ALASKA

PA 10 MAP

HANDOUT #3
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: Kathy Allely <kgallely@gmail.com>
Sent: Thursday, June 26, 2025 9:36 PM
To: Platting
Subject: Public hearing re proposed Smith Subdivision by Eklutna, Inc

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

We are writing to convey our objection and concerns regarding the proposed Smith subdivision that Eklutna Inc has planned.

1) The proposed development is considerably denser than the nearby lots which will change the nature of the existing community. The houses in the area are on acreage.

2) The proposed development may negatively affect the aquifer and wells in the area. This is a major concern and objection.

3) We are concerned about the increase in traffic and noise in the area, since this development will significantly add traffic on Smith Rd Ext - the primary route into and out of the subdivision.

In addition, we are concerned about the large vehicles and construction equipment sharing the roadway during construction and the noise that will be generated from their activity.

4) We would like information about the pre development assessment (engineering, water, traffic, slope stability) and the impact on the surrounding residences. Is there a plan to share this information with neighboring landowners?

We are unable to attend the public hearing but would like information about the process from this point forward.

Roger and Kathy Allely
PO Box 773333
Eagle River, AK 99577

17755 E Smith Rd Ext

Sent from my iPad

HANDOUT #4
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From:	Elena P <epabgohome@gmail.com>
Sent:	Friday, June 27, 2025 5:10 PM
To:	Platting
Cc:	Elena P
Subject:	Objection to Proposed 57-Lot Subdivision by Eklutna Corporation off Smith Road

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

I am writing as a resident of the affected community to express my objection to the proposed 57-lot subdivision by the Eklutna Corporation referenced in the subject line as it is currently designed in the Backdoor Acres D9 plat. Unfortunately, I will be traveling in Europe on July 3, when the hearing takes place, and unable to attend the public hearing. Consider this email my testimony and formal objection to the subdivision as it is currently outlined.

1. Water Supply

As a single-person household, I already experience a limited water supply. On laundry days, I avoid using the dishwasher or taking a shower until hours later to prevent overwhelming the system. Neighbors report similar challenges. How will 57 additional wells affect the existing water table? What measures will be taken to ensure an adequate water supply for all households, and how will septic systems be managed to prevent contamination of the groundwater and nearby streams?

2. Security and Safety

The engineering report and associated studies have given little attention to increased traffic and neighborhood security. Surveyors working on this project trespassed on my property, blatantly ignoring clearly posted "No Trespassing" and "Private Property" signs. They parked next to the house, failed to check for occupants, and wandered throughout the property. When confronted, they casually admitted to trespassing, aware that borough codes offer them protection, not the homeowner. What measures will the developers or the borough implement to prevent such violations in the future?

3. Reliability of the Engineering Report

I have personally observed the soil testing sites. Contrary to regulations requiring such tests to be conducted at least 100 feet from waterways, several were done directly adjacent to McRoberts Stream. The initial plat even suggests some homesites may straddle the stream, increasing the risk of pesticide runoff into the waterway. The creek already runs through several private properties downstream from the proposed subdivision. This raises serious concerns about environmental oversight.

4. Morgan Horse Trail and Interconnected Trail Systems

Even the limited surveying and soil testing have already caused damage to the Morgan Horse Trail and its connected trail systems. This popular, legally protected non-motorized recreational network (see pages 3 and 15–17 of the 2016 Trails Plan: Trail Plan PDF) has been diminished. The engineering report's

HANDOUT #5
SMITH SUBDIVISION

CASE # 2025-065
MEETING DATE: JULY 03, 202

dismissal of these trails as "just a few trails" is both inaccurate and disrespectful to the community, as well as potentially illegal.

5. Limited Access and Infrastructure Planning

Based on the initial plat, subdivision access appears to rely solely on Smith and Marley Roads. Notably, Marley is a pioneer road, not built for heavy traffic. The developers must be held responsible for thoroughly assessing and upgrading infrastructure to manage future congestion and ensure road safety. The current engineering report, as well as the borough, have failed to adequately address these concerns.

6. McRoberts Stream and Spawning Salmon

I have personally witnessed spawning salmon in McRoberts Stream, which is anadromous and protected under habitat laws. There is no evidence that the Alaska Department of Fish and Game was consulted during the surveying or testing process. This oversight could have serious environmental and legal implications.

7. Eklutna Corporation's Track Record

Past projects by the Eklutna Corporation have demonstrated poor planning and execution, leading to flooding, habitat destruction, and lack of traffic management. Consider their casino project in Eagle River, proposed for a six-acre plot with minimal ingress/egress and nearly no water supply, yet expected to attract up to 10,000 vehicles per day (KNBA Report). This history raises serious concerns about the integrity and foresight of their development efforts.

Thank you for your attention to these important issues. I urge the borough and decision-makers to consider the environmental, infrastructural, and community impacts of this proposed subdivision.

Sincerely,
Elena Prisekin

HANDOUT #5
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matanuska-Susitna Borough
Platting Division
350 E. Dahlia Avenue
Palmer, AK 99645

6/27/2025

Dear Platting Board Members,

I am submitting comments regarding the proposed Smith Road Subdivision between E. Smith Road extension and E. Maud Road. I have two opinions I would like considered when planning this potentially beautiful little subdivision.

My first comment has to do with the map showing a new trail location going between lots 25 and 26. If I interpret the proposed map correctly, this will divide the starting location of two popular and well-loved trails: Matanuska Peak trail and Morgan Horse trail. If the Matanuska Peak trailhead is moved, people will still be parking at the end of Smith (or Smith extension) to access the Morgan Horse trail. This will lead to more scattered parking at the end of Smith Extension and up along the new street (access to lots 13-31). In addition, people coming down the Morgan Horse trail from the Lazy trailhead will now have to leave the trail, walk along a residential road, and reenter between two lots to continue up the Mat Peak trail.

As a long-time trail user in this area, I would suggest keeping the trailhead as it is and providing one single access point and parking area for these trails. Trail users would go up the backside of lots 31-29 as they always have. Parking should remain at the end of Smith Road extension and stay in a relatively contained area. Trail users could seamlessly access Mat Peak, Lazy trail and Morgan Horse trail from one single point.

The second suggestion I have is regarding the proposed lot sizes. The great majority of the lots, and most importantly, the lower lots that will be adjacent to established residences, are just over one acre or approximating 1.25 acres. This is in stark contrast to the existing neighborhood which consists mostly of 2.5 acre or larger lots.

I believe that offering 2.5 acre and larger lots in this proposed subdivision would be much more in keeping with the tone and aesthetic of the Smith/Maud/Mat Peak area. Introducing

HANDOUT #6
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

a neighborhood with larger lots will be better received by people already living in the area. It would create a neighborhood significantly more consistent and harmonious with the existing area.

I appreciate the opportunity to provide comments. I will also be sending a similar letter with these suggestions to Eklutna Corporation. I believe this neighborhood could be developed successfully, beautifully, and still profitably for Eklutna. This could be accomplished most successfully by planning fewer but larger lots and by maintaining the current location of trailheads.

Sincerely,

Joanne Stephens
4950 S. Bodenburg Spur
Palmer, AK 99645
joannemh@vt.edu
907-795-2939

HANDOUT #6
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

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2039B04L007 8
KOPSACK BRAUN T & VALERIA
1250 N COMFORT CT
PALMER, AK 99645

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER/OWNER: EKLUTNA INC.

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To view the agenda or meeting packet please go to the following link: www.matsugov.us/boards/platting.

[ ] No Objection [X] Objection [ ] Concern

Name: BRAUN KOPSACK *Address:* 1250 NORTH COMFORT CT PALMER AK

Comments: I AM TOTALY AGAINST THIS SUBDIVISION! IT WILL MAKE TRAFFIC UNBEARABLE. TAKE AWAY WILDLIFE HABITAT. MOOSE WINTER RANGE, AND SPRING COW CALVING AREA. EKLUTNA INC HAS ENOUGH. THEY SHOULD RESPECT THE WILDERNESS NOT DESTROY IT. THE SAME GOES FOR THE MAT SU BOROUGH. BRAUN KOPSACK. 68 YEAR ALASKAN RESIDENT

Case # 2025-065 MG *Note: Vicinity map Located on Reverse*

HANDOUT #7
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

18N02E36D007 23
COLLINS WM B & M E TRES
COLLINS LVG TR
1775 N KENDY CIR
PALMER, AK 99645-8612

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NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

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[ ] No Objection [X] Objection [ ] Concern

Name: William B. Collins *Address:* 1775 N Kendy Cir, Palmer, AK 9964

Comments: see attached.

Case # 2025-065 MG *Note: Vicinity map Located on Reverse*

HANDOUT #8
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Comments to Mat-Su Borough Planning and Eklutna Inc. Regarding Development of Smith Subdivision

by William Collins, 1775 N Kendy Circle, Palmer Alaska 99645

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JUL 02 2025
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Parking

The currently proposed trail-user parking alongside the proposed extension of East Smith Road creates a dangerous situation. Having lived at the intersection of Smith and Kendy for 27 years, we often observe trail users parking in and around that intersection, oblivious to traffic as they climb out of their cars, excited to begin hiking. They unload their hiking gear and spread it out on the ground and in the street, and worst of all, they let their kids and dogs run loose in and around parked cars, while the adults get themselves organized. We have observed that traffic signs have never mitigated this problem, because as users approach their destination, they often become more focused on beginning their hike than on traffic safety.

Proposed parking along E. Smith Road Extension or in the alternative location at Lot 31 will exacerbate these problems.

While we have had close calls with trail users, accidents have been narrowly avoided primarily because traffic has had to slow down to negotiate congestion and vehicles turning right or left at the T-section onto Harmony or Kendy. This speed check will not exist at the proposed parking locations. Rather, those exiting the proposed subdivision will be coming up on a somewhat blind curve, picking up speed as they line up on a down-hill straight-away. The proposed parking will further create a dangerous situation by requiring vehicles to back out into traffic as they reenter the road.

Planners also need to recognize the tendency for people to try parking just as close to the trail as possible, even if this means parking in front of someone's house or driveway, rather than walking another 50 feet to get to the start of the trail. This may be hard to understand, given that they are about to begin walking for exercise, but it is true, nevertheless. This is extremely

HANDOUT #8
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

annoying to those whose property has become blocked or where their property itself begins to take on the appearance of a parking lot.

It should also be noted that the current roadside parking does not accommodate parking by horse trailers, RVs or other large vehicles.

To alleviate the above problems, **a dedicated, clearly delineated parking lot should be established at a dead-end location that separates trail users, kids, dogs and horses from through traffic.** Furthermore, current parking by trail users regularly exceeds 35 to 40 vehicles on weekends, 10 to 15 on weekdays, indicating that a parking lot should accommodate at least the same number of vehicles. Otherwise, numerous vehicles will be parked along E. Smith and subdivision roads, further complicating traffic and pedestrian safety, and disturbing neighbors.

Trail user parking must be separated from through traffic!

Wetland

The Corp of Engineers designates wetlands according to any 1 or more of 3 criteria: hydric soils, hydrophilic vegetation and surface inundation. Given the inundation by the intermittent stream flowing into the north side of the proposed Smith Subdivision, I assumed you would have applied for a 404 permit from the Corp of Engineers. However, they said they are not aware of the proposed subdivision, nor the intermittent stream flowing into it.

While all 3 wetland characteristics are found in the proposed Smith Subdivision to one degree or another, surface inundation is of concern. The intermittent stream on the north side of the subdivision flows 6 weeks or more each year depending on snowmelt and rainfall. Last year it flowed 8 weeks. Highly variable soils and drainage are characteristics of the site and typical of its origin as an alluvial fan. This results in water going underground in places and surfacing again in other places, the streambed periodically rerouting itself with time.

HANDOUT #8
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Cutting and filling of soils associated with road construction, leveling of lots and insertion of drain fields will disrupt flow of water and its distribution in uncertain manner. Whether water is diverted purposely or accidentally, the results will be the same; structures, septic drain fields, driveways and landscaping may be damaged. Such occurrences are no more predictable than what occurred during last year's wet summer on Eklutna Inc's subdivision off Maud Road where water had to be diverted to protect the road and adjacent lots.

The intermittent stream flowing into the north side of the proposed Smith Subdivision should not be redirected or manipulated in any way, either above or below ground.

HANDOUT #8
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: Mark Wuitschick <markwuitschick@yahoo.com>
Sent: Wednesday, July 2, 2025 8:34 AM
To: Platting
Cc: Robbie Wuitschick
Subject: Construction of Smith Subdivision

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

Mr. Goddard, my wife, Robbie Wuitschick and I both have some concerns regarding the new construction of the Smith Subdivision to be located within Section 06, T17N, R03E, Seward Meridian, Alaska. Our home is on Lot 4, Dewys Garden No. 5, 835 North Dewys Street.

1. We would object to any traffic from the new subdivision coming down North Dewys Street to Maud Road. A portion of this road is private property owned by family members and is not a public road. 57 new homes would bring hundreds of people into the area with considerable traffic.
2. The subdivision would entail the construction of 57 separate lots, each will require individual water well and septic systems. These systems would be uphill from our existing property located at 835 North Dewys Street. There is the possibility of water wells going dry due to the demand of the new subdivision. There is a history of water wells going dry in the Lazy Acres subdivision that will be adjacent to the new Smith Subdivision. We are very concerned about this. Water Rights do not work here in Alaska as we have seen from a previous situation involving a friends property off the Palmer-Wasilla Highway and the construction of a subdivision next to their home. His water well went dry due to the water demand of the new subdivision and he had no recourse but to pay to have his water well redeveloped at considerable cost. He had prior water rights for 30 years and it did not make any difference.
3. We are also concerned that many of the lots in the new Smith Subdivision are very small, which will concentrate the septage from 57 homes into a small area, possibly leading to ground water contamination of water wells downhill.

Thank you!

Mark and Robbie Wuitschick
835 North Dewys Street
Palmer, Alaska. 99645
markwuitschick@yahoo.com
907-795-4299

1

HANDOUT #9
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: Erin Foley <qweeniefoley@yahoo.com>
Sent: Wednesday, July 2, 2025 6:17 AM
To: Platting
Subject: Smith subdivision case #2025-065

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

My name is Erin Foley, my address is 1033 N Dewys St, Palmer AK 99645. I am writing to express my objections and concerns about the proposed Smith subdivision.

Of primary concern, is the size of the lots proposed. That number of new lots and removal of natural vegetation will cause a significant increase in the water runoff, that occurs several times per winter. This runoff has great impact on the preexisting homes further down the slope from this proposed subdivision. The runoff last winter from above our lot, went down the side of Maud road, and washed out large sections of the ditches, some driveways, and nearly the road in a couple places. This problem will not improve with the addition of more homes if there are not dramatic measures put in place to control where the water sheds. Shedding the water into McRoberts creek would be the logical solution, but there you run into the issue of potentially impacting the salmon runs with pollution, as it is a salmon bearing waterway. The elevation of the proposed subdivision, and the dramatic differences in temperatures in the winter, create the potential for dangerous roadways, and difficulty with snow removal. Most of the winter our driveway and road is solid ice.
Also of concern, is the addition of that many new septic systems at higher elevation to existing homes. Do the some of the lots in the proposed subdivision have large enough square footage to have proper drains? It doesn't seem like this proposed subdivision takes any of the surrounding area into consideration. The proposed second access road off of Dewys/Marley, is not feasible, as it is a single lane road. The potential of "leaving it open for further development" is unacceptable in my opinion. When we tried to split our 10 acre piece, we were told it could only be split into 3 lots unless we wanted to upgrade Dewys to Borough standards. I believe if the developer is intending to use that point of access at all, they should be required to upgrade the entirety of Marley to Borough specs, so as to not put the impact of that cost onto the tax payers, who don't profit from that at all.

Thank you for your consideration.

Erin Foley

HANDOUT #10
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: William Burke Burke <lazymou10man@gmail.com>
Sent: Tuesday, July 1, 2025 9:23 PM
To: Platting
Subject: Smith Road Subdivision

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

Subject: Smith Road Subdivision

MATSU Borough Platting Board

I am an adjacent property owner to the proposed Smith Road Subdivision. I respectfully understand the Eklutna Native Corporation owns the property and has the right to develop it to generate revenue for their shareholders. I have several primary concerns regarding the proposed development. I have reviewed the meeting packet, agenda and some of the materials provided by the MATSU Borough regarding the proposed lot layout, road construction and drainage plan. I have the following comments for consideration by the Platting Board.

1. Current drainage plan, lot layout and road construction plans do not address the intermittent water course that enters the subdivision from the north. It is my understanding Borough code requires 120' frontage and 75' set back from any water course. Recommend the Platting Board request subdivision design modifications to meet Borough Code requirements around the water course entering the subdivision.
2. The water course (intermittent stream) entering the subdivision from the north has flooded lots in the Lazy Acres Subdivision numerous times over the years. I personally have seen surface water flows estimated at 40-50 gallons/minute on this water course as it exited Eklutna lands onto the Lazy Acres subdivision. A management design/drainage plan for this subdivision must take into account the volume of water to be contained, the amount of gravel deposited during high flows and include long-term maintenance of containment or diversion structures to prevent future failure. Additionally the volume of surface water would seasonally infiltrate leach fields causing potential failures on effected lots and all lots down gradient.
3. Lot density has the potential to affect all existing down gradient wells both in availability and quality of water. One well per lot would mean a total of 57 new wells drawing on the groundwater resource. I understand Alaska Department of Natural Resources estimates a single family residence uses up to 500 gallons/day. 57 new wells at 500 gallons/day equals 28,500 gallons/per day of potential groundwater resource demand. Many of the downgradient wells are not large volume producing

HANDOUT #11
SMITH SUBDIVISION

CASE # 2025-065
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wells. If additional drawdown of the aquifer upgradient from existing wells occurs at this density it could potentially reduce flow rates or availability of water all together causing some wells to potentially go dry.

4. Lot density does not fit surrounding area and creates many of the concerns local residents have with the subdivision. A proposed subdivision with 57 lots will significantly increase traffic on Smith road and potentially Dewey, Marley and Maud if all phases of the subdivision are developed as planned. It will also significantly alter the aesthetics of our neighborhood which is the primary reason most of us purchased and built our homes up here on Lazy Mountain. I would propose that Eklutna, as a good neighbor, reconsider lot size, potentially reducing the number of lots in half. My current understanding is the premium for larger lots in desirable areas with views would outweigh the small lot revenue model and development costs for a subdivision with fewer lots should cost less.
5. It is not likely the Borough will service this subdivision with a school bus route due to the road grades exceeding 10%. This could potentially increase traffic on Smith road as parents would have to drive their kids to school and could create safety concerns with additional traffic on steep icy roads.
6. Proposed trailhead parking either on Eklutna or adjacent state land, or both, needs to be sized to accommodate current and future parking requirements. The current 10-space design included on the proposed subdivision plans (although generous for Eklutna to carve out some parking space) is not be sufficient to support current demands for parking. Weekends in the summer can see more than 20 vehicles parked at the current trailhead and adjacent roads Recommend construction of a similar parking area as was constructed at the Lazy Mountain trailhead on Mountain Trail Circle at the top of E. Huntley Rd.
7. The Morgan Horse trail has long been in use and is currently maintained by the Borough. This is one of the treasures Lazy Mountain has to offer and needs to remain so. I ask the Platting Board and Matsu Borough to ensure long-term use of this trail is part of the proposed subdivision plan.

I plan to attend the Platting Board meeting and will offer up any additional testimony at that time.

Thank you for review and consideration of these comments.

Respectfully,

Bill Burke

907-414-0907

Lazymou10man@gmail.com

HANDOUT #11
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: RD Black <blackboys@mtaonline.net>
Sent: Wednesday, July 2, 2025 10:48 AM
To: Platting
Subject: Comments on proposed development of SMITH SUBDIVISION.

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

R. Darren and Nancy Black
17955 E. Purser Place
Palmer, AK 99645
blackboys@mtaonline.net
(907) 841-4488

Date: 07/02/2025

To: Matanuska-Susitna Borough Platting Board

Subject: Official Comment and Objection to Proposed 57-Lot Subdivision – Water Supply Concerns, Environmental Impact, Trail Preservation, and Timing of Public Hearing

Dear MSB platting board,

We are submitting this letter as an official objection to the proposed subdivision development consisting of 57 residential lots in our area.

Water Availability Concerns:
Our community is already experiencing serious issues with water supply. Many existing homes rely on deep wells—often several hundred feet deep—and still struggle to obtain enough water for basic daily needs. During dry seasons, residents frequently report low yield or complete well failure, forcing costly drilling or rationing. Adding 57 new lots with additional wells or increased demand on shared groundwater resources would only worsen this problem. Without a comprehensive, independent hydrological assessment and a long-term sustainability plan, this project risks severely overtaxing an already stressed aquifer.

Lack of Transparency and Public Input:
Equally concerning is the scheduling of the public hearing on this development for the day before a major holiday. This timing appears strategic and undermines the ability of many residents to attend and voice their concerns. Most families are traveling or otherwise unavailable during this period, and holding such an important public forum at that time suggests a lack of genuine intent to gather input from those most affected. Public participation is a cornerstone of responsible planning, and decisions made without adequate community engagement lack legitimacy.

Inconsistencies and Lack of Clear Data:
There is also a troubling lack of clarity surrounding the proposal itself. As a resident trying to stay informed and engaged, We find it deeply concerning that the materials provided by the borough for public comment vary significantly from the construction and development documentation dated June 2025. Specifically, the map presented for community review does not align with what appears to be more recent development plans. These discrepancies make it extremely difficult to assess the real scope, location, and impact of the project. Without consistent and accurate documentation, the public cannot provide informed feedback, and any approvals granted would be based on uncertain or conflicting information.

Environmental and Watershed Protection:
We also have significant concerns regarding the potential environmental impact of this development on McRoberts Creek, which we understand to be a salmon-bearing stream. I have personally observed red (sockeye) salmon on the properties directly adjacent to the southeast border of the proposed subdivision. This area is ecologically sensitive, and the presence of spawning salmon warrants rigorous environmental scrutiny. We are requesting clear information on whether this has been formally studied as part of the development review process. Specifically:

- Has an independent fish and wildlife or watershed assessment been conducted?
- What measures are being taken to protect this salmon habitat and the surrounding watershed?

Any development in this vicinity must proceed with extreme caution and should include enforceable plans for habitat preservation, erosion control, and runoff management to avoid irreparable harm to this critical natural resource.

Bicycle Path Planning:
Additionally, we would like to raise a question regarding whether a bicycle path is being considered as part of the subdivision plan. If so,

HANDOUT #12
SMITH SUBDIVISION

CASE # 2025-065
MEETING DATE: JULY 03, 2025

we respectfully request that any such path be located within the 50-foot easement on the north side of E. Smith Road. This would provide a safe, accessible corridor while minimizing the impact on existing properties and maintaining appropriate buffers.

Public Access and Morgan Horse Trail:
Another major concern is the fate of the Morgan Horse Trail. We object strongly to any plan that would involve relocating this trail onto private property owned by current residents. This includes my own property, Lazy Acres Lot 2. We have reviewed one version of the plan that appears to include a 33-foot section line easement on the development side, which may allow the Morgan Horse Trail to remain where it crosses my lot. If this is accurate, we support keeping the trail within that designated area. We seek **clear, official clarification** on the developer's actual plans for this trail, as current documentation is unclear and conflicting. We also ask that long-time community members and trail users be considered in this decision. Two possible solutions would be to relocate this trail on the East side of the proposed subdivision or abandon it all together. This section of trail is poorly maintained and poorly used.

Due to the **tactical timing of this meeting**, the **lack of clear, consistent data**, the **environmental questions**, and **unresolved access and trail concerns**, we respectfully request that the hearing be **postponed** until such time that:

1. Accurate and up-to-date project materials are made publicly available.
2. A greater number of residents have a fair opportunity to participate in the process; and
3. A full environmental and public access impact study has been completed and shared publicly.

In light of the serious environmental risks and the procedural shortcomings surrounding this proposal, we urge the commission to:

1. **Postpone the public hearing** to a date that allows for meaningful community participation.
2. **Deny or defer approval** of the proposed subdivision until full, independent groundwater, environmental, and public access studies are completed and made available for review.
3. **Ensure transparency** and fair process in all future proceedings related to this development.

Thank you for your time and for considering the long-term well-being of current residents, local wildlife, public access, and our shared watershed in your deliberations.

Sincerely,
R. Darren and Nancy Black

HANDOUT #12
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: Kim Elliott <elliottkim14@gmail.com>
Sent: Wednesday, July 2, 2025 11:57 AM
To: Platting
Subject: Smith Subdivision from Tax Parcel A1 located between Maud and Smith road.

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Hello,
This comment is in regards to the proposed Smith Subdivision from Tax Parcel A1 located between Maud and Smith road. There is a public hearing taking place on July 3rd at 1PM regarding this parcel.

I live on land adjacent to the proposed subdivision. This letter is not going to be about the technical things concerning land ownership, septic systems, road maintenance, etc.

I would like to comment that this particular small chunk of land is unique in that it is directly adjacent to the mountains and cliffs of the Chugach range, dropping directly into McRoberts Creek. This land is an important corridor for all kinds of wildlife. The proposed development would happen on land where there is an active salmon stream as well. There are wolves, grizzly bear, black bear, lynx, porcupine, coyote, rabbit, squirrel, moose and a myriad of bird life that use this last little section of land and water to return to the mountains.

The proposed development has houses and property directly along and over the salmon creek. It's hard to imagine how that creek could possibly remain undisturbed in both its purity of water and structure for the returning salmon. A lot of development is happening down Maud road, but it is not along a salmon creek like this one. This is a special enclave, a last stand, for much of the wildlife that use this area. The proposed lots are half the size of anywhere else in the Maud/Smith neighborhood and that concentration will be a further hindrance to the wildlife that resides here. In addition, I have seen eagles this summer flying through the woods of this piece of land. I have lived here over eight years and have never seen eagles here other than in the early spring or late fall flying high overhead. Seeing the eagles fly low, up and down McRoberts Creek just a few feet above the ground and back in the trees of the proposed subdivision makes me wonder if there's a potential eagle's nest in this area.

Everyone says that no one cares about development until it's in their own backyard. I don't own this land, I only temporarily reside here, and in the end, aren't we all temporary? I truly believe this is a unique place with special value for the plants and animals that live here. Money seems like a short sighted vision for such a special and diverse ecosystem that will be lost forever.

Thank you for considering my comments,

Kim Elliott

I acknowledge my residence in Nuutah, the ancestral territory of the Dena'ina and Ahtna Peoples.

--
Kim Elliott
907-355-6932

1

HANDOUT #13
SMITH SUBDIVISION
CASE # 2025-065
MEETING DATE: JULY 03, 2025

Matthew Goddard

From: Heidi Whipple <heidi.whipp@gmail.com>
Sent: Wednesday, July 2, 2025 5:03 PM
To: Kayla Smith; Platting
Subject: Fwd: Zora's letter

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
Hi Kayla! This is Heidi Whipple from the GIS Division :) My daughter wrote this letter and is hoping to get it included in public comment for the Platting Board meeting to be held tomorrow regarding the development between Smith and Maud Rds.

Thanks for all your work!
-Heidi

Dear Platting Board,
Whenever I have been in a conversation about the upcoming sale and development of a parcel of land on Smith Road, all I hear are wishes that something could be done to prevent it. I am a local youth that often uses the trails on that parcel for hiking and skiing, and the development of the land would make it so the trail system butted up against residential properties and even cuts through them, would be an uncomfortable situation for everyone. I live off of Smith Rd., and I can attest that no one who lives here would welcome a large subdivision bringing in more traffic and taking away from the natural beauty of those hiking trails. That is why people move to Alaska. People love living here because it is a place with beautiful natural woods and scenery, which does not have huge residential divisions to mar it. We love where we live, and it hurts our hearts every time a new development goes through. Would you not rather look out your window every morning and see trees, rather than seeing the house next door? Please reconsider, for the sake of the amazing place we live in. Do not be the people that take this beauty that we see everyday away from us.

Sincerely,
a distressed citizen,
Zora Whipple-Zizka
(14yrs old, about to enter 9th grade at Palmer High)

Matthew Goddard

From: Scott Thomas <fishcott@gmail.com>
Sent: Wednesday, July 2, 2025 8:17 PM
To: Platting
Subject: Smith Subdivision Parcel A1, S06 T17 N, Range 03 E Seward Meridian

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

I am hopeful the MatSu Borough and Eklutna Inc are working together to preserve public access to Matanuska Peak via the longstanding McRoberts Creek Trailhead. This is an important and valuable trail serving people with a more direct and accessible grade to the alpine valley above than the steeper Lazy Mountain trail. If this is not already a Section Line easement, I recall the route from Smith Road to the east has a trail easement in place. This was most likely partnered by the Borough and Eklutna in the 1980's. This route should be kept open to preserve hiking and other uses. This is one of the best trails in the MatSu Valley and one of my top reasons for enjoying living and recreating in the area.

Sincerely,

Scott Thomas

Matthew Goddard

From: John Clark <jjclark@gci.net>
Sent: Wednesday, July 2, 2025 8:35 PM
To: Platting
Subject: Eklutna development Smith Rd Palmer Ak MSB planning meeting comments

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

My name is John Clark. I live at 17935 E Purser Place in Palmer. First and foremost I strongly disagree with the timing of this public comment meeting on the 3rd of July. I can't help but think this was planned to get the minimum participation due to the date. I would like to request that this be postponed so more impacted community members could attend instead of responding in writing.
The proposed new subdivision will have a direct impact on my property due to the access plan on the extension of Smith Rd. As a property owner I am very concerned that there has been no discussion regarding the extension of Smith Rd and have seen no plans or proposals. Living next to the current parking lot for the trail we have had a lot of interest how and where the new parking lot for the trail would be. The current plan for lot 31 of the new subdivision is a terrible idea. Unless the entire lot will be used the traffic coming down Smith could potentially cause accidents due to adverse weather conditions. Also these parking lots, with no surprise to the MSB park and rec folks , are usually a spot for parties, alcohol, drug use and vandalism.
Another concern we have is water wells for the lots downhill of the new proposed subdivision. Adding that many septic systems uphill from our water supply can only spell trouble for current property owners.
I would like to have the opportunity to discuss my concerns in a meeting that is not mere hours from the biggest national holiday.
Please feel free to contact me anytime to discuss.
Thank you for your time and consideration.

John Clark
907-982-9001
Sent from my iPhone

Matthew Goddard

From: Diana Whipple <qthart3@gmail.com>
Sent: Thursday, July 3, 2025 5:56 AM
To: Platting
Subject: RE: Smith Subdivision

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
To Whom It May Concern,

I am a native Alaskan, born and raised in this great state. My family and I have lived in the Mat-Su Valley in our beloved town of Palmer for 32 years now. We have raised seven kids here who, all but one, still live, work and recreate here.

I am writing with concern for the proposed subdivision off of Smith Road and its accompanying trails. I hike those trails several times a week. It is with deep sadness to think that I would not be able to enjoy the quiet woods undisturbed.

Building homes on tranquil nature trails that have been there for decades for the pleasure and use of the Valley residents and all who visit would be a travesty. It seems to me that even though this land is Eklutna land and not Borough or State owned, there would be some kind of common sense to allow the trails to remain unmarred by development. "Grandfathered" in, if you will.

I would respectfully submit that the platting board should decline the proposed subdivision development off of Smith Rd.

Cordially but Very Concerned,
Diana Whipple

July 3, 2025

Matanuska-Susitna Borough
Platting Div.
350 E. Dahlia Ave.
Palmer, AK 99645

Re: Eklutna Inc. Subdivision, Smith Subdivision

Subject: Comments regarding Proposed Plat

The following issues need to be addressed that have not been noted in the data submitted in meeting packet noted in the public notice.

1. Extension of Smith Road
    a. The existing Smith Road has a bike path and is approximately 40' wide on top and with a 2' deep ditch on a 4:1 slope is 56' between the ditch bottoms. The profile grade of the road centerline is slightly greater than 10%.
    b. If this road template (including the bike trail) and existing grade is projected along the platted Eklutna subdivision there is the potential of;
        i. some deep cuts into the existing ground along existing property owners, causing the back slope to require acquisition of property from landowners or that the existing 10% grade will have to be steepened.
        ii. Drainage from the existing Matanuska Pike Trail should be allowed in the ditches of the Smith Road Extension as the existing Smith Road ditches are not designed to handle additional water.
        iii. Utility easements will not be granted by existing property owners on the Smith Rd extension. Note that existing property owners have buried electrical and telephone service.
    c. There is an existing intermittent drainage at Trail Marker 10 that must be managed through the proposed Eklutna Subdivision as in the past, season flood water from it has crossed the existing Morgan Horse trail on to Lazy Acres Lots 3,7,13,8,9 noted on the public vicinity map.
    d. Additional parking for Matanuska Trail users is needed at the end of the Smith Rd Extension for at least 40 cars that currently park on the existing roads and parking lot at the end of Smith Road. Either the Mat-Su Borough or Eklutna should provide this before the subdivision plat is approved.
2. Since the proposed subdivision basically clear cut and regrade the existing ground and vegetation, the Eklutna property owner should provide a grading plan with contours, drainage design, utility easements, and road construction designs and grades. Any construction affecting the existing creek (McRoberts Ck?) needs to be shown.
3. Existing property owners along the existing Morgan Horse Trail have the following concerns generated by this high-density populated subdivision as follows.
    a. Sewer drainage that will flow subsurface SW under the Morgan Horse Trail into the soil and ground water.

b. Property devaluation due to increased security risk, noise, loss of the visual appeal due to change of the surroundings.

In consideration of all of the above issues, we request the platting submittal be disapproved at this time until all the above issues are resolved.

Newton and Connie Bingham
17950 E Purser PL
Palmer, AK
Lazy Acres Lot 3, Bk3

The regular meeting of the Matanuska-Susitna Borough Platting Board was held on July 3, 2025, at the Matanuska-Susitna Borough 350 E Dahlia Ave, Palmer, Alaska. Chair Traxler called the Meeting to order at 1:00 p.m.

1. CALL TO ORDER

A. ROLL CALL AND DETERMINATION OF QUORUM (by Administrative Specialist)

Platting Board members present and establishing a quorum:

Mr. Chris Chiavetta, District Seat #1
Mr. Michael Liebing, District Seat #2
Mr. Michael Gillson, District Seat #3
Ms. Michelle Traxler, District Seat #5
Ms. Karla McBride, Alternate A
Mr. Robert Hallford, Alternate B

Platting Board members absent and excused were:

Ms. Amanda Salmon, District Seat #4
Ms. Sandra Kreger, District seat #6
Mr. Sidney Bertz, District seat #7

Platting Board members absent were:

Staff in attendance:

Mr. Fred Wagner, Platting Officer
Ms. Kayla Smith, Platting Board Clerk
Mr. Matthew Goddard, Platting Technician
Mr. Chris Curlin, Platting Technician

B. THE PLEDGE OF ALLEGIANCE

Platting Member Traxler led the pledge of allegiance.

C. APPROVAL OF THE AGENDA

Chair Traxler inquired if there were any changes to the agenda.

MOTION: Platting Member Liebing made motion to approve Agenda. Platting Member Chiavetta seconded.

VOTE: The Agenda was approved unanimously.

2. APPROVAL OF MINUTES

- June 5, 2025.
- June 19, 2025.

Chair Traxler inquired if there were any changes to the Minutes.

MOTION: Platting Member Hallford made motion to approve the Minutes for June 5, 2025. Platting Member Liebing seconded.

VOTE: The Minutes was approved unanimously.

MOTION: Platting Member Liebing made motion to approve the Minutes for June 19, 2025. Platting Member McBride seconded.

VOTE: The Minutes was approved unanimously.

3. AUDIENCE PARTICIPATION & PRESENTATIONS
PERSONS TO BE HEARD (Three minutes per person for items not scheduled for public hearing)
(None)

4. UNFINISHED BUSINESS
(None)

5. RECONSIDERATIONS/APPEALS
(None)

6. PUBLIC HEARINGS

A. **SMITH**: The request is to create 57 lots and one tract from Tax Parcel A1, created by US patent #50-88-0395/0396, to be known as Smith Subdivision, containing 474.893 acres +/-. The property is located north of E. Maud Road, southeast of E. Smith Road Extension, and east of N. Old Glenn Highway (Tax ID #17N03E06A001); within Section 06, Township 17 North, Range 03 East, Seward Meridian, Alaska. In the Butte Community Council and in Assembly District #1. *(Petitioner/Owner: Eklutna Inc, Staff: Matthew Goddard, Case #2025-065)*

Chair Traxler read the statement regarding Ex-Parte & Interest on quasi-judicial action into the record.

Kayla Smith provided the mailing report:

- Stating that 85 public hearing notices were mailed out on June 10, 2025.

Staff gave an overview of the case:

- Staff recommends continuance to the August 7th, 2025 Platting Board meeting.

Platting Member Liebing had questions for staff.

Chair Traxler invited the petitioner/petitioner's representative to give an overview.

The petitioner's representative, Craig Bennet spoke.

Chair Traxler opened the public hearing for public testimony.
The following persons spoke:

- Bill Collins
- Alison Collins
- Newton Bingham
- Larry White
- Mike Hinton
- Bill Weith
- Michelle Heun
- Diane Wilson
- Bill Burke
- Pam Strahan
- Joanne Stephens
- Dave Mays

There being no one else to be heard Chair Traxler left the public hearing open and invited the petitioner and/or the petitioner's representative to further discuss and answer any questions from the Board.

The petitioner's representative spoke.

Discussion ensued.

MOTION: Platting Member Chiavetta made a motion to continue the preliminary plat of Smith Subdivision to the August 7th Platting Board Hearing. Platting Member Liebing seconded the motion.

VOTE: The motion passed without objection.

B. **WOLVERINE WOODS**: The request is to create 2 lots from Parcel #3, created by Waiver Resolution #96-6-PWm, recorded as Book 849, Page 408, to be known as Wolverine Woods, containing 15.14 acres +/-. The property is south of the Matanuska River, west of N McKenzie Drive, and directly north of N Wolverine Road (Tax ID #18N02E12D011); within the SE ¼ Section 12, Township 18 North, Range 02 East, Seward Meridian, Alaska. In the Lazy Mountain Community Council and in Assembly District #1. *(Petitioner/Owner: Kathleen Ashmore-Roberts, Staff: Matthew Goddard, Case #2025-070)*

Chair Traxler read the statement regarding Ex-Parte & Interest on quasi-judicial action into the record.

Kayla Smith provided the mailing report:

- Stating that 57 public hearing notices were mailed out on June 10, 2025.

Staff gave an overview of the case:

- Staff recommends approval with 7 conditions and 12 findings of facts.

Platting Member Liebing had questions for staff.

Chair Traxler invited the petitioner/petitioner's representative to give an overview.

The petitioner's representative, Craig Hanson chose not to speak.

Chair Traxler opened the public hearing for public testimony.

There being no one to be heard Chair Traxler closed the public hearing and invited the petitioner and/or the petitioner's representative to further discuss and answer any questions from the Board.

The petitioner's representative spoke.
The representative, Kathy Ashmore-Roberts spoke.

Discussion ensued.

MOTION: Platting Member Liebing made a motion to approve the variance of preliminary plat of Wolverine Woods. Platting Member McBride seconded the motion.

VOTE: The motion passed without objection.

7. ITEMS OF BUSINESS & MISCELLANEOUS

(None)

8. PLATTING STAFF & OFFICER COMMENTS

A. Adjudicatory (*if needed*)
B. Upcoming Platting Board Agenda Items
Platting Officer, Fred Wagner informed the board of upcoming items:

- There are 2 cases scheduled for July 17, 2025 Platting Board.
  - Cooper Woods Ph II Lot 16B Block 1
  - Davidson PUE VAC

Platting Clerk, Kayla Smith welcomed Platting Member Gillson.

9. BOARD COMMENTS.

- Member Liebing – I just had one comment and unfortunately the house is emptied out but I really appreciate the public input and certainly hope the developers take their comments into considerations because as I read the board packet I shared many of the exact concerns over it, so hopefully there will be some progress on that for the next meeting.

10. ADJOURNMENT

With no further business to come before the Platting Board, Chair Traxler adjourned the meeting at **2:05** PM.

MICHELLE TRAXLER
Platting Board Chair

ATTEST:

KAYLA SMITH
Platting Board Clerk

MATANUSKA-SUSITNA BOROUGH

Platting Division
350 East Dahlia Avenue • Palmer AK 99645
Phone (907) 861-7874 • Email: platting@matsugov.us

PLATTING BOARD ACTION LETTER

July 9, 2025

Eklutna, INC.
16515 Centerfield Drive, #201
Eagle River, AK 99577

Case #: **2025-065**

Case Name: **SMITH SUBFIVISION**

Action taken by the Platting Board on July 3, 2025 is as follows:

THE PRELIMINARY PLAT FOR SMITH SUBDIVISION WAS CONTINUED TO AUGUST 7TH 2025

ALL DECISIONS OF APPROVAL OR DISAPPROVAL BY THE PLATTING AUTHORITY SHALL BE FINAL UNLESS APPEALED TO THE BOARD OF ADJUSTMENT AND APPEALS, MSB 15.39. A PETITION WHICH IS TABLED BY THE BOARD SHALL BE DEEMED DENIED UNLESS THE APPLICANT BRINGS THE MATTER BACK BEFORE THE BOARD WITH ALL CONDITIONS MET WITHIN THE TIME ALLOWED BY THE BOARD OR BY LAW.

If this is in reference to a plat application, recordation at the appropriate District Recorder's Office of the plat is required before any transfer of title can occur. Should you have any questions or require a copy of the minutes of the meeting, please feel free to contact this office.

Kindest regards,

Mr. Fred Wagner, PLS
Platting Officer

ks
cc:

S4 Group
124 E. 7th Avenue
Anchorage AK 99501

Triad Engineering
615 E. 82nd Avenue, #101
Anchorage AK 99518

Additional Plat Reviews After 2nd Final are $100.00 Each

Matthew Goddard

From: Percy, Colton T (DFG) <colton.percy@alaska.gov>
Sent: Tuesday, May 27, 2025 1:07 PM
To: Matthew Goddard
Cc: Myers, Sarah E E (DFG)
Subject: RE: RFC Smith Subdivision (MG)

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

Alaska Department of Fish & Game (ADF&G) has reviewed this request to create 57 lots and 1 tract to be known as Smith Subdivision, located north of E. Maud Rd and east of the N. Old Glenn Highway. ADF&G has **no objections** to the request with the following comment:

> The area of subdivision development includes McRoberts Creek (AWC# 247-50-10200-2081-3025) which is catalogued as anadromous through a portion of the area. McRoberts Creek is catalogued for coho and sockeye salmon. A fish habitat permit may be required for activities that modify the bed or banks of this water body as well as water withdrawals. If the applicant has any questions they are welcome to reach out to our office at (907)861-3200 or dfg.hab.infopaq@alaska.gov. The Habitat Section would also like to seek permission from Eklutna, Inc. to sample upstream of the catalogued area within the bounds of their property.

Thank you for the opportunity to review and comment on this platting action.

Colton Percy
Habitat Biologist
Access Defense Program
Alaska Department of Fish and Game
Division of Wildlife Conservation

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Thursday, May 15, 2025 5:14 PM
To: DNR SCRO (DNR sponsored) <dnr.scro@alaska.gov>; Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; butteakcc@gmail.com; Brian Davis <Brian.Davis@matsugov.us>; Michael Shipton <Michael.Shipton@matsugov.us>; meshie@mtaonline.net; Tim Hale (timhaledistrict1@gmail.com) <timhaledistrict1@gmail.com>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <brad.sworts@matsugov.us>; Jamie Taylor <jamie.taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Smith Subdivision (MG)

Matthew Goddard

From: Jamie Taylor
Sent: Tuesday, July 29, 2025 11:47 AM
To: Matthew Goddard
Cc: Tammy Simmons; Brad Sworts
Subject: Re: Smith

Hi Matthew,

I have reviewed the updated soils report and have no further comments.

Comments on the plan set submitted 7/24/2025:
In accordance with the ADT estimate, the following roads construction standards are required:
Smith Road Extension (from Harmony Avenue to Road 1) = Residential Subcollector
Smith Road Extension (east of Road 1) = Residential
Road 1 = Residential (request horizontal alignment to meet Residential Subcollector due to potential for through traffic when connected to Dewys Street)
Road 2 = Residential

Submit full set of construction plans and drainage report prior to pre-construction conference. The construction plans should include cut/fill limits, and cross sections through the largest cut and largest fill. The grading plan shows a new ditch intercepting the seasonal runoff from the north and redirecting it down Smith Road Extension. The drainage report will need to show that the Smith Road Extension ditch has the appropriate capacity for this and that the overall post-development runoff does not exceed the pre-development runoff. Consider designing conveyances for a spring break-up condition when infiltration is limited due to frozen ground.

Thank you,

Jamie Taylor, PE (she/her)
Civil Engineer
Matanuska-Susitna Borough
Department of Public Works
t: 907-861-7765 c: 907-355-9810
jamie.taylor@matsugov.us
http://www.matsugov.us/

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Thursday, July 24, 2025 12:27 PM
To: Jamie Taylor <Jamie.Taylor@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>
Subject: FW: Smith

Hello,

Matthew Goddard

From: Taunnie Boothby
Sent: Tuesday, June 3, 2025 12:22 PM
To: Matthew Goddard
Cc: Platting
Subject: RE: RFC Smith Subdivision (MG)

Hi Matthew,
There are two types of flood risk areas in the Mat-Su Borough. The first is FEMA's mapped Special Flood Hazard Area (SFHA), which the MSB regulates development under MSB 17.29, and a permit is required before beginning any work.

The second is a non-mapped flood area. Both have a risk of flooding when enough precipitation enters the system.

FEMA has not studied and mapped McRoberts Creek and, therefore, is not required to be permitted. However, I recommend using best practice information for any development within this natural floodplain area. This and other water bodies could be mapped in the future and using best practice information will help prevent flood damage to your developed investment and reduce your expenses and exposure to this hazard.

Please feel free to contact if you have any questions.

Thank you,

Taunnie L. Boothby, CFM, Current Planner, Floodplain Administrator
Matanuska-Susitna Borough
Planning Department – Northern Office/Willow Library
(907) 861-8526
taunnie.boothby@matsugov.us

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Thursday, May 15, 2025 5:14 PM
To: dnr.scro@alaska.gov; Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; butteakcc@gmail.com; Brian Davis <Brian.Davis@matsugov.us>; Michael Shipton <Michael.Shipton@matsugov.us>; meshie@mtaonline.net; Tim Hale (timhaledistrict1@gmail.com) <timhaledistrict1@gmail.com>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>;

Matthew Goddard

From: Permit Center
Sent: Friday, May 16, 2025 8:45 AM
To: Matthew Goddard
Subject: RE: RFC Smith Subdivision (MG)

No comments from Permitting.

Thank you,

Jennifer Monnin, CFM
Permit Technician
Matanuska-Susitna Borough
Jennifer.monnin@matsugov.us
907-861-7822

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Thursday, May 15, 2025 5:14 PM
To: dnr.scro@alaska.gov; Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; butteakcc@gmail.com; Brian Davis <Brian.Davis@matsugov.us>; Michael Shipton <Michael.Shipton@matsugov.us>; meshie@mtaonline.net; Tim Hale (timhaledistrict1@gmail.com) <timhaledistrict1@gmail.com>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Smith Subdivision (MG)

Hello,

The following link is a request for comments for the proposed Smith Subdivision.
Please ensure all comments have been submitted by June 4, 2025, so they can be incorporated in the staff report that will be presented to the Platting Board.

Smith

Feel free to contact me if you have any questions.

Thank you,

MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department
Code Compliance Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822 • Fax (907) 745-9876
E-mail: ccb@matsugov.us

MEMORANDUM

DATE: 05/16/2025

TO: Matthew Goddard, Platting Tech

FROM: Kendra Johnson, CFM
Senior Code Compliance Office

SUBJECT: Proposed Platting action for Smith Subdivision case # 2025-065

No open/active code compliance cases on the property proposed to be subdivided into 57 lots to be known as Smith Subdivision

No objection to the re-plat to create the 57 lots from MSB Tax ID 17N03E06A001.

Matthew Goddard

From: Madd Matters <mrsmadd@mtaonline.net>
Sent: Wednesday, July 16, 2025 9:37 AM
To: Platting
Subject: Smith road subdivision

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

No matter how you look at this plan it is still like putting lipstick on a pig

Yes, the plan meets some minimum borough code but it fails to meet numerous others and only gives you what they want you to hear

This is 2025 and we should be smart enough to not create problems like Windsong, Circle View, Stampede Acres and 17Mile Lake and more

You have heard resident after resident tell you about water drainage, erosion and well and septic issues After clearing and developing 57 lots on a mountain side where do you think the hillside will go and where is the flood management plan when you need it?

Platting board approval leads the public to believe and expect that the borough has reviewed plans and assures them a reasonable ability to develop and enjoy their land. This plan will not do that.

PLATTING APPROVAL WILL.....
1. allow the purchase of a small lot that may not be capable of water and sewer, will most likely have drainage and erosion issues, have road maintenance issues, no school bus service,and trail parking problems.
2. gives us, the residents, additional drainage and erosion problems, and much more traffic at higher speeds down Smith Road and 3. gives the public nothing but a loss of unique habitat and the cost to maintain what may be left.

For Eklutna this is only about money...for us it is about sensible development.
Sent from my iPhone

Matthew Goddard

From: Joseph Bentel <josephbentel@gmail.com>
Sent: Tuesday, July 15, 2025 11:25 AM
To: Platting
Subject: Smith Subdivision Comments

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]
To whom it may concern:

My name is Joseph Bentel and I have lived on East Smith Road for the past five years. I am submitting these comments on the proposed Smith Subdivision in hopes that they may be taken into consideration by the Matsu Borough Platting Board and the Eklutna Inc. (Petitioners) during the August 7th meeting.

My primary concern in approving the platt for a subdivision of 57 lots is one of road safety. Increased traffic on the East Smith Road corridor as a result of so many potential new houses, will lead to higher traffic volume, which in turn will increase safety concerns for borough residents (like myself) who chose to walk or ride a bicycle on East Smith Road, to the bike path adjacent to the Old Glenn Highway.

Since East Smith Road was rebuilt last summer, the average speed of most vehicles has increased due to the smooth roadway, and the steep grade that descends from the Matanuska Peak trailhead.

The new bike path adjacent to East Smith removes walkers and riders from the Borough portion of the roadway, but the State of Alaska maintained section of East Smith (from the intersection of North Smith Rd. to the Glenn Highway) has no bike path. **With the potential injection of dozens of new vehicles on this already fast roadway, the safety of pedestrians and bikers may be compromised to the point where they are forced to use a vehicle, thereby negating their right to access to the extensive and valuable bike paths that the Borough has already put in place and continues to build.**

Although I acknowledge my position as a minority user of this roadway (cyclist), I consider myself a stakeholder in this conversation primarily upon this aforementioned concern. Is the Borough planning to work with the State of Alaska in order to connect the East Smith bike path from its termination at N. Smith Rd. to the intersection of East Smith and the Glenn Highway? Is the Borough conducting any traffic studies at this time on E. Smith Rd. so they can better understand the impact of the proposed subdivision and the increased traffic volumes on the existing infrastructure?

Although some may say these question are not meant for the Platting Board and the Eklutna Inc. to consider, I would humbly ask that the Platting Board and the Eklutna Inc. exercise foresight and wisdom to study and discuss how the proposed subdivision will impact the road safety of all community members.

Thank you for taking the time to read my comments and consider my perspective, I hope that an amiable compromise can be reached in the expansion of our beloved neighborhood.

Joseph Bentel

Objection to Proposed Smith Subdivision (Case #2025-065)

[X] Objection

Name: John and Susan DeLoach

Address: 1801 N Kendy Circle, Palmer, AK

Comments:

I am writing to firmly object to the proposed Smith Subdivision (Case #2025-065). As a long-time resident of this area, I am deeply concerned about the detrimental impact this development would have on the surrounding community and the rural character we cherish. This project, which proposes to add 57 new lots, represents a dramatic and unsustainable increase in population density that is completely out of alignment with the existing land use and atmosphere.

Our community is defined by its peace, natural beauty, and quiet rural lifestyle—qualities that will be severely undermined by the introduction of a high-density subdivision. Increased traffic from potentially hundreds of new residents will place significant strain on our already limited road infrastructure and will raise serious safety concerns, particularly for families with children, pedestrians, cyclists, and wildlife that regularly cross these roads.

Furthermore, the proposed 10-space trailhead parking is grossly inadequate. At present, we regularly see 15 or more vehicles lining the road shoulder—often parked haphazardly and dangerously—because current parking capacity already falls far short of demand. The proposed plan does not address this growing issue, and instead threatens to worsen it, introducing even more chaotic, unsafe conditions along the roadway and increasing the likelihood of accidents.

This development is being pushed forward without sufficient regard for its long-term impact on those of us who call this area home. I urge the Platting Board to reject this proposal in its current form, or at the very least, demand substantial revisions that address traffic, parking, safety, and compatibility with the area's rural character. Our community deserves thoughtful, sustainable development—not disruptive, high-density sprawl.

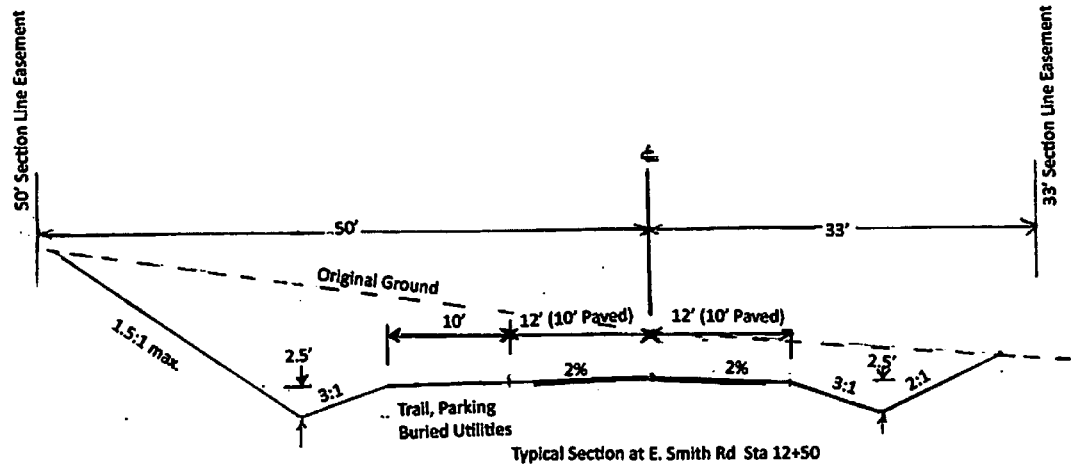
July 16, 2025

Matthew Goddard, Mat-Su Platting Assistant
Mat-Su Borough
E. Dahlia Ave.
Palmer, AK 99645

Subject: Smith Subdivision, Phase 1 Plans July 2025, Triad Engineering LLC
Re: Comments on the proposed design

Matthew, thank you for providing me with the plan set noted above and the geotechnical documentation for this subdivision.

E Smith Rd Station 10+00 to Sta 15+00 comments - relating from the beginning of project at the parking lot at the intersection of Smith and Harmony & Kendy at Sta 10+00 Easterly on the section line and Matanuska Peak trail to Sta 15+00, a north/south section line of the Morgan Horse trail. None of the Typical Street Sections accurately show the intended construction template with the Section Line Easements and the 10' trail embankment. The following modifications are recommended.



Typical Section at E. Smith Rd Sta 12+50

(Profile grade is +10%, max.)

1. The center line profile grade is +10% (10' rise in 100'), the maximum allowed by Borough standards. To achieve this, the road cross section must cut into existing ground as deep as 7 feet as shown on the profile grade on the plans.
2. This cut typical section is noted on plan sheet C2 with the trail shown noting the section line easement to the north (left on plans) is 50' and on the south (right on plans) is 33'. To accomplish this cut section, the back slopes will occur close to the section line easements.
3. The northerly back slope from the trail to the section line easement is shown as 1.5:1 max (1.5' horizontal to 1' vertical) which typically will erode if surface drainage flows down it and will bring sediment on to the ditch/trail surface and possibly erode private property at the top of the slope. This is the reason for a 2:1 back slope on the south side. The project geotechnical recommendations recommend that slopes not exceed 2:1 which is typical a Alaska DOT standard.
4. The ditches along the road will carry intercepted surface drainage from Station 17+00 to the current parking lot at Station 10+00 for a distance of 700' down a 10% grade. Erosion of the northern back slope and of the ditch must be managed in the design in this section of road or Mat-Su Public Works will have ongoing maintenance expenses.

5. Noting that there is no existing utility easement shown on this length of the road. Utilities could be put underground, under the trail as shown above, without affecting property owners.
6. Trail users currently park up to 35 vehicles at the trail parking lot and along Harmony and Kendy. The recommended typical shown above would provide parking for trail users. A space to turn around beyond the Morgan Horse Trail section line and transition from the road cut section to the trail path will be needed.



East Smith Rd Sta 15+00 to the road end at Sta 34+00

1. There is a major drainage problem on this section of the road not noted on the plans that historically and currently causes intermittent flooding. Public comments at the previous public meeting July 3,2025 stated that surface and subsurface water from an intermittent drainage floods property in Lazy Acres Subdivision along the Morgan Horse Trail section line. The current photo shows where it crosses the Matanuska Peak Trail at a location approximately 400' east of the Morgan Horse Trail section line or near trail marker 1000. This location should be shown on the plans.





Note the erosive charactaristic of the flow when it occurs that has flooded Lazy Acre lots as noted in public comments. This will occur in the ditches and cut slopes of proposed improvements. This is not noted on the plans submitted and subsequently has not been properly engineered in this platting submittal as it can affect the stability of the road and properties along it. Subsurface flow that has occurred suggests that septic field leaching would flow in the same manner and contaminate other property owners and possibly some wells. The "wiggly" surface flow lines on plan sheet C3 show the surface drainage direction. The developer should be required to have a hydrologist analyze this situation and validate the flow quantity for erosion protection requirements and validate that subsurface flow and drainage as modifed by this plat design causes no harmful effect on existing property owners and residents building in this subdivision.

2. Generally, the road is in a cut section with the back slopes exposing existing ground; however, there is a fill section at Sta 30+00 that needs a culvert so the road will not impound water. The "wiggly" flow line adjacent to the road on plan sheet C3 is pointing the wrong direction.

3. Road ditches from Station 17+00 and Station 34+00 slope down to a low point in the road at Sta 24+00 where an 18" culvert transfers water from the road ditch that intercepts all of the surface water from the north and east and transfers it under the road to a "infiltration" trench" that terminates at future subdivision Road 1. Has this pipe's flow capacity been properly engineered? It seems that public comments have not been considered about the magnitude of flow that can occur or the erosion that will occur as is already shown in the photo. There is potential for erosion with related sediment to plug this pipe and flood the road in this area thereby blocking access to residents.

4. An 18" cross culvert is shown at Sta 20+47 can transfer water from the left ditch from Sta 17+00 if a ditch dike is installed otherwise drainage in the ditch will continue to flow to the low point at Sta 24+00. The water from the pipe is currently shown to be discharged onto the ground where a future ditch of the proposed road is located.

5. The Borough should require that the proposed "Road 1" starting at E Smith Rd Sta 20+17 be built to its low point at Sta 23+00 (Phase 2, lot 19) to provide emergency drainage away from Lazy Acres Subdivision entirely.

General Comments:

1. Suggest that the General Notes on C2 be corrected to remove references to "Municipality of Anchorage" and their related specifications.
2. The geotechnical reports do not reference the TH numbers shown on the plan sheet C3, the test pits only reference BLK, LT. Please have Northern Geotechnical Engineering Inc and Terra Firma Testing provide a sheet to cross reference this data.
3. The test pits had 1" PVC slotted pipes installed to determine the water table, please provide this information if it is available. Note that test pits were excavated in November 2024 when there would be minimal seasonal runoff. Typically, the Matanuska River crests in May.

Thank you for the opportunity to comment, please keep the public informed of any changes.

Newton Bingham PE
17950 E Purser Pl
Palmer, AK 99645
Email: newt@mtaonline.net
Cell: 907-982-5995

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

May 19, 2025

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

To whom it may concern:

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

- **SMITH SUBDIVISION**
  (MSB Case # 2025-065)

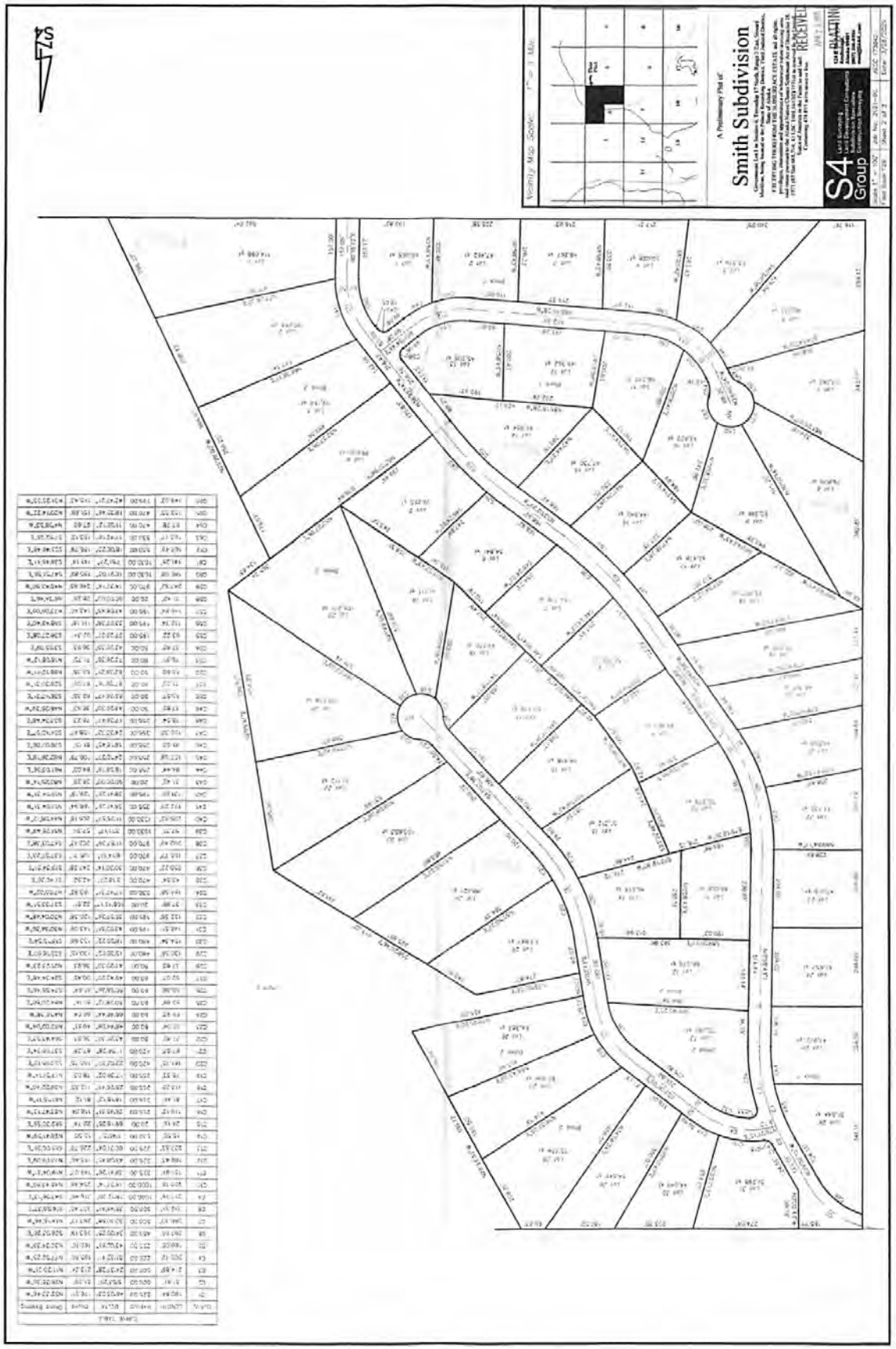
If you have any questions, please feel free to contact me at 334-7944 or by email at james.christopher@enstarnaturalgas.com.

Sincerely,

James Christopher

James Christopher
Right of Way & Permitting Agent
ENSTAR Natural Gas Company, LLC

Smith Subdivision
A Preliminary Plat of
Agenda Copy
S4 Land Surveying
Group Construction Surveying
Vicinity Map Scale: 1" = 1 Mile
CERTIFICATE OF OWNERSHIP
NOTARY ACKNOWLEDGEMENT
PLANNING AND LAND USE DIRECTOR'S CERTIFICATE
CERTIFICATE OF PAYMENT OF TAXES
SURVEYOR'S CERTIFICATE
LEGEND
GRAPHIC SCALE IN FEET


A Preliminary Plat of
Smith Subdivision
S4 Group
Land Surveying
Construction Surveying
RECEIVED
JUN 2 5 2025

Matthew Goddard

From: OSP Design Group <ospdesign@gci.com>
Sent: Monday, June 2, 2025 6:26 PM
To: Matthew Goddard
Cc: OSP Design Group
Subject: RE: RFC Smith Subdivision (MG)
Attachments: Agenda Plat (42).pdf

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

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

Thanks,
GCI | OSP Design
1001 Northway Dr., 1st Floor, Anchorage, AK 99508
e: OSPDesign@gci.com | w: www.gci.com

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Thursday, May 15, 2025 5:14 PM
To: dnr.scro@alaska.gov; Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; butteakcc@gmail.com; Brian Davis <Brian.Davis@matsugov.us>; Michael Shipton <Michael.Shipton@matsugov.us>; meshie@mtaonline.net; Tim Hale (timhaledistrict1@gmail.com) <timhaledistrict1@gmail.com>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Smith Subdivision (MG)

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

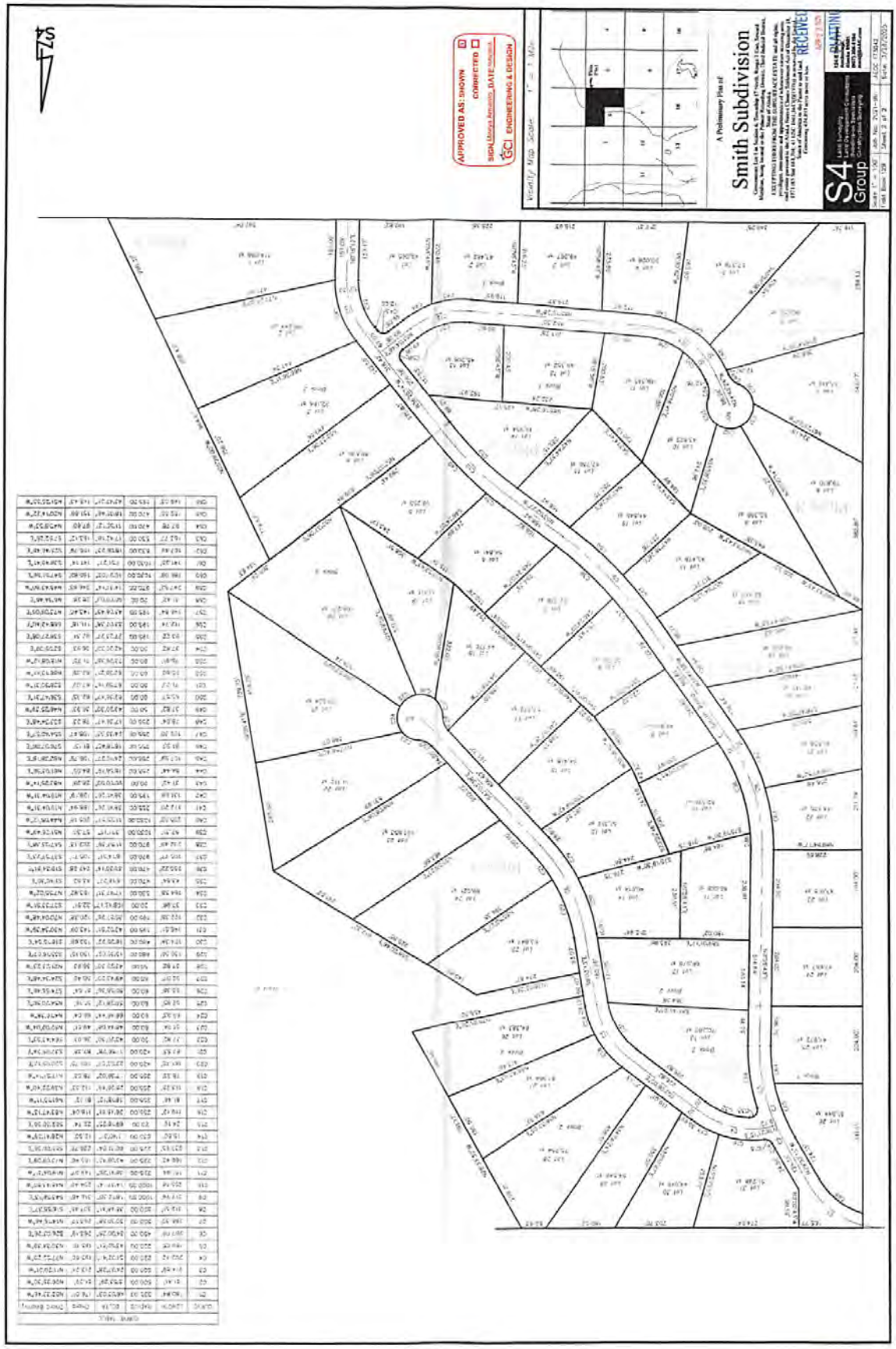
Hello,

The following link is a request for comments for the proposed Smith Subdivision.
Please ensure all comments have been submitted by June 4, 2025, so they can be incorporated in the staff report that will be presented to the Platting Board.

Smith

Feel free to contact me if you have any questions.

Smith Subdivision
A Preliminary Plat of:
Agenda Copy
S4 Land Surveying
Vicinity Map Scale: 1" = 1 Mile
CERTIFICATE OF OWNERSHIP
NOTARY ACKNOWLEDGEMENT
PLANNING AND LAND USE DIRECTOR'S CERTIFICATE
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GRAPHIC SCALE IN FEET
APPROVED AS SHOWN
CORRECTED
ENGINEERING & DESIGN


A Preliminary Plat of
Smith Subdivision
S4 Group
PLATTING
RECEIVED
APPROVED AS SHOWN
CORRECTED
GCI ENGINEERING & DESIGN

Matthew Goddard

From: Cayla Ronken <cronken@mtasolutions.com>
Sent: Monday, May 19, 2025 11:25 AM
To: Matthew Goddard
Subject: RE: RFC Smith Subdivision (MG)

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

Thank you for sending this over. Looks good but want to make sure the UE's make it onto the final plat. Its not showing on the 'Agenda Plat' document but it shows on that 'Plan and Profile' doc.

Thank you,

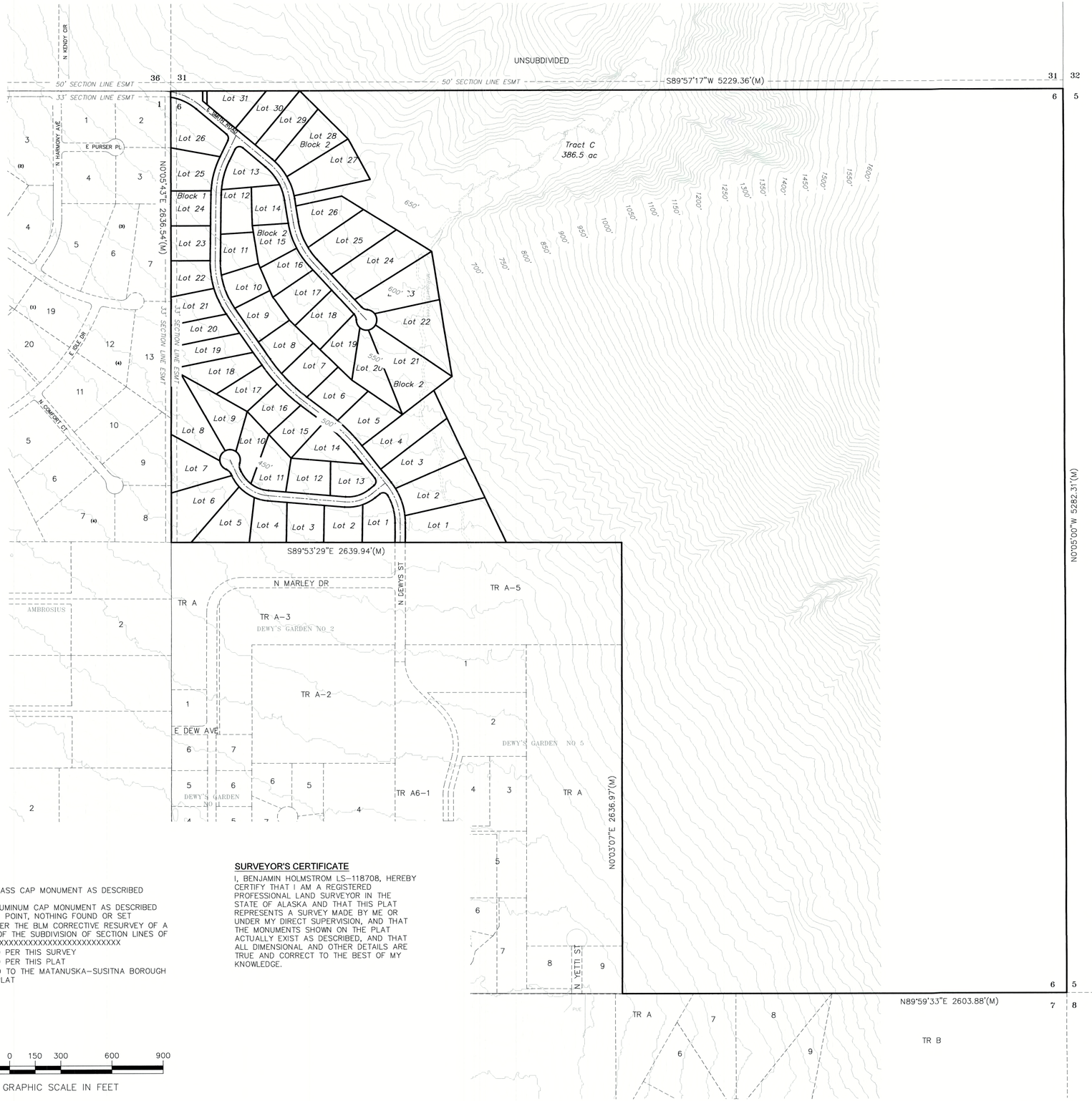
Cayla Ronken, Right of Way Agent
1740 S. Chugach St., Palmer, Alaska 99645
Office: (907) 761-2465 | www.mtasolutions.com



From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Thursday, May 15, 2025 5:14 PM
To: dnr.scro@alaska.gov; Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; butteakcc@gmail.com; Brian Davis <Brian.Davis@matsugov.us>; Michael Shipton <Michael.Shipton@matsugov.us>; meshie@mtaonline.net; Tim Hale (timhaledistrict1@gmail.com) <timhaledistrict1@gmail.com>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Smith Subdivision (MG)

Hello,

The following link is a request for comments for the proposed Smith Subdivision.



LEGEND

- FOUND BRASS CAP MONUMENT AS DESCRIBED
- FOUND ALUMINUM CAP MONUMENT AS DESCRIBED
- COMPUTED POINT, NOTHING FOUND OR SET
- (R) RECORD PER THE BLM CORRECTIVE RESURVEY OF A PORTION OF THE SUBDIVISION OF SECTION LINES OF XXXXXXXXXXXXXXXXXXXXXXXXXX
- (M) MEASURED PER THIS SURVEY
- (C) COMPUTED PER THIS PLAT
- (DTP) DEDICATED TO THE MATANUSKA–SUSITNA BOROUGH BY THIS PLAT

300 0 150 300 600 900

GRAPHIC SCALE IN FEET

SURVEYOR'S CERTIFICATE

I, BENJAMIN HOLMSTROM LS–118708, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN ON THE PLAT ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

CERTIFICATE OF OWNERSHIP

WE CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT WE ADOPT THIS PLAN OF SUBDIVISION BY OUR FREE CONSENT, DEDICATE ALL RIGHTS–OF–WAY AND PUBLIC AREAS TO THE MATANUSKA–SUSITNA BOROUGH AND GRANT ALL EASEMENTS TO THE USE SHOWN.

_____

KYLE N. FOSTER, CHIEF EXECUTIVE OFFICER DATE
EKLUTNA, INC.
16515 CENTERFIELD DRIVE, SUITE 201
EAGLE RIVER, AK 99577

_____

MICHAEL E. CURRY, PRESIDENT DATE
EKLUTNA, INC.
16515 CENTERFIELD DRIVE, SUITE 201
EAGLE RIVER, AK 99577

NOTARY ACKNOWLEDGEMENT

THIS IS TO CERTIFY THAT ON THE _____ DAY OF _____ 2025, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED _____, TO ME KNOW TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE INSTRUMENT; AND WHO ACKNOWLEDGED TO ME THAT THEY SIGNED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

_____
NOTARY FOR THE STATE OF ALASKA

MY COMMISSION EXPIRES: _____

PLANNING AND LAND USE DIRECTOR'S CERTIFICATE

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

_____
PLANNING AND LAND USE DIRECTOR DATE

ATTEST: _____
(PLATTING CLERK)

CERTIFICATE OF PAYMENT OF TAXES

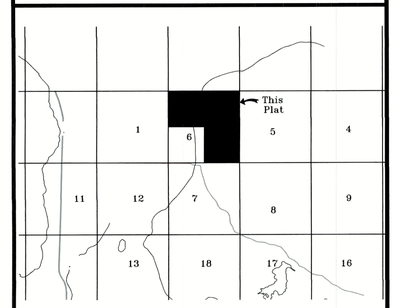
I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS, THROUGH _____ 20____, AGAINST THE PROPERTY, INCLUDED IN THE SUBDIVISION OR RESUBDIVISION, HEREON HAVE BEEN PAID.

_____
TAX COLLECTION OFFICIAL DATE
(MATANUSKA–SUSITNA BOROUGH)

Agenda Copy

RECEIVED
JUL 28 2025
PLATTING

Vicinity Map Scale: 1" = 1 Mile



A Preliminary Plat of:

Smith Subdivision

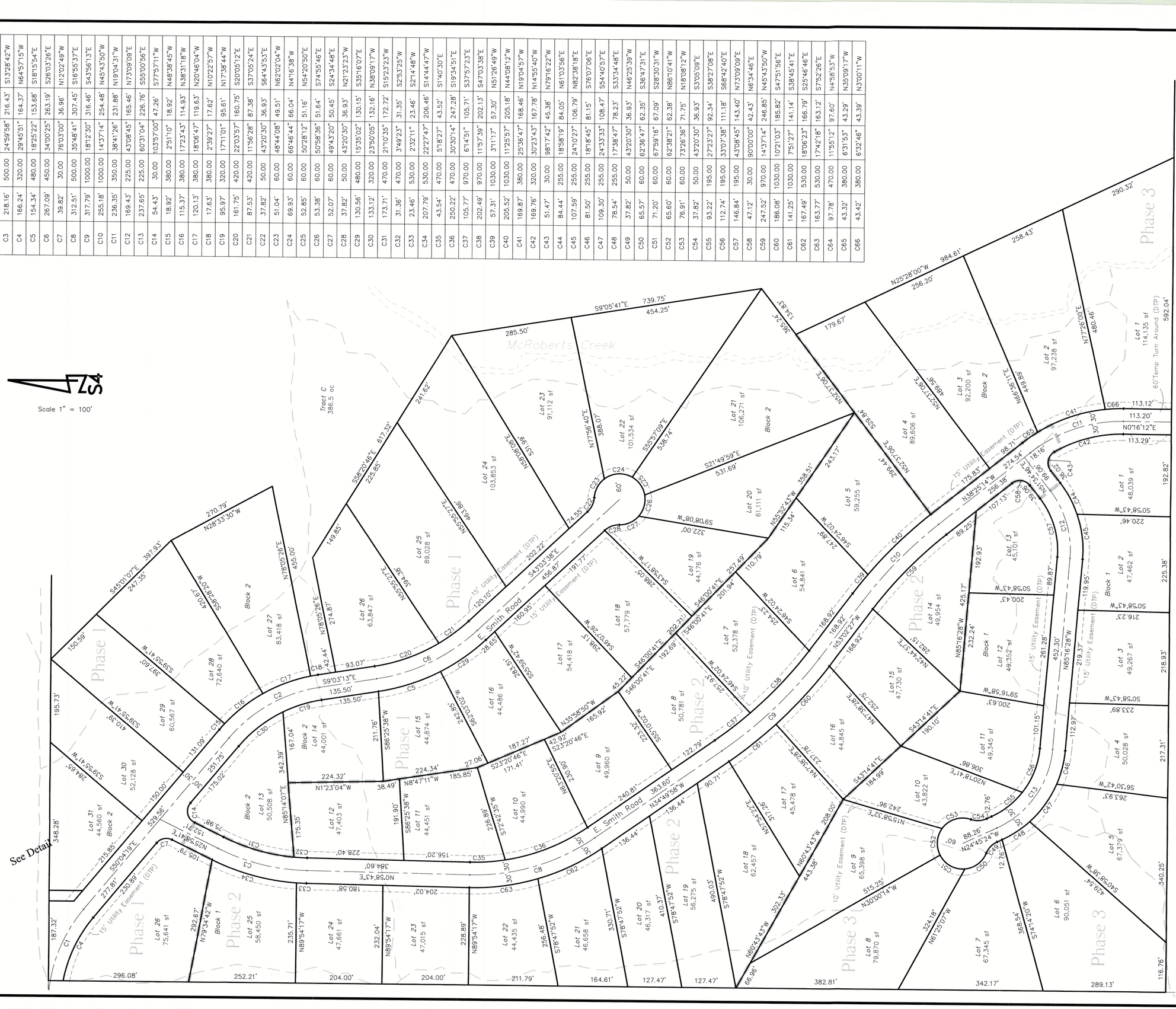
Government Lot 1 in Section 6, Township 17 North, Range 3 East, Seward Meridian, being located in the Palmer Recording District, Third Judicial District, State of Alaska.

EXCEPTING THEREFROM THE SUBSURFACE ESTATE and all rights, privileges, immunities and appurtenances of whatsoever nature accruing unto said estate pursuant to the Alaska Native Claims Settlement Act of December 18, 1971 (85 Stat 688,704; 43 USC 1601,1613(f)(1976)) as reserved by the United States of America in the Patent to said land.
Containing 474.893 acres more or less.

S4 Group
Land Surveying
Land Development Consultants
Subdivision Specialists
Construction Surveying
610 E 5th Avenue
Anchorage,
Alaska 99501
(907) 306-8104
mail@S4AK.com

Scale 1" = 300'	Job No: 2021–90	AECC 173042
Field Book: 129	Sheet 1 of 2	Date: 7/28/2025

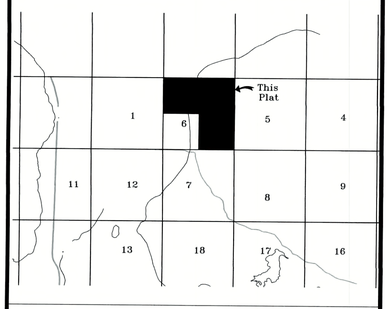
CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	Chord	Chord Bearing
C1	187.14'	350.00	30°38'07"	184.92'	N65°23'23"W
C2	250.57'	350.00	41°01'06"	245.25'	N29°33'46"W
C3	218.16'	500.00	24°59'58"	216.43'	S13°28'42"W
C4	166.24'	320.00	29°45'51"	164.37'	N64°57'15"W
C5	154.34'	480.00	18°25'22"	153.68'	S18°15'54"E
C6	267.09'	450.00	34°00'25"	263.19'	S26°03'26"E
C7	39.82'	30.00	76°03'00"	36.96'	N12°02'49"W
C8	312.51'	500.00	35°48'41"	307.45'	S16°55'37"E
C9	317.79'	1000.00	18°12'30"	316.46'	S43°56'13"E
C10	255.18'	1000.00	14°37'14"	254.48'	N45°43'50"W
C11	236.35'	350.00	38°41'26"	231.88'	N19°04'31"W
C12	169.43'	225.00	43°08'45"	165.46'	N73°09'09"E
C13	237.65'	225.00	60°31'04"	226.76'	S55°00'56"E
C14	54.43'	30.00	103°57'00"	47.26'	S77°57'11"W
C15	18.92'	380.00	2°51'10"	18.92'	N48°38'45"W
C16	115.37'	380.00	17°23'43"	114.93'	N38°31'18"W
C17	120.13'	380.00	18°06'47"	119.63'	N20°46'04"W
C18	17.63'	380.00	2°39'27"	17.62'	N10°22'57"W
C19	95.97'	320.00	17°11'01"	95.61'	N17°38'44"W
C20	161.75'	420.00	22°03'57"	160.75'	S20°05'12"E
C21	87.53'	420.00	11°56'28"	87.38'	S37°05'24"E
C22	37.82'	50.00	43°20'30"	36.93'	S64°43'53"E
C23	51.04'	60.00	48°44'08"	49.51'	N62°02'04"W
C24	69.93'	60.00	66°46'44"	66.04'	N4°16'38"W
C25	52.85'	60.00	50°28'12"	51.16'	N54°20'50"E
C26	53.38'	60.00	50°58'36"	51.64'	S74°55'46"E
C27	52.07'	60.00	49°43'20"	50.45'	S24°34'48"E
C28	37.82'	50.00	43°20'30"	36.93'	N21°23'23"W
C29	130.56'	480.00	15°35'02"	130.15'	S35°16'07"E
C30	133.12'	320.00	23°50'05"	132.16'	N38°09'17"W
C31	173.71'	470.00	21°10'35"	172.72'	S15°23'23"W
C32	31.36'	470.00	3°49'23"	31.35'	S2°53'25"W
C33	23.46'	530.00	2°32'11"	23.46'	S2°14'48"W
C34	207.79'	530.00	22°27'47"	206.46'	S14°44'47"W
C35	43.54'	470.00	5°18'27"	43.52'	S1°40'30"E
C36	250.22'	470.00	30°30'14"	247.28'	S19°34'51"E
C37	105.77'	970.00	6°14'51"	105.71'	S33°57'23"E
C38	202.49'	970.00	11°57'39"	202.13'	S47°03'38"E
C39	57.31'	1030.00	3°11'17"	57.30'	N51°26'49"W
C40	205.52'	1030.00	11°25'57"	205.18'	N44°08'12"W
C41	169.87'	380.00	25°36'47"	168.46'	N19°04'57"W
C42	169.76'	320.00	30°23'43"	167.78'	N14°55'40"W
C43	51.47'	30.00	98°17'42"	45.38'	N79°16'22"W
C44	84.44'	255.00	18°58'19"	84.05'	N61°03'56"E
C45	107.59'	255.00	24°10'27"	106.79'	N82°38'18"E
C46	81.50'	255.00	18°18'45"	81.15'	S76°07'06"E
C47	109.30'	255.00	24°33'33"	108.47'	S54°40'57"E
C48	78.54'	255.00	17°38'47"	78.23'	S33°34'48"E
C49	37.82'	50.00	43°20'30"	36.93'	N46°25'39"W
C50	65.57'	60.00	62°36'47"	62.35'	S36°47'31"E
C51	71.20'	60.00	67°59'16"	67.09'	S28°30'31"W
C52	65.60'	60.00	62°38'21"	62.38'	N86°10'41"W
C53	76.91'	60.00	73°26'36"	71.75'	N18°08'12"W
C54	37.82'	50.00	43°20'30"	36.93'	S3°05'09"E
C55	93.22'	195.00	27°23'27"	92.34'	S38°27'08"E
C56	112.74'	195.00	33°07'38"	111.18'	S68°42'40"E
C57	146.84'	195.00	43°08'45"	143.40'	N73°09'09"E
C58	47.12'	30.00	90°00'00"	42.43'	N6°34'46"E
C59	247.52'	970.00	14°37'14"	246.85'	N45°43'50"W
C60	186.08'	1030.00	10°21'03"	185.82'	S47°51'56"E
C61	141.25'	1030.00	7°51'27"	141.14'	S38°45'41"E
C62	167.49'	530.00	18°06'23"	166.79'	S25°46'46"E
C63	163.77'	530.00	17°42'18"	163.12'	S7°52'26"E
C64	97.78'	470.00	11°55'12"	97.60'	N4°58'53"W
C65	43.32'	380.00	6°31'53"	43.29'	N3°09'17"W
C66	43.42'	380.00	6°32'46"	43.39'	N3°00'11"W



Agenda Copy

RECEIVED
JUL 28 2025
PLATTING

Vicinity Map Scale: 1" = 1 Mile



A Preliminary Plat of:

Smith Subdivision

Government Lot 1 in Section 6, Township 17 North, Range 3 East, Seward Meridian, being located in the Palmer Recording District, Third Judicial District, State of Alaska.

EXCEPTING THEREFROM THE SUBSURFACE ESTATE and all rights, privileges, immunities and appurtenances of whatsoever nature accruing unto said estate pursuant to the Alaska Native Claims Settlement Act of December 18, 1971 (85 Stat 688,704; 43 USC 1601,1613(f)(1976)) as reserved by the United States of America in the Patent to said land.
Containing 474.893 acres more or less.

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Subdivision Specialists
Construction Surveying

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Alaska 99501
(907) 306-8104
mail@S4AK.com

Scale 1" = 100'	Job No: 2021-90	AECC 173042
Field Book: 129	Sheet 2 of 2	Date: 7/28/2025

PUBLIC HEARINGS

6A

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 7, 2025

PRELIMINARY PLAT: HATCHER CREEK ESTATES MSP

LEGAL DESCRIPTION: SEC 3, T18N, R01E, SEWARD MERIDIAN AK

PETITIONERS: RUVIM SHEVCHUK, DAVID RUDENKIY

SURVEYOR/ENGINEER: HANSON LAND SOLUTIONS

ACRES: 39.99 ± PARCELS: 37

REVIEWED BY: CHRIS CURLIN CASE #: 2025-79

REQUEST: The request is to create 36 lots and 1 tract by a four-phase master plan from Tax Parcel C1, to be known as **HATCHER CREEK ESTATES**, containing 39.00 acres +/-. The property is located directly east of N. Covington Street, directly south of N. Wasilla Fishhook Road, and directly west of N. New Hope Farm Road; within the SW ¼ Section 3, Township 18 North, Range 01 East, Seward Meridian, Alaska. In the Fishhook Community Council and in Assembly District #1.

EXHIBITS

Vicinity Map **EXHIBIT A** – 1 pg

The petitioner has requested a continuance to August 21, 2025. The request is for a redesign to address ADOT&PF concerns.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve a continuance of Hatchers Creek Estates, Section 3, Township 18 North, Range 01 East, Seward Meridian, Alaska, contingent on staff recommendations:

6B

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 7, 2025

PRELIMINARY PLAT: THE ARCHES

LEGAL DESCRIPTION: SEC 20, T18N, R01E, SEWARD MERIDIAN AK

PETITIONERS: DRAPER LLC

SURVEYOR/ENGINEER: HANSON LAND SOLUTIONS

ACRES: 5.63 ± PARCELS: 6

REVIEWED BY: MATTHEW GODDARD CASE #: 2025-080

REQUEST: The request is to create 5 lots and one tract from Tract 2, MSB Waiver #2003-259-PWm, recorded at 2003-037481-0, to be known as **THE ARCHES,** containing 5.63 acres +/-. Proposed Tract A is to serve as a private road, providing access for all proposed lots. The property is located south of E. Pamela Drive, east of N. Wasilla Fishhook Road, and directly west of N. Ahina Circle (Tax ID #18N01E20B024); within the NW ¼ Section 20, Township 18 North, Range 01 East, Seward Meridian, Alaska. In the North Lakes Community Council and in Assembly District #6.

EXHIBITS:

SUPPORTING DOCUMETATION:

Vicinity Map and Aerial Photos	**PAGES** – 1-5
Geotechnical Report	**PAGES** – 6-11
Site Plan	**PAGES** – 12-17
Average Daily Traffic (ADT) Calculations	**PAGES** – 18-19

AGENCY COMMENTS

Department of Public Works Pre-Design & Engineering Division	**PAGES** – 20
Development Services	**PAGES** – 21-22
Utilities	**PAGES** – 23-26

DISCUSSION: The proposed subdivision is creating five lots and one tract. Tract A is being proposed as a private road to serve as access for all lots. The petitioner will need to provide a private road maintenance agreement pursuant to MSB 43.20.100(C)(4). Access for the proposed subdivision is from N. Ahina Circle, a Borough maintained road.

Access: Legal and physical access to the proposed lots are required pursuant to MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Access requirements will be met once interior street is constructed.

Soils Report: A geotechnical report was submitted (**Exhibit Pages 6-11**), pursuant to MSB 43.20.281(A). William Klebesadel, Registered Professional Engineer, notes that all proposed lots have a minimum of 40,000 square feet in total area. All lots meet the 3-to-1 lot configuration ratio per Title 43.20.300(B). Three test holes were dug to a depth of 12'. Test holes 1 and 2 contained GW soils, test hole 3 contained SW soils. No ground water was encountered. "*I have assessed the land of the proposed subdivision in light of Title 43.20.281 of the Matanuska-Susitna Borough Code. The foregoing parameters have directed my investigation. My conclusions for all lots within the subdivision as follows: 1. All contain sufficient overall area. 2. All have at least 10,000 square feet of Useable Building Area. 3. All have at least 10,000 square feet of Contiguous Useable Septic Area."*
An as-built was submitted and is at **Exhibit Page 13**.
A drainage plan was submitted and is at **Exhibit Page 15**.
A plan and profile was submitted and is at **Exhibit Pages 16-17**.

Average Daily Traffic Calculation (ADT): An average daily traffic calculation was submitted and is at **Exhibit Pages 18-19**. Based on the supplied ADT, no upgrades will be required for any existing Borough roads.

Comments:

Department of Public Works Pre-Design and Engineering Division (**Exhibit Page 20**) notes that were this to change to a public road, PD&E would want a drainage easement off the end of the cul-de-sac. As a private road, PD&E has no objection to the drainage design, as long as the drainage report shows compliance with all drainage design criteria (**Recommendation #4d**).

Development Services (**Exhibit Pages 21-22**) has no comments or objections.

Utilities: (**Exhibit Pages 23-26**) ENSTAR has no comments or recommendations. GCI has no comments or objections. MEA did not respond. MTA did not respond.

At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; USACE; Community Council #7 North Lakes; Fire Service Area #132 Greater Palmer Consolidated; Road Service Area #28 Gold Trail; MSB Emergency Services, Community Development, Assessments, or Planning; MEA or MTA.

CONCLUSION: The preliminary plat of The Arches is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There were no objections to the plat from the public in response to the Notice of Public Hearing. Legal and physical access will exist to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.218(A)(1).

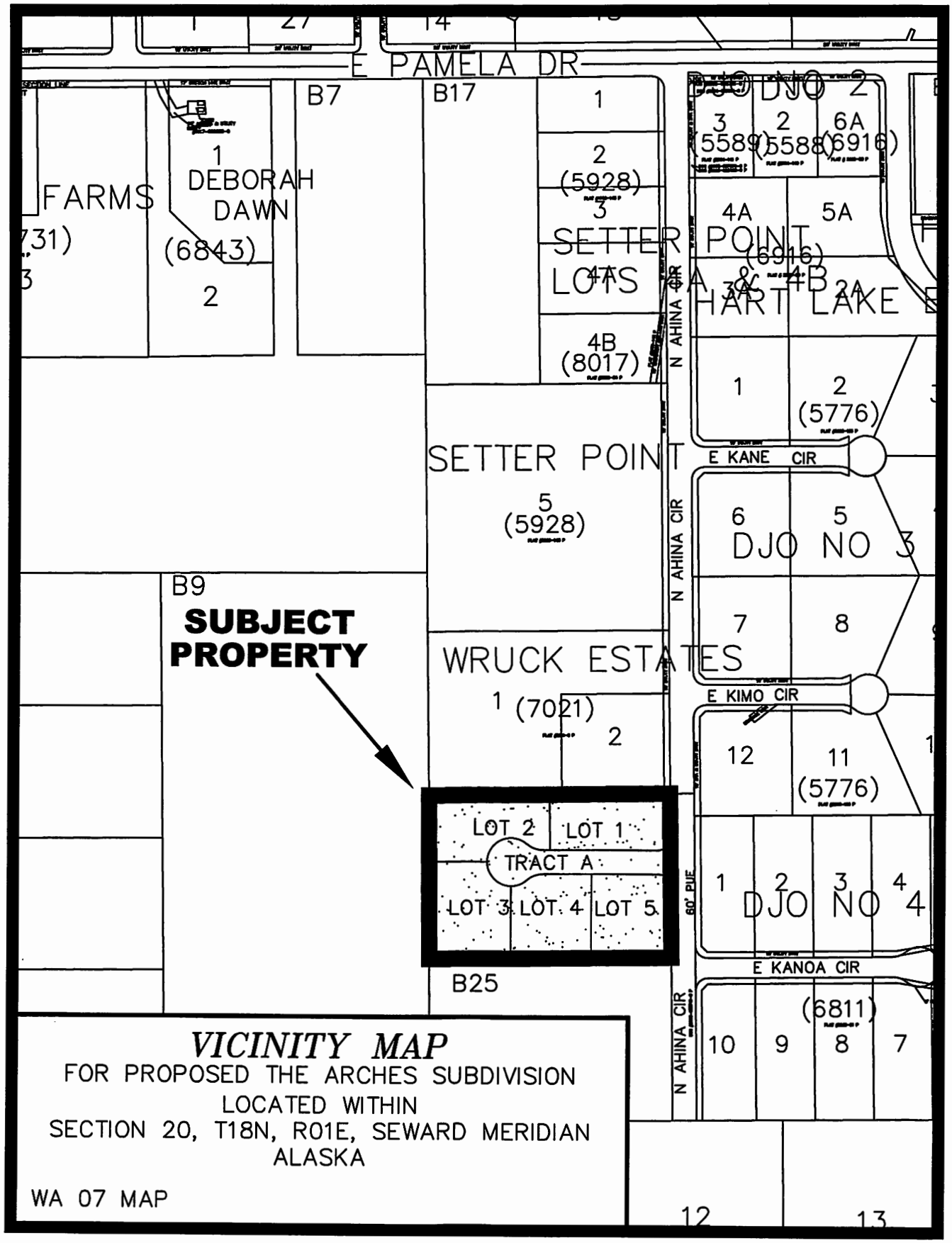
FINDINGS OF FACT

1. The plat of The Arches is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
2. A soils report was submitted, pursuant to MSB 43.20.281(A)(1).
3. The petitioner has requested private road access.
4. The lot has the required frontage pursuant to MSB 43.20.320.
5. At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; USACE; Community Council #7 North Lakes; Fire Service Area #132 Greater Palmer Consolidated; Road Service Area #28 Gold Trail; MSB Emergency Services, Community Development, Assessments, or Planning; MEA or MTA.
6. There were no objections from any federal or state agencies, Borough departments, or utilities.
7. There were no objections from the public in response to the Notice of Public Hearing.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the preliminary plat of The Arches, Section 20, Township 18 North, Range 01 East, Seward Meridian, Alaska, contingent on staff recommendations

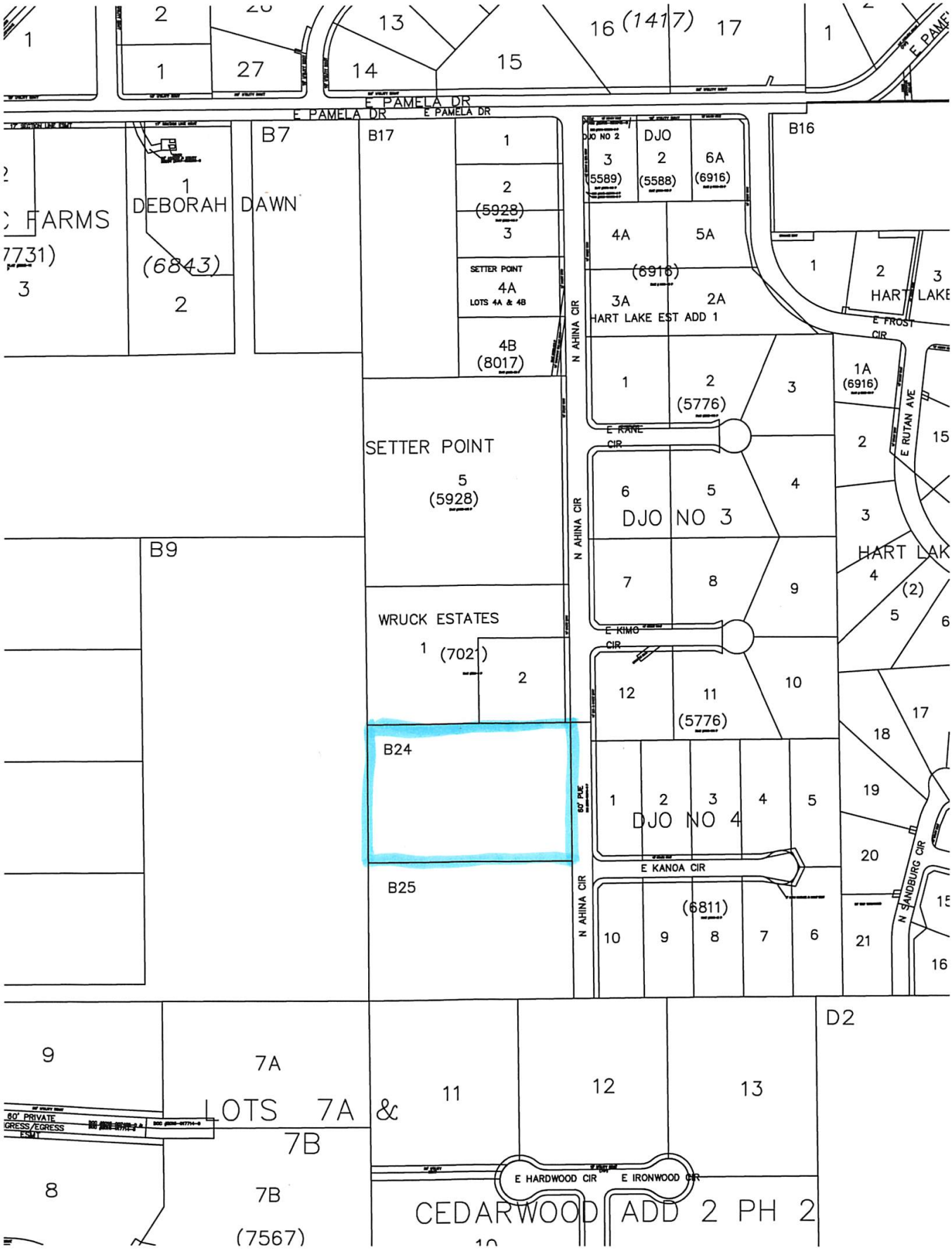
1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Construct the access road and cul-de-sac to residential street standards according to the 2022 Subdivision Construction Manual (SCM):
   a) Submit drainage report and other construction plans to Department of Public Works (DPW) per SCM F01.2;
   b) Arrange preconstruction conference with DPW per SCM F01.3, sign Subdivision Construction Plan, pay inspection fee, and obtain Notice to Proceed from Platting staff;
   c) Arrange Pre-Final and Final Inspections with DPW per SCM F01.6 and F01.7 and submit Final Report to Platting per F01.8;
   d) Coordinate with MSB DPW to determine any required drainage easement. Record drainage easements as required and show the recorded information on the final plat.
   e) Obtain Certificate of Construction Acceptance from DPW per F01.9.
   f) Submit as-built of streets and drainage improvements to Platting staff once construction is complete.
   g) Obtain approval of street names from Platting Assistant.
5. Provide a private road maintenance agreement per MSB 43.20.100(C)(4).
6. Record private utility easements as shown on the agenda plat. Show recorded utility easements on the final plat.
7. Show all easements of record on final plat.
8. Submit recording fees, payable to Department of Natural Resources (DNR).
9. Submit plat in full compliance with Title 43.

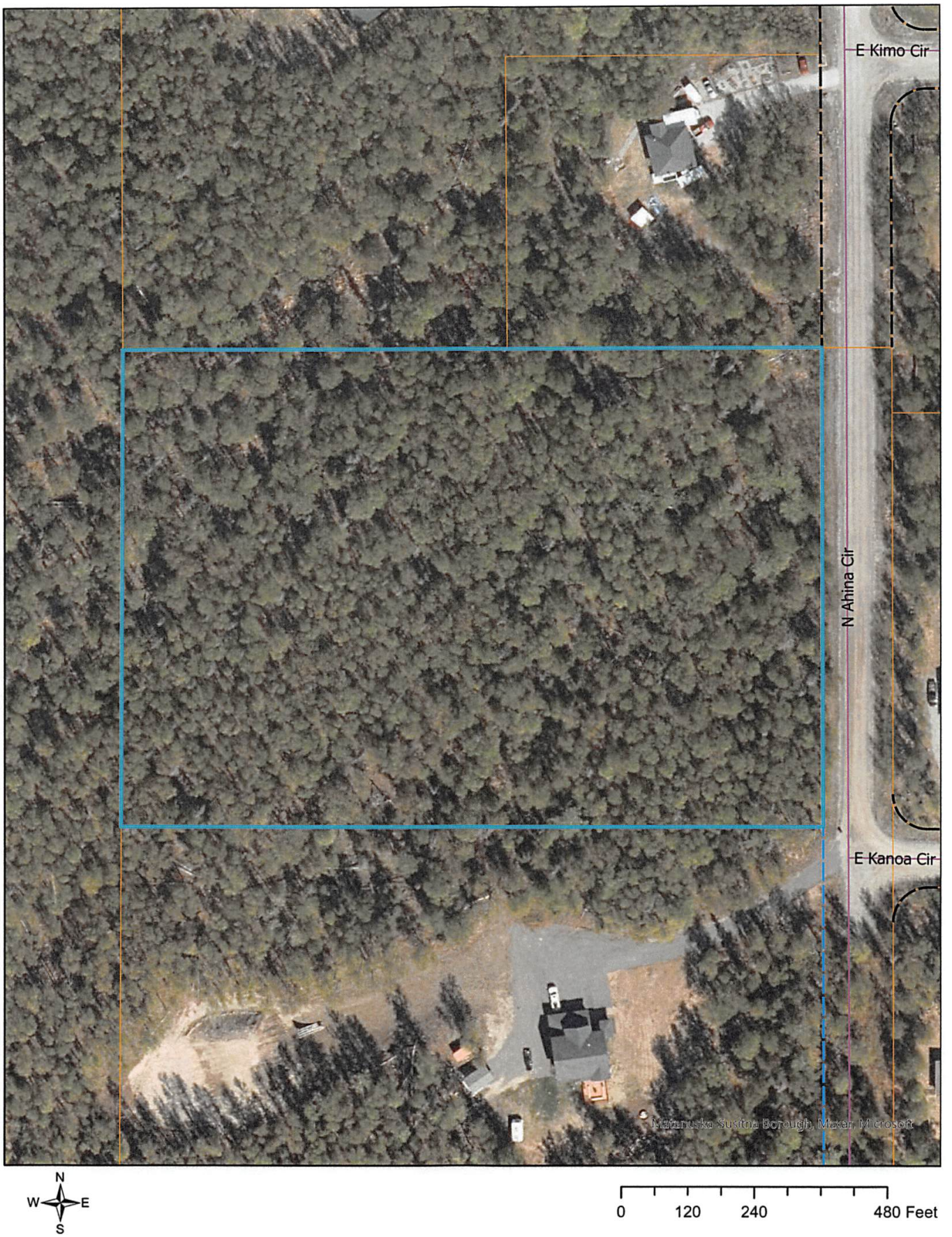


VICINITY MAP

FOR PROPOSED THE ARCHES SUBDIVISION
LOCATED WITHIN
SECTION 20, T18N, R01E, SEWARD MERIDIAN
ALASKA

WA 07 MAP


E PAMELA DR
B7
B17
B16
DEBORAH DAWN
(6843)
SETTER POINT
4A
LOTS 4A & 4B
4B
(8017)
N AHINA CIR
DJO NO 2
DJO
(5589)
(5588)
(6916)
4A
5A
3A
2A
HART LAKE EST ADD 1
E FROST CIR
HART LAKE
1A
(6916)
(5776)
E RANE CIR
E RUTAN AVE
SETTER POINT
5
(5928)
DJO NO 3
B9
WRUCK ESTATES
(7021)
E KIMO CIR
B24
B25
60' PUE
DJO NO 4
E KANOA CIR
(6811)
N SANDBURG CIR
D2
LOTS 7A & 7B
60' PRIVATE INGRESS/EGRESS ESMT
E HARDWOOD CIR
E IRONWOOD CIR
CEDARWOOD ADD 2 PH 2
7B
(7567)


E Kimo Cir
N Ahina Cir
E Kanoa Cir
Matanuska-Susitna Borough, Maxar, Microsoft
N
W
E
S
0
120
240
480 Feet


E Kimo Cir
534
544
530
540
536
528
532
N Ahina Cir
532
530
526
E Kanoa Cir
524
522
520
N
W
E
S
0
120
240
480 Feet


PUE
ON LINE ESMT
N LINE ESMT
E Frost Cir
E Kane Cir
N Ahtna Cir
E Rutan Ave
E Kimo Cir
N Sandburg Cir
N Kipling Dr
E Kanoa Cir
50' TEMP TURNAROUND
N Sandberg Dr
E Mary Martin Dr
E Hardwood Cir
E Ironwood Cir
N Amberwood Pl
E Tigerwood Cir
N
W
E
S
0
475
950
1,900 Feet

HANSON LAND SOLUTIONS
SURVEYING, ENGINEERING & LAND DEVELOPMENT SERVICES
305 E. Fireweed Ave. Palmer, AK 99645

RECEIVED
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USEABLE AREA CERTIFICATION

A SUBDIVISION OF TRACT 2 WAIVER RESOLUTION 2003-259-Pwm

To BE KNOWN AS THE ARCHES

INTRODUCTION TO INVESTIGATION

The following report outlines parameters and conclusions of an investigation into the suitability of the proposed subdivision lots for supporting construction and on-site waste-water treatment. Consideration is limited to only those lots containing less than 400,000 square feet of area and the report specifically addresses parameters set forth in Title 43.20.281 of the Matanuska-Susitna Borough Code.

INDIVIDUAL LOTS: GEOMETRY

☒ All lots within this proposed subdivision are composed of at least 40,000 square feet in total area.

EXCEPTIONS:

☒ Lots of 40,000 square feet minimum maintain the 3-to-1 lot configuration ratio per Title 43.20.300(B).

☐ Lots of 40,000 square feet minimum maintain an average width of at least 125 ft but exceed the 3-to-1 ratio due to unusable wetlands and/or natural ground slope exceeding 25 percent. LOTS:

USABLE BUILDING AREAS

CONFLICTING USE CONSIDERATIONS:

☒ All land recognized as suitable for Building Area is outside of lands dedicated to Public Use and lands reserved by Mat-Su Borough Improvement Setbacks, including boundary and water/wetland setbacks.

TOPOGRAPHIC/PLANIMETRIC CONSIDERATIONS:

☒ All land recognized as suitable for Building Area is characterized by slopes and soils upon which construction is possible.

USABLE SEPTIC AREAS

CONFLICTING USE CONSIDERATIONS:

☒ All land recognized as suitable for Useable Septic Area is outside of any land dedicated to Public Use.

☒ The Useable Septic Area is not situated within any easement (Utility or otherwise) such that use of said easement would interfere with an on-site septic.

TOPOGRAPHIC/PLANIMETRIC CONSIDERATIONS:

☒ The useable area consists entirely of land sloping less than 25% or will be at final certification.

☒ The useable area is set back 50' from any slopes exceeding 25% with more than 10' of elevation change or will be at final certification.

☒ The useable area is not less than 100' from the mean high water of any body of water, swamp, bog or marsh

☒ The useable area is not less than 200' from any public water well, nor less than 100' from any known private water well

☒ The useable area is outside of any known debris burial site.

SOILS INVESTIGATION

EXCAVATIONS

☒ Test-holes or borings have been made such that the bottom of the excavation is at least 12' deep and "shallow trench" or "bed systems" are anticipated

☐ Test-holes or borings have been made such that the bottom of the excavation is at least 16' deep and "deep trench" or "sewage pits" will likely be used

☐ Test-holes or borings were made to the depth of permafrost or an impermeable layer. (test holes with permafrost or impermeable layer):

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305 E. Fireweed Ave. Palmer, AK 99645

SOIL CLASSIFICATIONS

☒ Soils within the potential absorption system area are expected to have a percolation rate of 15 minutes per inch or faster and have been visually classified under Uniform Soils Classification System as:

(GW) TEST HOLES:	TH-1; TH-2	(GP) TEST HOLES:	
(SW) TEST HOLES:	TH-3	(SP) TEST HOLES:	

☐ Soils within the potential absorption system area have been shown by mechanical analysis to be classified under the Uniform Soils Classification System as:

(GM) TEST HOLES:		(SM) TEST HOLES:	

☐ Soils within the potential absorption system area have been shown by a percolation test, conducted in accordance with Alaska Department of Environmental Conservation (ADEC) regulations to have a percolation rate of 60 minutes per inch or faster. TEST HOLES:

☐ Bedrock, Clay, or other impermeable stratum was encountered. TEST HOLES:

GROUND WATER INVESTIGATION

☒ No groundwater was encountered in any of the Test Holes

☐ Groundwater was encountered in some Test Holes and excavation continued at least 2' below encounter depth. Seasonal High Water table level was determined by:

- ☐ Monitoring Test Holes May through October: TEST HOLES:
- ☐ Soil Mottling or Staining Analysis: TEST HOLES:

☐ Depth to seasonal high water is a min. of 8' TEST HOLES:

☐ Depth to seasonal high water is less than 8'

- ☐ Fill will be required
- ☐ A suitable standard design will be provided

SUMMARY OF REQUIRED FURTHER ACTION

☐ Additional Fill required to ensure 8' of coverage above water table Lots:

☐ The following special considerations preclude the reasonable creation of 8' of water table clearance and a standard septic design will be provided and constructed:

☐ Re-Grading will be required to eliminate slopes in excess of 25% Lots:

☒ No further action required to establish sufficient usable area.

I have assessed the land of the proposed subdivision in light of Title 43.20.281 of the Matanuska-Susitna Borough Code. The foregoing parameters have directed my investigation. My conclusions for all lots within the subdivision as follows: 1. All contain sufficient overall area 2. All have at least 10,000 square feet of "Useable Building Area" 3. All have at least 10,000 square feet of "Contiguous Useable Septic Area".

Bill Klebesadel 3-18-25

WILLIAM KLEBESADEL P.E. ***Date***

Professional Engineer



HANSON LAND SOLUTIONS

SURVEYING ENGINEERING & LAND DEVELOPMENT SERVICES

305 E. Fireweed Ave. Palmer, AK 99645

GEOTECHNICAL ANALYSIS – SOIL INSPECTION LOG

Parcel:	TRACT 2 WAIVER RESOLUTION 2003-259-Pwm	TEST HOLE NO.	Date:	03/18/25
Insp. By:	PIONEER (SW)	1	Job #	25-114

TEST HOLE EXCAVATION ANALYSIS

1ft 2ft 3ft	OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
4ft 5ft 6ft 7ft 8ft 9ft 10ft 11ft 12ft	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIX, LITTLE/NO FINES.
13ft 14ft 15ft 16ft 17ft 18ft 19ft 20ft		

Depth	
12'	Total Depth of Test Hole
None	Depths where Seeps encountered
None	Depths where Ground Water encountered
None	Depths where Impermeable Soil (Silt / Clay / Bedrock encountered
No	Monitor Tube Installed?

TEST HOLE LOCATION MAP

See attached

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Perc. Hole Diam. (in.):

Test Run Between:

ft and ft Deep

STATE OF ALASKA
49 TH
WILLIAM S. KLEBESADEL
CE-9135
3-18-25
REGISTERED PROFESSIONAL ENGINEER

COMMENTS:

WATER LEVEL MONITORING

Date	WATER LEVEL

HANSON LAND SOLUTIONS

SURVEYING ENGINEERING & LAND DEVELOPMENT SERVICES

305 E. Fireweed Ave. Palmer, AK 99645

GEOTECHNICAL ANALYSIS – SOIL INSPECTION LOG

Parcel:	TRACT 2 WAIVER RESOLUTION 2003-259-Pwm	TEST HOLE NO.	Date:	03/18/25
Insp. By:	PIONEER (SW)	2	Job #	25-114

TEST HOLE EXCAVATION ANALYSIS

1ft – 2ft	OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
3ft – 12ft	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIX, LITTLE/NO FINES.
13ft		
14ft		
15ft		
16ft		
17ft		
18ft		
19ft		
20ft		

Depth	
12'	Total Depth of Test Hole
None	Depths where Seeps encountered
None	Depths where Ground Water encountered
None	Depths where Impermeable Soil (Silt / Clay / Bedrock encountered
No	Monitor Tube Installed?

TEST HOLE LOCATION MAP

See attached

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Perc. Hole Diam. (in.):			
Test Run Between:			
	ft and		ft Deep

STATE OF ALASKA
49 TH
WILLIAM S. KLEBESADEL
CE-9135
3-18-25
REGISTERED PROFESSIONAL ENGINEER

COMMENTS:

WATER LEVEL MONITORING

Date	WATER LEVEL

HANSON LAND SOLUTIONS

SURVEYING ENGINEERING & LAND DEVELOPMENT SERVICES

305 E. Fireweed Ave. Palmer, AK 99645

GEOTECHNICAL ANALYSIS – SOIL INSPECTION LOG

Parcel:	TRACT 2 WAIVER RESOLUTION 2003-259-Pwm	TEST HOLE NO.	Date:	03/18/25
Insp. By:	PIONEER (SW)	3	Job #	25-114

TEST HOLE EXCAVATION ANALYSIS

1ft – 2ft	OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
3ft – 12ft	SW	WELL-GRADED SANDS,GRAVELLY SANDS, LITTLE/NO FINES
13ft – 20ft		

Depth	
12'	Total Depth of Test Hole
None	Depths where Seeps encountered
None	Depths where Ground Water encountered
None	Depths where Impermeable Soil (Silt / Clay / Bedrock encountered
No	Monitor Tube Installed?

TEST HOLE LOCATION MAP

See attached

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Perc. Hole Diam. (in.):

Test Run Between:

ft and ft Deep



COMMENTS:

WATER LEVEL MONITORING

Date	WATER LEVEL

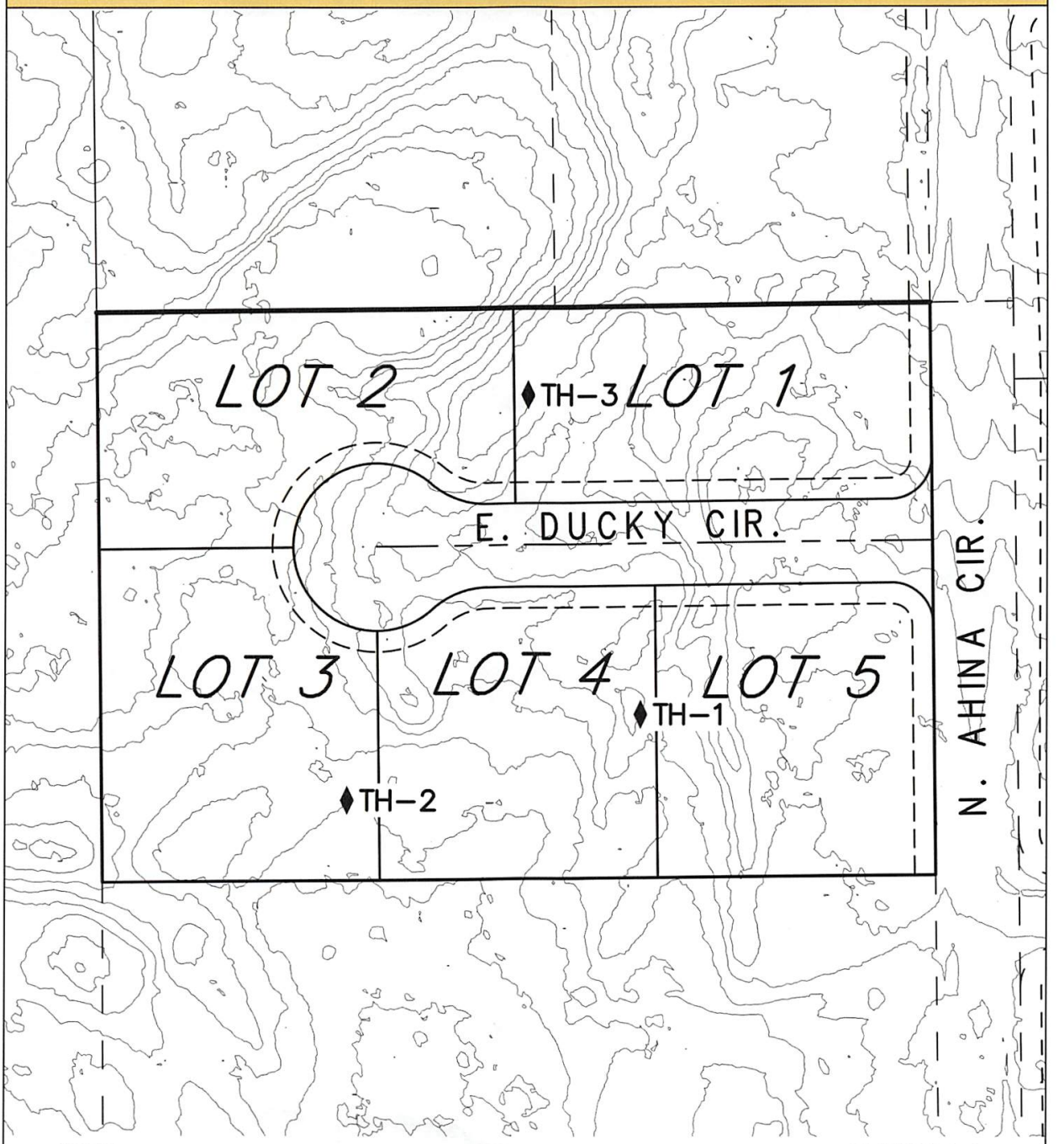
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SURVEYING, ENGINEERING, & LAND DEVELOPMENT SERVICES

305 EAST FIREWEED AVENUE PALMER, ALASKA, 99645

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MAY 21 2025
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TEST HOLE LOCATION EXHIBIT MAP



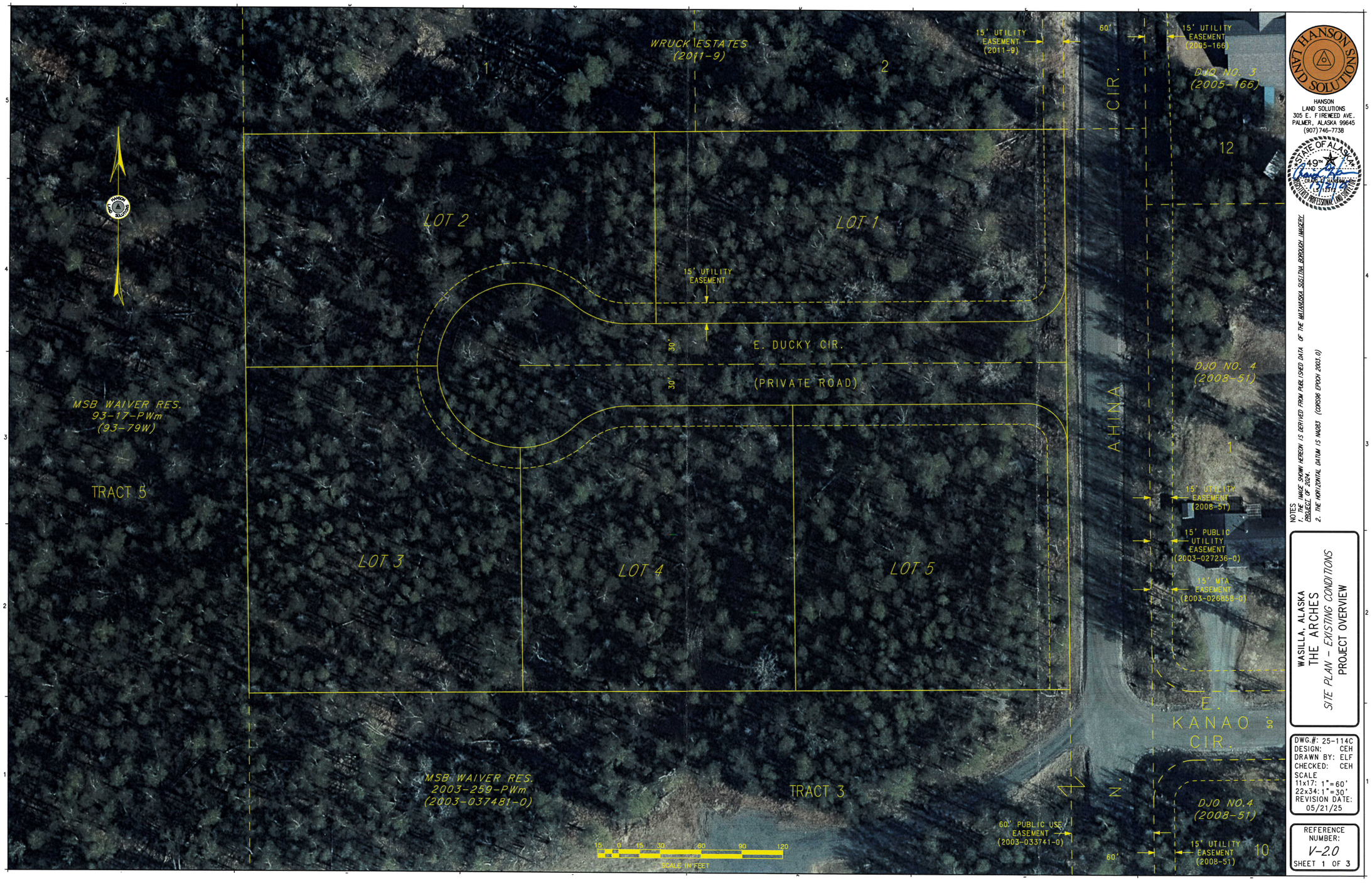
LEGEND

♦ TEST HOLE

THE ARCHES		
FILE: 25-114	DRAWN: ELF	05/21/25

EXHIBIT A

Page 1 of 1



NOTES
1. THE IMAGE SHOWN HEREON IS DERIVED FROM PUBLISHED DATA OF THE MATANUSKA SUSITNA BOROUGH IMAGERY PROJECT OF 2024.
2. THE HORIZONTAL DATUM IS NAD83 (CORS96 EPOCH 2003.0)

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

STATE OF ALASKA
49TH
CRAIG E. HANSON
12511
REGISTERED PROFESSIONAL LAND SURVEYOR

WASILLA, ALASKA
THE ARCHES
SITE PLAN – EXISTING CONDITIONS
PROJECT OVERVIEW

DWG.#: 25-114C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=60'
22x34: 1"=30'
REVISION DATE:
05/21/25

REFERENCE NUMBER:
V-2.0
SHEET 1 OF 3

WRUCK ESTATES
(2011-9)

1

2

15' UTILITY EASEMENT (2011-9)

60'

15' UTILITY EASEMENT (2005-166)

DJO NO. 3
(2005-166)

12

LOT 2
43995 SQ FT
1.01 ACRES ±

LOT 1
41819 SQ FT
0.96 ACRES ±

S89° 19' 41"W 300.11'

300.11' 600.21'

140.00'

S0° 44' 09"E 270.05'

407.93'

170.00'

15' UTILITY EASEMENT

C4 C3 C2 C1

30'

E. DUCKY CIR.

(PRIVATE ROAD)

S89° 19' 41"W 140.00'

S89° 19' 41"W 400.14'

109.97'

408.96'

120.00'

30'

C5 C6 C7

120.63' 170.20'

208.62'

C8

MSB WAIVER RES.
93-17-PWm
(93-79W)

TRACT 5

237.83'

N0° 44' 50"W

178.28'

N0° 45' 29"W

LOT 3
44788 SQ FT
1.03 ACRES ±

LOT 4
40499 SQ FT
0.93 ACRES ±

LOT 5
41588 SQ FT
0.95 ACRES ±

178.89'

N0° 43' 28"W

200.00' 200.00' 200.05'

N89° 25' 36"E 600.05'

MSB WAIVER RES.
2003-259-PWm
(2003-037481-0)

TRACT 3

60' PUBLIC USE EASEMENT (2003-033741-0)

60'

A H I N A C I R .

15' UTILITY EASEMENT (2008-51)

15' PUBLIC UTILITY EASEMENT (2003-027236-0)

15' MTA EASEMENT (2003-026858-0)

E. KANAO CIR.

50'

DJO NO.4
(2008-51)

15' UTILITY EASEMENT (2008-51)

10

DJO NO. 4
(2008-51)

1

15' UTILITY EASEMENT (2005-166)

LEGEND

- RECOVERED PLASTIC CAP ON ½" REBAR
- N74°58'11"W 255.65' MEASURED DATA
- PEDESTAL, TELEPHONE
- PEDESTAL, ELECTRIC
- GRAVEL ROAD/DRIVEWAY

CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH	CHORD BEARING	TANGENT
C1	47.15	30.00	90°03'08"	42.45	S44° 18' 07"W	30.03
C2	47.10	30.00	89°56'52"	42.41	S45° 41' 53"E	29.97
C3	43.36	60.00	41°24'35"	42.43	S69° 58' 02"E	22.68
C4	137.61	60.00	131°24'35"	109.37	N65° 01' 58"E	132.92
C5	94.29	60.00	90°02'35"	84.88	N45° 41' 37"W	60.05
C6	43.32	60.00	41°22'00"	42.38	N68° 36' 06"E	22.65
C7	43.36	60.00	41°24'35"	42.43	N68° 37' 23"E	22.68

15 0 15 30 60 90 120

SCALE IN FEET

N

HANSON LAND SOLUTIONS

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

STATE OF ALASKA
49TH
CRAIG E. HANSON
LS 12545
REGISTERED PROFESSIONAL LAND SURVEYOR

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NOTES
1. THIS FIELD SURVEY WAS CONDUCTED ON FEBRUARY 18, 2025. ALL MONUMENTS HAVE BEEN FOUND OR SET AS DESCRIBED HEREON.
2. ALL DIRECTIONS SHOWN ARE TRUE BEARINGS. AS ORIENTED TO THE BASIS OF BEARINGS.

WASILLA, ALASKA
THE ARCHES
SITE PLAN - EXISTING CONDITIONS
PLANIMETRY-AB

DWG.#: 25-114C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=60'
22x34: 1"=30'
REVISION DATE:
05/21/25

REFERENCE NUMBER:
V-2.1
SHEET 2 OF 3

WRUCK ESTATES
(2011-9)

15' UTILITY EASEMENT (2011-9)

60'

15' UTILITY EASEMENT (2005-166)

DJO NO. 3
(2005-166)

A'HINA CIR.

LOT 2
43995 SQ FT
1.01 ACRES ±

LOT 1
41819 SQ FT
0.96 ACRES ±

15' UTILITY EASEMENT

E. DUCKY CIR.
(PRIVATE ROAD)

DJO NO. 4
(2008-51)

MSB WAIVER RES.
93-17-PWm
(93-79W)

TRACT 5

LOT 3
44788 SQ FT
1.03 ACRES ±

LOT 4
40499 SQ FT
0.93 ACRES ±

LOT 5
41588 SQ FT
0.95 ACRES ±

15' UTILITY EASEMENT (2008-51)

15' PUBLIC UTILITY EASEMENT (2003-027236-0)

15' MIA EASEMENT (2003-026858-0)

MSB WAIVER RES.
2003-259-PWm
(2003-037481-0)

TRACT 3

E. KANAO CIR.

60' PUBLIC USE EASEMENT (2003-033741-0)

DJO NO.4
(2008-51)

15' UTILITY EASEMENT (2008-51)

SCALE IN FEET

HANSON LAND SOLUTIONS

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

STATE OF ALASKA
CRAIG E. HANSON
LS 12512
PROFESSIONAL LAND SURVEYOR

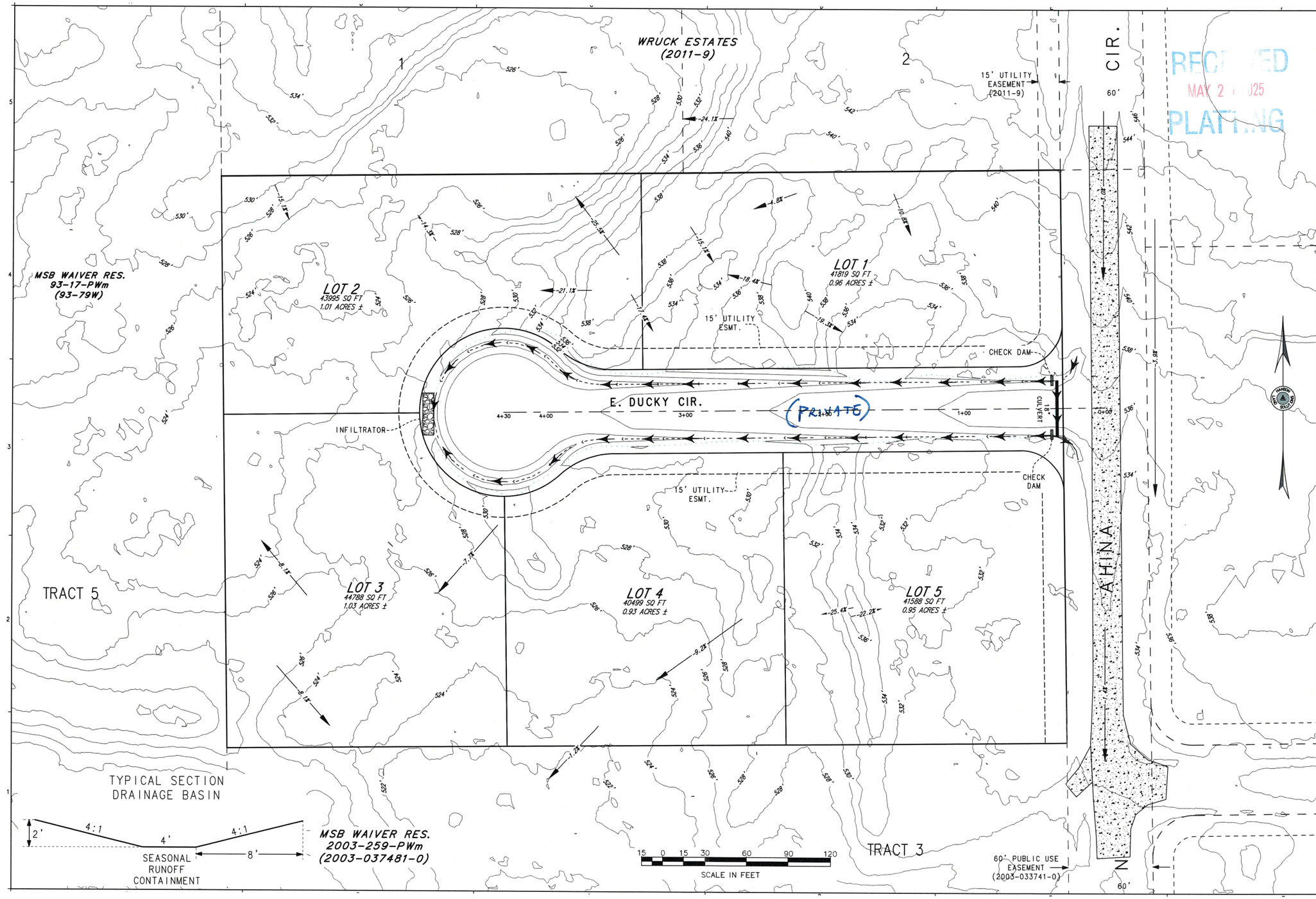
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MAY 21 2025
PLATTING

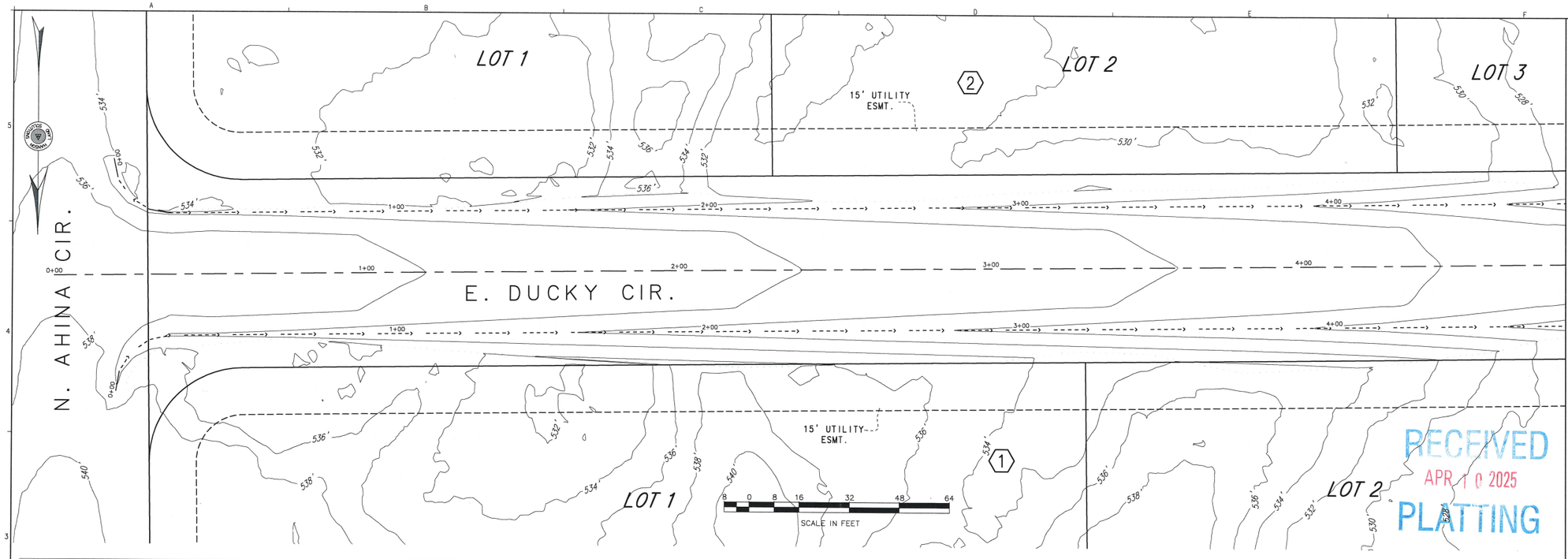
NOTES
1. THE 2' CONTOURS SHOWN HEREON WERE DERIVED FROM PUBLISHED DATA OF THE MATANUSKA SUSITNA BOROUGH LIDAR/IMAGERY PROJECT OF 2019.
2. THE HORIZONTAL DATUM IS NAD83 (CORS96 EPOCH 2003.0)
3. THE VERTICAL DATUM IS NAVD88 (GEOID09)

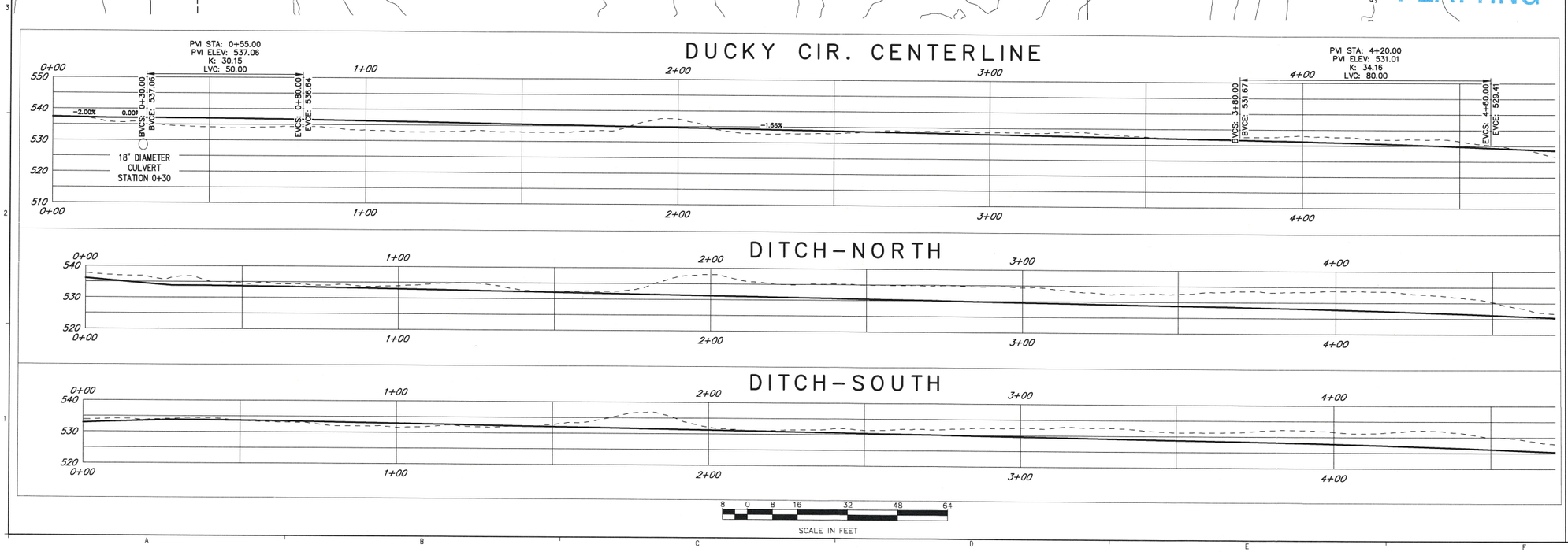
WASILLA, ALASKA
THE ARCHES
SITE PLAN - EXISTING CONDITIONS
TOPOGRAPHY

DWG.#: 25-114C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=60'
22x34: 1"=30'
REVISION DATE:
05/21/25

REFERENCE NUMBER:
V-2.2
SHEET 3 OF 3


WRUCK ESTATES
(2011-9)
15' UTILITY EASEMENT (2011-9)
CIR.
60'
MSB WAIVER RES.
93-17-PWm
(93-79W)
LOT 2
43985 SQ FT
1.01 ACRES ±
LOT 1
41819 SQ FT
0.96 ACRES ±
15' UTILITY ESMT.
CHECK DAM
E. DUCKY CIR.
PRIVATE
INFILTRATOR
CULVERT
18"
CHECK DAM
15' UTILITY ESMT.
TRACT 5
LOT 3
44788 SQ FT
1.03 ACRES ±
LOT 4
40499 SQ FT
0.93 ACRES ±
LOT 5
41528 SQ FT
0.95 ACRES ±
AHINA
TYPICAL SECTION
DRAINAGE BASIN
2'
4:1
4'
4:1
8'
SEASONAL RUNOFF CONTAINMENT
MSB WAIVER RES.
2003-259-PWm
(2003-037481-0)
SCALE IN FEET
TRACT 3
60' PUBLIC USE EASEMENT (2003-033741-0)
N
RECEIVED
MAY 2 1 2025
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HANSON LAND SOLUTIONS, LLC.
305 E. FIREWEED AVE.
PALMER, ALASKA 99645
(907)746-7738
STATE OF ALASKA
49TH
CHRISTIE E. HANSON
LICENSED PROFESSIONAL LAND SURVEYOR
15734
NOTES
1. CONTOURS WITHIN THE PROPOSED RIGHTS-OF-WAY ARE DISPLAYED AT A 2' INTERVAL AND PRESENT THE DESIGNED TOP OF THE SUBBASE (24" MFS) AND THE DITCH BACKSLOPES.
2. THE 2' BACKGROUND, ORIGINAL GROUND CONTOURS SHOWN HEREON WERE DERIVED FROM PUBLISHED DATA OF THE MATANUSKA SUSITNA BOROUGH LIDAR/IMAGERY PROJECT OF 2019.
3. PROJECT HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED WITH GPS POST-PROCESSED POSITIONING CONSTRAINED WITH AN OPUS SOLUTION OF A GPS STATIC OCCUPATION.
4. THE HORIZONTAL DATUM IS NAD83(EPOCH 2010)
WASILLA, ALASKA
THE ARCHES
SITE PLAN - DESIGN
GRADING-DRAINAGE PLAN
DWG.#: 25-114C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=60'
22x34: 1"=30'
REVISION DATE:
05/21/25
REFERENCE NUMBER:
D-1.0
SHEET 1 OF 3





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

STATE OF ALASKA
49TH
CRAIG E. HANSON
14115
REGISTERED PROFESSIONAL LAND SURVEYOR

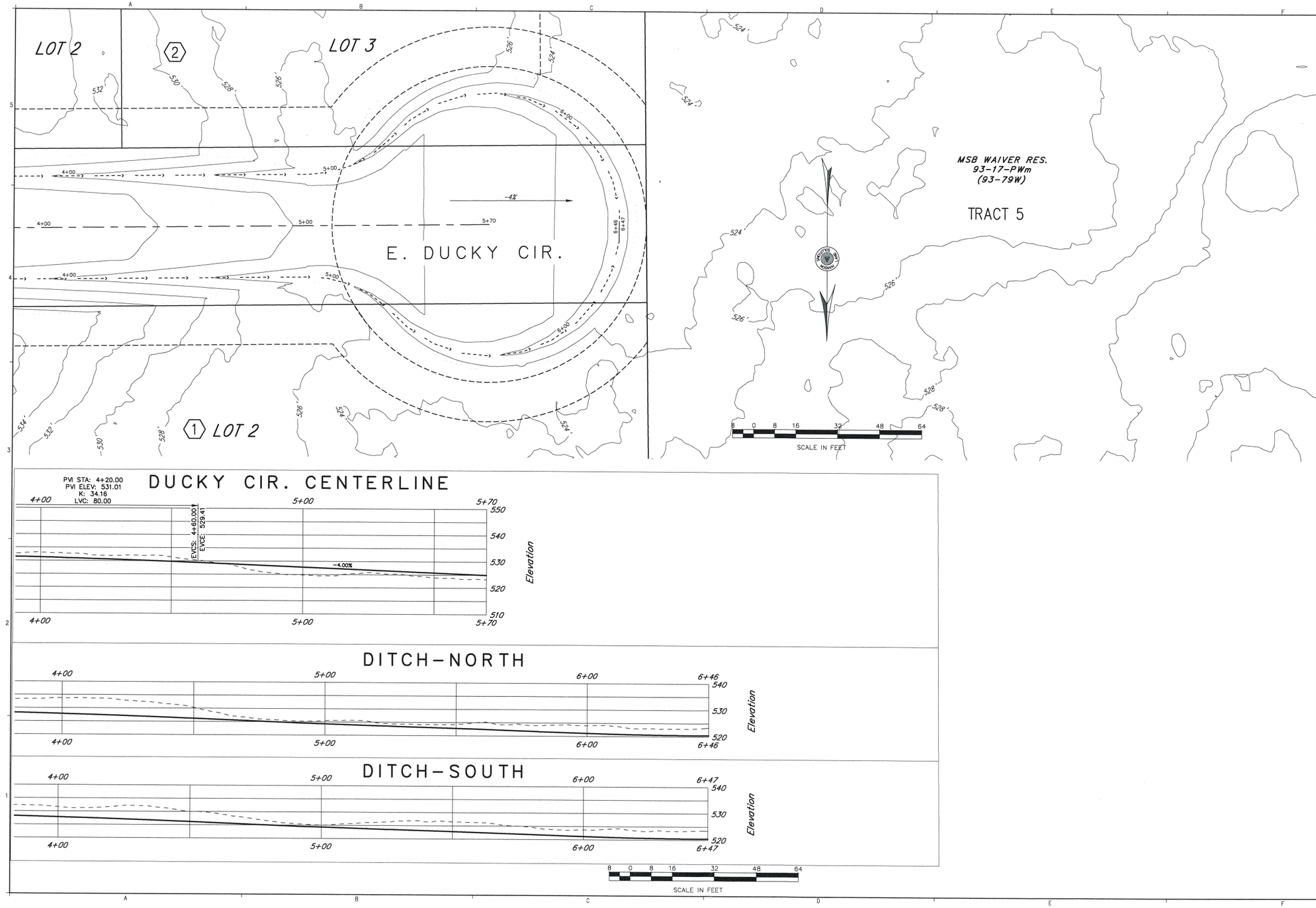
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NOTES
1. THE 2' ORIGINAL GROUND CONTOURS SHOWN HEREON ARE DERIVED FROM PUBLISHED DATA OF THE MATANUSKA SUSITNA BOROUGH LIDAR/IMAGERY PROJECT OF 2019.
2. DESIGN EXCAVATION/CONSTRUCTION CONTOURS ARE DISPLAYED AT 2' CONTOUR INTERVAL

WASILLA, ALASKA
THE ARCHES
PLAN AND PROFILE - DESIGN
E. DUCKY CIRCLE

DWG.#: 25-114C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=32'
22x34: 1"=16'
REVISION DATE:
04/02/25

REFERENCE NUMBER:
C-2.1
SHEET 2 OF 3



NOTES
1. THE 2' ORIGINAL GROUND CONTOURS SHOWN HEREON ARE DERIVED FROM PUBLISHED DATA OF THE MATANUSKA SUSITNA BOROUGH LIDAR/IMAGERY PROJECT OF 2019.
2. DESIGN EXCAVATION/CONSTRUCTION CONTOURS ARE DISPLAYED AT 2' CONTOUR INTERVAL

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

STATE OF ALASKA
49TH
CRAIG E. HANSON
REGISTERED PROFESSIONAL LAND SURVEYOR
4/4/25

WASILLA, ALASKA
THE ARCHES
PLAN AND PROFILE - DESIGN
E. DUCKY CIRCLE

DWG.#: 25-114C
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=32'
22x34: 1"=16'
REVISION DATE:
04/02/25

REFERENCE NUMBER:
C-2.2
SHEET 3 OF 3

CURRENT AVERAGE DAILY TRAFFIC VOLUME ONTO MINOR COLLECTOR "E. PAMELA DR."

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E PAMELA DR

ADD #1

HART LAKE

HART LAKE LORP

DJO NO 2

DJO NO 3

DJO NO 4

HART LAKE EST ADD 1

HART LAKE ESTATES PH 2

HART LAKE ESTATES PH 1

SETTER POINT

LOTS 4A & 4B

ARCTIC FARMS

DEBORAH

DAWN

B7

B8

B9

B10

B11

B12

B13

B16

B17

B24

B25

E FROST CIR

E RUTAN AVE

N KIPLING DR

N SANDBURG CIR

N KEATS DR

COOPER WOODS PH (2)

E GEMINI LN

N CHERILYN CIR

JIM-N-I PH 1

JIM-N-I

WRUCK ESTATES

SORRELWOOD ST

50' SECTION LINE ESMT

17' SECTION LINE ESMT

LEGEND

- 120 ADT ENTERING INTERSECTION
- 120 ADT LEAVING INTERSECTION TOWARD COLLECTOR
- TRAFFIC TRAVEL DIRECTION

350
270
210
60
400
150
110
100
10

BOROUGH MAINTAINED RESIDENTIAL STANDARD

75 0 75 150 300 450 600
SCALE IN FEET

NOTES
1. AVERAGE DAILY TRAFFIC IS BASED ON 10 ADDITIONAL TRAFFIC PER LOT.
2. SUMMARY: EXISTING AVERAGE DAILY TRAFFIC ON THE INTERSECTION OF N. AHTNA CIR. EXIT ONTO E. PAMELA DR. IS 350.

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

STATE OF ALASKA
49TH
CRAIG E. HANSON
LICENSED PROFESSIONAL LAND SURVEYOR
12/31/25

PALMER, ALASKA
THE ARCHES
EXISTING AVERAGE DAILY TRAFFIC

DWG.#: 25-114
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=300'
22x34: 1"=150'
REVISION DATE: 03/17/25

REFERENCE NUMBER: C-2.0
SHEET 1 OF 2

ANTICIPATED AVERAGE DAILY TRAFFIC VOLUME ONTO MINOR COLLECTOR "E. PAMELA DR."

ADD #1

E PAMELA DR

HART LAKE

HART LAKE LORP

DJO NO 2

DJO NO 3

DJO NO 4

SETTER POINT

LOTS 4A & 5A

HART LAKE EST ADD 1

HART LAKE ESTATES PH 2

HART LAKE ESTATES PH 1

E FROST CIR

E RUTAN AVE

ARCTIC FARMS

DEBORAH

DAWN

50' SECTION LINE ESMT

B7

B8

B9

B10

B11

B12

B13

B16

B17

B24

B25

COOPER WOODS PH 1

E GEMINI LN

N CHERILYN CIR

JIM-N-I PH 1

JIM-N-I

SORRELWOOD ST

WRUCK ESTATES

LOT 1

LOT 2

LOT 3

LOT 4

LOT 5

N KIPLING DR

N KENTS DR

N SANDBURG CIR

LEGEND

120 ADT ENTERING INTERSECTION

120 ADT LEAVING INTERSECTION TOWARD COLLECTOR

TRAFFIC TRAVEL DIRECTION

BOROUGH MAINTAINED RESIDENTIAL STANDARD (NO CHANGE)

75 0 75 150 300 450 600

SCALE IN FEET

RECEIVED
MAY 21 2025
PLATTING

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

STATE OF ALASKA
49TH
CRAIG E. HANSON
LS 12151
PROFESSIONAL LAND SURVEYOR

NOTES

1. AVERAGE DAILY TRAFFIC IS BASED ON 10 ADDITIONAL TRAFFIC PER LOT.
2. SUMMARY: EXPECTED AVERAGE DAILY TRAFFIC INCREASES BY 40 ON THE INTERSECTION OF N. AHIMA CIR. ONTO E. PAMELA DR. IN WHICH REQUIRES NO UPDATE OF ROAD STATUS AS IT DOES NOT EXCEED 400.

PALMER, ALASKA
THE ARCHES
ANTICIPATED AVERAGE DAILY TRAFFIC

DWG.#: 25-114
DESIGN: CEH
DRAWN BY: ELF
CHECKED: CEH
SCALE
11x17: 1"=300'
22x34: 1"=150'
REVISION DATE: 03/17/25

REFERENCE NUMBER: C-2.0
SHEET 2 OF 2

Matthew Goddard

From: Tammy Simmons
Sent: Tuesday, June 24, 2025 2:14 PM
To: Matthew Goddard
Cc: Brad Sworts; Jamie Taylor; Tammy Simmons
Subject: RE: RFC The Arches (MG)

Hello,

If this where to change to a public road PD&E would want a drainage easement off the end of the cul-de-sac. As a private road PD&E has no objection to the drainage design, as long as the drainage report shows compliance with all drainage design criteria.

Thank you.

PD&E Review Team

Tammy Simmons, SR/WA
Right-of-Way Acquisition Officer
Pre-Design and Engineering Division
Public Works Department
Matanuska-Susitna Borough
907.861.7718 Direct
907.861.7735 Fax

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, June 4, 2025 8:51 AM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; board@nlakes.cc; jprevost@palmerak.org; Brian Davis <Brian.Davis@matsugov.us>; mschoming@crweng.com; Fonov <Fonov@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC The Arches (MG)

Hello,

The following link is a Request for comments for the proposed The Arches Subdivision.
Please ensure all comments have been submitted by **June 25, 2025**, so they can be incorporated in the staff report packet that will be presented during the August 7, 2025, Platting Board meeting.

Matthew Goddard

From: Permit Center
Sent: Thursday, June 5, 2025 8:04 AM
To: Matthew Goddard
Subject: RE: RFC The Arches (MG)

Each access or encroachment constructed during subdivision road development shall be reported to the Permit Center for documentation. Cluster box pullout locations should be designed using the MSB Standard Drawing – Mailbox Pullouts, and in alignment with lot lines as shown on the plat layout.

No other comments from the Permit Center.

Brandon Tucker
Permit Technician
Matanuska-Susitna Borough Permit Center
350 E Dahlia Ave
Palmer AK 99645
P (907) 861-7871
F (907) 861-8158

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, June 4, 2025 8:51 AM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; board@nlakes.cc; jprevost@palmerak.org; Brian Davis <Brian.Davis@matsugov.us>; mschoming@crweng.com; Fonov <Fonov@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC The Arches (MG)

Hello,

The following link is a Request for comments for the proposed The Arches Subdivision.
Please ensure all comments have been submitted by **June 25, 2025**, so they can be incorporated in the staff report packet that will be presented during the August 7, 2025, Platting Board meeting.

The Arches

Feel free to contact me if you have any questions.

Thank you,

MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department
Code Compliance Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822 • Fax (907) 745-9876
E-mail: ccb@matsugov.us

MEMORANDUM

DATE: 06/11/2025

TO: Matthew Goddard, Platting Tech

FROM: Kendra Johnson, CFM
Senior Code Compliance Office

SUBJECT: Proposed Platting action for The Arches

No open Code Compliance cases on MSB Tax ID 18N01E20B024 Platting action PLAT-2025-000080 at this time.

Code Compliance has no objection of creating 5 lots from the existing parcel. The property is currently raw/vacant land so no existing setback violations currently.

** Note: in the Site plan packet – page 2 and 3 of 3 of the Plan & Profile Design, lots are mis-labeled.

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

June 4, 2025

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

To whom it may concern:

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

- **THE ARCHES**
  (MSB Case # 2025-080)

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

Sincerely,

James Christopher

James Christopher
Right of Way & Permitting Agent
ENSTAR Natural Gas Company, LLC

PLANNING & LAND USE DIRECTOR'S CERTIFICATE

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

PLANNING AND LAND USE DIRECTOR DATE

ATTEST: _____
(PLATTING CLERK)

CERTIFICATE OF PAYMENT OF TAXES

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

TAX COLLECTION OFFICIAL DATE
(MATANUSKA-SUSITNA BOROUGH)

HANSON LAND SOLUTIONS 2025 LS 12312
TYPICAL SET 1¾" PLASTIC CAP

LS 5122
TYPICAL RECOVERED 1¾" PLASTIC CAP

MSB WAIVER RES. 93-17-PWm (93-79W)

LEGEND

- ⊙ RECOVERED PLASTIC CAP ON ⅝" REBAR
- ⊥ SET PLASTIC CAP ON ⅝"x30" REBAR AT ALL LOT CORNERS, PC's & PT's
- N74°58'11"W 255.65' MEASURED DATA
- (N74°45'W) (254.70') RECORD PER PLAT (2011-9) WRUCK ESTATES
- [N74°45'W] [254.70'] RECORD PER WAIVER RES. (2003-259-PWm)
- (3001) SURVEY POINT NUMBER
- (1) BLOCK NUMBER

TRACT 5

NOTES

1. ALL DISTANCES SHOWN ARE GROUND DISTANCES.
2. THE BASIS OF BEARING ON THIS PLAT IS TRUE NORTH WITH RESPECT TO THE LONGITUDINAL MERIDIAN THROUGH THE NORTHEAST CORNER OF LOT 2, A SET PLASTIC CAP (SURVEY POINT 3001) WITH A NETWORK GNSS GEODETIC POSITION OF 61°38'16.15"N 149°19'14.84"W.
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4. THERE MAY BE FEDERAL, STATE, AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN ON THE PLAT TO BE RECORDED.
5. THIS SUBDIVISION IS ENCUMBERED BY M.E.A. BLANKET EASEMENTS RECORDED ON JUNE 11, 1999 IN BOOK 1017, PAGE 757 AND PAGE 759.

LS

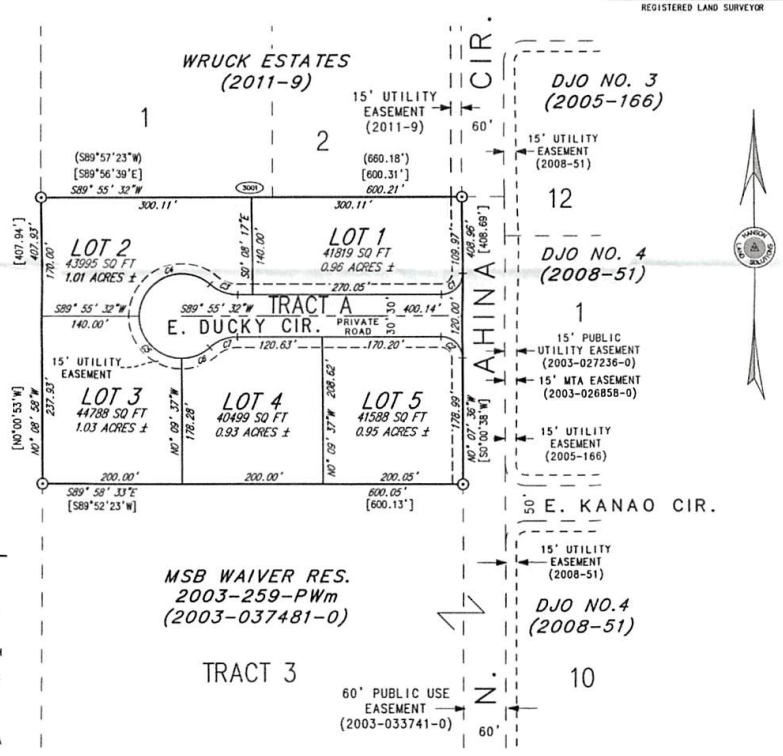
CURVE TABLE						
CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH	CHORD BEARING	TANGENT
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C5	94.29	60.00	90°02'35"	84.88	N45° 05' 45"W	60.05
C6	43.32	60.00	41°22'00"	42.38	N69° 11' 58"E	22.65
C7	43.36	60.00	41°24'35"	42.43	N69° 13' 15"E	22.68

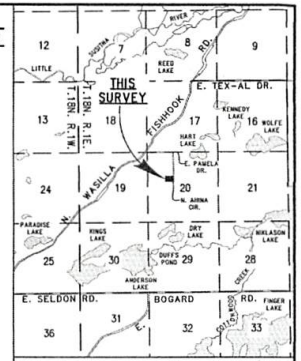
SURVEYOR'S CERTIFICATE

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

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

REGISTERED LAND SURVEYOR





CERTIFICATE OF OWNERSHIP

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

OWNER(REPRESENTATIVE) DATE
DRAPER, LLC
P.O. BOX 1842
PALMER, AK 99645

NOTARY ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS
_____ DAY OF _____, 20___,
FOR _____

NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES:_____

Agenda Copy RECEIVED MAY 2 1 2025 PLATTING

A PLAT OF
THE ARCHES
A SUBDIVISION OF
TRACT 2
MSB WAIVER RES. 2003-259-PWm
(RECORDED AT 2003-037481-0)
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
LOCATED WITHIN
NW¼ SEC. 20, T.18N. R.1E. SM, AK
CONTAINING 5.63 ACRES MORE OR LESS

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

FILE: FB25-114 | CK: CEH | SCALE:1"=100' | 05/21/25 | 1 OF 1

Matthew Goddard

From: OSP Design Group <ospdesign@gci.com>
Sent: Monday, June 23, 2025 5:52 PM
To: Matthew Goddard
Cc: OSP Design Group
Subject: RE: RFC The Arches (MG)
Attachments: Agenda Plat.pdf

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

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

Thanks,
GCI | OSP Design
1001 Northway Dr., 1st Floor, Anchorage, AK 99508
e: OSPDesign@gci.com | **w:** www.gci.com

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Wednesday, June 4, 2025 8:51 AM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; board@nlakes.cc; jprevost@palmerak.org; Brian Davis <Brian.Davis@matsugov.us>; mschoming@crweng.com; Fonov <Fonov@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Daniel Dahms <Daniel.Dahms@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
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The Arches

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(PLATTING CLERK)

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TAX COLLECTION OFFICIAL DATE
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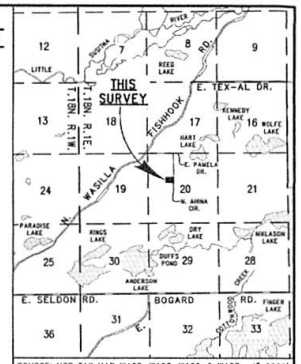
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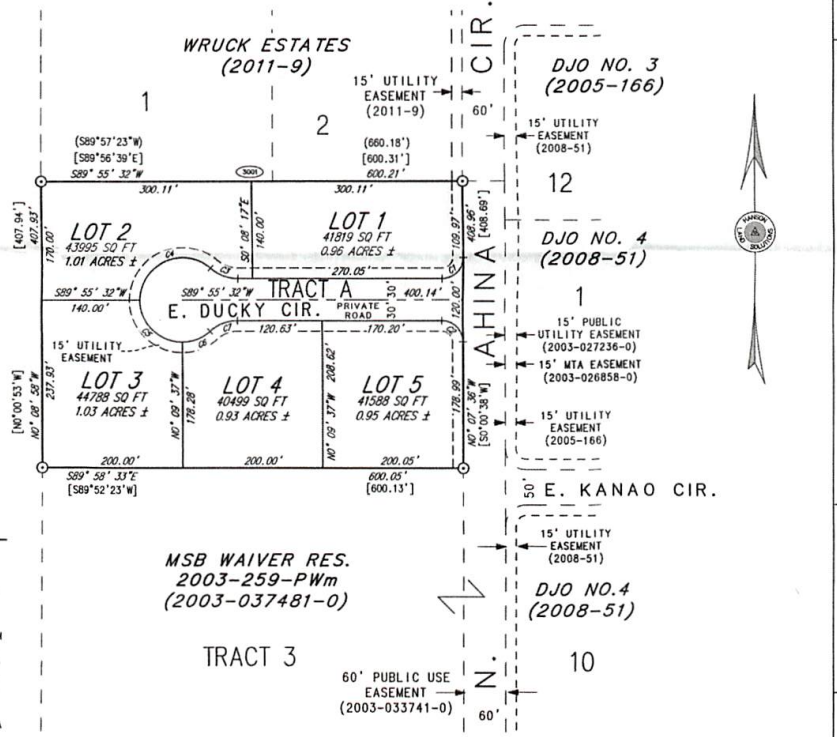
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REGISTERED LAND SURVEYOR



SOURCE: MSB TAX MAP WA02, WA03, WA06, & WA07 1"=5280'



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OWNER(REPRESENTATIVE) DATE
DRAPER, LLC
P.O. BOX 1842
PALMER, AK 99645

NOTARY ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS

_____ DAY OF _____, 20___,

FOR _____

NOTARY FOR THE STATE OF ALASKA

MY COMMISSION EXPIRES:_____

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A PLAT OF
THE ARCHES
A SUBDIVISION OF
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(RECORDED AT 2003-037481-0)
PALMER RECORDING DISTRICT
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LOCATED WITHIN
NW¼ SEC. 20, T.18N. R.1E. SM, AK
CONTAINING 5.63 ACRES MORE OR LESS

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

APPROVED AS: SHOWN ☐ CORRECTED ☐
SIGN Mireya Armesto DATE 05/22/25
GCI ENGINEERING & DESIGN

FILE: FB25-114 | CK: CEH | SCALE: 1"=100' | 05/21/25 | 1 OF 1

PLANNING & LAND USE DIRECTOR'S CERTIFICATE

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

_____

PLANNING AND LAND USE DIRECTOR DATE

ATTEST: _____

(PLATTING CLERK)

CERTIFICATE OF PAYMENT OF TAXES

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

_____

TAX COLLECTION OFFICIAL DATE
(MATANUSKA-SUSITNA BOROUGH)

HANSON LAND SOLUTIONS BOUNDARY MARKER 2025 LS 12312

TYPICAL SET 1¾" PLASTIC CAP

LS 5122

TYPICAL RECOVERED 1¼" PLASTIC CAP

MSB WAIVER RES. 93-17-PWm (93-79W)

LEGEND

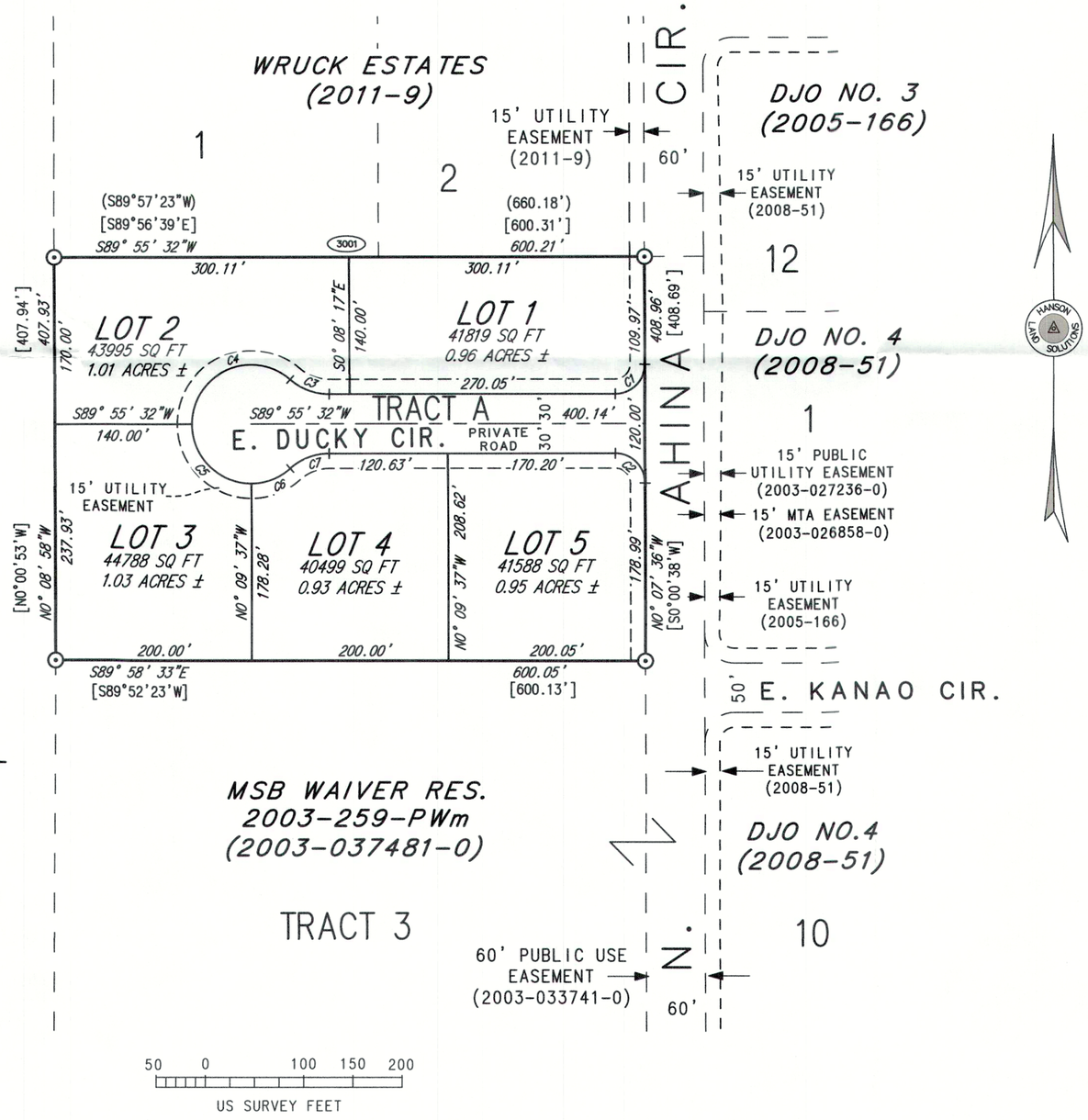
- ⊙ RECOVERED PLASTIC CAP ON ⅝" REBAR
- ⊥ SET PLASTIC CAP ON ⅝"x30" REBAR AT ALL LOT CORNERS, PC's & PT's
- N74°58'11"W 255.65' MEASURED DATA
- (N74°45'W) (254.70') RECORD PER PLAT (2011-9) WRUCK ESTATES
- [N74°45'W] [254.70'] RECORD PER WAIVER RES. (2003-259-PWm)
- (3001) SURVEY POINT NUMBER
- (1) BLOCK NUMBER

NOTES

1. ALL DISTANCES SHOWN ARE GROUND DISTANCES.
2. THE BASIS OF BEARING ON THIS PLAT IS TRUE NORTH WITH RESPECT TO THE LONGITUDINAL MERIDIAN THROUGH THE NORTHEAST CORNER OF LOT 2, A SET PLASTIC CAP (SURVEY POINT 3001) WITH A NETWORK GNSS GEODETIC POSITION OF 61°38'16.15"N 149°19'14.84"W.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED, AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS, AND RECOMMENDATIONS OF THE STATE OF ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERNS THOSE SYSTEMS.
4. THERE MAY BE FEDERAL, STATE, AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN ON THE PLAT TO BE RECORDED.
5. THIS SUBDIVISION IS ENCUMBERED BY M.E.A. BLANKET EASEMENTS RECORDED ON JUNE 11, 1999 IN BOOK 1017, PAGE 757 AND PAGE 759.

LS

CURVE TABLE						
CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH	CHORD BEARING	TANGENT
C1	47.15	30.00	90°03'08"	42.45	S44° 53' 58"W	30.03
C2	47.10	30.00	89°56'52"	42.41	S45° 06' 02"E	29.97
C3	43.36	60.00	41°24'35"	42.43	S69° 22' 10"E	22.68
C4	137.61	60.00	131°24'35"	109.37	N65° 37' 50"E	132.92
C5	94.29	60.00	90°02'35"	84.88	N45° 05' 45"W	60.05
C6	43.32	60.00	41°22'00"	42.38	N69° 11' 58"E	22.65
C7	43.36	60.00	41°24'35"	42.43	N69° 13' 15"E	22.68



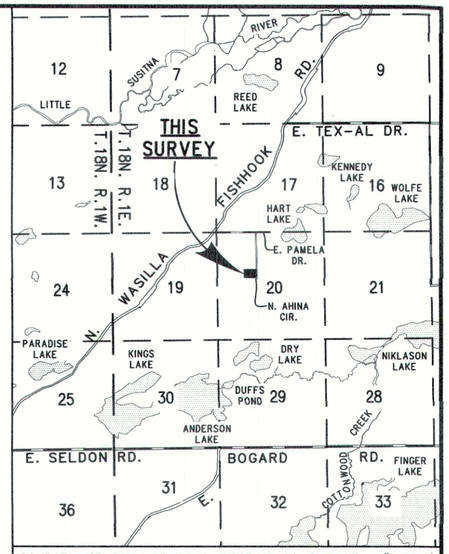
SURVEYOR'S CERTIFICATE

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

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

_____

REGISTERED LAND SURVEYOR



SOURCE: MSB TAX MAP WA02, WA03, WA06, & WA07 1"=5280'

CERTIFICATE OF OWNERSHIP

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

_____

OWNER(REPRESENTATIVE) DATE
DRAPER, LLC
P.O. BOX 1842
PALMER, AK 99645

NOTARY ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN TO BEFORE ME THIS

_____ DAY OF _____, 20___,

FOR _____

_____

NOTARY FOR THE STATE OF ALASKA

MY COMMISSION EXPIRES:_____

Agenda Copy RECEIVED MAY 21 2025 PLATTING

A PLAT OF

THE ARCHES

A SUBDIVISION OF
TRACT 2
MSB WAIVER RES. 2003-259-PWm
(RECORDED AT 2003-037481-0)
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
LOCATED WITHIN
NW¼ SEC. 20, T.18N. R.1E. SM, AK
CONTAINING 5.63 ACRES MORE OR LESS

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

FILE: FB25-114 | CK: CEH | SCALE:1"=100' | 05/21/25 | 1 OF 1

6C

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 7, 2025

PRELIMINARY PLAT: STEAM R.O.W.

LEGAL DESCRIPTION: SEC 10, T17N, R01W, SEWARD MERIDIAN AK

PETITIONERS: TODD NUGENT

SURVEYOR/ENGINEER: BESSE ENGINEERING

ACRES: N/A PARCELS: 9

REVIEWED BY: CHRIS CURLIN CASE #: 2025-82

REQUEST: The request is to create and dedicate 60 feet by 3270 feet +/- Right of Way, to be known as **STEAM R.O.W.** Tax IDs of lots affected: 17N01W10A017, 8531000T00B, 8531000L001, 7622000L002, 9217000U001, 9217000U002, 9217000U003, 9217000U005, & 9217000L000. The proposed Right of Way is located directly west of S. Roberts Street, directly north of E. Palmer-Wasilla Highway, and south of E. Susitna Avenue; located within the SE ¼ Section 10, Township 17 North, Range 01 West, Seward Meridian, Alaska. In the City of Wasilla and Assembly District #4.

EXHIBITS

Vicinity Map and Aerial Photos	**EXHIBIT A** – 4 pgs
Agenda Plat	**EXHIBIT B** – 1 pg
AGENCY COMMENTS	
USACE	**EXHIBIT C** – 1 pg
ADOT&PF	**EXHIBIT D** – 3 pgs
MSB Pre-Design & Engineering	**EXHIBIT E** – 1 pg
MSB Permit Center	**EXHIBIT F** – 1 pg
Utilities	**EXHIBIT G** – 2 pgs
Public	**EXHIBIT H** – 2 pgs

DISCUSSION: This R.O.W. is being dedicated to the City of Wasilla.

Comments:

USACE: **(Exhibit C)** The Corps of Engineers (Corps) does not have any specific comments regarding RFC Steam ROW Project.

ADOT&PF: **(Exhibit D)** Concur with Right of Way dedication.

Property owner will need to apply for an Approach Road review of the newly dedicated road with access to the Palmer-Wasilla Highway (west of Roberts St). Driveway permits and Approach Road Review can be applied for at DOT&PF's online ePermits website: https://dot.alaska.gov/row/Login.po. Please contact DOT&PF's ROW division at 1-800-770-5263 to speak with a regional permit officer if you have any questions. *Platting staff notes this is condition #3.*

MSB PD&E: **(Exhibit E)** PD&E comments to coordinate with AKDOT and City of Wasilla.
MSB Permit Center: **(Exhibit F)** No comments from the Permit Center.

Utilities: **(Exhibit G)** GCI has no comments. MEA, MTA & ENSTAR did not respond.
Public: **(Exhibit H)** Bethany & Andrew Duarte object due to traffic on E. Glenwood Avenue. George Sahlstrom has no objection.

At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; Fire Service Area #130 Central Mat-Su; MSB Community Development, Assessments or Planning; the City of Wasilla; or MEA, MTA or ENSTAR.

CONCLUSION: The preliminary plat of **STEAM R.O.W.** is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. Legal and physical access will exist to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage.

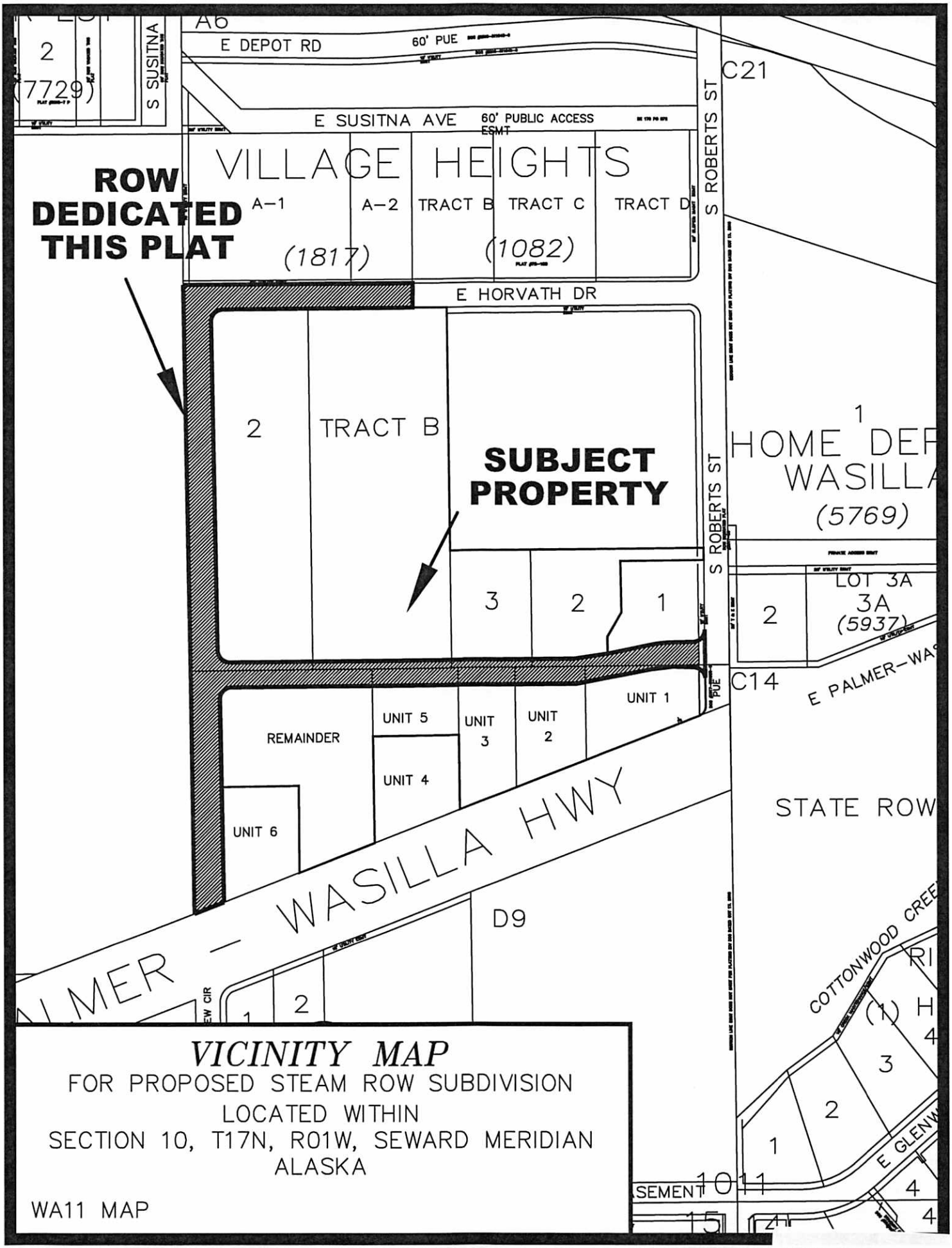
FINDINGS OF FACT

1. The plat of **STEAM R.O.W.** is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
2. At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; Fire Service Area #130 Central Mat-Su; MSB Community Development, Assessments or Planning; the City of Wasilla; or MEA, MTA or ENSTAR.
3. There were no objections from any federal or state agencies, Borough departments, or utilities.
4. There was one objection from the public in response to the Notice of Public Hearing.
5. The streets will be dedicated to the City of Wasilla.

RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the preliminary plat of STEAM R.O.W., Section 10, Township 17 North, Range 01 West, Seward Meridian, Alaska, contingent on staff recommendations:

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



VICINITY MAP

FOR PROPOSED STEAM ROW SUBDIVISION
LOCATED WITHIN
SECTION 10, T17N, R01W, SEWARD MERIDIAN
ALASKA

WA11 MAP

EXHIBIT A-1

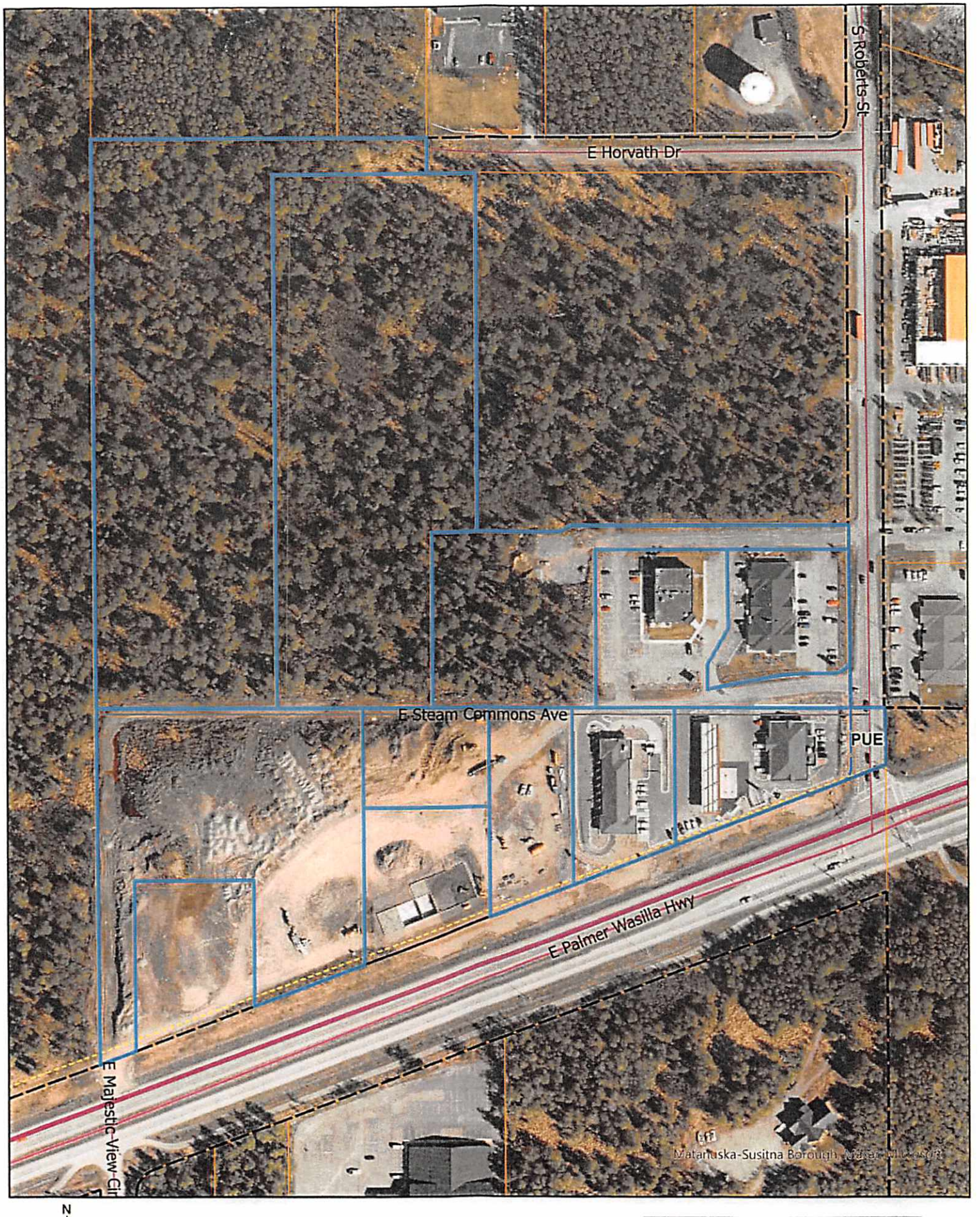

S Roberts St
E Horvath Dr
E Steam Commons Ave
PUE
E Palmer Wasilla Hwy
E Majestic View Cir
Matanuska-Susitna Borough, Maxar, Microsoft
N
W
E
S
0
245
490
980 Feet

EXHIBIT A - 2

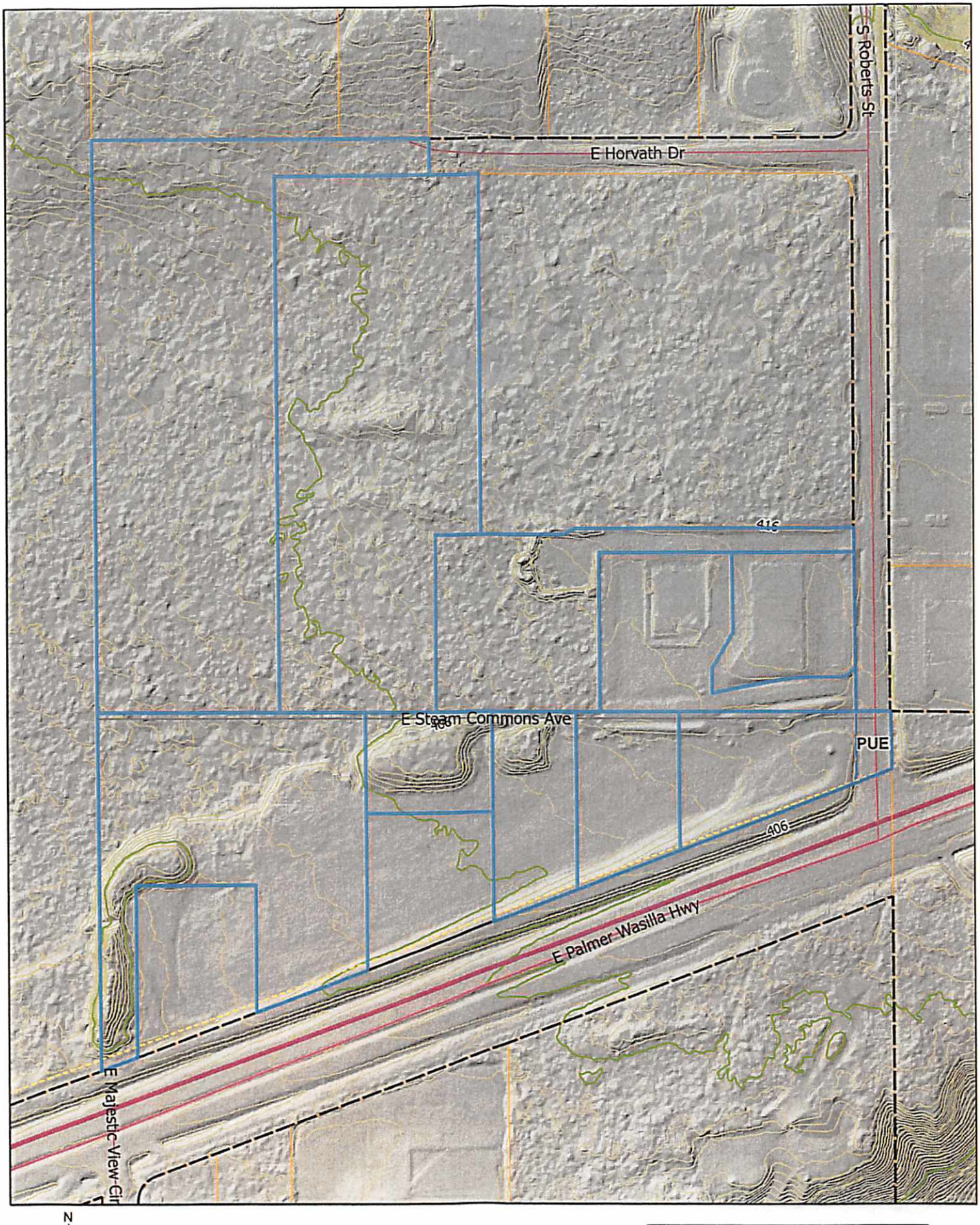

S Roberts St
E Horvath Dr
E Steam Commons Ave
PUE
406
E Palmer Wasilla Hwy
E Majestic View Cir
N
W
E
S
0
245
980 Feet

EXHIBIT A - 3

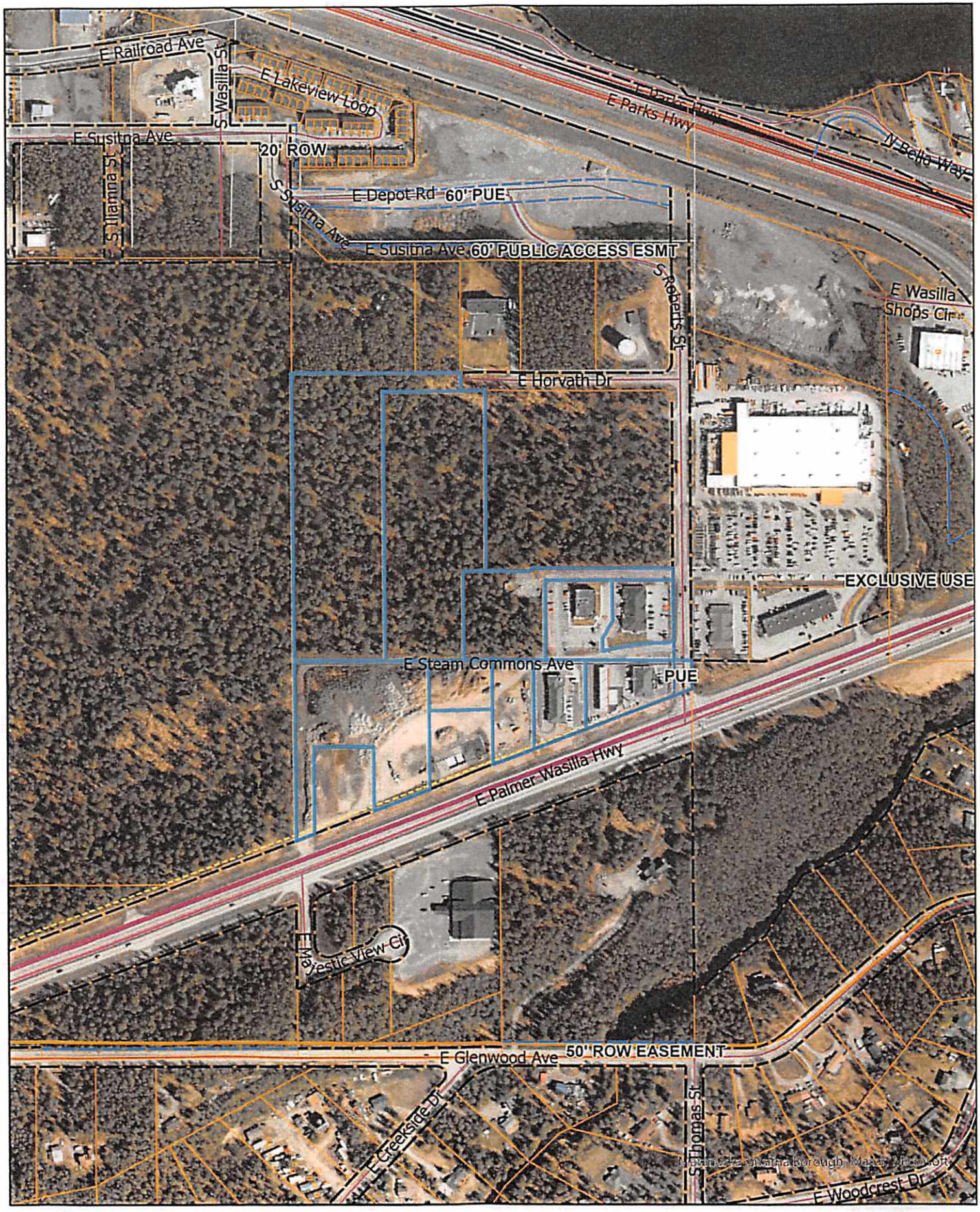
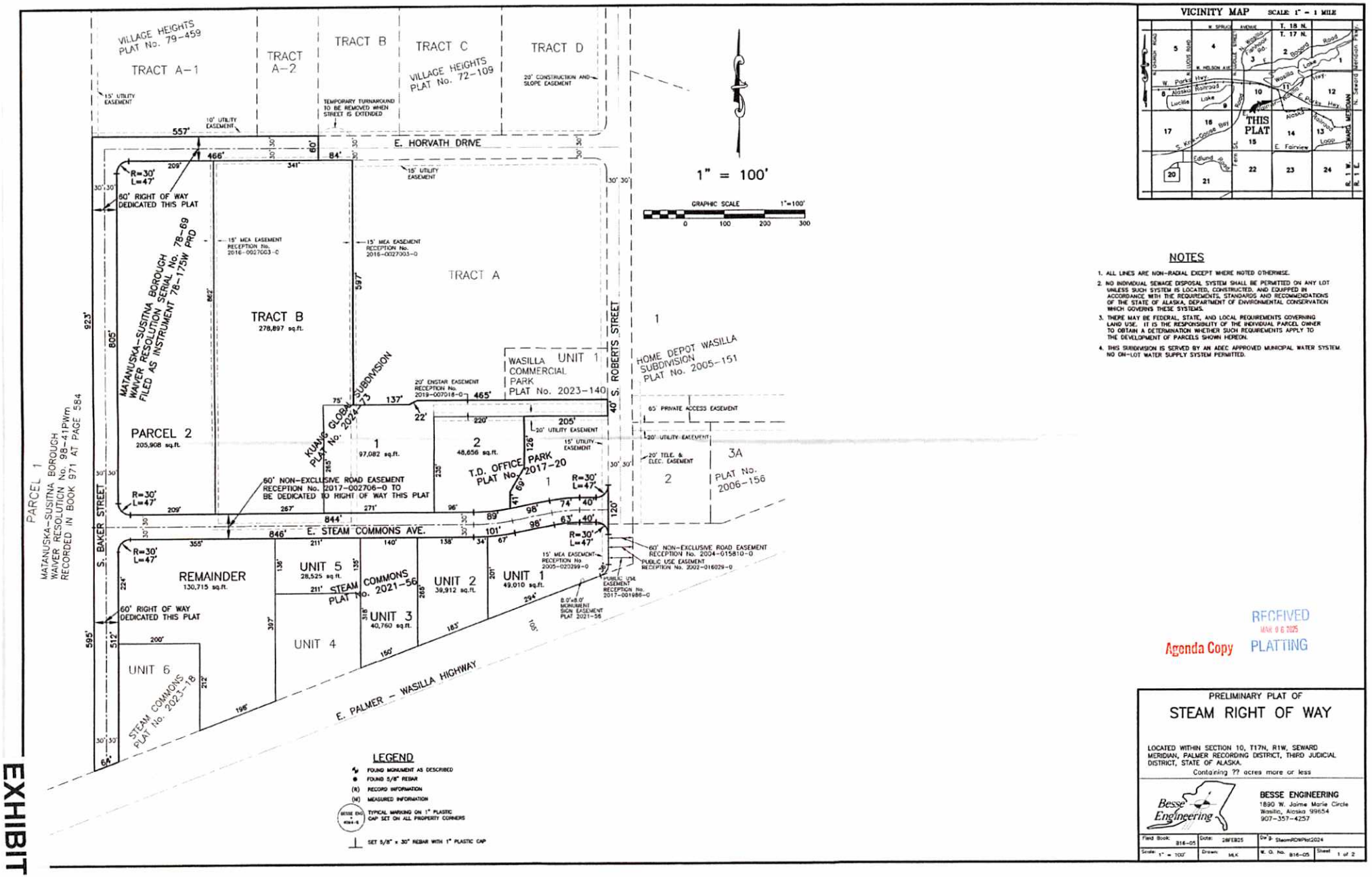

E Railroad Ave
S Wasilla St
E Lakeview Loop
E Parks Hwy
N Bella Way
E Susitna Ave
20' ROW
S Tlamna St
S Susitna Ave
E Depot Rd 60' PUE
E Susitna Ave 60' PUBLIC ACCESS ESMT
S Roberts St
E Wasilla Shops Cir
E Horvath Dr
EXCLUSIVE USE
E Steam Commons Ave
PUE
E Palmer Wasilla Hwy
Majestic View Cir
E Glenwood Ave
50' ROW EASEMENT
E Creekside Dr
S Thomas St
E Woodcrest Dr
N
W
E
S
0
475
950
1,900 Feet

EXHIBIT A-4



VICINITY MAP

SCALE 1" = 1 MILE

NOTES

1. ALL LINES ARE NON-RADIAL EXCEPT WHERE NOTED OTHERWISE.
2. NO INDIVIDUAL SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS SUCH SYSTEM IS LOCATED, CONSTRUCTED, AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION WHICH GOVERNS THESE SYSTEMS.
3. THERE MAY BE FEDERAL, STATE, AND LOCAL REQUIREMENTS GOVERNING LAND USE. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL PARCEL OWNER TO OBTAIN A DETERMINATION WHETHER SUCH REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN HEREON.
4. THIS SUBDIVISION IS SERVED BY AN ADEC APPROVED MUNICIPAL WATER SYSTEM. NO ON-LOT WATER SUPPLY SYSTEM PERMITTED.

LEGEND

- FOUND MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR
- (R) RECORD INFORMATION
- (M) MEASURED INFORMATION
- TYPICAL MARKING ON 1" PLASTIC CAP SET ON ALL PROPERTY CORNERS
- SET 5/8" x 30" REBAR WITH 1" PLASTIC CAP

RECEIVED
MAR 06 2025
Agenda Copy
PLATTING

PRELIMINARY PLAT OF

STEAM RIGHT OF WAY

LOCATED WITHIN SECTION 10, T17N, R1W, SEWARD MERIDIAN, PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.

Containing ?? acres more or less

Besse Engineering

BESSE ENGINEERING
1890 W. Jaime Marie Circle
Wasilla, Alaska 99654
907-357-4257

Field Book: B16-05	Date: 28FEB25	Dwg: SteamROWPlat2024	
Scale: 1" = 100'	Drawn: MLK	W. O. No. B16-05	Sheet 1 of 2

EXHIBIT B

Chris Curlin

From: Germann, Quinn H CIV USARMY CEPOA (USA) <Quinn.H.Germann@usace.army.mil>
Sent: Friday, June 13, 2025 1:11 PM
To: Chris Curlin
Subject: RE: RFC Steam ROW (CC)

Good afternoon,

The Corps of Engineers (Corps) does not have any specific comments regarding RFC Steam ROW Project.

Department of the Army authorization is required if anyone proposes to place dredged and/or fill material into waters of the U.S., including wetlands and/or perform work in navigable waters of the U.S.

A copy of the DA permit application can be found online at www.poa.usace.army.mil/Missions/Regulatory. Sample drawings can also be found on our website at www.poa.usace.army.mil/Portals/34/docs/regulatory/guidetodrawings2012.pdf.

Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified by the Alaska District. Aquaculture structures and work would require Section 10 Authorization.

You are welcome to submit a preapplication meeting request, a jurisdictional determination request, or a permit application directly to our general mailbox (regpagemaster@usace.army.mil) and you will be assigned a project manager to assist you. Please feel free to contact our main line if you have any questions or concerns at 907-753-2712.

Sincerely,

Quinn H.A. Germann

From: Chris Curlin <Chris.Curlin@matsugov.us>
Sent: Wednesday, June 11, 2025 12:17 PM
To: Alex Strawn <Alex.Strawn@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Christina Sands <Christina.Sands@matsugov.us>; Colton Percy <colton.percy@alaska.gov>; Daniel Dahms <Daniel.Dahms@matsugov.us>; DNR <dnr.scro@alaska.gov>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Land Management <Land.Management@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Sarah Myers <sarah.myers@alaska.gov>; Tammy Simmons <Tammy.Simmons@matsugov.us>; The Postmaster <eric.r.schuler@usps.gov>; Tom Adams <Tom.Adams@matsugov.us>; CEPOA-SM-RD-Pagemaster

EXHIBIT C

THE STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Transportation and Public Facilities

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

July 28, 2025

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

[Sent Electronically]

Re: Plat Review

Dear Mr. Wagner:

The Alaska Department of Transportation and Public Facilities (DOT&PF) Central Region has reviewed the following plats and have no comments:

- **MSB Case #2015-041; Terra Fina Masterplan Subdivision; Red Dog Masonry**
  Extension from 6 to 8 years of masterplan

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

- **Steam ROW Dedication (Palmer-Wasilla Highway) (revised from Secon INC ROW)**
  - Concur with Right of Way dedication.
  - Property owner will need to apply for an Approach Road review of the newly dedicated road with access to the Palmer-Wasilla Highway (west of Roberts St). Driveway permits and Approach Road Review can be applied for at DOT&PF's online ePermits website: https://dot.alaska.gov/row/Login.po. Please contact DOT&PF's ROW division at 1-800-770-5263 to speak with a regional permit officer if you have any questions.

- **PA 05 HLS-Airstream preapp; Fishhook Airstream; Plat #2025-27; Peggy Lee & Clyde A. Lee Jr (Palmer-Fishhook Road)**
  - Add plat note: "No direct access for all lots to Palmer-Fishhook Road."
  - All lots must take access through shared access easement.
  - Recommend dedicating Christiansen Road right of way to the Mat-Su Borough to formalize road and access agreement.
  - Reapply for permit for access to Palmer-Fishhook Road. Driveway permits and Approach Road Review can be applied for at DOT&PF's online ePermits website: https://dot.alaska.gov/row/Login.po. Please contact DOT&PF's ROW division at 1-800-770-5263 to speak with a regional permit officer if you have any questions.

EXHIBIT D-1

- No new utility access through Palmer-Fishhook Road.

- **WA 06 Gilivech – Parcel D; WA 06 Keystone; Susan & Willie Jones (Wasilla-Fishhook Road)**
  - No direct access to Wasilla-Fishhook Road for southwestern lot. Please label lot and add as plat note.
  - No change to current driveway access for northern lot. Apply for new access permit when platting. Driveway permits and Approach Road Review can be applied for at DOT&PF's online ePermits website: https://dot.alaska.gov/row/Login.po. Please contact DOT&PF's ROW division at 1-800-770-5263 to speak with a regional permit officer if you have any questions.
  - Future circulation for all lots may be required through the section line easement to Paradise Lane.
  - Recommend shared access to Paradise Lane or dedicated access easement for shared access from all three lots to section line easement and south to Paradise Lane.
  - No new utility access through Wasilla-Fishhook Road.

- **WA 06 Gilivech – Parcel A3; Susan & Willie Jones (Wasilla-Fishhook Road)**
  - Required to add plat note: "No direct access for all lots to Wasilla-Fishhook Road."
  - Reconfigure subdivision to route all access through Paradise Lane and north/south section line easement along eastern lot line.
  - Please be advised that the Mat-Su Borough is developing intersection improvements at Wasilla-Fishhook Road and Paradise Lane, which may impact properties in this plat.
  - Please be advised that the Mat-Su Borough has development plans to build a new school along Paradise Lane, may build new roads along existing north/south and east/west section line easements, and are developing improvement plans for the Wasilla-Fishhook Road and Paradise Lane intersection. Recommend coordination with Mat-Su Borough regarding circulation.
  - No utility access through Wasilla-Fishhook Road.

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

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

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

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

EXHIBIT D-2

Sincerely,

Kristina Huling
Mat-Su Area Planner, DOT&PF

cc: Sean Baski, Highway Design Chief, DOT&PF
Gabe Kutcher, Acting Property Management Supervisor, Right of Way, DOT&PF
Devki Rearden, Engineering Associate, DOT&PF
Morris Beckwith, Right of Way, DOT&PF
Brad Sworts, Pre-Design & Engineering Div. Manager, MSB
Anna Bosin, Traffic & Safety Engineer, DOT&PF

EXHIBIT D-3

Chris Curlin

From: Tammy Simmons
Sent: Tuesday, June 24, 2025 3:04 PM
To: Chris Curlin
Cc: Brad Sworts; Jamie Taylor; Tammy Simmons
Subject: RE: RFC Steam ROW (CC)

Hello,

PD&E comments to coordinate with AKDOT and City of Wasilla.

Thank you.

PD&E Review Team

From: Chris Curlin <Chris.Curlin@matsugov.us>
Sent: Wednesday, June 11, 2025 12:17 PM
To: Alex Strawn <Alex.Strawn@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Christina Sands <Christina.Sands@matsugov.us>; Colton Percy <colton.percy@alaska.gov>; Daniel Dahms <Daniel.Dahms@matsugov.us>; DNR <dnr.scro@alaska.gov>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Land Management <Land.Management@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Sarah Myers <sarah.myers@alaska.gov>; Tammy Simmons <Tammy.Simmons@matsugov.us>; The Postmaster <eric.r.schuler@usps.gov>; Tom Adams <Tom.Adams@matsugov.us>; USACE <regpagemaster@usace.army.mil>; Erich E. Schaal <eschaal@cityofwasilla.gov>; Robert Walden <rwalden@cityofwasilla.gov>; rantonio@cityofwasilla.gov; jbarnett@cityofwasilla.gov; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Maxwell Sumner <Maxwell.Sumner@matsugov.us>; Bob Keiner <bob.keiner@alaska.gov>; Kristina Huling <kristina.huling@alaska.gov>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; mearow@mea.coop; OSP Design Group <ospdesign@gci.com>; Right of Way Dept. <row@mtasolutions.com>; ROW <row@enstarnaturalgas.com>
Subject: RFC Steam ROW (CC)

Hello,

The following link contains a Request for Comments for Steam ROW, MSB Case 2025-000082.
Comments are due by Wednesday, June 27, 2025.

Steam ROW

Sincerely,

Chris Curlin
Platting Technician

EXHIBIT E

Chris Curlin

From: Permit Center
Sent: Thursday, June 12, 2025 8:41 AM
To: Chris Curlin
Subject: RE: RFC Steam ROW (CC)

No comments from the Permit Center.

Brandon Tucker
Permit Technician
Matanuska-Susitna Borough Permit Center
350 E Dahlia Ave
Palmer AK 99645
P (907) 861-7871
F (907) 861-8158

From: Chris Curlin <Chris.Curlin@matsugov.us>
Sent: Wednesday, June 11, 2025 12:17 PM
To: Alex Strawn <Alex.Strawn@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Christina Sands <Christina.Sands@matsugov.us>; Colton Percy <colton.percy@alaska.gov>; Daniel Dahms <Daniel.Dahms@matsugov.us>; DNR <dnr.scro@alaska.gov>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Land Management <Land.Management@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Sarah Myers <sarah.myers@alaska.gov>; Tammy Simmons <Tammy.Simmons@matsugov.us>; The Postmaster <eric.r.schuler@usps.gov>; Tom Adams <Tom.Adams@matsugov.us>; USACE <regpagemaster@usace.army.mil>; Erich E. Schaal <eschaal@cityofwasilla.gov>; Robert Walden <rwalden@cityofwasilla.gov>; rantonio@cityofwasilla.gov; jbarnett@cityofwasilla.gov; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Maxwell Sumner <Maxwell.Sumner@matsugov.us>; Bob Keiner <bob.keiner@alaska.gov>; Kristina Huling <kristina.huling@alaska.gov>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; mearow@mea.coop; OSP Design Group <ospdesign@gci.com>; Right of Way Dept. <row@mtasolutions.com>; ROW <row@enstarnaturalgas.com>
Subject: RFC Steam ROW (CC)

Hello,

The following link contains a Request for Comments for Steam ROW, MSB Case 2025-000082.
Comments are due by Wednesday, June 27, 2025.

Steam ROW

Sincerely,

Chris Curlin
Platting Technician
Matanuska-Susitna Borough

EXHIBIT F

Chris Curlin

From: OSP Design Group <ospdesign@gci.com>
Sent: Tuesday, June 24, 2025 9:46 AM
To: Chris Curlin
Cc: OSP Design Group
Subject: RE: RFC Steam ROW (CC)
Attachments: Agenda Plat Pg 1 of 2.pdf; Agenda Plat Pg 2 of 2.pdf

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

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

Thanks,
GCI | OSP Design
1001 Northway Dr., 1st Floor, Anchorage, AK 99508
e: OSPDesign@gci.com | **w:** www.gci.com

From: Chris Curlin <Chris.Curlin@matsugov.us>
Sent: Wednesday, June 11, 2025 12:17 PM
To: Alex Strawn <Alex.Strawn@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Christina Sands <Christina.Sands@matsugov.us>; Colton Percy <colton.percy@alaska.gov>; Daniel Dahms <Daniel.Dahms@matsugov.us>; DNR <dnr.scro@alaska.gov>; Fred Wagner <Frederic.Wagner@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; Land Management <Land.Management@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Sarah Myers <sarah.myers@alaska.gov>; Tammy Simmons <Tammy.Simmons@matsugov.us>; The Postmaster <eric.r.schuler@usps.gov>; Tom Adams <Tom.Adams@matsugov.us>; USACE <regpagemaster@usace.army.mil>; Erich E. Schaal <eschaal@cityofwasilla.gov>; Robert Walden <rwalden@cityofwasilla.gov>; rantonio@cityofwasilla.gov; jbarnett@cityofwasilla.gov; Michael Keenan <Michael.Keenan@matsugov.us>; Jeffrey Anderson <Jeffrey.Anderson@matsugov.us>; Fire Code <Fire.Code@matsugov.us>; Maxwell Sumner <Maxwell.Sumner@matsugov.us>; Bob Keiner <bob.keiner@alaska.gov>; Kristina Huling <kristina.huling@alaska.gov>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; mearow@mea.coop; OSP Design Group <ospdesign@gci.com>; Right of Way Dept. <row@mtasolutions.com>; ROW <row@enstarnaturalgas.com>
Subject: RFC Steam ROW (CC)

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

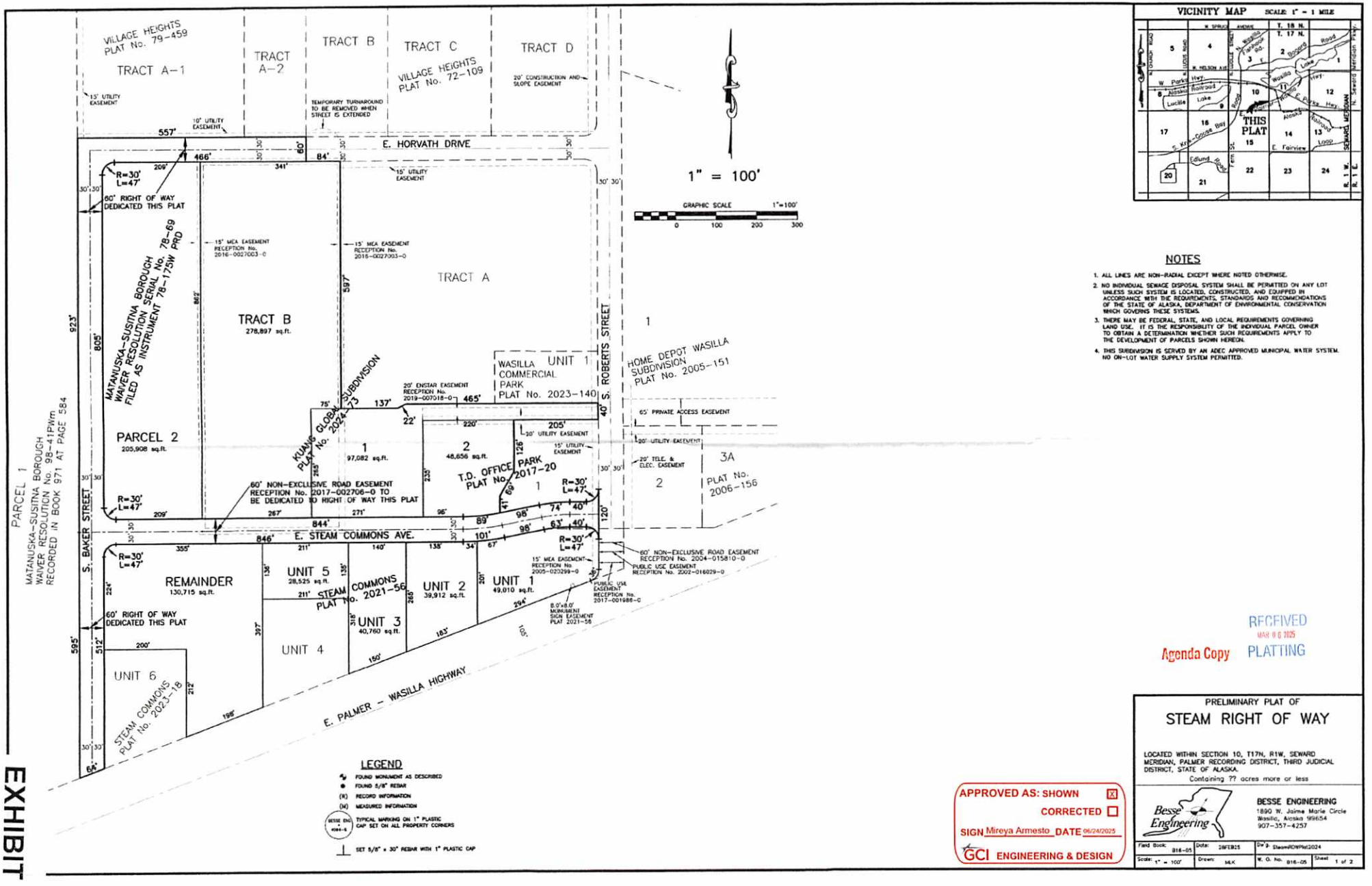
Hello,

The following link contains a Request for Comments for Steam ROW, MSB Case 2025-000082.
Comments are due by Wednesday, June 27, 2025.

Steam ROW

Sincerely,

EXHIBIT G - 1



NOTES

1. ALL LINES ARE NON-RADIAL EXCEPT WHERE NOTED OTHERWISE.
2. NO INDIVIDUAL SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS SUCH SYSTEM IS LOCATED, CONSTRUCTED, AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION WHICH GOVERNS THESE SYSTEMS.
3. THERE MAY BE FEDERAL, STATE, AND LOCAL REQUIREMENTS GOVERNING LAND USE. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL PARCEL OWNER TO OBTAIN A DETERMINATION WHETHER SUCH REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN HEREON.
4. THIS SUBDIVISION IS SERVED BY AN ADEC APPROVED MUNICIPAL WATER SYSTEM. NO ON-LOT WATER SUPPLY SYSTEM PERMITTED.

LEGEND

- FOUND MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR
- (R) RECORD INFORMATION
- (M) MEASURED INFORMATION
- BESSE ENG. 4044-S — TYPICAL MARKING ON 1" PLASTIC CAP SET ON ALL PROPERTY CORNERS
- SET 5/8" x 30" REBAR WITH 1" PLASTIC CAP

RECEIVED
MAR 06 2025
Agenda Copy
PLATTING

APPROVED AS: SHOWN [X]
CORRECTED [ ]
SIGN Mireya Armesto DATE 06/24/2025
GCI ENGINEERING & DESIGN

PRELIMINARY PLAT OF

STEAM RIGHT OF WAY

LOCATED WITHIN SECTION 10, T17N, R1W, SEWARD MERIDIAN, PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA.
Containing ?? acres more or less

Besse Engineering
BESSE ENGINEERING
1890 W. Jaime Marie Circle
Wasilla, Alaska 99654
907-357-4257

Field Book: 816-05	Date: 28FEB25	Dwg: SteamROWPlat2024	
Scale: 1" = 100'	Drawn: MLK	W. O. No. 816-05	Sheet 1 of 2

EXHIBIT G-2

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

RECEIVED
JUL 24 2025
PLATTING

2513B02L004 32
DUARTE ANDREW S & BETHANY A
1254 E GLENWOOD AVE
WASILLA, AK 99654

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER/OWNER: SECON INC

REQUEST: The request is to create and dedicate a 60 foot by 3270 foot +/- Right of Way. Tax IDs of lots affected: 17N01W10A017, 8531000T00B, 8531000L001, 7622000L002, 9217000U001, 9217000U002, 9217000U003, 9217000U005, & 9217000L000. The proposed Right of Way is located directly west of S. Roberts Street, directly north of E. Palmer-Wasilla Highway, and south of E. Susitna Avenue; located within the SE ¼ Section 10, Township 17 North, Range 01 West, Seward Meridian, Alaska. In the City of Wasilla and Assembly District #4.

The Matanuska-Susitna Borough **Platting Board** will hold a public hearing in the **Assembly Chambers** at the **Dorothy Swanda Jones Building**, 350 E. Dahlia Avenue, Palmer, Alaska on the proposed **Subdivision.** The public hearing is scheduled for **August 7, 2025,** starting at 1:00p.m. We are sending you this notice as required by State Law and Borough Ordinances.

For comments regarding the proposed action, this form may be used for your convenience by filling in the information below and mail this notice to the MSB Platting Division, 350 E. Dahlia Avenue, Palmer, Alaska 99645 or e-mail: platting@matsugov.us. Comments received from the public after the platting packet has been written will be given to the Platting Board in a "Hand-Out" the day of the meeting. **All public comments are due one (1) day prior, by 12:00 p.m.** To request additional information please contact the Platting Technician, ***Chris Curlin*** at (907) 861-7873.
To view the agenda or meeting packet please go to the following link: www.matsugov.us/boards/platting.

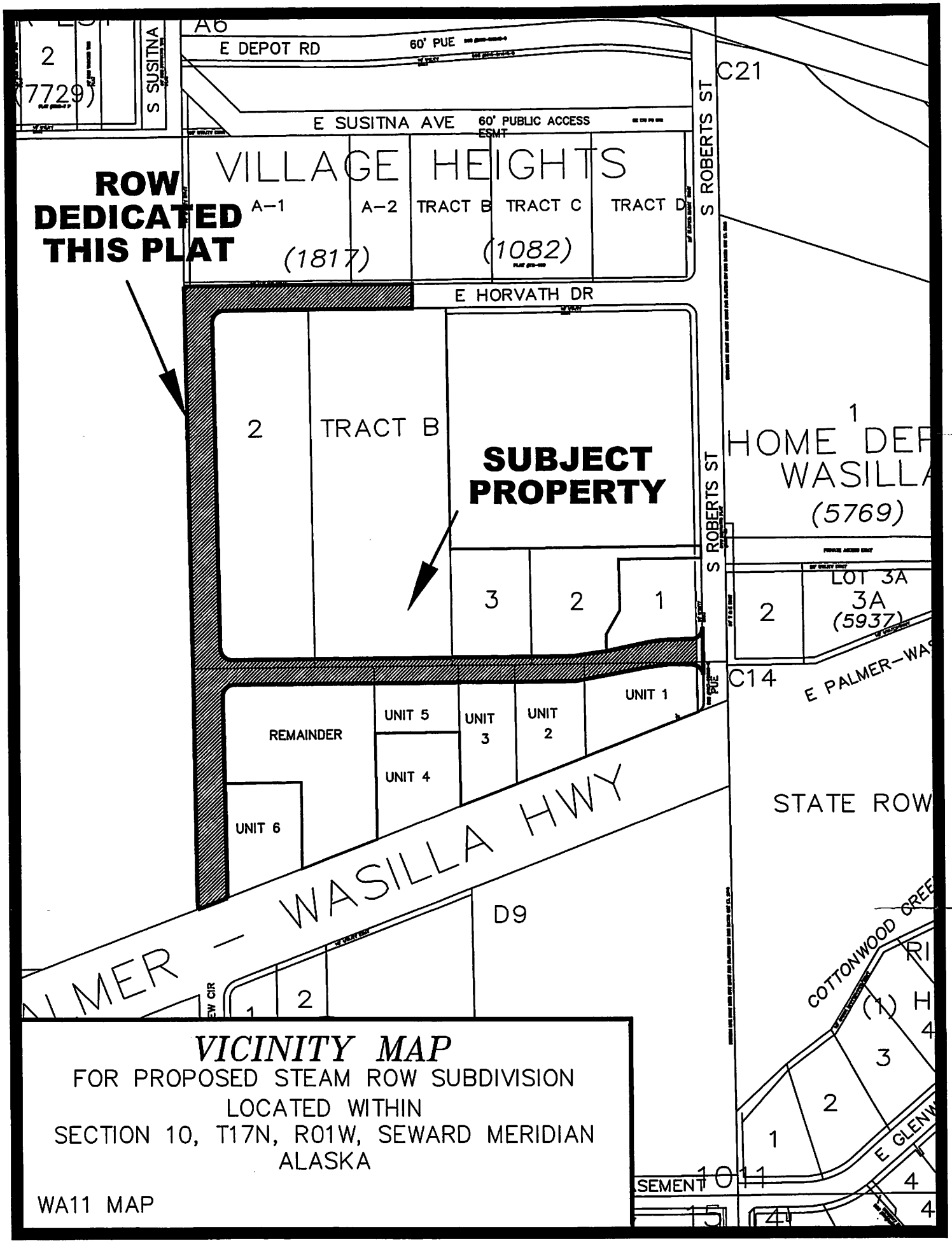
[ ] No Objection [X] Objection [ ] Concern

Name: Bethany + Andrew Duarte *Address:* 1254 e Glenwood Ave

Comments: No. Already enough traffic coming thru our street and drivers have no regard for speed limit. The neighbors we have talked to have tried for speed bumps or to get a right turn only from Glenwood to PWH. Too much traffic!

Case # 2025-082 CC *Note: Vicinity map Located on Reverse Side*

EXHIBIT H -1



VICINITY MAP

FOR PROPOSED STEAM ROW SUBDIVISION
LOCATED WITHIN
SECTION 10, T17N, R01W, SEWARD MERIDIAN
ALASKA

WA11 MAP

MATANUSKA-SUSITNA BOROUGH
PLATTING DIVISION
350 EAST DAHLIA AVENUE
PALMER, ALASKA 99645

RECEIVED
JUL 28 2025
PLATTING

1032B13L004 133
HERITAGE FAMILY INV LLC
5366 DAVIDSON ST SE
ALBANY, OR 97322

NOTIFICATION OF PUBLIC HEARING

The Matanuska-Susitna Borough **Platting Board** will consider the following:

PETITIONER/OWNER: ~~SECON INC~~ STEAM ROW

REQUEST: The request is to create and dedicate a 60 foot by 3270 foot +/- Right of Way. Tax IDs of lots affected: 17N01W10A017, 8531000T00B, 8531000L001, 7622000L002, 9217000U001, 9217000U002, 9217000U003, 9217000U005, & 9217000L000. The proposed Right of Way is located directly west of S. Roberts Street, directly north of E. Palmer-Wasilla Highway, and south of E. Susitna Avenue; located within the SE ¼ Section 10, Township 17 North, Range 01 West, Seward Meridian, Alaska. In the City of Wasilla and Assembly District #4.

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To view the agenda or meeting packet please go to the following link: www.matsugov.us/boards/platting.

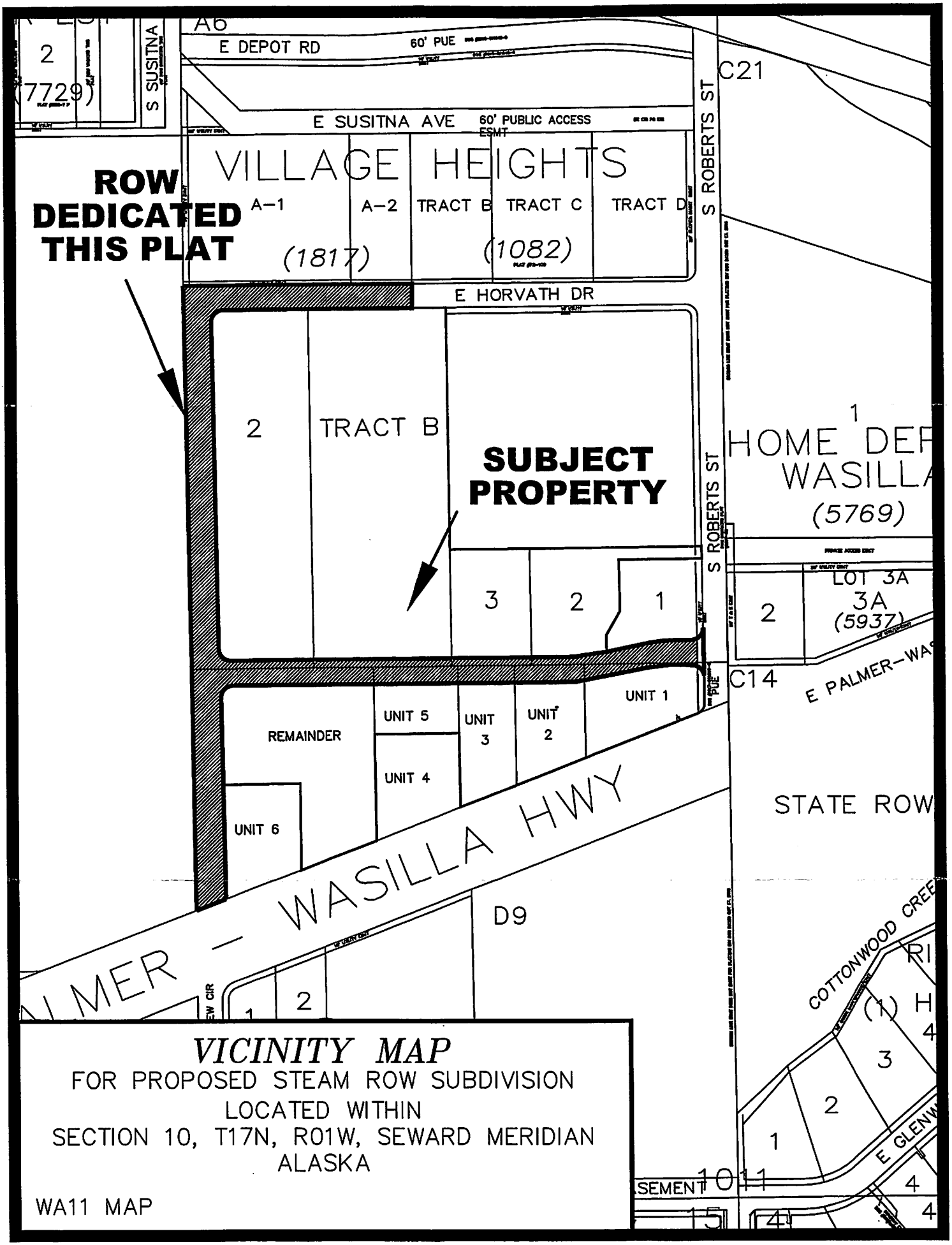
[X] No Objection [ ] Objection [ ] Concern

Name: George Sahlstrom *Address:* 450 S. Talkeetna St, Wasilla

Comments: _____

Case # 2025-082 CC *Note: Vicinity map Located on Reverse Side*

EXHIBIT H - 2



VICINITY MAP

FOR PROPOSED STEAM ROW SUBDIVISION
LOCATED WITHIN
SECTION 10, T17N, R01W, SEWARD MERIDIAN
ALASKA

WA11 MAP

6D

STAFF REVIEW AND RECOMMENDATIONS
PUBLIC HEARING
AUGUST 7, 2025

PRELIMINARY PLAT: LUNKER ESTATES

LEGAL DESCRIPTION: SEC 02, T22N, R04W, SEWARD MERIDIAN AK

PETITIONERS: THOMAS RUSSELL

SURVEYOR/ENGINEER: BULL MOOSE SURVEYING / HOLLER ENGINEERING

ACRES: 104.17 ± PARCELS: 4

REVIEWED BY: MATTHEW GODDARD CASE #: 2025-092

REQUEST: The request is to create 4 lots from Tract A, Shaman Subdivision Phase I, Plat #80-97, to be known as **LUNKER ESTATES,** containing 104.17 acres +/-. The petitioner is proposing the dedication of a Public Use Easement approximately 60'X 662'+/- to provide legal access to tax parcel A3. The property is located east of S. Amundsen Avenue, north and west of Caswell Creek, and directly north and west of S. Shaman Road (Tax ID #1995000T00A); within the NE ¼ Section 02, Township 22 North, Range 04 West, Seward Meridian, Alaska. In the Susitna Community Council and in Assembly District #7.

EXHIBITS:

SUPPORTING DOCUMETATION:

Vicinity Map and Aerial Photos	**PAGE** – 1-6
Geotechnical Report	**PAGES** – 7-12
Constructability Statement	**PAGE** – 13
As-Built & Topographic Mapping Certification	**PAGE** – 14
Topographic Narrative	**PAGE** – 15
Section Line Easement Determination	**PAGES** – 16-17

AGENCY COMMENTS

US Army Corps of Engineers	**PAGE** – 18
MSB DPW Pre-Design and Engineering Division	**PAGE** – 19
MSB Development Services	**PAGES** – 20-21
RSA #15	**PAGE** – 22
Utilities	**PAGES** – 23-28

DISCUSSION: The proposed subdivision is creating four lots and granting a 60' X 662.14' Public Use Easement from Tract A, Shaman Subdivision Phase I, Plat #80-97. The proposed public use easement is being granted to provide legal access to Tax Parcel A3, a parcel on the northwest boundary. Access for the proposed lots is from S. Shaman Road and E. Medicine Dance Road. Both roads are Borough maintained roads.

Access: Legal and physical access to the proposed lots are required pursuant to MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. All proposed lots meet the access requirements.

Soils Report: A geotechnical report was submitted (**Exhibit C**), pursuant to MSB 43.20.281(A). Curtis Holler, Registered Professional Engineer, notes that a soils review was performed at the request of the project owner. The project will create three new 2-acre lots within a large tract with a total area of around 109 acres. The soils evaluation included logging two new test holes on the proposed lots, review of the provided topography information, review of aerial imagery, and other observations at the site. The test hole location and topography map can be seen at **exhibit pages 9 & 10.**

The parent parcel has several minor ridge features generally oriented north-south, with a wide shallow valley similarly oriented within its western half. Most areas have minor grades, and one substantial swampy aera is located along the eastern border. The western end slopes gently to the north, and the eastern area slopes to the west. There are several areas with steep slopes over 25%, as delineated on the attached map; most are located on the larger tract. The total elevation differential indicated from the provided topographical map is around 44'.

Two new test holes were dug on March 14, 2025, where shown on the attached map. Near surface soils included a thin organic mat over a thicker layer of silty loess topsoils which extended down to about 3'. Receiving soils under the topsoils were relatively clean sands and gravels.

Groundwater was not encountered in the test holes. Groundwater may exist in lower areas or near the swampy area, but is not expected to be a limiting factor for the proposed lots. For the three smaller lots, in each case the test hole was located at or near the lowest site on the lot.

Based on the available soils and water table information, topography, MSB Title 43 Code definitions, and observations at the site, *"proposed lots 2, 3 & 4 will each contain over 10,000 square feet of contiguous useable septic area, and an additional 10,000 square feet of useable building area. Proposed Lot 1 is well over 400,000 ft2 and as such is not subject to useable area verification."*

Topographic Mapping and As-Built information were provided and are shown on the Agenda Plat. A letter certifying the as-built and topographic mapping information on the agenda plat was submitted and is at **Exhibit Page 14.**

A topographic Narrative was supplied for Proposed Lot 1 pursuant to MSB 43.20.281(A)(1)(i)(i) and can be found at **Exhibit Page 15**.

Constructability Statement: A constructability statement was submitted (**Exhibit Page 13**) pursuant to MSB 43.15.021(C), certifying that the proposed public use easement is suitable to construct a Borough Standard Road.

Section Line Easement Determination: A Section Line Easement Determination was submitted and is seen at **Exhibit Pages 16-17**.

Comments:

US Army Corps of Engineers (**Exhibit Page 18**) notes that it appears there may be aquatic resources on the easternmost parcel boundary. Department of the Army authorization is required if anyone proposes to place dredged and/or fill materials into waters of the U.S., including wetlands and/or perform work in navigable waters of the U.S. Section 404 of the clean water act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands

(33.U.S.C. 1344). The corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33. U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified by the Alaska District. Aquaculture structures and work would require Section 10 Authorization.

MSB DPW Pre-Design and Engineering Division (**Exhibit Page 19**) has no comments.

MSB Development Services (**Exhibit Pages 20-21**) has no objections.

RSA #15 (**Exhibit Page 22**) has no objections.

Utilities: (**Exhibit Pages 23-28**) ENSTAR has no comments or recommendations. GCI has no comments or objections. MTA requests a 15' utility easement along Shaman Road (**Recommendation #4**). MEA did not respond.

At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; Community Council #12 Susitna; Fire Service Area #135 Caswell; MSB Emergency Services, Community Development or Assessments, Planning; or MEA.

CONCLUSION: The preliminary plat of Lunker Estates is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats. There were no objections from any federal or state agencies, Borough departments, or utilities. There were no objections to the plat from the public in response to the Notice of Public Hearing. Legal and physical access will exist to the proposed lots, consistent with MSB 43.20.100 Access Required, MSB 43.20.120 Legal Access and MSB 43.20.140 Physical Access. Frontage for the subdivision will exist, pursuant to MSB 43.20.320 Frontage. A soils report was submitted, pursuant to MSB 43.20.218(A)(1). A topographic narrative was submitted, pursuant to MSB 43.20.281(A)(1)(i)(i).

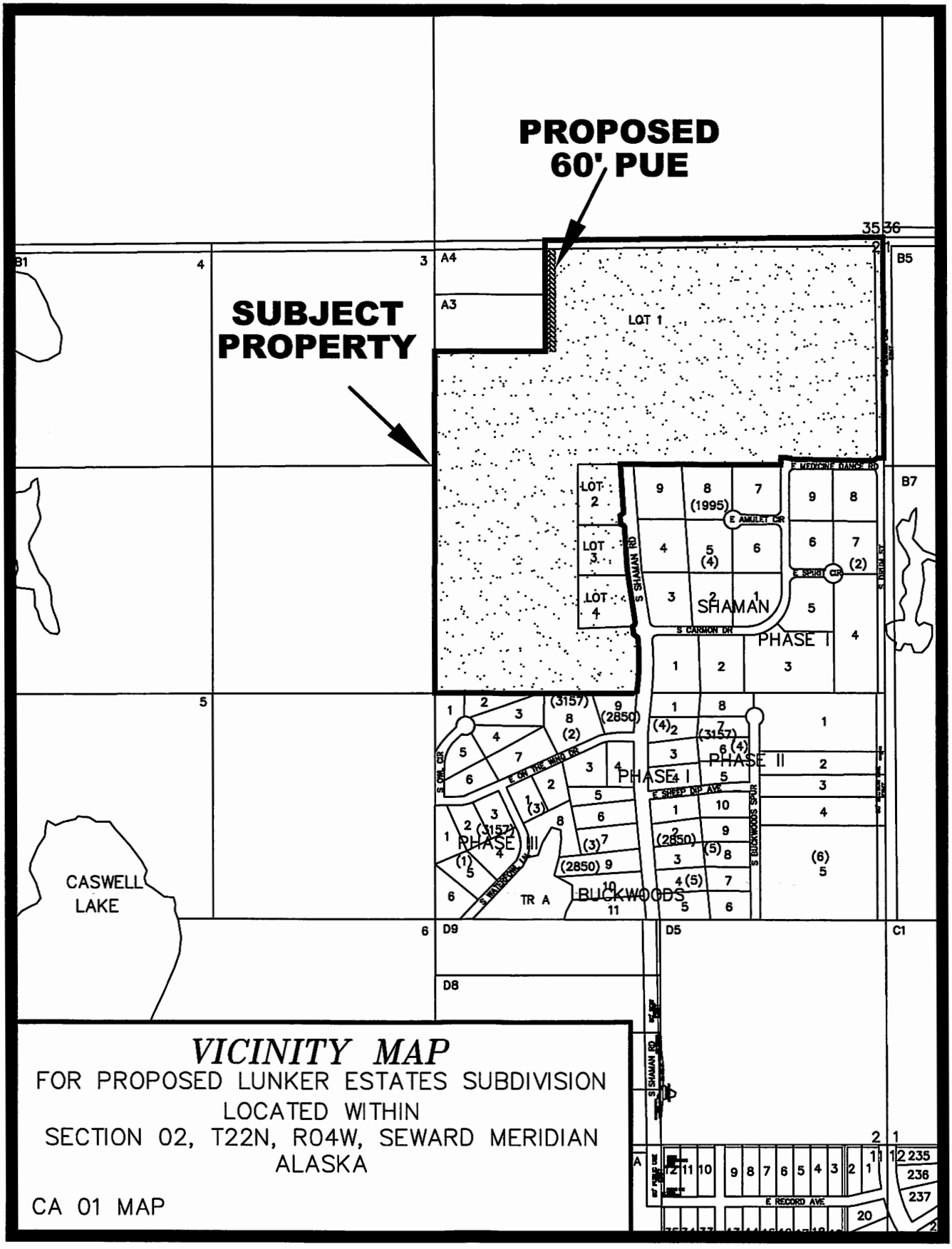
FINDINGS OF FACT

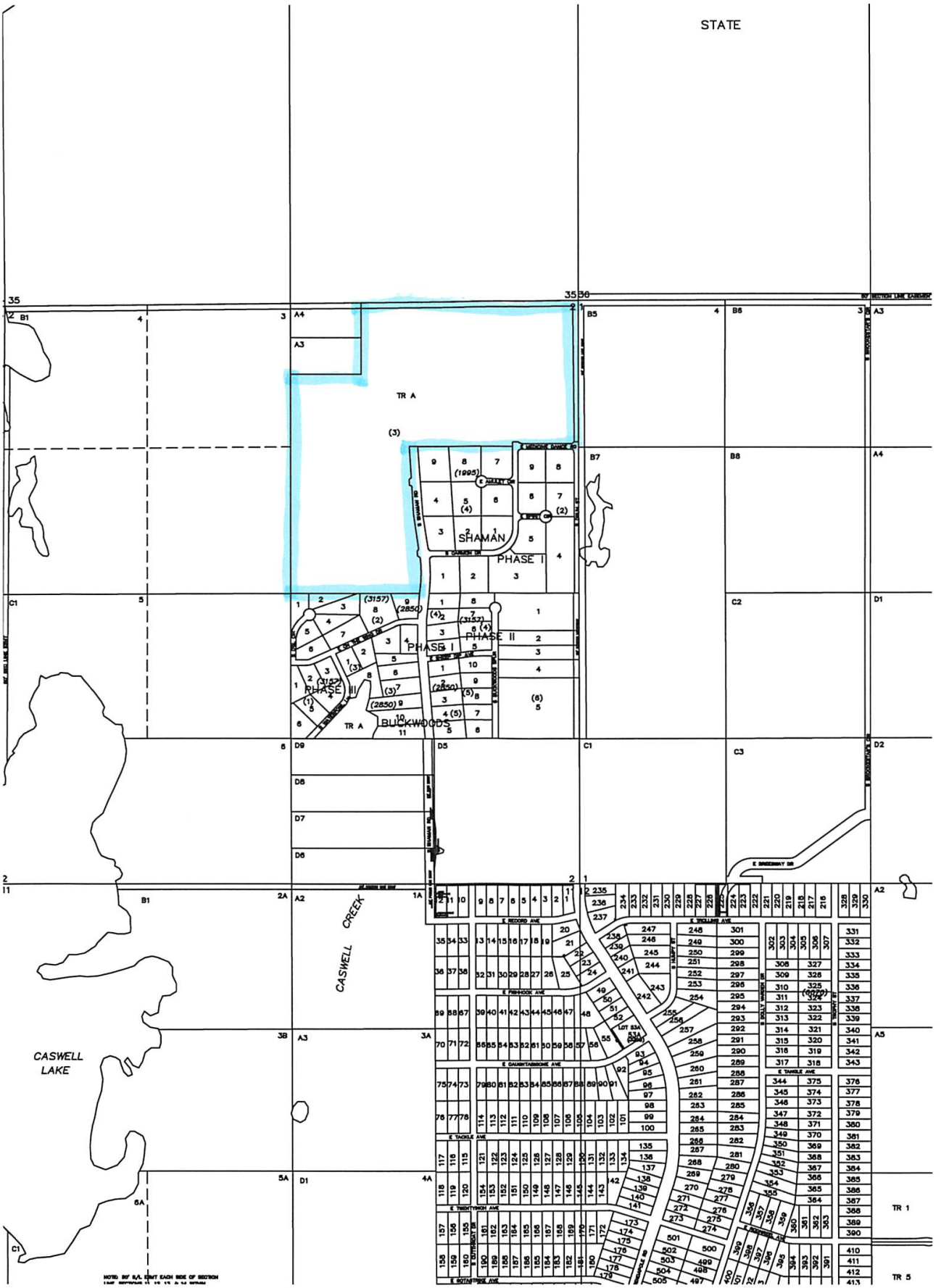
1. The plat of Lunker Estates is consistent with AS 29.40.070 Platting Regulations and MSB 43.15.016 Preliminary Plats.
2. A soils report was submitted, pursuant to MSB 43.20.281(A)(1)
3. A topographic narrative was submitted, pursuant to MSB 43.20.281(A)(1)(i)(i).
4. A statement of constructability was submitted, pursuant to MSB 43.15.021(C).
5. The lot has the required frontage pursuant to MSB 43.20.320.
6. At the time of staff report write-up, there were no responses to the Request for Comments from ADF&G; Community Council #12 Susitna; Fire Service Area #135 Caswell; MSB Emergency Services, Community Development, or Assessments, Planning; or MEA.
7. There were no objections from any federal or state agencies, Borough departments, or utilities.
8. At the time the staff report was written, there were no objections from the public in response to the Notice of Public Hearing.

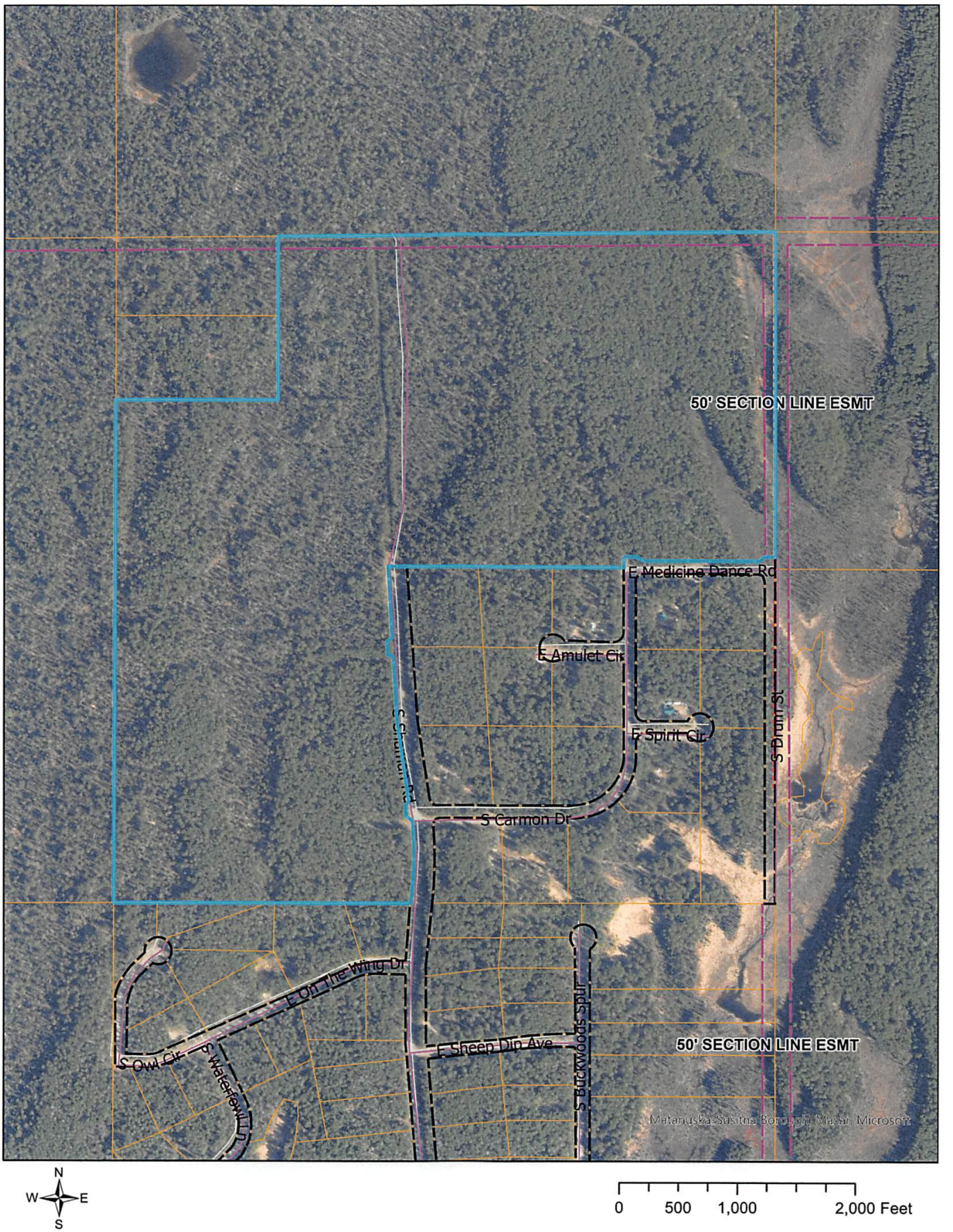
RECOMMENDATIONS OF CONDITIONS OF APPROVAL

Suggested motion: I move to approve the preliminary plat of Lunker Estates, Section 02, Township 22 North, Range 04 West, Seward Meridian, Alaska, contingent on staff recommendations

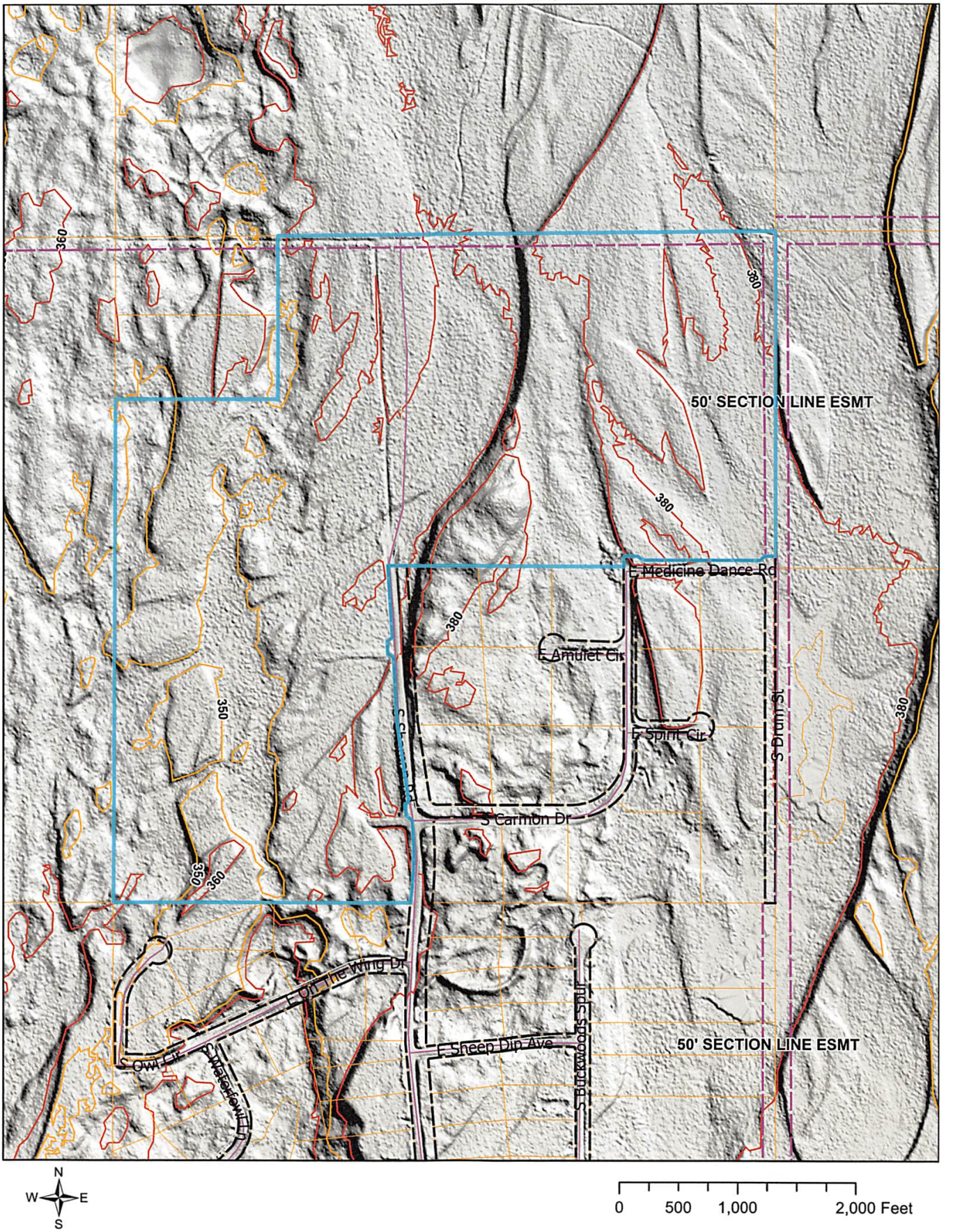
1. Taxes and special assessments must be paid in full for the year of recording, pursuant to MSB 43.15.053(F) and AS 40.15.020. Pay taxes and special assessments (LIDs), by CERTIFIED FUNDS OR CASH.
2. Provide updated Certificate to Plat executed within seven (7) days of recording of plat and submit Beneficiary Affidavit for any holders of a beneficial interest.
3. Pay postage and advertising fees.
4. Grant a 15' wide utility easement along S. Shaman Road.
5. Show all easements of record on final plat.
6. Submit recording fees, payable to Department of Natural Resources (DNR).
7. Submit plat in full compliance with Title 43.

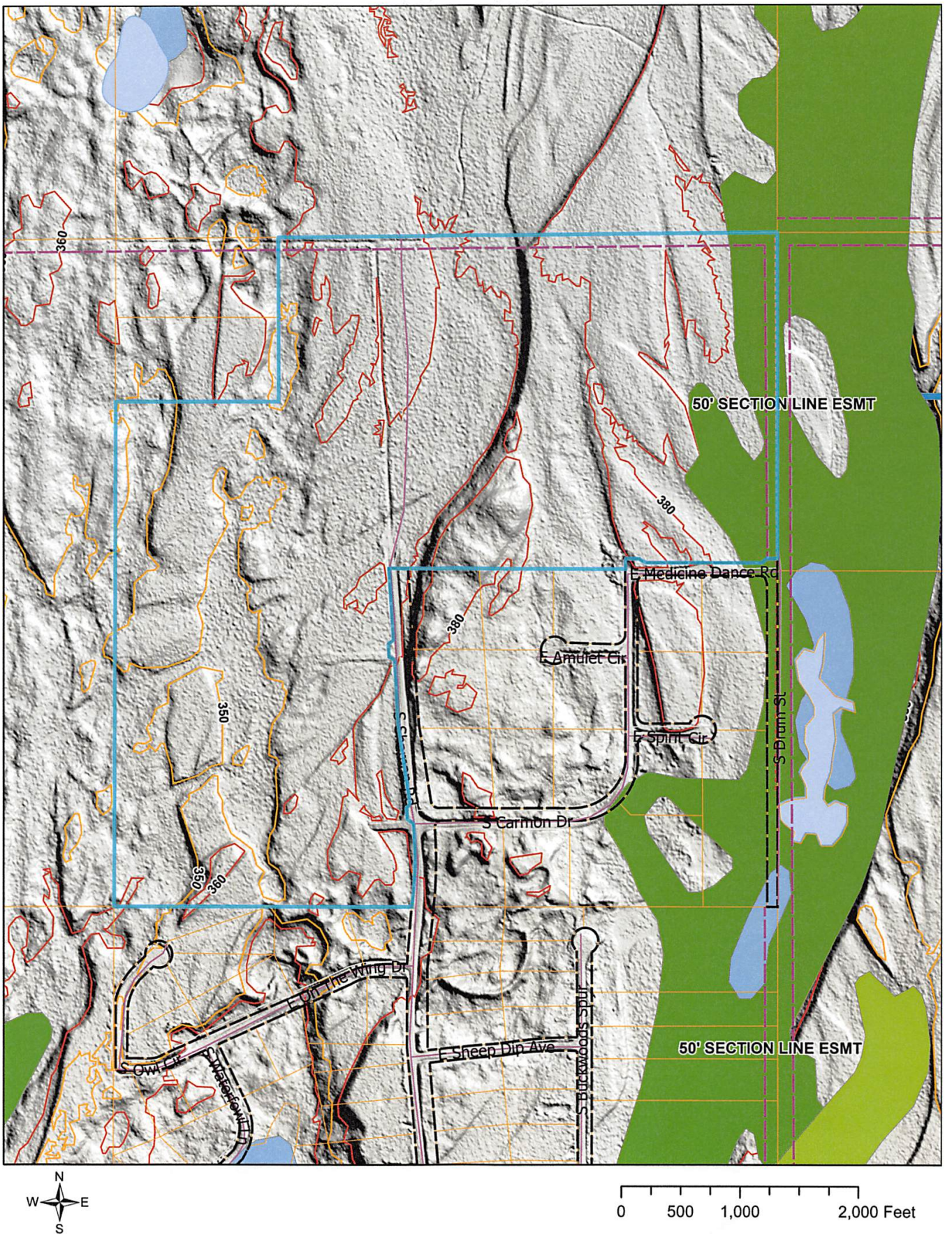

PROPOSED
60' PUE
SUBJECT
PROPERTY
LOT 1
LOT 2
LOT 3
LOT 4
SHAMAN
PHASE I
PHASE II
PHASE III
PHASE IV
BUCKWOODS
TR A
CASWELL
LAKE
S SHAMAN RD
E MEDICINE DANCE RD
E AMULET DR
E SPIRIT CIR
S CARIBOU DR
E OR THE WIND DR
E SHEEP DIP AVE
S OWL CIR
S WATERFOWL DR
S BUCKWOODS SPUR
E RECORD AVE
VICINITY MAP
FOR PROPOSED LUNKER ESTATES SUBDIVISION
LOCATED WITHIN
SECTION 02, T22N, R04W, SEWARD MERIDIAN
ALASKA
CA 01 MAP

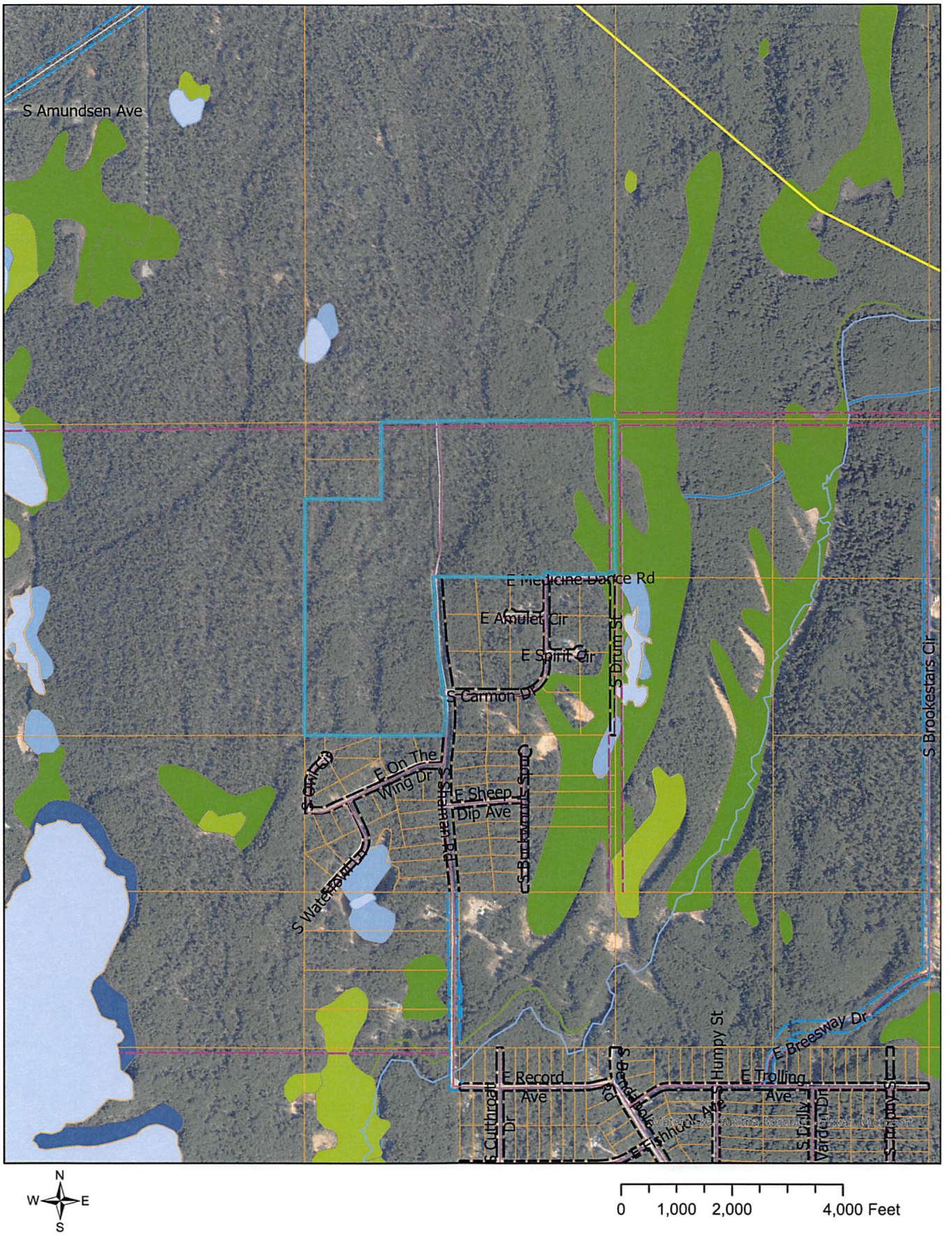

STATE
TR A
SHAMAN
PHASE I
PHASE II
PHASE III
BUCKWOODS
CASWELL CREEK
CASWELL LAKE
TR 1
TR 5



LUNKER ESTATES
Exhibit Page 3 of 28


360
380
50' SECTION LINE ESMT
380
E Medicine Dance Rd
380
E Amulet Cir
350
E Spirit Cir
S Drum St
380
S Carmon Dr
350
360
E Dirtine Wing Dr
E Sheep Dip Ave
S Buckwoods Spur
50' SECTION LINE ESMT
N
W
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0
500
1,000
2,000 Feet


50' SECTION LINE ESMT
E Medicine Dance Rd
E Amulet Cir
E Spirit Cir
S Carmon Dr
S Drum St
E On The Wing Dr
E Sheep Dip Ave
S Buckwoods Spur
50' SECTION LINE ESMT
360
380
350
N
W
E
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500
1,000
2,000 Feet


S Amundsen Ave
E Medicine Dance Rd
E Amulet Cir
E Spirit Cir
S Carmon Dr
S Brum St
S Brookestars Cir
E On The Wing Dr
E Sheep Dip Ave
S Buckwheat Spur
S Waterfowl Pl
E Breesway Dr
E Record Ave
E Trolling Ave
S Humpy St
S Cutthroat Dr
S Bonefish Rd
S Dolly Varden Dr
N
W
E
S
0
1,000
2,000
4,000 Feet

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

April 11, 2025

RECEIVED
APR 15 2025
PLATTING

Fred Wagner
MSB Platting Officer
350 East Dahlia Avenue
Palmer, Alaska 99645

Re: *Lunker Estates Subdivision;* Useable Areas and Drainage
HE #24043

Dear Mr. Wagner:

At the request of the project owner, we have performed a soils review and related preliminary design work for the referenced proposed subdivision. The project will create 3 new 2 acre lots within a large tract with a total area of around 109 acres. Our soils evaluation included logging two new testholes on the proposed lots, review of the provided topography information, review of aerial imagery, and our other observations at the site. See the attached testhole location and topography map for details.

Topography. The project site forms a square shape with smaller squares missing from its SE and NW corners. The existing S. Shaman Road runs from the south north to the center of the square; the 3 proposed lots lie to the west with full frontage on the street. The parent parcel has several minor ridge features generally oriented north-south, with a wide shallow valley similarly oriented within its western half. Most areas have minor grades, and one substantial swampy area is located along the eastern border. The western end slopes gently to the north, and the eastern area slopes to the west. There are several substantial areas with steep slopes over 25%, as delineated on the attached map; most are located on the larger tract. The total elevation differential indicated from the provided topographical map is around 44'.

Soils & Vegetation. The parent parcel contains very minimal development, with minor cleared paths, an old road start and no apparent substantial structures. Except for the clearings, all areas appear to remain in a native or near native state. Existing vegetation in the wooded portion primarily consists of mature growth birch and spruce trees. Lesser brush and grasses are also present. Two new test holes were dug on 3-14-2025 where shown on the attached map. Near surface soils included a thin organic mat over a thicker layer of silty loess topsoils which extended down to about 3'. Receiving soils under the topsoils were relatively clean sands and gravels.

Groundwater. Groundwater was not encountered in the test holes, which were dug to 12'. Groundwater may exist in lower areas or near the swampy area, but is not expected to be a limiting factor for the proposed lots. For the 3 smaller lots, in each case the testhole was located at or near the lowest site on the lot.

Useable Areas. The proposed lots have a few limitations on areas defined by MSB code as *useable septic area* or *useable building area.* Useable septic areas will be primarily limited by steep areas and related setbacks, surface water setbacks, easements and lot lines. For useable building area, lotlines and setbacks, utility easements, and ROW/PUE setbacks will be limiting factors. Based on the available soils and water table information, topography, MSB Title 43 Code definitions, and our observations at the site, ***proposed Lots 2, 3 & 4 will each contain over 10,000 square feet of contiguous useable septic area, and an additional 10,000 square feet of useable building area. Proposed Lot 1 is well over 400,000 ft2 and as such is not subject to useable area verification.***

Road Access and Drainage. All of the proposed new lots will be accessed from the existing S. Shaman Road. As no road construction is required, no formal drainage plan is needed. Existing drainage patterns are shown on the attached map, and the proposed development will have minimal impact.

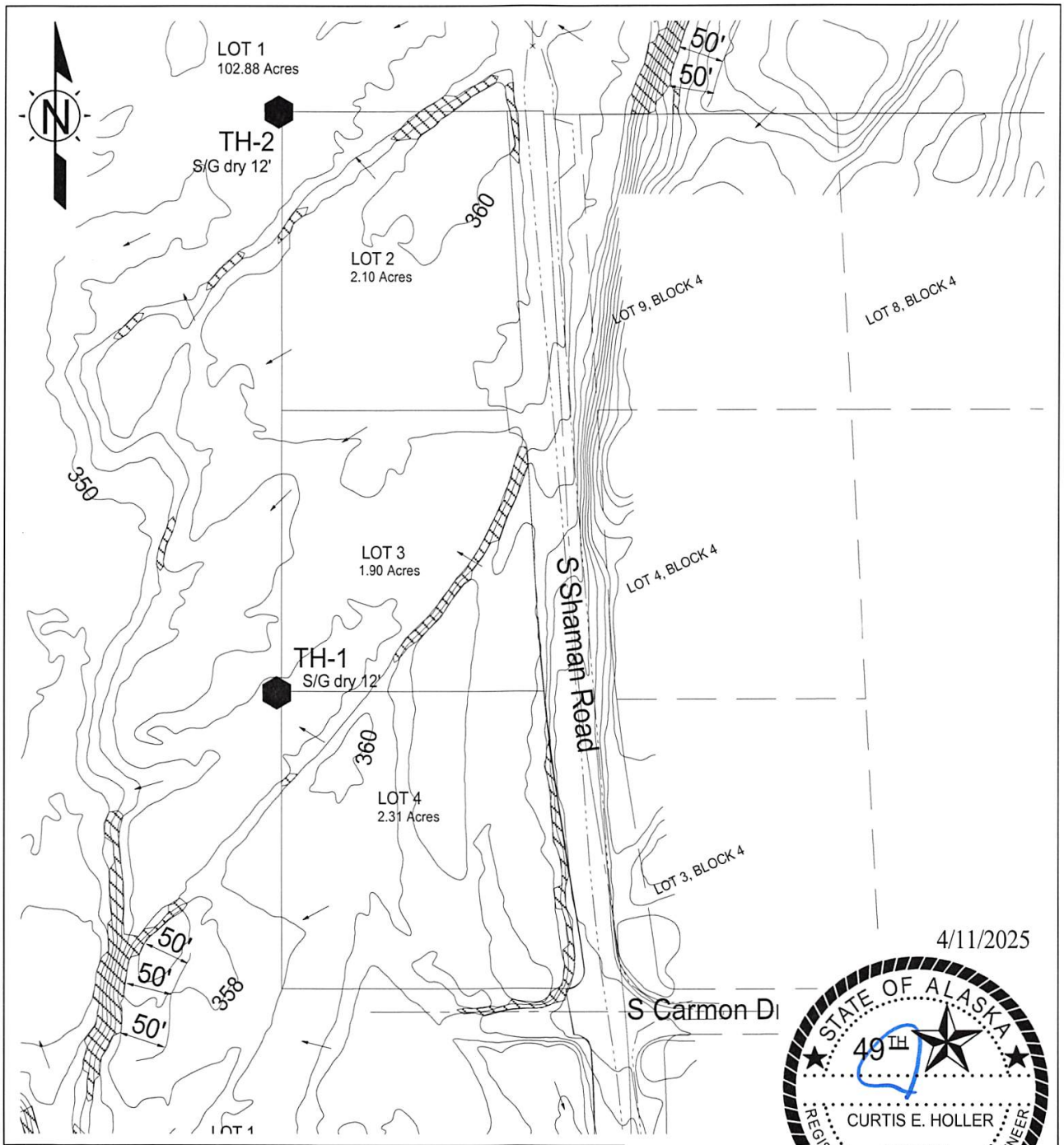
Please do not hesitate to call with any questions you may have.

Sincerely,

Curtis Holler, PE

c: T. Russell, w/attachments





Lunker Estates
Useable Area & Topo Map

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska 99654

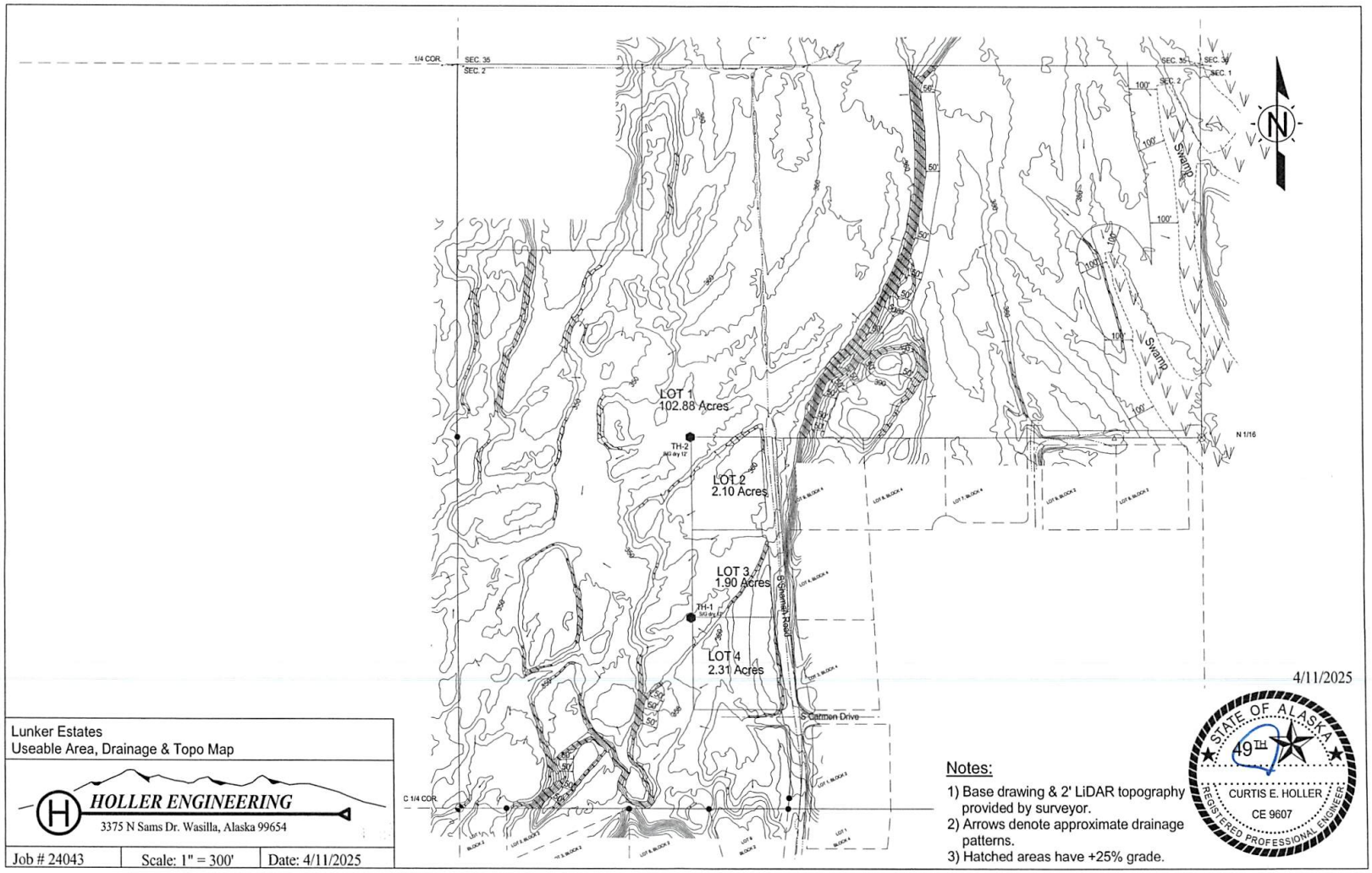
Job # 24043	Scale: 1" = 150'	Date: 4/11/2025

4/11/2025

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

Notes:

1) Base drawing & 2' LiDAR topography provided by surveyor.
2) Arrows denote approximate drainage patterns.
3) Hatched areas have +25% grade.



Lunker Estates
Useable Area, Drainage & Topo Map

HOLLER ENGINEERING
3375 N Sams Dr. Wasilla, Alaska 99654

Job # 24043	Scale: 1" = 300'	Date: 4/11/2025

4/11/2025

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

Notes:

1) Base drawing & 2' LiDAR topography provided by surveyor.
2) Arrows denote approximate drainage patterns.
3) Hatched areas have +25% grade.

HOLLER ENGINEERING

3375 N Sams Dr. Wasilla, Alaska 99654 376-0410

Seal

STATE OF ALASKA 49TH
CURTIS E. HOLLER
CE 9607
4-9-25
REGISTERED PROFESSIONAL ENGINEER

SOILS LOG / PERCOLATION TEST

TEST HOLE # 1 of 2

Performed For: THOMAS RUSSELL

Legal Description: LUNKER ESTATES

Depth, feet | Soil Type

1 - OL, MOSS, ROOT MAT
2 - ML, SOFT BROWN LOESS TAN-YELLOW TINT
3 -
4 - SP-GP, MOST ROCK <6" FEW TO 8"
5 -
6 - OLIVE, MEDIUM SANDS
7 -
8 -
9 - SP-GP, MOST ROCK <3", FEW TO 6" OLIVE, MEDIUM SAND
10 -
11 - NO GWT/NO STAIN
12 -
13 -
14 -
15 -
16 -
17 -
18 -
19 -
20 -
21 -
22 -

Slope

Site Plan

N

(SEE MAP & CONTOURS)

WAS GROUNDWATER ENCOUNTERED? NO

IF YES, AT WHAT DEPTH? N/A

DEPTH AFTER MONITORING? _____

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop

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

TEST RUN BETWEEN _____ FT AND _____ FT DEPTH

COMMENTS: _____

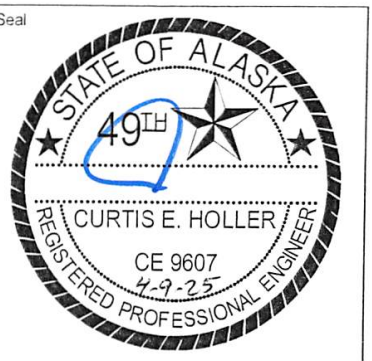
PERFORMED BY: C. HOLLER DATE: 3-14-2025

THLOGregnew 4/28/2014

HOLLER ENGINEERING

3375 N Sams Dr. Wasilla, Alaska 99654 376-0410

Seal



SOILS LOG / PERCOLATION TEST

TEST HOLE # 2 of 2

Performed For: THOMAS RUSSELL

Legal Description: LUNKER ESTATES

Depth, feet	Soil Type
1	OL, MOSS, ROOT MAT
2	ML, SOFT BROWN LOESS
3	
4	SP, OLIVE
5	SP-GP OLIVE
6	MED. SAND
7	MOIT Rock <5"
8	Few to 8"
9	
10	
11	
12	NO GWT/NO STAIN
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	

Slope

Site Plan

N

(SEE MAP & CONTOURS)

WAS GROUNDWATER ENCOUNTERED? NO

IF YES, AT WHAT DEPTH? N/A

DEPTH AFTER MONITORING?

Slope

PERCOLATION TEST

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop

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

TEST RUN BETWEEN _____ FT AND _____ FT DEPTH

COMMENTS: _____

PERFORMED BY: C. Holler DATE: 3-14-2025

THLOGregnew 4/28/2014

Bull Moose Surveying LLC

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

RECEIVED
MAY 29 2025
PLATTING

May 22, 2025

TO: Fred Wagner, PLS; Platting Officer

RE: Lunker Estates - Proof of Constructability (Previously: Tract A, Shaman Subdivision - Phase I)

The existing platted road, S. Shaman Road, provides legal and physical access to the Proposed Lunker Estates and Section 02, T22N, R04W, S.M., Alaska. From S. Shaman Rd., S. Carmon Dr. and E. Medicine Dance Rd. provide the access and means to utilize the 50' Section Line Easement that is attached to the Eastern and Northern boundary of Section 2. Through the use of the section line easements, the proposed PUE can be accessed. This 60' wide PUE will be created to provide legal access to the S1/2 of the NW1/4 of Government Lot 2, Section 02, T22N, R04W, S.M. From the Section Line through the Proposed PUE, the topography could be described as gently rolling and relatively flat with the grade never exceeding 10%; nor are there any utilities or other land/water features creating impediments to a Borough standard road design. A Borough standard road can be constructed within the public easements and the proposed PUE to give access to the S1/2 of the NW1/4 of Government Lot 2. There are aerial exhibits along with paperwork showing the public use easement determination and design work using the Mat-Su Borough 2011 LiDAR contours are attached.

Respectfully,

RS Hoff

Robert S. Hoffman, LS-10609

Bull Moose Surveying LLC

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

Date: 06/02/2025

Topographic and Asbuilt Information for: Lunker Estates

I hereby certify that I am a registered professional land surveyor in the state of Alaska and that the topographic and asbuilt information shown on this preliminary plat (Lunker Estates) is representative of current conditions, and that all dimensional and other details are true and correct to the best of my knowledge.

Thank you,
Robert Hoffman



Bull Moose Surveying LLC

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

Date: 04/28/2025

Topographic Narrative for: Proposed Lot 1, Lunker Estates

The proposed subdivision Lunker Estates is 104.17 acres in total area with the Proposed Lot 1 exceeding 400,000sqft. The Proposed Lot 1 property is primarily undeveloped. The elevation changes can be described as gently rolling when moving from the western boundary towards the eastern boundary as it climbs in elevation. Starting at the western boundary, the Proposed Lot 1 has the lowest elevation at approximately 340'-350' with slowly rolling hills and dense trees. Moving easterly, the terrain starts to slowly climb in elevation as it reaches a natural ridge running from south to north relatively in the middle of the Proposed Lot 1. At this natural ridge, the elevation climbs from 360' to 380' over approximately a 50' span and is the greatest elevation climb within the property. Leaving the natural ridge line and heading easterly to the eastern boundary of Proposed Lot 1, the property remains gently rolling and does not exceed approximately 380'. Lot 1 is relatively flat over large spans of the property and contains dense trees and underbrush. Proposed Lot 1 has over 400,000 square feet of area and over 10,000 square feet of buildable area.

Thank you,
Robert Hoffman



SECTION LINE EASEMENT DETERMINATION

Gov. Lots 1 & 2, NE 1/4, Section 2, T22N, R4W, S.M., Alaska

RECEIVED
MAY 29 2025
PLATTING

Case Facts:

1. Rectangular survey approved January 15, 1921 by the United States Department of the Interior, Bureau of Land Management in Washington, D.C.
2. Application for AKA 050887 General Grant filed at Bureau of Land Management on December 29, 1959.
3. Patent No. 1226043 issued to State of Alaska on March 30, 1962.

Discussion:

The lands were Surveyed State lands that were under State ownership between the dates of March 26, 1951 through June 30, 1960 under ch. 123, SLA 1951.

Conclusion:

A 50' section line easement attaches to the section line for this property.



Bureau of Land Management - Alaska LIS-Online Reports
Case Abstract for: AKA 050887

Case Serial Num:	AKA 050887	FRC Site Code:	ANC
Case Type:	262730 General Grant	Accession Num:	49
Case Status:	Closed	Box Num:	587 of
Case Status Actn:	Case Closed	Disp Date:	
Case Status Date:	22-NOV-2016	Location Code:	PART A

Customer Data

Custid:	000027242	Int Rel: Applicant	Pct Int: 0.0000
Cust Name:	AK DEPARTMENT OF NATURAL RESOURCES DIV OF MINING LAND AND WATER REALTY SERVICES SECT		
Cust Address:	Withheld		

Administrative/Status Action Data

Date	Code/Description	Remarks	Doc ID	Ofc	Emp
29-DEC-1959	001 Application Filed	--	--	PSA	BD
09-MAY-1960	239 Publication Directed	NEWSPAPER	--	AJA	KW
14-JUL-1960	341 Proof Of Pub Receive	--	--	AJA	KW
05-JUN-1961	004 Amend/Corr Apln Recd	--	--	AJA	KW
02-MAR-1962	940 Tentative Appv Given	--	TA0019620076	AJA	KW
30-MAR-1962	879 Patent Issued	IN PART	PA0001226043	LISA	EG
11-SEP-1964	940 Tentative Appv Given	--	TA0019640279	AJA	KW
05-OCT-1964	879 Patent Issued	--	PA0050650225	PSA	BD
05-OCT-1964	970 Case Closed	--	--	AJA	KW
28-JAN-1966	962 Case Sent To Nara	--	--	PSA	BD
17-JUN-1979	958 Case Reopened	--	--	963	LF
18-JUN-1979	885 Title Accepted By U	--	RC0019790618	963	LF
27-AUG-1992	996 Converted To Prime	--	--	940	BKM
30-JUN-1993	239 Publication Directed	See AA021155	--	963	PAM
19-NOV-1993	341 Proof Of Pub Receive	See AA021155	--	940	BKM
20-DEC-1993	953 Topfiled Anilca 906(	--	--	940	BKM
13-FEB-2009	974 Automated Record Ver	OVERFILL AUDIT OK	--	961	LAN
15-DEC-2010	411 Case Audit Signed-Bl	--	--	961	LAN
22-NOV-2016	970 Case Closed	--	--	940	LAN

No Financial Actions Found

General Remarks

PORTIONS RECONVEYED TO US,
THEN CIRI-KASHWITNA POOL
QCD FILE AA-26232;
TA ISSUED DOCUMENT NUMBER RETROACTIVELY ASSIGNED FOR
RECORD KEEPING PURPOSES AS OF JUN 1, 2009. NOT ALL
DOCUMENTS ARE SCANNED.

Matthew Goddard

From: Ortiz, Olivia K CIV USARMY CEPOA (USA) <Olivia.K.Ortiz@usace.army.mil>
Sent: Tuesday, June 24, 2025 8:28 AM
To: Matthew Goddard
Cc: CEPOA-SM-RD-Pagemaster
Subject: RFC Lunker Estates (MG)

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

Thank you for bringing this project to our attention and for allowing us to comment. The Corps of Engineers does have a comment regarding the proposed Lunker Estates Subdivision. Based on aerial imagery and the Matanuska-Susitna Borough (MSB) Wetlands Mapper, it appears that there may be aquatic resources on the easternmost parcel boundary.

Department of the Army authorization is required if anyone proposes to place dredged and/or fill material into waters of the U.S., including wetlands and/or perform work in navigable waters of the U.S.

A copy of the DA permit application can be found online at www.poa.usace.army.mil/Missions/Regulatory. Sample drawings can also be found on our website at www.poa.usace.army.mil/Portals/34/docs/regulatory/guidetodrawings2012.pdf.

Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified by the Alaska District. Aquaculture structures and work would require Section 10 Authorization.

The applicant is welcome to submit a preapplication meeting request, a jurisdictional determination request, or a permit application directly to our general mailbox (regpagemaster@usace.army.mil) and they will be assigned a project manager to assist them. Please feel free to contact our main line if you or the applicant have any questions or concerns at 907-753-2712.

Thank you,
Olivia Ortiz
Regulatory Specialist
Alaska District | POA
U.S. Army Corps of Engineers
P: (907) 753-2586

Matthew Goddard

From: Tammy Simmons
Sent: Tuesday, June 24, 2025 3:47 PM
To: Matthew Goddard
Cc: Brad Sworts; Jamie Taylor; Tammy Simmons
Subject: RE: RFC Lunker Estates (MG)

Hello,

PD&E has no comments.

Thank you.

PD&E Review Team

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Friday, June 20, 2025 4:36 PM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; twalter@fmgconsultants.com; Shawn McBride <mcbrides@mtaonline.net>; Richard Boothby <Richard.Boothby@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Lunker Estates (MG)

Hello,

The following link is a request for comments for the proposed Lunker Estates.
Please ensure all comments have been submitted by July 11, 2025, so they can be incorporated in the staff report packet that will be presented to the Platting board.

Lunker Estates

Feel free to contact me if you have any questions.

Thank you,

Matthew Goddard
Platting Technician
907-861-7881

Matthew Goddard

From: Permit Center
Sent: Monday, June 23, 2025 8:10 AM
To: Matthew Goddard
Subject: RE: RFC Lunker Estates (MG)

Each access or encroachment constructed during subdivision road development shall be reported to the Permit Center for documentation. Cluster box pullout locations should be designed using the MSB Standard Drawing – Mailbox Pullouts, and in alignment with lot lines as shown on the plat layout.

Any water system, sewer lines, or street lighting placed in the right-of-way shall require a utility permit.

No other comments from the Permit Center.

Brandon Tucker
Permit Technician
Matanuska-Susitna Borough Permit Center
350 E Dahlia Ave
Palmer AK 99645
P (907) 861-7871
F (907) 861-8158

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Friday, June 20, 2025 4:36 PM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; twalter@fmgconsultants.com; Shawn McBride <mcbrides@mtaonline.net>; Richard Boothby <Richard.Boothby@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Lunker Estates (MG)

Hello,

The following link is a request for comments for the proposed Lunker Estates.
Please ensure all comments have been submitted by July 11, 2025, so they can be incorporated in the staff report packet that will be presented to the Platting board.

Lunker Estates

Feel free to contact me if you have any questions.

MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department
Code Compliance Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822 • Fax (907) 745-9876
E-mail: ccb@matsugov.us

MEMORANDUM

DATE: 7/1/2025

TO: Matthew Goddard, Platting Technician

FROM: Kendra Johnson, CFM
Senior Code Compliance Office

SUBJECT: Proposed Platting action for Lunker Estates – Plat 2025-000092

No open Code Compliance cases/violations on MSB Tax ID 1995000T00A; Platting action PLAT-2025-000092 at this time.

Code Compliance has no objection of creating 4 lost from the existing parcel.

Matthew Goddard

From: DJ Mcbride <mcbrides@mtaonline.net>
Sent: Monday, June 23, 2025 12:36 PM
To: Matthew Goddard
Subject: Re: RFC Lunker Estates (MG)

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
RSA 15 has no objection.

DJ McBride
RSA 15 Chair

> On Jun 20, 2025, at 16:35, Matthew Goddard <Matthew.Goddard@matsugov.us> wrote:
>
> Hello,
>
> The following link is a request for comments for the proposed Lunker Estates.
> Please ensure all comments have been submitted by July 11, 2025, so they can be incorporated in the staff report packet that will be presented to the Platting board.
>
> <image001.png>
> Lunker Estates
>
> Feel free to contact me if you have any questions.
>
> Thank you,
>
> Matthew Goddard
> Platting Technician
> 907-861-7881
> Matthew.Goddard@matsugov.us

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

June 30, 2025

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

To whom it may concern:

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

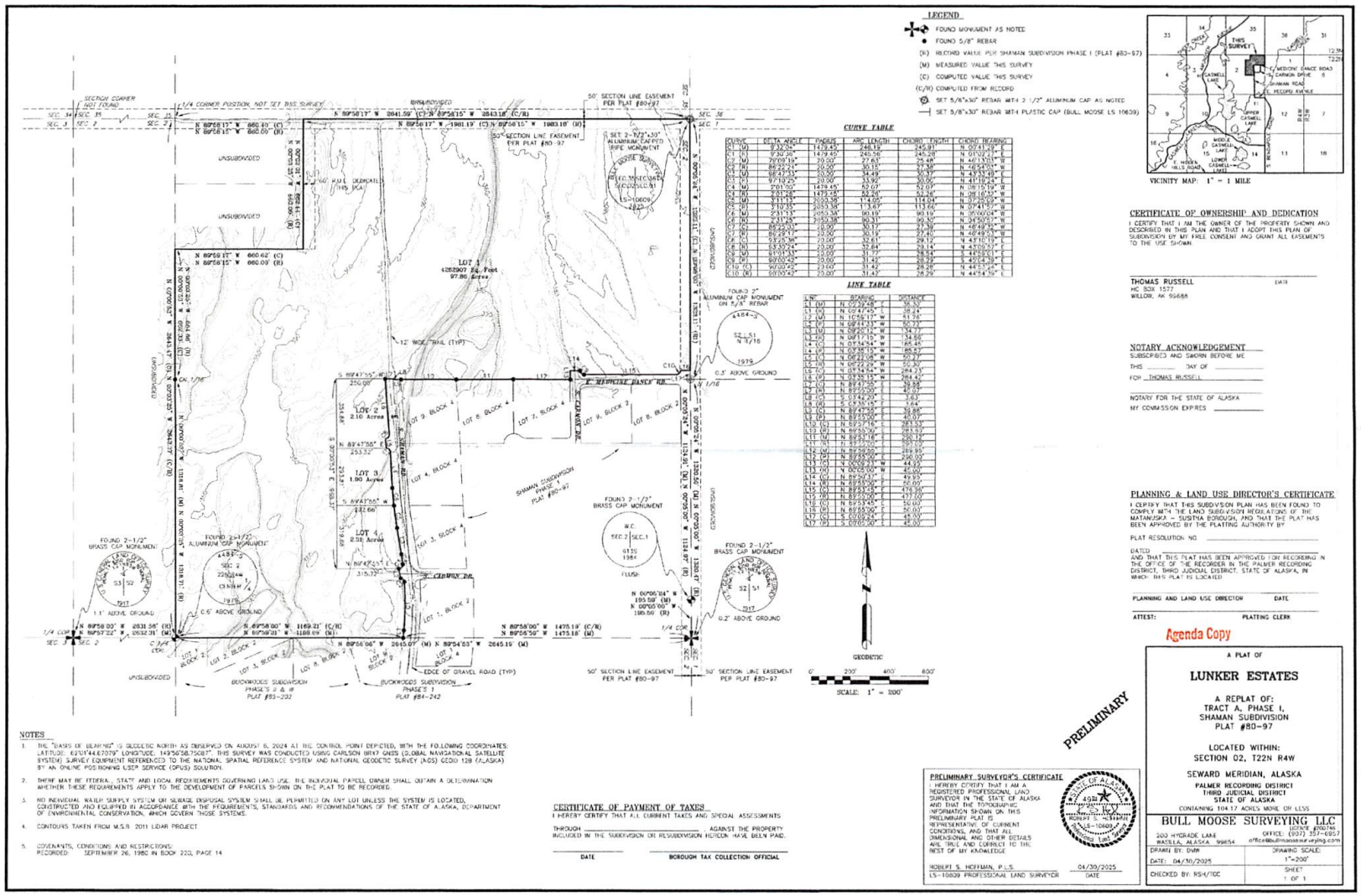
- **LUNKER ESTATES**
  (MSB Case # 2025-092)

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

Sincerely,

James Christopher

James Christopher
Right of Way & Permitting Agent
ENSTAR Natural Gas Company, LLC


LEGEND
FOUND MONUMENT AS NOTED
FOUND 5/8" REBAR
(R) RECORD VALUE PER SHAMAN SUBDIVISION PHASE I (PLAT #80-97)
(M) MEASURED VALUE THIS SURVEY
(C) COMPUTED VALUE THIS SURVEY
(C/M) COMPUTED FROM RECORD
SET 5/8"x30" REBAR WITH 2 1/2" ALUMINUM CAP AS NOTED
SET 5/8"x30" REBAR WITH PLASTIC CAP (BULL MOOSE LS 10609)
CURVE TABLE
LINE TABLE
LOT 1 4252907 Sq. Feet 97.86 Acres
LOT 2 2.10 Acres
LOT 3 1.90 Acres
LOT 4 2.51 Acres
E. MEDICINE DANCE RD.
CHARM DR.
12' WIDE TRAIL (TYP)
EDGE OF GRAVEL ROAD (TYP)
50' SECTION LINE EASEMENT PER PLAT #80-97
SHAMAN SUBDIVISION PHASE I PLAT #80-97
BUCKWOODS SUBDIVISION PHASE II & III PLAT #85-202
BUCKWOODS SUBDIVISION PHASE I PLAT #84-242
UNSUBDIVIDED
FOUND 2" ALUMINUM CAP MONUMENT ON 5/8" REBAR
FOUND 2-1/2" BRASS CAP MONUMENT
FOUND 2-1/2" ALUMINUM CAP MONUMENT
FOUND 2-1/2" BRASS CAP MONUMENT
SET 2-3/4"x35" ALUMINUM CAPPED PIPE MONUMENT
GEODETIC
SCALE: 1" = 200'
VICINITY MAP: 1" = 1 MILE
THIS SURVEY
CERTIFICATE OF OWNERSHIP AND DEDICATION
I CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED IN THIS PLAN AND THAT I ADOPT THIS PLAN OF SUBDIVISION BY MY FREE CONSENT AND GRANT ALL EASEMENTS TO THE USE SHOWN.
THOMAS RUSSELL
HC BOX 1572
WILLOW, AK 99688
DATE
NOTARY ACKNOWLEDGEMENT
SUBSCRIBED AND SWORN BEFORE ME
THIS DAY OF
FOR THOMAS RUSSELL
NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES
PLANNING & LAND USE DIRECTOR'S CERTIFICATE
I CERTIFY THAT THIS SUBDIVISION PLAN HAS BEEN FOUND TO COMPLY WITH THE LAND SUBDIVISION REGULATIONS OF THE MATANUSKA – SUSITNA BOROUGH, AND THAT THE PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY
PLAT RESOLUTION NO.
DATED
AND THAT THIS PLAT HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE RECORDER IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, IN WHICH THIS PLAT IS LOCATED
PLANNING AND LAND USE DIRECTOR
DATE
ATTEST:
PLATTING CLERK
Agenda Copy
PRELIMINARY
A PLAT OF
LUNKER ESTATES
A REPLAT OF:
TRACT A, PHASE I,
SHAMAN SUBDIVISION
PLAT #80-97
LOCATED WITHIN:
SECTION 02, T22N R4W
SEWARD MERIDIAN, ALASKA
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
CONTAINING 104.17 ACRES MORE OR LESS
PRELIMINARY SURVEYOR'S CERTIFICATE
I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PRELIMINARY PLAT IS REPRESENTATIVE OF CURRENT CONDITIONS, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
ROBERT S. HOFFMAN, P.L.S.
LS-10609 PROFESSIONAL LAND SURVEYOR
04/30/2025
DATE
CERTIFICATE OF PAYMENT OF TAXES
I HEREBY CERTIFY THAT ALL CURRENT TAXES AND SPECIAL ASSESSMENTS THROUGH INCLUDED IN THE SUBDIVISION OR RESUBDIVISION HEREON HAVE BEEN PAID.
AGAINST THE PROPERTY
DATE
BOROUGH TAX COLLECTION OFFICIAL
NOTES
1. THE "BASIS OF BEARING" IS GEODETIC NORTH AS OBSERVED ON AUGUST 6, 2024 AT THE CONTROL POINT DEPICTED, WITH THE FOLLOWING COORDINATES: LATITUDE: 62°01'44.67079" LONGITUDE: 149°56'58.75087". THIS SURVEY WAS CONDUCTED USING CARLSON BRX7 GNSS (GLOBAL NAVIGATIONAL SATELLITE SYSTEM) SURVEY EQUIPMENT REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM AND NATIONAL GEODETIC SURVEY (NGS) GEOID 12B (ALASKA) BY AN ONLINE POSITIONING USER SERVICE (OPUS) SOLUTION.
2. THERE MAY BE FEDERAL, STATE AND LOCAL REQUIREMENTS GOVERNING LAND USE. THE INDIVIDUAL PARCEL OWNER SHALL OBTAIN A DETERMINATION WHETHER THESE REQUIREMENTS APPLY TO THE DEVELOPMENT OF PARCELS SHOWN ON THE PLAT TO BE RECORDED.
3. NO INDIVIDUAL WATER SUPPLY SYSTEM OR SEWAGE DISPOSAL SYSTEM SHALL BE PERMITTED ON ANY LOT UNLESS THE SYSTEM IS LOCATED, CONSTRUCTED AND EQUIPPED IN ACCORDANCE WITH THE REQUIREMENTS, STANDARDS AND RECOMMENDATIONS OF THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHICH GOVERN THOSE SYSTEMS.
4. CONTOURS TAKEN FROM M.S.B. 2011 LIDAR PROJECT.
5. COVENANTS, CONDITIONS AND RESTRICTIONS: RECORDED: SEPTEMBER 26, 1980 IN BOOK 220, PAGE 14
BULL MOOSE SURVEYING LLC
200 HYDRADE LANE
WASILLA, ALASKA 99654
OFFICE: (907) 357-6057
office@bullmoosesurveying.com
DRAWN BY: DWR
DRAWING SCALE: 1"=200'
DATE: 04/30/2025
CHECKED BY: RSH/TOC
SHEET: 1 OF 1

Matthew Goddard

From: OSP Design Group <ospdesign@gci.com>
Sent: Thursday, July 10, 2025 6:27 PM
To: Matthew Goddard
Cc: OSP Design Group
Subject: RE: RFC Lunker Estates (MG)
Attachments: Agenda Plat.pdf

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

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

Thanks,
GCI | OSP Design
1001 Northway Dr., 1st Floor, Anchorage, AK 99508
e: OSPDesign@gci.com | **w:** www.gci.com

From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Friday, June 20, 2025 4:36 PM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; twalter@fmgconsultants.com; Shawn McBride <mcbrides@mtaonline.net>; Richard Boothby <Richard.Boothby@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Lunker Estates (MG)

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

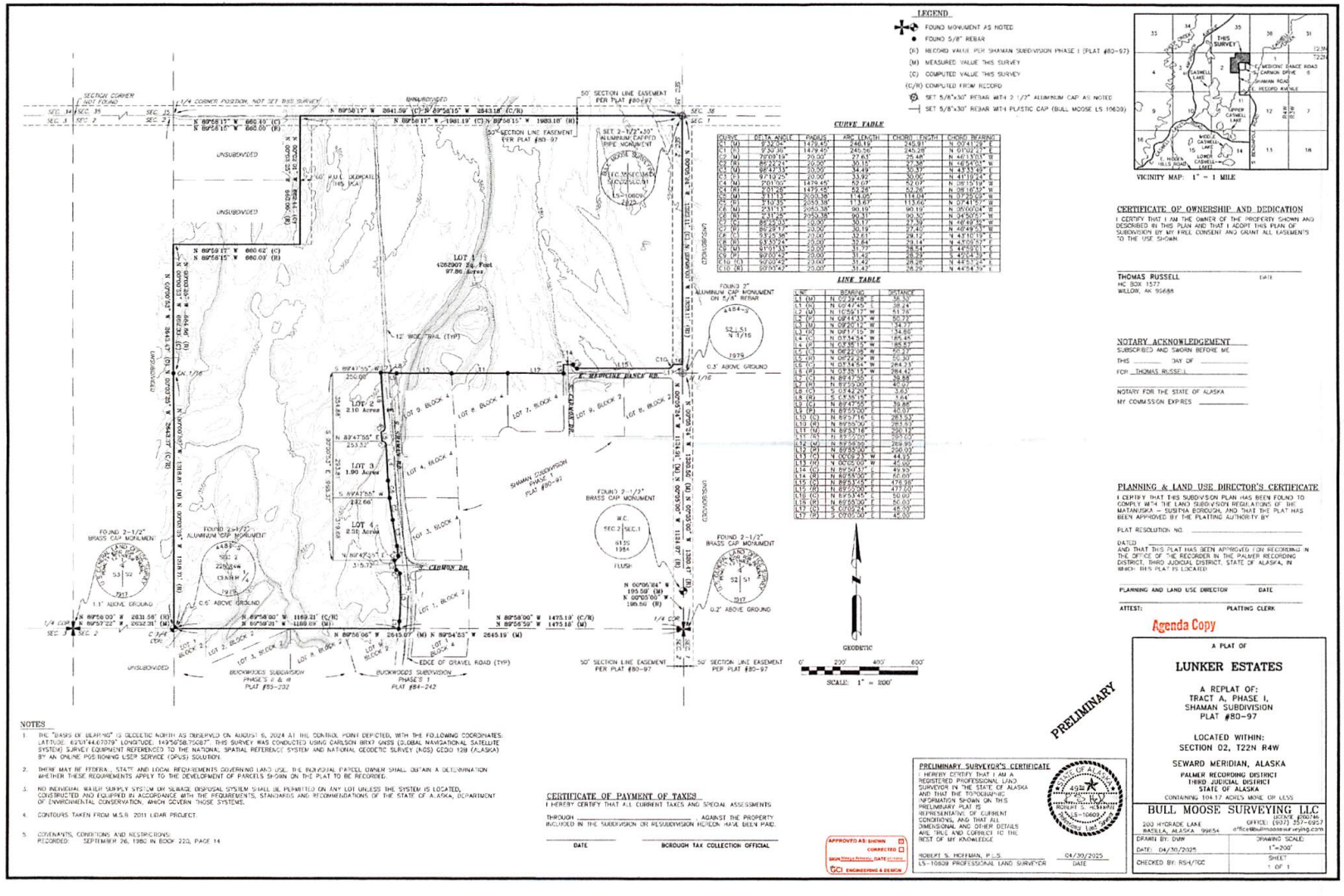
Hello,

The following link is a request for comments for the proposed Lunker Estates.
Please ensure all comments have been submitted by July 11, 2025, so they can be incorporated in the staff report packet that will be presented to the Platting board.

Lunker Estates

Feel free to contact me if you have any questions.

Thank you,


LEGEND
FOUND MONUMENT AS NOTED
FOUND 5/8" REBAR
(R) RECORD VALUE PER SHAMAN SUBDIVISION PHASE I (PLAT #80-97)
(M) MEASURED VALUE THIS SURVEY
(C) COMPUTED VALUE THIS SURVEY
(C/R) COMPUTED FROM RECORD
SET 5/8"x30" REBAR WITH 2 1/2" ALUMINUM CAP AS NOTED
SET 5/8"x30" REBAR WITH PLASTIC CAP (BULL MOOSE LS 10609)
CURVE TABLE
LINE TABLE
VICINITY MAP: 1" = 1 MILE
LOT 1 4262907 Sq. Feet 97.86 Acres
LOT 2 2.10 Acres
LOT 3 1.90 Acres
LOT 4 2.51 Acres
E. REPUBLIC DANCE RD.
CARMEN DR.
SHAMAN SUBDIVISION PHASE I PLAT #80-97
BUCKWOODS SUBDIVISION PHASES II & III PLAT #93-232
BUCKWOODS SUBDIVISION PHASE II PLAT #94-242
EDGE OF GRAVEL ROAD (TYP)
12' WIDE TRAIL (TYP)
50' SECTION LINE EASEMENT PER PLAT #80-97
UNSUBDIVIDED
GEODETIC
SCALE: 1" = 200'
CERTIFICATE OF OWNERSHIP AND DEDICATION
THOMAS RUSSELL
HC BOX 1577
WILLOW, AK 99688
NOTARY ACKNOWLEDGEMENT
NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES
PLANNING & LAND USE DIRECTOR'S CERTIFICATE
PLANNING AND LAND USE DIRECTOR
ATTEST:
PLATTING CLERK
Agenda Copy
A PLAT OF
LUNKER ESTATES
A REPLAT OF:
TRACT A, PHASE I,
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PRELIMINARY
PRELIMINARY SURVEYOR'S CERTIFICATE
ROBERT S. HOFFMAN, P.L.S.
LS-10609 PROFESSIONAL LAND SURVEYOR
04/30/2025
DATE
CERTIFICATE OF PAYMENT OF TAXES
DATE
BOROUGH TAX COLLECTION OFFICIAL
NOTES
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5. COVENANTS, CONDITIONS AND RESTRICTIONS: RECORDED: SEPTEMBER 26, 1980 IN BOOK 220, PAGE 14
BULL MOOSE SURVEYING LLC
200 HYDRADE LANE
WASILLA, ALASKA 99654
OFFICE: (907) 357-6957
DRAWN BY: DWP
DRAWING SCALE: 1"=200'
DATE: 04/30/2025
CHECKED BY: RSH/TGC
SHEET: 1 OF 1

Matthew Goddard

From: Cayla Ronken <cronken@mtasolutions.com>
Sent: Thursday, June 26, 2025 10:48 AM
To: Matthew Goddard
Subject: RE: RFC Lunker Estates (MG)
Attachments: Print snip.pdf Lunker Estates.pdf

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

MTA has reviewed Lunker Estates and would like to comment/request a 15' UE along Shaman Rd. See attached.

Thank you,

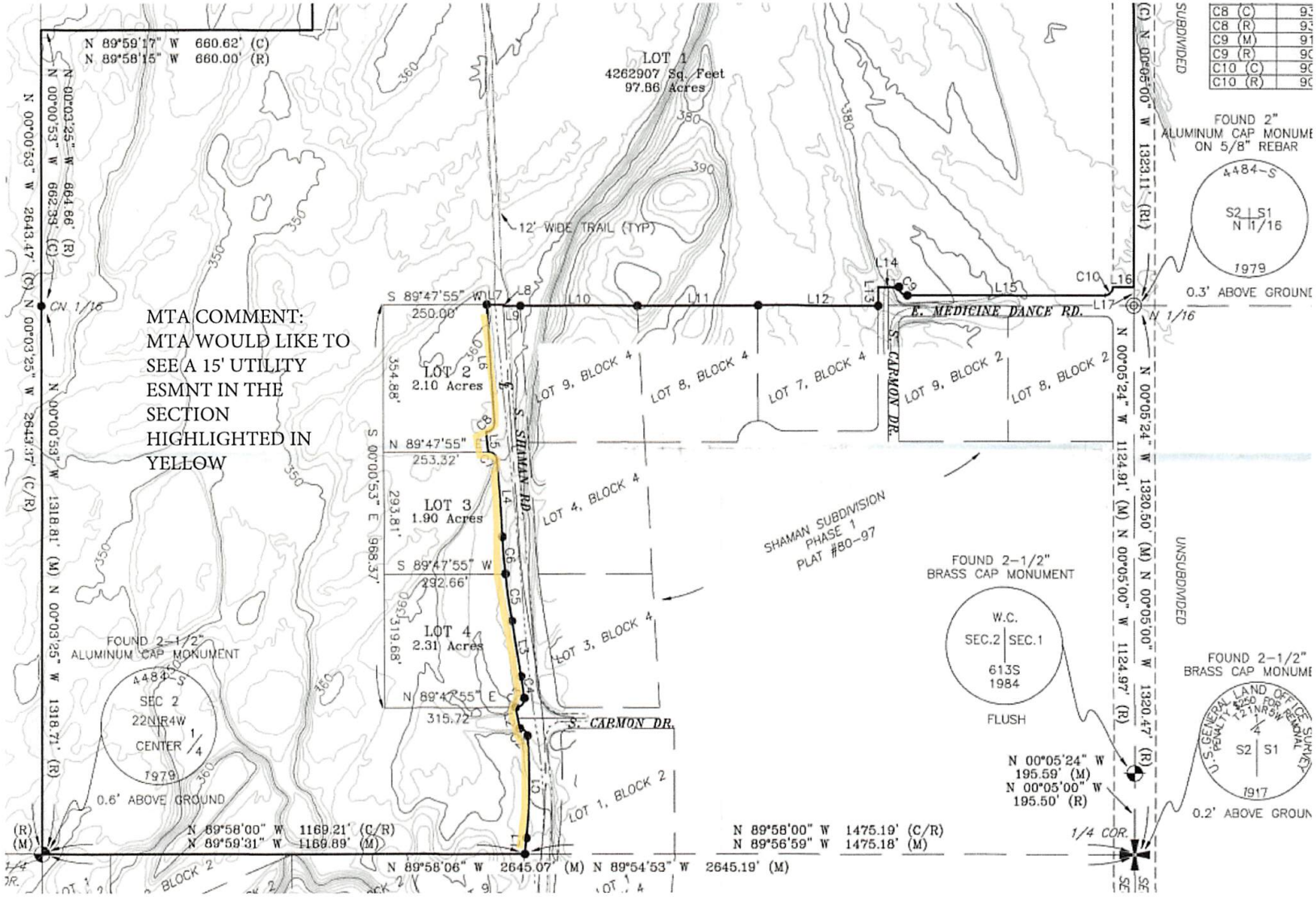
Cayla Ronken, Right of Way Agent
1740 S. Chugach St., Palmer, Alaska 99645
Office: (907) 761-2465 | www.mtasolutions.com

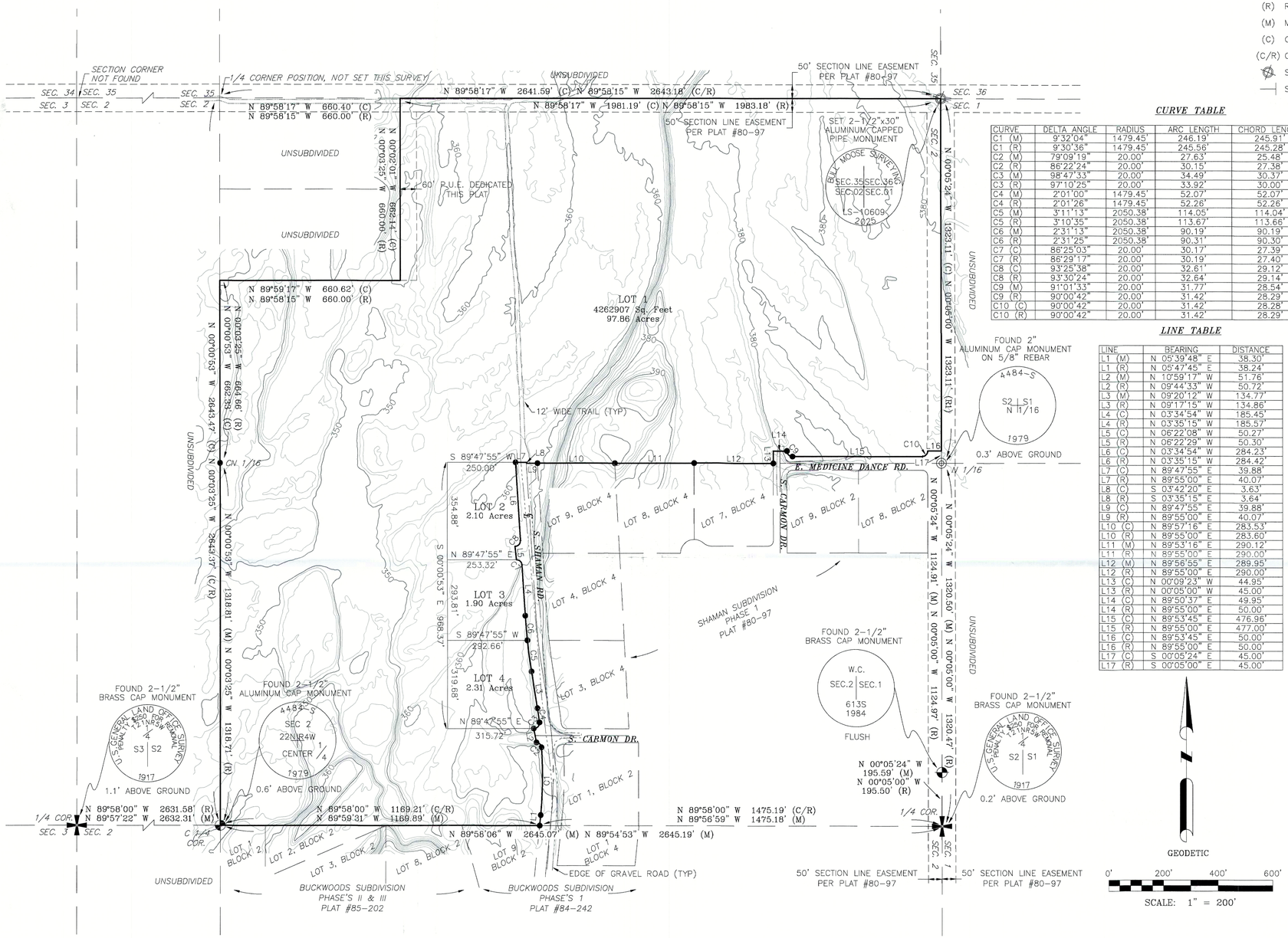


From: Matthew Goddard <Matthew.Goddard@matsugov.us>
Sent: Friday, June 20, 2025 4:36 PM
To: Myers, Sarah E E (DFG) <sarah.myers@alaska.gov>; Percy, Colton T (DFG) <colton.percy@alaska.gov>; twalter@fmgconsultants.com; Shawn McBride <mcbrides@mtaonline.net>; Richard Boothby <Richard.Boothby@matsugov.us>; Brian Davis <Brian.Davis@matsugov.us>; Ron Bernier <Ron.Bernier@matsugov.us>; Land Management <Land.Management@matsugov.us>; Jillian Morrissey <Jillian.Morrissey@matsugov.us>; Tom Adams <Tom.Adams@matsugov.us>; Brad Sworts <Brad.Sworts@matsugov.us>; Jamie Taylor <Jamie.Taylor@matsugov.us>; Tammy Simmons <Tammy.Simmons@matsugov.us>; Pre-Design & Engineering <pde@matsugov.us>; Amie Jacobs <Amie.Jacobs@matsugov.us>; Katrina Kline <katrina.kline@matsugov.us>; MSB Farmers <MSB.Farmers@matsugov.us>; Permit Center <Permit.Center@matsugov.us>; Code Compliance <Code.Compliance@matsugov.us>; Kendra Johnson <Kendra.Johnson@matsugov.us>; Planning <MSB.Planning@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; Fred Wagner <Frederic.Wagner@matsugov.us>; Taunnie Boothby <Taunnie.Boothby@matsugov.us>; msbaddressing <msbaddressing@matsugov.us>; eric.r.schuler@usps.gov; John Aschenbrenner <John.Aschenbrenner@matsugov.us>; Andrew Fraiser <andrew.fraiser@enstarnaturalgas.com>; ROW <row@enstarnaturalgas.com>; Right of Way Dept. <row@mtasolutions.com>; OSP Design Group <ospdesign@gci.com>; mearow@mea.coop
Subject: RFC Lunker Estates (MG)

Hello,

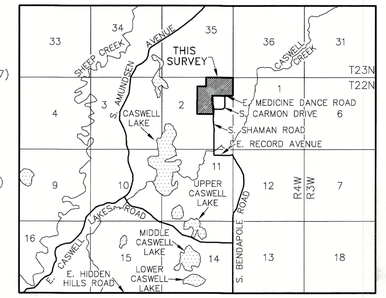
The following link is a request for comments for the proposed Lunker Estates.
Please ensure all comments have been submitted by July 11, 2025, so they can be incorporated in the staff report packet that will be presented to the Platting board.


MTA COMMENT:
MTA WOULD LIKE TO SEE A 15' UTILITY ESMNT IN THE SECTION HIGHLIGHTED IN YELLOW
LOT 1
4262907 Sq. Feet
97.86 Acres
LOT 2
2.10 Acres
LOT 3
1.90 Acres
LOT 4
2.31 Acres
12' WIDE TRAIL (TYP)
S. SHAMAN RD.
S. CARMON DR.
E. MEDICINE DANCE RD.
SHAMAN SUBDIVISION PHASE 1 PLAT #80-97
FOUND 2-1/2" ALUMINUM CAP MONUMENT
FOUND 2" ALUMINUM CAP MONUME ON 5/8" REBAR
FOUND 2-1/2" BRASS CAP MONUMENT
FOUND 2-1/2" BRASS CAP MONUME
0.6' ABOVE GROUND
0.3' ABOVE GROUNI
0.2' ABOVE GROUN
FLUSH
1/4 COR.
SUBDIVIDED
UNSUBDIVIDED
N 89°59'17" W 660.62' (C)
N 89°58'15" W 660.00' (R)
N 00°00'53" W 2643.47' (C)
N 00°03'25" W 2643.37' (C/R)
N 00°03'25" W 664.66' (R)
N 00°00'53" W 662.39' (C)
N 00°00'53" W 1318.81' (M)
N 00°03'25" W 1318.71' (R)
S 89°47'55" W 250.00'
N 89°47'55" 253.32'
S 89°47'55" W 292.66'
N 89°47'55" E 315.72'
S 00°00'53" E 968.37'
354.88'
293.81'
319.68'
N 89°58'00" W 1169.21' (C/R)
N 89°59'31" W 1169.89' (M)
N 89°58'06" W 2645.07' (M)
N 89°58'00" W 1475.19' (C/R)
N 89°56'59" W 1475.18' (M)
N 89°54'53" W 2645.19' (M)
N 00°05'00" W 1323.11' (R)
N 00°05'24" W 1124.91' (M)
N 00°05'00" W 1124.97' (R)
N 00°05'24" W 1320.50' (M)
N 00°05'00" W 1320.47' (R)
N 00°05'24" W 195.59' (M)
N 00°05'00" W 195.50' (R)
LOT 9, BLOCK 4
LOT 8, BLOCK 4
LOT 7, BLOCK 4
LOT 4, BLOCK 4
LOT 3, BLOCK 4
LOT 1, BLOCK 2
LOT 9, BLOCK 2
LOT 8, BLOCK 2
BLOCK 2
C8 (C)
C8 (R)
C9 (M)
C9 (R)
C10 (C)
C10 (R)
4484-S
SEC 2
22N R4W
CENTER 1/4
1979
4484-S
S2 S1
N 1/16
1979
W.C.
SEC.2 SEC.1
613S
1984
S2 S1
1/4
1917
U.S. GENERAL LAND OFFICE SURVEY
CN 1/16
N 1/16



LEGEND

- FOUND MONUMENT AS NOTED
- FOUND 5/8" REBAR
- (R) RECORD VALUE PER SHAMAN SUBDIVISION PHASE I (PLAT #80-97)
- (M) MEASURED VALUE THIS SURVEY
- (C) COMPUTED VALUE THIS SURVEY
- (C/R) COMPUTED FROM RECORD
- SET 5/8"x30" REBAR WITH 2 1/2" ALUMINUM CAP AS NOTED
- SET 5/8"x30" REBAR WITH PLASTIC CAP (BULL MOOSE LS 10609)



VICINITY MAP: 1" = 1 MILE

CURVE TABLE

CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1 (M)	9°32'04"	1479.45'	246.19'	245.91'	N 00°41'29" E
C1 (R)	9°30'36"	1479.45'	245.56'	245.28'	N 01°02'27" E
C2 (M)	79°09'19"	20.00'	27.63'	25.48'	N 46°13'03" W
C2 (R)	86°22'24"	20.00'	30.15'	27.38'	N 46°54'03" W
C3 (M)	98°47'33"	20.00'	34.49'	30.37'	N 43°33'49" E
C3 (R)	97°10'25"	20.00'	33.92'	30.00'	N 41°19'24" E
C4 (M)	2°01'00"	1479.45'	52.07'	52.07'	N 08°15'19" W
C4 (R)	2°01'26"	1479.45'	52.26'	52.26'	N 08°16'32" W
C5 (M)	3°11'13"	2050.38'	114.05'	114.04'	N 07°25'09" W
C5 (R)	3°10'35"	2050.38'	113.67'	113.66'	N 07°41'57" W
C6 (M)	2°31'13"	2050.38'	90.19'	90.19'	N 05°00'04" W
C6 (R)	2°31'25"	2050.38'	90.31'	90.30'	N 04°50'57" W
C7 (C)	86°25'03"	20.00'	30.17'	27.39'	N 46°49'32" W
C7 (R)	86°29'17"	20.00'	30.19'	27.40'	N 46°49'53" W
C8 (C)	93°25'38"	20.00'	32.61'	29.12'	N 43°10'19" E
C8 (R)	93°30'24"	20.00'	32.64'	29.14'	N 43°09'57" E
C9 (M)	91°01'33"	20.00'	31.77'	28.54'	S 44°59'01" E
C9 (R)	90°00'42"	20.00'	31.42'	28.29'	S 45°04'39" E
C10 (C)	90°00'42"	20.00'	31.42'	28.28'	N 44°53'24" E
C10 (R)	90°00'42"	20.00'	31.42'	28.29'	N 44°54'39" E

LINE TABLE

LINE	BEARING	DISTANCE
L1 (M)	N 05°39'48" E	38.30'
L1 (R)	N 05°47'45" E	38.24'
L2 (M)	N 10°59'17" W	51.76'
L2 (R)	N 09°44'33" W	50.72'
L3 (M)	N 09°20'12" W	134.77'
L3 (R)	N 09°17'15" W	134.86'
L4 (C)	N 03°34'54" W	185.45'
L4 (R)	N 03°35'15" W	185.57'
L5 (C)	N 06°22'08" W	50.27'
L5 (R)	N 06°22'29" W	50.30'
L6 (C)	N 03°34'54" W	284.23'
L6 (R)	N 03°35'15" W	284.42'
L7 (C)	N 89°47'55" E	39.88'
L7 (R)	N 89°55'00" E	40.07'
L8 (C)	S 03°42'29" E	3.63'
L8 (R)	S 03°35'15" E	3.64'
L9 (C)	N 89°47'55" E	39.88'
L9 (R)	N 89°55'00" E	40.07'
L10 (C)	N 89°57'16" E	283.53'
L10 (R)	N 89°55'00" E	283.60'
L11 (M)	N 89°53'16" E	290.12'
L11 (R)	N 89°55'00" E	290.00'
L12 (M)	N 89°56'55" E	289.95'
L12 (R)	N 89°55'00" E	290.00'
L13 (C)	N 00°09'23" W	44.95'
L13 (R)	N 00°05'00" W	45.00'
L14 (C)	N 89°50'37" E	49.95'
L14 (R)	N 89°55'00" E	50.00'
L15 (C)	N 89°53'45" E	476.96'
L15 (R)	N 89°55'00" E	477.00'
L16 (C)	N 89°53'45" E	50.00'
L16 (R)	N 89°55'00" E	50.00'
L17 (C)	S 00°05'24" E	45.00'
L17 (R)	S 00°05'00" E	45.00'

CERTIFICATE OF OWNERSHIP AND DEDICATION

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

THOMAS RUSSELL DATE
HC BOX 1577
WILLOW, AK 99688

NOTARY ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN BEFORE ME
THIS _____ DAY OF _____
FOR THOMAS RUSSELL

NOTARY FOR THE STATE OF ALASKA
MY COMMISSION EXPIRES _____

PLANNING & LAND USE DIRECTOR'S CERTIFICATE

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

PLAT RESOLUTION NO. _____

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

PLANNING AND LAND USE DIRECTOR DATE

ATTEST: PLATTING CLERK

Agenda Copy

NOTES

1. THE "BASIS OF BEARING" IS GEODETIC NORTH AS OBSERVED ON AUGUST 6, 2024 AT THE CONTROL POINT DEPICTED, WITH THE FOLLOWING COORDINATES: LATITUDE: 62°01'44.67079" LONGITUDE: 149°56'58.75087". THIS SURVEY WAS CONDUCTED USING CARLSON BRX7 GNSS (GLOBAL NAVIGATIONAL SATELLITE SYSTEM) SURVEY EQUIPMENT REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM AND NATIONAL GEODETIC SURVEY (NGS) GEOID 12B (ALASKA) BY AN ONLINE POSITIONING USER SERVICE (OPUS) SOLUTION.
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4. CONTOURS TAKEN FROM M.S.B. 2011 LIDAR PROJECT.
5. COVENANTS, CONDITIONS AND RESTRICTIONS:
   RECORDED: SEPTEMBER 26, 1980 IN BOOK 220, PAGE 14

CERTIFICATE OF PAYMENT OF TAXES

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

DATE BOROUGH TAX COLLECTION OFFICIAL

PRELIMINARY

PRELIMINARY SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALASKA AND THAT THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PRELIMINARY PLAT IS REPRESENTATIVE OF CURRENT CONDITIONS, AND THAT ALL DIMENSIONAL AND OTHER DETAILS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

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

ROBERT S. HOFFMAN, P.L.S. 04/30/2025
LS-10609 PROFESSIONAL LAND SURVEYOR DATE

A PLAT OF

LUNKER ESTATES

A REPLAT OF:
TRACT A, PHASE I,
SHAMAN SUBDIVISION
PLAT #80-97

LOCATED WITHIN:
SECTION 02, T22N R4W

SEWARD MERIDIAN, ALASKA
PALMER RECORDING DISTRICT
THIRD JUDICIAL DISTRICT
STATE OF ALASKA
CONTAINING 104.17 ACRES MORE OR LESS

BULL MOOSE SURVEYING LLC
LICENSE #200746
200 HYGRADE LANE
WASILLA, ALASKA 99654
OFFICE: (907) 357-6957
office@bullmoosesurveying.com

DRAWN BY: DMW	DRAWING SCALE:
DATE: 04/30/2025	1"=200'
CHECKED BY: RSH/TGC	SHEET 1 OF 1