

Agenda

Planning Commission - Regular Meeting City and Borough of Juneau

February 8, 2022
Virtual Meeting Only
7:00 PM

This virtual meeting will be held by video and telephonic participation only. To join the webinar, paste this URL into your browser: <https://juneau.zoom.us/j/82676484943>. To participate telephonically, call: 1-346-248-7799 or 1-669-900-6833 or 1-253-215-8782 or 1-312-626-6799 or 1-929-436-2866 or 1-301-715-8592 and enter Webinar ID: 826 7648 4943

I. LAND ACKNOWLEDGEMENT

II. ROLL CALL

III. REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA

IV. APPROVAL OF MINUTES

- A. January 11, 2022 Draft Minutes, Regular Planning Commission -
APPROVED AS AMENDED

V. BRIEF REVIEW OF THE RULES FOR PUBLIC PARTICIPATION

VI. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

VII. ITEMS FOR RECONSIDERATION

VIII. CONSENT AGENDA

- A. SMP2021 0006: A proposed subdivision of one (1) lot into three (3) lots with one standard lot and two bungalow lots - APPROVED AS RECOMMENDED
- B. MSM2021 0001: Kensington Mine plan of operation amendment - APPROVED AS RECOMMENDED
- C. CSP2021 0007: Reconstruction of Harris Street starting at Harris and Fourth Street to the Gold and Seventh Street intersection - NOTICE GIVEN FOR RECONSIDERATION

IX. UNFINISHED BUSINESS

X. REGULAR AGENDA

- A. SMP2021 0004: Chilkat Subdivision Phase II: Proposing subdivision of one (1) tract into fifteen (15) lots and three (3) tracts of land - APPROVED AS

RECOMMENDED

XI. OTHER BUSINESS

XII. STAFF REPORTS

XIII. COMMITTEE REPORTS

XIV. LIAISON REPORT

**XV. CONTINUATION OF PUBLIC PARTICIPATION ON NON-AGENDA
ITEMS**

XVI. PLANNING COMMISSION COMMENTS AND QUESTIONS

XVII. EXECUTIVE SESSION

XVIII. SUPPLEMENTAL MATERIALS

- A. Additional Materials for February 8, 2022 Planning Commission

XIX. ADJOURNMENT

**PLANNING COMMISSION AGENDA
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

January 11, 2022 Draft Minutes, Regular Planning Commission - APPROVED AS AMENDED

ATTACHMENTS:

	Description	Upload Date	Type
▣	January 11, 2022 Draft Minutes, Regular Planning Commission	1/26/2022	Minutes

Minutes
Planning Commission
Regular Meeting
 CITY AND BOROUGH OF JUNEAU
Michael LeVine, Chairman
 January 11, 2022

- I. **LAND ACKNOWLEDGEMENT** read by Chair LeVine
- II. **ROLL CALL**

Michael LeVine, Chairman, called the Regular Meeting of the City and Borough of Juneau (CBJ) Planning Commission (PC), held virtually via Zoom Webinar and telephonically, to order at 7:00 p.m.

Commissioners present: All Commissioners present via video conferencing – Michael LeVine, Chairman; Nathaniel Dye, Vice Chairman; Paul Voelckers, Clerk; Ken Alper; Dan Hickok; Mandy Cole; Josh Winchell; Erik Pedersen

Commissioners absent: Travis Arndt, Deputy Clerk

Staff present: Jill Maclean, CDD Director; Alison Eddins, CDD Planner; Irene Gallion, CDD Planner; Sherry Layne, LAW

Assembly members: Alicia Hughes-Skandijs

- III. **REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA** – Election of Officers added to Other Business

- IV. **APPROVAL OF MINUTES**

A. Draft Minutes November 23, 2021 Planning Commission Regular Meeting

MOTION: *by Mr. Voelckers to approve the November 23, 2021 Planning Commission Regular Meeting minutes.*

- V. **BRIEF REVIEW OF THE RULES FOR PUBLIC PARTICIPATION** – Chair LeVine gave a brief description of the rules for public participation via Zoom format
- VI. **PUBLIC PARTICIPATION ON NON-AGENDA ITEMS** – None

VII. ITEMS FOR RECONSIDERATION – None

VIII. CONSENT AGENDA – None

IX. UNFINISHED BUSINESS – None

X. REGULAR AGENDA

CSP2021 0004: A land exchange between CBJ Land at 11860 Glacier Highway and private property at 11930 Glacier Highway. This will create a new right-of-way to access CBJ land.

Applicant: CBJ Lands Division

Location: 11860 & 11930 Glacier Highway

Staff Recommendation

Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of **APPROVAL** to the CBJ Assembly for a negotiated fair market value land exchange with the owner of Kirkevold Lot 1 with the following condition:

Condition 1: Prior to final plat approval, the owner of Kirkevold Lot 1 must be able to demonstrate that the site meets the parking requirement per conditions four and five of SUB2004-08 and that no automobile or recreational vehicles will be parked within the CBJ right-of-way. Alternatively, the owner of Kirkevold Lot 1 may apply to have the conditions of SUB2004-08 amended or apply for a parking waiver.

STAFF PRESENTATION by Planner Eddins

QUESTIONS FOR STAFF

Mr. Alper noted that the applicant is the CBJ, but the landowner (owner) seems to be the one taking on the burden, as they will be giving up parking spaces. Ms. Eddins explained the owner had approached the CBJ previously for this swap. She added they would likely gain a bit more land than what they would be giving up. With the land swap, the owner's plot would then be large enough to qualify to apply for a rezone.

Mr. Winchell noticed the diagrams and photos in the presentation were slightly different with one showing the land CBJ would acquire abutting the proposed owner's property and one showing them offset and asked for clarification. He also wanted to know if this were to be approved, would the owner then need right of way access across the CBJ portion. Ms. Eddins explained the right of way would abut CBJ property and the owner's property would have direct access onto the new CBJ right of way.

Mr. Dye asked if staff felt 60-foot right of way was the correct size and asked whether there had been ADT analysis to determine the amount of traffic that would be affected. Ms. Eddins said they had considered it and decided to go with the maximum right of way as that seemed the safest route and would accommodate any future development of the road.

Mr. Dye asked what elevates an arterial into a minor arterial that would categorize it as a collector. Ms. Eddins said this road would not be an arterial. It may be a collector but would not be an arterial.

QUESTIONS FOR APPLICANT

Dan Bleidorn, CBJ Lands Manager made himself available for questions and explained the landowners are mildly interested in the exchange. The purpose this CSP is to get the authority from the assembly to allow the City manager to evaluate the proposal. That way, when the owner is ready to make the swap, the CBJ will be ready.

Mr. Voelckers asked if there is any short-term plan to develop the right of way so the owner's alternate driveway can be served. Mr. Bleidorn said they do not have any set plans yet as they are still in the planning stage.

Mr. Voelckers followed up and asked if the department had looked into the gradient and topography of the area and confirmed the plot would be beneficial to CBJ. Mr. Bleidorn said the slope is good and the only concern would be with the wetland in the area.

PUBLIC COMMENT

Debbie White – said she is pleased to see this coming forward adding CBJ has a large developable land-locked parcel and this would allow access to that land. She felt this could help mitigate the local housing shortage.

Dave Klein, 12410 Glacier Hwy – spoke against the land exchange saying they need a plan that Auke Bay supports.

Ms. Cole referenced Ms. Eddins' explanation that the land exchange makes additional development possible but any development would be subject to scrutiny and this step is just opening the conversation. Ms. Cole asked Mr. Klein if knowing there will be scrutiny on development affects his thoughts on the project. Mr. Klein felt Auke Bay does not support this plan and believes this will cause confrontation and will not be supported.

ADDITIONAL APPLICANT COMMENTS Mr. Bleidorn thanked the members of the public for their comments and offered to answer any commissioner questions.

Mr. Pedersen said the parcel appears to have other options for access and asked if this is being pursued out of convenience or is this better than the other access options. Mr. Bleidorn explained the lands that appear to be CBJ lands are not managed by the Land Department. He added that the long-term goals will likely call for multiple access points. He said the Lands Department is considering all options and this one is worth pursuing.

MOTION: *by Mr. Voelckers to accept staff's findings, analysis and recommendations and forward a recommendation to approve CSP2021 0004.*

Mr. Voelckers spoke in support of the motion saying this will give the chance for development in the future.

The motion passed with no objection.

AT EASE 7:43 P.M. – 7:50 P.M.

CSP2021 0006: Disposal of CBJ-owned land to Franklin Foods
Applicant: Franklin Foods LLC
Location: 139 S. Franklin Street

Staff Recommendation

Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of APPROVAL WITH CONDITIONS to the CBJ Assembly for the land disposal of 4,000 square feet (Gunakadeit Park) to Franklin Foods.

~~CONDITION: Amendment of the 2013 Comprehensive Plan Land Use Map M to Traditional Town Center in keeping with the surrounding area. [Removed on Motion]~~

STAFF PRESENTATION by Director MacLean and Planner Gallion

QUESTIONS FOR STAFF – Prior to questions for Staff, Mr. LeVine reminded the commissioners that there is a pending appeal on a similar topic and they were not to discuss that. He then asked Ms. Gallion to clarify the job of the commission at this time. Ms. Gallion explained the task of the commission is to make a recommendation to the Assembly regarding the disposal of the land.

Mr. Dye asked for clarification that only one dwelling unit could be built on the property if this were to pass. Ms. Gallion agreed saying staff interpretation of Code is that only one dwelling unit can be built within the severe hazard zone. She added that there is a small corner of the lot that

is outside of the severe hazard zone. Theoretically, they could build on that small area but it would require a conditional use permit.

Mr. Winchell asked if the parcel is sold, would the new owner be able to exclude the other food trucks and create a monopoly for themselves on that corner. Mr. LeVine explained the property would be sold and the owner would be able to do as they see fit with the land.

Mr. LeVine asked if there was development of multiple dwellings in the square outside of the hazardous zone, would it need to happen prior to consolidation of the lots. Ms. Gallion said it would require a Conditional Use Permit. Ms. Maclean clarified the owner could build to density in the one lot outside of the hazard zone. They could then consolidate all the lots, but would not be permitted under current code to then build on the other lots, as that would increase density within a severe hazard zone.

Ms. Cole asked if she understood correctly that the Lands, Housing and Economic Development Committee (LHEDC) wanted the consolidated lot to be used in a way that is currently not allowed under code but CDD identified disposal as an alternative that would allow the development. Ms. Maclean explained the PC could approve or deny the CSP, and they could recommend housing or some other development in the area.

Mr. Dye asked for clarification that consolidating the lots would be considered subdivision and subdivision is not allowed on any parcel designated Severe Hazard zone but if developed, it could be built to density and then consolidated so long as it does not increase density. Ms. Maclean cited CBJ 49.70.300 (a)(3) and found she and Mr. Dye had interpreted it slightly differently. She offered to look at the interpretation further.

Mr. Winchell asked what is the density for non-residential commercial use in this area. Ms. Maclean explained density applies to dwelling units and so would not apply in his question.

Mr. Voelckers asked if there was an option for engineering a hazard mitigation such as a retaining wall. Ms. Maclean said the developments she is aware of were in hillside areas where the hillside was steep but not necessarily in a mass wasting zone. That is where she is aware of retaining walls being utilized. 49.70.300 (a)(4) and 49.70.300 (a)(5) says a developer can hire a surveyor to determine whether an area is outside of the mass wasting zone and the commission can require mitigating measures. Ms. Gallion added 49.70.300(b)(1) says it cannot increase density.

APPLICANT PRESENTATION- Dan Bleidorn, CBJ Lands Manager, explained this is similar to the previous agenda item

QUESTIONS FOR APPLICANT – Mr. Dye asked for clarification of the LHEDC position regarding housing on the parcel and if the Assembly was aware of the landslide/avalanche issues by the time they made the final recommendation. Mr. Bleidorn explained the first time the assembly heard of this item was at its introduction to the Parks and Rec Advisory Committee (PRAC). The PRAC determined it was not necessary for Parks management to retain the parcel and recommended disposal. Housing was considered but this was prior to CDD involvement and the committees were not aware that the parcel lies in a severe hazard zone. Once it was known, the assembly proposed to work with the owner with the condition that they own the adjacent properties.

Mr. Voelckers asked why this was being offered to a single entity rather than going to a competitive process to dispose of the property. Mr. Bleidorn said that considering the right of way requirements, the only way to consolidate the properties was for this property to be consolidated with the former Gastineau apartments land. They have received no comments from neighbors or anybody else interested in the property. The owner had approached the CBJ before about acquiring the land. At that time, the assembly opted to lease it to them until CBJ had further information and is now reconsidering disposal.

Mr. Voelckers referenced LHEDC testimony and found chair Gladyszewski and assembly member Smith were clear that the sale would be predicated on controlling the other properties for the reason of the right-of-way access. He said it seems that process has flipped now and asked Mr. Bleidorn what had changed. Mr. Bleidorn said having authority to dispose of property is different from disposing that property. By approving the authority to dispose of the properties on condition that the owner acquire all the lots first, the sale will be authorized but will not move forward or complete until the condition has been met.

Mr. Dye asked if it would be useful to put a condition requiring the land ownership prior to disposal. Mr. Bleidorn said it would be up to the commission but it is already a condition of the assembly

PUBLIC COMMENT

David McCasland – said he now owns the adjacent properties and he is available for questions.

Mr. Winchell asked if it is preferable or more beneficial to build one residential unit or to keep it to all commercial development. Mr. McCasland said he envisions the lower area with street

frontage becoming a world-class food truck area and the upper property might be a desirable location for a single dwelling considering the view, but it would be very expensive housing.

COMMISSIONER DISCUSSION

Mr. Dye asked how important the map amendment is for the development to take place. Ms. Maclean said it is not critical but is a housekeeping item that should be cleaned up.

Mr. Dye asked what would the timeline be for making the amendment and would it slow the disposal activity. Ms. Maclean said that is difficult to answer but if the commission recommended it then the amendment and the disposal could happen concurrently. If something happened to hold up the amendment then that could slow the disposal.

Mr. Winchell commented that due to the fact that there would only be allowed a single dwelling and the owner has said it would be cost prohibitive, they should strike the housing requirement in their recommendation to the assembly.

Ms. Cole said she is not comfortable with abandoning the housing guidance considering the assembly and the PC aim is to develop housing.

MOTION: *by Mr. Dye to accept staff's findings, analysis and recommendations and approve CSP2021 0006 striking the condition*

Mr. Dye spoke to his motion saying the owner has moved in good faith to purchase the parcels adjoining the food truck lot and we should support that. He added he does not see a problem with removing the condition because the assembly can take this recommendation and either follow or amend it when it comes to them.

Mr. Voelckers spoke in support of the motion.

Mr. Winchell spoke saying he will not oppose the motion but he is concerned the upper lots will sit fallow for some time.

Mr. Levine asked if the motion relies at all on staff determining the how much housing should be allowed in the development.

Mr. LeVine said the PC acknowledges the challenges to development of housing in this area but they do not take a stand on requiring housing or not at this time.

ROLL CALL VOTE

Yea: Dye, Winchell, Alper, Hickok, Pedersen, Voelckers, Levine

No: Cole

Motion Passed 7-1

USE2021 0023: Modification of Use2021 0002 to allow construction of a 5-foot wide bike path to be delayed until the final condominium building is complete
Applicant: R & S Construction
Location: 3011 Clinton Drive

Staff Recommendation

Staff recommends the Planning Commission adopt the Director's analysis and findings and **APPROVE** the requested Conditional Use Permit Modification. The permit would modify Condition #7 of USE2021 0002 to allow the installation of the 5-foot wide sidewalk to be delayed until prior to the issuance of the ~~final~~ FIRST [added on motion] unit in Building B.

The approval is subject to the following modified condition:

Condition #7: *Prior to the issuance of a temporary certificate of occupancy for the ~~final~~ FIRST [ADDED ON MOTION] unit in Building B, a 5-foot-wide paved sidewalk must be installed providing safe public access from the Clinton Drive sidewalk to the Mendenhall River walking/bike path, per CBJ 49.35.630. The Homeowners Association agreement must address the ongoing maintenance of the sidewalk including snow removal.*

STAFF PRESENTATION by Planner Eddins

QUESTIONS FOR STAFF

Mr. Dye asked if the maintenance agreement described in the condition was the unsigned document included in the staff report. Ms. Eddins confirmed that agreement would be signed by the owners as they purchase the units.

APPLICANT PRESENTATION – Rob Worden, R&S Construction said they are requesting the change in conditions because putting in the sidewalk now would not be as safe as if they waited until the construction was more complete.

QUESTIONS FOR APPLICANT

Mr. Dye asked at what phase in construction would the paving be done in relation to obtaining the TCO for Building B. Mr. Worden said the paving would be done about a month or so before obtaining a TCO.

Mr. Dye asked if it would still work to change it to require the sidewalk prior to TCO for the first rather than the last unit of building B. Mr. Worden said that would work.

MOTION: *by Mr. Dye to accept staff's findings, analysis and recommendations and approve USE2021 0023 changing the condition from FINAL to FIRST unit of building B.*

The motion passed with no objection.

MOTION: *by Ms. Cole to add election of officers to Other Business*

XI. OTHER BUSINESS –
Election of Officers

MOTION: *by Ms. Cole to elect the current slate of officers to continue in their positions*

The motion passed with no objection.

Mr. LeVine added that it is time for committee and liaison appointments and requested members to send him their preferences

XII. STAFF REPORTS

Ms. Maclean reported the following activities:

- Title 49 met and got through ordinances that will now come before the PC at the January 25 meeting. They can expect to see downtown parking, an amendment to the marijuana establishment striking the 5-year renewal requirement, and an ordinance making the pre-application process optional.
- In February or March, the plan is to present ADOD for downtown Juneau, stream side setbacks and accessory apartment
- CDD is currently in process of hiring a planning manager and interviewing for permit technician
- Alaska State APA conference is coming up and they usually send three commissioners each year. She will inform the PC when she gets the dates for this.

Mr. Voelckers asked about the potential for further January meetings. Ms. Maclean said there is a meeting scheduled for January 25.

XIII. COMMITTEE REPORTS

- Mr. Voelckers reported Mayor's Task Force met. Chamber of Commerce is considering creating a liaison to attend the meetings. The task force is also looking at updating the table of dimensional standards.
- Mr. Dye reported the next Title 49 meeting is not yet scheduled but will be coming up

XIV. LIAISON REPORTS

- Ms. Hughes-Skandijs addressed Mr. Voelckers question regarding hazard and landslide mapping saying it is scheduled for the Committee of the Whole (COW) meeting scheduled for January 24

- Assembly met last night and extended the COVID mandates
- The North Douglas rezone was heard and reviewed by the systemic racism review committee. This is the first ordinance to go through the first step of review. It was recommended for the assembly to review it again.

Mr. Dye asked if there would be any value in the commissioners attending the assembly COW meeting when the rezone is addressed. Ms. Hughes-Skandijs said the assembly is pretty well versed in the issue at this point but having them available to answer questions could be helpful.

XV. CONTINUATION OF PUBLIC PARTICIPATION ON NON-AGENDA ITEMS – None

XVI. PLANNING COMMISSION COMMENTS AND QUESTIONS –

Ms. Maclean said should a commissioner wish to speak at the COW, the entire commission would need to approve the member representing the group.

Mr. Maclean added the return to Chambers has been delayed to at least the end of February due to the current COVID condition.

XVII. EXECUTIVE SESSION – None

XVIII. ADJOURNMENT – 9:18 P.M.

**PLANNING COMMISSION AGENDA
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

SMP2021 0006: A proposed subdivision of one (1) lot into three (3) lots with one standard lot and two bungalow lots - APPROVED AS RECOMMENDED

AGENDA ITEM:

Case No.: SMP2021 0006

Applicant: Southeast Endeavors, LLC

Location: 8284 Garnet Street

Proposal: A proposed subdivision of one (1) lot into three (3) lots with one standard lot and two bungalow lots

RECOMMENDATION:

Staff recommends the Planning Commission adopt the Director's analysis and findings and **APPROVE** the requested preliminary plat for Lots 1A, 1B, and 1C, a subdivision of Lot 1, Block G of the Golden Nugget Subdivision within US Survey 1530. This permit would allow the applicant to submit for the final plat application.

This approval is subject to the following conditions:

1. Prior to final plat approval, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
2. Prior to final plat approval, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering & Public Works for compliance with CBJ 49.35.140.
3. Prior to final plat approval, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
4. Prior to final plat approval, the applicant shall submit to a joint use and maintenance agreement for the access and utility easement to be recorded with the plat.
5. Prior to final plat approval, the applicant shall submit a parking plan showing two (2) off-street parking spaces for each lot.
6. Prior to final plat approval, the existing shed and manufactured structure will need to be removed.
7. Prior to final plat approval, the following corrections to the plat shall be made:
 - a. Correct the file number in the Title Block to read "SMP2021 0006".
 - b. Change all dates on the plat to read 2022.
 - c. Correct the Basis of Bearing statement to read, "...the northeast **corner** of Lot 1, Golden Nugget Subdivision".

ATTACHMENTS:

Description	Upload Date	Type
☐ Staff Report for SMP2021 0006	2/2/2022	Staff Report
☐ Notice of Decision for SMP2021 0006	2/17/2022	Notice of Decision



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD

155 S. Seward Street • Juneau, AK 99801

DATE: February 2, 2022
TO: Michael LeVine, Chair, Planning Commission
BY: Joseph Meyers, Planner
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: Applicant requests a preliminary plat review for subdivision of one standard lot in the D5 zoning district into two (2) bungalow lots and one standard lot.

STAFF RECOMMENDATION: Approval with conditions

KEY CONSIDERATIONS FOR REVIEW:

- Resulting lots meet minimum lot dimensions for bungalow and standard lots in the D5 zoning district.
- It has been more than two years since the lot was last subdivided.
- The proposed lots meet the requirements of 49.15.412.
- The proposed project does not aggravate the intent of Chapter 49.35.

GENERAL INFORMATION	
Property Owner	Southeast Endeavors, LLC
Applicant	Southeast Endeavors, LLC
Property Address	8284 Garnet Street
Legal Description	Golden Nugget Block G Lot 1
Parcel Number	5B2401440030
Zoning	D5
Lot Size	18,462 square feet
Water/Sewer	CBJ
Access	Garnet Street
Existing Land Use	Residential
Associated Applications	N/A

ALTERNATIVE ACTIONS:

1. **Amend:** require additional conditions, or delete or modify the recommended conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-6 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - 49.15.402
 - 49.15.411
 - 49.35
 - 49.80

The Commission shall hear and decide the case per 49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska.*

And per 49.15.402(a) *A major subdivision permit is required for subdivisions resulting in 14 or more lots.*

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (ROW)	Garnet Street
South (D5)	Mobile home
East (D5)	Duplex
West (D5)	Duplex

SITE FEATURES	
Anadromous	None
Flood Zone	Zone X
Hazard	No known
Hillside	None
Wetlands	None
Parking District	None
Historic District	None
Overlay Districts	None

BACKGROUND INFORMATION

Project Description – The applicant proposes a subdivision of one lot into two bungalow lots, and one standard sized lot in the D5 residential zoning district. This subdivision is required to go through the Major Subdivision process in accordance with CBJ 49.65.620(B). Structures on Lots 1A and 1C were limited to one 1,000-square-foot, detached single-family residence per lot; other restrictions apply as well. See the City and Borough of Juneau Land Use Code for current regulations regarding bungalow lot subdivisions.

Background – The table below summarizes relevant history for the lot and proposed development. A structure currently exists on the lot and will need to be demolished. There is currently one shed and one existing single-wide structure with an addition on the lot which will need to be removed prior to recording of the final plat.

Item	Year	Summary
Plat #623	1971	The lot was platted as Lot 1, Block G of the Golden Nugget Subdivision.
Building permit	1971	A building permit to place a mobile home on the lot.
Building permit	1977	A building permit for a greenhouse.
Building permit	2001	Add living room and remodel bedroom.

ANALYSIS

Phasing – Subdivision will not be phased.

Minimum Lot Dimensions – The proposed lots as shown on the preliminary plat meet or exceed the dimensional standards listed in CBJ 49.25.400. The CBJ 49.25.400 Dimensional Standards are listed below.

MINIMUMS	Dimensional Standard	Requirement	Met?
	Lot Size (Standard)	7,000 square feet	☒ Meets/Exceeds ☐ Not met
	Lot Size (Bungalow)	3,500 square feet	☒ Meets/Exceeds ☐ Not met
	Lot Width (Standard)	70 feet	☒ Meets/Exceeds ☐ Not met
	Lot Width (Bungalow)	35 feet	☒ Meets/Exceeds ☐ Not met

Density – The table below demonstrates how many dwelling units each lot can accommodate after the proposed subdivision has been completed.

Lot Number	Square Feet	Maximum Number of Dwelling Units
1A	3,544 square feet	1
1B	11,244 square feet	1
1C	3,544 square feet	1

Habitat – No anadromous waterbodies exist on site.

Condition: N/A

Plat Note: N/A

Hazard Zones – No known hazards exist on this lot.

Condition: N/A

Plat Note: N/A

Other Applicable Sections of Title 49 – Bungalow Lot subdivisions (49.65.610)

Condition: A plat note shall be included on the plat as follows:

Plat Note: "At the time of plat recording, structures on Lots 1A and 1C were limited to one 1,000-square-foot, detached single-family residence per lot; other restrictions apply as well. See the City and Borough of Juneau Land Use Code for current regulations."

LOT DESIGN

Bungalow Lots –

Standard	Requirement	Met?	Conditions and Plat Notes
49.65.600(a)(1) Public Water and Sewer	Bungalow lots must be provided public water and sewer.	☒ Meets/Exceeds ☐ Not met	Condition: Prior to Final Plat recording, the applicant will be required to install improvements for public water and sewer to all proposed lots, or shall bond for improvements Plat Note: None
49.65.600(a)(1) Publically Maintained Roads	Bungalow lots must be served by publically maintained roads.	☒ Meets/Exceeds ☐ Not met	Condition: Proposed lots are served by Garnet Street, a publically maintained right-of-way Plat Note: None
49.65.600(a)(2)/(3) Zoning Districts	In zoning districts D1, D3, D5, D10-SF, and D10, subdivisions shall not exceed two bungalow lots for each standard lot. In zoning districts D15 and D18, bungalow lots may be platted without creating standard lots.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None
49.65.600(a)(4) Plat Note Required	A Bungalow lot plat note has been required that lists the restrictions on the size of the dwelling.	☒ Meets/Exceeds ☐ Not met	Condition: Plat note has been added to the plat and meets this requirement Plat Note: “AT THE TIME OF PLAT RECORDING, STRUCTURES ON LOTS 1A AND 1C WERE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS”.
49.65.600(a)(5) Planned Unit Developments	Lots created through the Planned Unit Development process cannot be further subdivided into bungalow lots.	☒ Meets/Exceeds ☐ Not met	Condition: The proposed lots were not created using the PUD process. Plat Note:

Panhandle Lots –

Standard	Requirement	Met?	Conditions and Plat Notes
49.15.423(a)(1)(A) Dimensional Requirements	The front and panhandle lots must meet all dimensional and area requirements.	☒ Meets/Exceeds ☐ Not met	Condition: There are two structures on the lot, a shed and a manufactured structure with an addition that will be required to be removed prior to the recording of the final plat. Plat Note: None
49.15.423(a)(1)(B) Panhandle Width	No part of the panhandle shall be less than 20 feet in width.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None
49.15.423(a)(1)(C) Panhandle Length	The panhandle portion of the lot shall not be longer than 300 feet in D1 zones, and one and one-half times the minimum lot depth in other residential zoning districts.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None
49.15.423(a)(1)(D) Structures Prohibited	No buildings are allowed within the panhandle portion of the lot.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None
49.15.423(a)(1)(F) Lot Width	The lot width for the panhandle lot shall be the distance between its side lot lines measured behind the back lot line of the front lot.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None
49.15.423(a)(3)(A) Shared Driveway	Access for the lots shall be located in the panhandle. A lot fronting a right-of-way may have a separate and additional access if approved by the government entity that controls rights-of-way. Access to each lot shall be designated on the plat in the form of an easement.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None
49.15.423(a)(3)(C)/(D) Parking	A parking plan is required showing the feasibility of off-street parking – no back-out parking is allowed unless approved by the Director.	☒ Meets/Exceeds ☐ Not met	Condition: Prior to approval of the final plat, the applicant shall submit a parking plan showing off-street parking for all three lots. Plat Note:
49.15.423(a)(3)(E) Easement and Maintenance	The applicant has provided an easement for all common access and parking areas and a	☒ Meets/Exceeds ☐ Not met	Condition: Prior to approval of the final plat, the applicant shall submit a joint use and

Standard	Requirement	Met?	Conditions and Plat Notes
Agreement	maintenance agreement will be recorded with the final plat.		maintenance agreement for the access and utility easement to be recorded with the plat. Plat Note: None
49.15.423(a)(3)(F)	The applicant has demonstrated that any portion of the driveway not located in a public right-of-way can comply with emergency service access requirements. A profile of the proposed driveway was included with the application.	☒ Meets/Exceeds ☐ Not met	Condition: CCFR has reviewed the application and does not see any emergency access issues. Plat Note: None
49.15.423(a)(3)(H)	The portion of the panhandle in the right-of-way, or the first 20 feet from the edge of the public roadway, has been paved, whichever length is greater.	☒ Meets/Exceeds ☐ Not met	Condition: N/A Plat Note: None

TRAFFIC

Traffic – According to CBJ 49.40.300(2), a traffic impact analysis IS NOT required; the development is not anticipated to generate more than 250 Average Daily Trips (ADTs).

Condition: N/A

Plat Note: None

Use	Trip generation per dwelling unit	Trips generated	Total trips
Single-family dwelling units	9.52	28.56	28.56
Total ADTs:			28.56 trips

ACCESS AND PUBLIC IMPROVEMENTS

Access – Per 49.35.250(a), staff has determined that the primary access to the subdivision is Garnet Street. The applicant has demonstrated that each lot will have direct and practical access to a public right-of-way through the frontage of the lot, as required by 49.35.250(b).

Lot Number	Primary access
1A	Garnet Street
1B	Garnet Street
1C	Garnet Street

49.35.240 Table of Roadway Construction Standards –

Condition: N/A

Plat Note: None

ADTs	TIA	Sidewalks	Travel Way Width	Street Lights	ROW Width	Paved	Publically Maintained
28.56	No	No	20 feet	No	50 feet	Yes	Yes

Street Lighting – N/A

Condition: None

Plat Note: None

Pedestrian Access – At this time, separate pedestrian accommodations are not required.

Condition: None

Plat Note: None

Drainage – A drainage plan is required.

Condition: Submit a drainage plan for the site prior to recording of the Final Plat

Plat Note: N/A

Fire Code Improvements – N/A

Condition: N/A

Plat Note: N/A

AGENCY REVIEW

CDD conducted an agency review comment period between November 16, 2021 and December 17, 2021. Agency review comments can be found in Attachment C.

Agency	Comments
Cartography	No comments.
General Engineering	No comments.
Streets	No comments.
Assessor's Office	No comments received.
Building	"Building has no issues with this subdivision at this time"
CCFR	"There does not appear to be any concerns on this one. The driveway is less than 150 feet in length so a turnaround is not required. No other code concerns"

PUBLIC COMMENTS

CDD conducted a public comment period between November 16, 2021 and January 11, 2022. Public notice was mailed to property owners within 500 feet of the subject parcel. A public notice sign was also posted on site two weeks prior to the scheduled hearing. No public comments were received as of the writing of this report.

FINDINGS

Major Subdivision Preliminary Plat Approval Criteria – Per CBJ 49.15.402(c)(4), the Director makes the following findings on the proposed development:

1. *Does the preliminary plat comply with CBJ 49.15.411?*

Analysis: No additional analysis needed.

Finding: Yes. With recommended conditions, the preliminary plat complies with preliminary platting requirements listed in CBJ 49.15.411.

2. *Will applicable subdivision development standards be met, or can reasonably be met with conditions?*

Analysis: N/A

Finding: Yes. All applicable subdivision development standards can be reasonably met.

3. *Will the proposed subdivision provide suitable building sites for the zoning district?*

Analysis: Lots created through this subdivision meet minimum dimensional requirements for the D5 zoning district; these lots can reasonably meet setback and other dimensional requirements.

Finding: Yes. The proposed subdivision provides building sites suitable for the D5 zoning district.

4. Will the proposed street names be unique or continuations of existing streets?

Analysis: No new streets are being proposed for this subdivision.

Finding: Yes.

5. Has the director of Engineering and Public Works reviewed the application and determined that:

(i) The subdivision can be constructed to conform to applicable drainage and water quality requirements;

(ii) The streets, pioneer paths, and pedestrian ways as proposed accommodate anticipated traffic, align with, and, where appropriate, connect with streets and pedestrian ways serving adjacent properties;

(iii) Any proposed improvements conform to the requirements of this Title 49 and can be feasibly constructed; and,

(iv) Where public sewer is not required, the applicant has shown that soils are suitable for individual on-lot wastewater treatments and disposal or has shown the feasibility of alternative methods of wastewater disposal and treatment.

Analysis: N/A

Finding: Yes. Engineering and Public Works has reviewed the proposed subdivision application and supplemental materials, and believes the above criteria can be met.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and **APPROVE** the requested preliminary plat for Lots 1A, 1B, and 1C, a subdivision of Lot 1, Block G of the Golden Nugget Subdivision within US Survey 1530. This permit would allow the applicant to submit for the final plat application.

This approval is subject to the following conditions:

1. Prior to final plat approval, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
2. Prior to final plat approval, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering & Public Works for compliance with CBJ 49.35.140.
3. Prior to final plat approval, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
4. Prior to final plat approval, the applicant shall submit to a joint use and maintenance agreement for the access and utility easement to be recorded with the plat.
5. Prior to final plat approval, the applicant shall submit a parking plan showing two (2) off-street parking spaces for each lot.
6. Prior to final plat approval, the existing she and manufactured structure will need to be removed.

7. Prior to final plat approval, the following corrections to the plat shall be made:
- Correct the file number in the Title Block to read "SMP2021 0006".
 - Change all dates on the plat to read 2022.
 - Correct the Basis of Bearing statement to read, "...the northeast **corner** of Lot 1, Golden Nugget Subdivision".

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Preliminary Plat
Attachment C	Public Notice
Attachment D	Agency Comments
Attachment E	Public Comments



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address 8284 Garnet St.		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) Lot 1 Block G, Golden Nugget Subdivision		
	Parcel Number(s) 5B2401440030		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner Southeast Endeavors, LLC	Contact Person Shawn Kantola	Phone Number(s) 907-209-3900
	Mailing Address 8287C Garnet St.		
	E-mail Address shawnkantola@yahoo.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows:			
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.			
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X		11-7-21	
	Landowner/Lessee Signature	Date	
X	_____	_____	
	Landowner/Lessee Signature	Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME"			
Applicant Same	Contact Person	Phone Number(s)	
Mailing Address			
E-mail Address			
X		11-7-21	
	Applicant's Signature	Date of Application	

DEPARTMENT USE ONLY BELOW THIS LINE

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number SMP 21-006	Intake Initials AS
	Date Received 11/9/21

Attachment A - Application Packet



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

I would like to subdivide the lot into one panhandle lot that will be large enough for a duplex and two small bungalow lots with a single access point from the ROW.

Number of Existing Parcels 1 Total Land Area 18,730sf Number of Resulting Parcels 3

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☐ NO ☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
- ☐ Final Plat (MIF)
- ☐ Panhandle Subdivision
- ☐ Accretion Survey
- ☐ Boundary Adjustment
- ☐ Lot Consolidation (SLC)
- ☐ Bungalow Lot Subdivision
- ☐ Common Wall/Zero Lot Subdivision
- ☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

- ☒ Preliminary Plat (SMP)
- ☐ Final Plat (SMF)
- ☐ Preliminary Development Plan – PUD (PDP)
- ☐ Final Development Plan – PUD (PDF) Preliminary
- ☐ Development Plan – ARS (ARP) Final
- ☐ Development Plan – ARS (ARF)
- ☒ Bungalow Lot Subdivision
- ☐ Common Wall/Zero Lot Subdivision
- ☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

- ☒ Pre-application conference notes
- ☒ Narrative including:
 - ☒ Legal description(s) of property to be subdivided
 - ☒ Existing structures on the land
 - ☒ Zoning district
 - ☒ Density
 - ☒ Access
 - ☒ Current and proposed use of any structures
 - ☒ Utilities available
 - ☒ Unique characteristics of the land or structure(s)

☒ Preliminary Plat checklist

DEPARTMENT USE ONLY BELOW THIS LINE

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>330</u>			
Admin. of Guarantee	sign fee \$ <u>50</u>		\$110/lot	
Adjustment	sign deposit \$ <u>100</u>			
Total Fee	\$ <u>480</u>			

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number <u>Smp 21-006</u>	Date Received <u>AS 11/9/21</u>
----------------------------------	------------------------------------

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I:\FORMS\PLANFORM\Subdivision Application.docx

Attachment A - Application Packet

CBJ Permit Department

08/31/2021

Request for a Major Subdivision:

I am the owner of the property located at 8284 Garnet St. parcel #5B2401440030. Legal description: lot 1, block G, Golden Nugget Subdivision. I would like to subdivide the lot into one lot that will be large enough for a duplex and two small bungalow lots (as there are two bungalow lots in D5 this requires a major subdivision). There is a current structure on the property that I plan to remove prior to the final plat being approved/recorded. My plan is to have a single driveway to service all three lots located on the portion of the center lot that is between the bungalow lots. This subdivision is very similar to the one that I completed several years ago just across the street at 8287 Garnet St. The site has public water, sewer and electricity available to it. The site is fairly flat with no unique characteristics. Please let me know if you need any additional information. Thank you,

Shawn Kantola
Southeast Endeavors
907-209-3900



PRELIMINARY PLAT CHECK LIST

Name of Proposed Subdivision: Glaciers Edge #2 Sub

The following items must be included with the initial submittal of a Preliminary Plat:

- ☒ Application, filled out completely
- ☒ Application fee (see fee schedule)
- ☒ Project Narrative
- ☒ Five (5) – 24" by 36" Copies
- ☒ Pre-application Conference Report
- ☒ Lot Closure Report
- ☒ Disclosure of all known environmental hazards and any proposed mitigation measures recommended in the applicable environmental document.
- ☒ Preliminary Plat Checklist: I have reviewed the checklist and all submittals for completeness and accuracy.

[Signature]

Applicant or Surveyor - Signature

11-7-21

Date

Shawn Kentola

Applicant or Surveyor - Print Name

GENERAL REQUIREMENTS

- ☒ The preliminary plat shall be prepared by a professional land surveyor, registered in the State of Alaska
- ☒ The preliminary plat shall be submitted on 22 by 34 inch sheets. The director of engineering and public works may approve alternate sheet sizes
- ☒ The preliminary plat shall be drawn with black ink to a scale of one-inch to 100 feet or less, or other suitable scale approved by the director of engineering and public works
- ☒ The preliminary plat shall be oriented with north toward the top of the sheet.
- ☒ A vicinity map shall be located in the upper right-hand corner of the sheet
- ☒ The vicinity map shall be oriented in the same direction as the plat
- ☒ A suitable north arrow shall be shown for the plat and vicinity map
- ☒ All line work and lettering must be of professional quality, and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion

GRAPHIC REQUIREMENTS - A preliminary plat shall contain the following information:

Title block - An enclosed title block in the lower right-hand corner containing the following information:

- ☒ The proposed name of the subdivision
- ☒ The legal description of the parcel to be subdivided including U.S. Survey, U.S. Mineral Survey, A.T.S. number or section, township, and range number, as applicable
- ☒ "City and Borough of Juneau, Alaska"
- ☒ "State Recorder's Office at Juneau"
- ☒ The date the preliminary plat was prepared and revised
- ☒ The horizontal scale
- ☒ The name and address of the owner of record
- ☒ The name, address, and telephone number of the surveyor preparing the preliminary plat

Preliminary Plat Checklist
Updated 1/2018
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Lot, block, and street information:

- ☒ The area of each lot
- ☒ The dimensions in feet and hundredths of a foot
- ☒ An identifying number and letter for lots and blocks
- ☒ Lots numbered consecutively, commencing with the number "1," with no omissions or duplications
- ☒ If the remainder of an original parcel being subdivided is relatively large, it shall be designated as a "tract" with an identifying number
- ☒ All parcels of land intended to be dedicated for public use or reserved for the use of all of the property owners in the proposed subdivision shall be shown as lots, and consecutively numbered. The purpose and any conditions or limitations on the use of the parcel shall be noted on the plat
- ☒ Abutting properties shall be shown with dashed lines, numbers, and/or letters
- ☒ For resubdivisions or public way vacations, the lines and legal description of the previous lots shall be shown with light dashed lines, numbers, and/or letters, or by a separate plat on the same sheet showing the previous lot lines
 - ☒ The minimum data shown for each curve shall be as follows:
 - ☒ Length
 - ☒ Central angle
 - ☒ Radius
 - ☒ Bearing and distance of long chord
 - ☒ Setbacks shall be shown on all corner lots and any lots with multiple frontage. Setbacks shall be shown on typical lots

Boundary lines:

- ☒ All boundary lines of the subdivision with bearings and distances described
- ☒ All retraced boundary lines shall show record and measured bearings and distances where they differ. Record dimension information shall be shown within parentheses and include a record source identification
- ☒ The exterior boundary lines of the subdivision shall be a solid black opaque line that is of a width that distinguishes it from all other property lines shown on the plat
- ☒ If phasing is proposed, then the boundaries and number of each phase, sequential lot numbering, and a subdivision name consistent with previous phases shall be shown

Monumentation:

- ☒ The monuments used to establish the basis of bearing
- ☒ Each monument found or set shall be identified on the plat by a symbol
- ☒ A complete description of the monument, including type and all information printed on the cap. A typical drawing shall be shown for each type of monument cap set
- ☒ A legend showing the symbols for all the types of monuments
- ☒ The identification, description location, elevation, and datum of the benchmark used to establish vertical control

Site access, circulation, and utilities:

- ☒ The widths and names of existing rights-of-way within the subdivision and within 100 feet of the subdivision boundary
- ☒ Proposed rights-of-way, including their widths and proposed names
- ☒ The grades of existing and proposed streets within these rights-of-way
- ☒ The width, ownership, use, and record reference of all proposed and existing easements within the subdivision and within 100 feet of the subdivision boundary
- ☒ The width, ownership, and use of all proposed easements

Preliminary Plat Checklist

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- ☒ All proposed and existing easements shall have sufficient dimensions shown to determine their location on the ground
- ☒ Existing trails or pathways within the subdivision and within 100 feet of the subdivision boundary, including the width of any associated rights-of way or easements
- ☒ Proposed trails or pathways and widths of their rights-of-way
- ☒ If the plat submitted covers only a part of the tract under the control of the applicant, a sketch plat of the prospective street system of the unplatted part shall be submitted
- ☒ The location of any existing or proposed driveways/curb cuts that access or are proposed to access any existing or proposed street

Topographic Information:

- ☒ For slopes of less than five percent, show one foot contour lines and include spot elevations at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions
- ☒ For slopes between five percent and ten percent, show two foot contour lines
- ☒ For slopes greater than ten percent, show five foot contour lines
- ☒ Every fifth elevation contour shall be distinctive and clearly labeled
- ☒ Dashed lines shall represent existing contours
- ☒ Mapping shall include any significant features which can materially affect the design of the subdivision, including, but not limited to, structures, fences, walls, and utility poles
- ☒ If irregular slopes or special features are present, additional contour information may be required by the director of engineering and public works for planning or construction purposes. Additional required information may include projecting the topography of the site after grading has taken place, showing such items as:
 - ☒ Spot elevations and drainage patterns for each lot
 - ☒ Tops and toes of all manufactured slopes, including daylight lines
 - ☒ Existing and proposed retaining wall locations and heights
- ☒ For subdivisions located in hillside areas with slopes greater than eighteen percent, additional requirements apply in accordance with CBJ 49.70, Article II

Sewer and water:

- ☒ Existing sewer and water mains within the tract with pipe sizes and grades
- ☒ A draft plan for proposed water and sewer lines showing the size, approximate slope, and connection points with elevations for the purpose of determining the feasibility of construction

Multisheet plats:

- ☒ When a plat requires more than one sheet, exclusive of a certificate sheet, an index sheet shall be included. When a plat requires more than three sheets, a cover sheet shall also be included, showing the subdivision title, a key map, and all certificates. Each additional sheet shall include the following data:
 - ☒ North arrow
 - ☒ Legend
 - ☒ Surveyor's seal and signature
 - ☒ Title block
 - ☒ Sheet _____ of _____
 - ☒ Scale
 - ☒ All plat notes
 - ☒ Vicinity map

Preliminary Plat Checklist
Updated 1/2018
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ADDITIONAL MAPPING OR REPORTS- *At the pre-application meeting, it will be determined if any of the following additional mapping or reports are required to be submitted with the preliminary plat. If required, the following additional mapping or reports shall be submitted:*

Hazard and Special Habitat Areas:

N/A

- ☐ Any portion of a special flood hazard area, landslide or avalanche area, habitat area as defined by CBJ 49.70.310, or watersheds, either existing at the proposed subdivision site or shown on the overlay maps, adopted pursuant to this title, to exist at the proposed subdivision site, must be depicted on the preliminary plat
- ☐ The boundaries of any wetland areas must be depicted on the preliminary plat. Boundaries must be determined by a person qualified to perform wetland delineations

Soils report:

- ☐ A soils report prepared by an engineer licensed by the State of Alaska shall be required if the proposed subdivision is located farther from the existing public sewer system than specified in CBJ 49.35, and the applicant chooses to provide on-lot waste disposal rather than to connect to the public system. A soils report shall include the following:
 - ☐ Certification that the proposed lots are large enough and have soil of sufficient permeability to permit the construction of approved waste treatment systems for on-lot waste disposal
 - ☐ The location and size of drain fields for each lot
 - ☐ The locations and logs of test borings, percolation test results, and a hydrological evaluation of on-site sewage disposal
 - ☐ If the soils report indicates that the soils found on the site are not of sufficient permeability or the lots are not large enough to permit the construction of systems for on-lot waste disposal, the size of the proposed lots must be increased or alternate methods for waste disposal proposed
 - ☐ The soils report shall describe the nature of the subsurface soils and any soil conditions that would affect the design of the proposed development. The soils report shall state whether the proposed subdivision plan is feasible and provide general solutions for all known geotechnical conditions or problems

Drainage report:

- ☐ A preliminary report specifying the method by which the applicant proposes to manage surface and subsurface drainage for the subdivision and the effect of such method on adjacent areas. Unlike the drainage plan required by CBJ 49.35.510, the preliminary drainage report does not need to be prepared by a licensed engineer. The report must address the following:
 - ☐ A calculation of the increase in stormwater runoff resulting from the proposed development as well as the runoff from all drainage areas associated with the site. Runoff calculations shall be based on a fully-developed subdivision and a 25-year storm event
 - ☐ How drainage from the proposed subdivision will join an established drainage channel or channels, unless the director of engineering and public works approves use of an alternative drainage way
 - ☐ An evaluation of existing drainage ways and structures located between the subdivision and the receiving water body, and verification that the existing drainage ways can accommodate the increased runoff. If the increased runoff cannot be handled, the plan must propose solutions to the problem
 - ☐ All required improvements, on or off site, that are shown on the construction plans in accordance with CBJ 49.35, Article V, and that will be constructed as part of the subdivision

Water:

- ☐ For subdivisions of five or more lots, including major subdivisions, the following shall be included, where applicable, in accordance with CBJ 49.15.412:
 - ☐ If a proposed subdivision is located at greater distance from the existing public water system than specified in CBJ 49.35, Article III, and the applicant chooses not to connect to the public system, a statement that the applicant will provide a community water system or that individual wells will be used

Preliminary Plat Checklist

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N/A

☐ A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, Article III

☐ A copy of the State application for a permit to appropriate water in the quantity required to meet the subdivisions demands

☐ This does not apply to remote subdivisions unless: the subdivider of the remote subdivision chooses to provide potable water, a public water system is available and the subdivision falls within the criteria outlined in CBJ 49.35.310(a), or the subdivision has four or fewer lots.

☐ The director for minor subdivisions, and the planning commission for major subdivisions, may, for good cause, temporarily waive the requirement to provide a water report and proof of water, and condition the approval of the preliminary plat upon the provision of both documents as part of the final plat application and approval process.

Erosion control:

☐ A report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.

Traffic study:

☐ A traffic impact analysis may be required with the preliminary plat in accordance with CBJ 49.40.300.

Shadow plats:

☐ For subdivisions of five or more lots in transition areas, a shadow plat shall be submitted according to CBJ 49.70.710. The shadow plat shall consist of a sketch superimposed on the proposed subdivision layout. This sketch shall reflect any future resubdivision of the parcels into smaller lots consistent with the higher density and the lot size allowed under the transition zoning.

LEGEND

- ① PRIMARY MONUMENT RECOVERED THIS SURVEY SET BY WWH
- ② SECONDARY MONUMENT RECOVERED THIS SURVEY REBAR & CAP, SET BY DAVID FINLEY
- ③ SECONDARY MONUMENT SET THIS SURVEY BY J.W. BEAN

— SURVEYED
--- UNADJUSTED
--- CENTERLINE
--- SURVEY TIE
--- EASEMENT

TYPICAL SECONDARY MON. ② ALUMINUM CAP 5/8" REBAR, 36" LONG

BASIS OF BEARING
BASIS OF BEARING FOR THIS PLAT IS THE RECORD BEARING OF SOUTH FROM A FOUND REBAR & CAP BEING THE NORTHEAST LOT OF LOT 1, GOLDEN NUGGET SUBDIVISION TO A FOUND REBAR & CAP BEING THE SOUTHEAST CORNER OF LOT OF LOT 1, GOLDEN NUGGET SUBDIVISION AS SHOWN ON RECORD PLAT NO. 623.

OWNERSHIP CERTIFICATE
SHAWN KANTOLA, SOUTHEAST ENDOWORS, LLC, HEREBY CERTIFY THAT HE IS THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT HE HEREBY ACCEPTS THIS PLAT OF SUBDIVISION WITH HIS FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE: _____

OWNER: SHAWN KANTOLA, SOUTHEAST ENDOWORS, LLC

NOTARY ACKNOWLEDGMENT:
UNITED STATES OF AMERICA } S.S.
STATE OF ALASKA }
THIS IS TO CERTIFY THAT ON THIS _____ DAY OF _____, 2021, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED SHAWN KANTOLA, SOUTHEAST ENDOWORS, LLC TO ME KNOWN AND KNOWN TO ME TO BE THE PERSON HE REPRESENTS HIS SELF TO BE AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE FOREGOING INSTRUMENT AS THE FREE ACT AND DEED FOR THE PURPOSES THEREIN MENTIONED, BEING FULLY AUTHORIZED TO DO SO.
WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA: _____ MY COMMISSION EXPIRES: _____

COMMUNITY DEVELOPMENT DEPARTMENT PLAT APPROVAL
I HEREBY CERTIFY THAT THE PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU AND IS APPROVED BY THE DEPARTMENT OF COMMUNITY DEVELOPMENT FOR RECORDING IN THE OFFICE OF THE JUNEAU RECORDING DISTRICT, ANCHORAGE, ALASKA.

DATE: _____, 2021
JILL MACLEAN, DIRECTOR
DEPARTMENT OF COMMUNITY DEVELOPMENT
CITY & BOROUGH OF JUNEAU
ATTEST:
MUNICIPAL CLERK, CITY & BOROUGH OF JUNEAU

CERTIFICATE OF REGISTERED LAND SURVEYOR
I, J.W. BEAN, IN MY CAPACITY AS A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, CERTIFY THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT, AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

Date: _____

NOTES:

1. THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10000.
2. ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET.
3. WHERE DIFFERENT FROM MEASURED OR CALCULATED RECORD DIMENSIONS ARE SHOWN IN PARENTHESES.
4. DOMESTIC WATER AND SANITARY SEWER PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.
5. THE ON LOT STORMWATER RUNOFF DRAINAGE IS ACCEPTABLE AS EXISTS BETWEEN THE PLATTED LOTS OF THIS SUBDIVISION AND MAY NOT BE MODIFIED UNLESS PERMITTED BY C&B ENGINEERING PURSUANT TO CHAPTER 19.12.120.1 BEST MANAGEMENT PRACTICES.
6. ACCESS FROM ALL LOTS TO GARNET STREET IS RESTRICTED TO ONE COMMON DRIVEWAY WITHIN THE ACCESS AND UTILITY EASEMENT.
7. BUNGALOW LOTS 1 & 3 LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT.

Scale in feet
SCALE: 1"=30'

VICINITY MAP
SOURCE: C.B.I. BASEMAP SERIES - SCALE: 1" = 400'

**PLAT OF
GLACIER EDGE #2 SUBDIVISION**
A SUBDIVISION OF
LOT 1, BLOCK G
GOLDEN NUGGET SUBDIVISION
WITHIN U.S. SURVEY NO. 1530
WITHIN THE CITY & BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT
STATE RECORDER'S OFFICE AT ANCHORAGE

OWNER: SHAWN KANTOLA, SOUTHEAST ENDOWORS, LLC
16470 OCEANVIEW DRIVE
JUNEAU, ALASKA 99801

SUB/CORR: J.W. BEAN, PROFESSIONAL SURVEYORS, INC.
10700 ARCTIC CIRCLE, JUNEAU, ALASKA 99801 (NWT) 733-3616

SCALE: 1"=30' DATE: 11-04-2021 SHEET 1 OF 1

Closure Report

Set description: (No description)
 Area: 3,520.00
 Perimeter: 0.08
 Closure: 269.62
 0.00

LOT 3

<u>Point #</u> <u>Station</u>	<u>Direction</u>	<u>Distance</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>
2,566 0.00			10,639.508	10,126.008	100.00
2,562 20.62	S14°02'10"W	20.62	10,619.508	10,121.008	100.00
2,561 102.62	S0°00'00"W	82.00	10,537.508	10,121.008	100.00
557 137.62	N90°00'00"E	35.00	10,537.508	10,156.008	100.00
2,565 239.62	N0°00'00"E	102.00	10,639.508	10,156.008	100.00
2,566 269.62	N90°00'00"W	30.00	10,639.508	10,126.008	100.00

Set description: (No description)
 Area: 11,410.00
 Perimeter: 0.26
 Closure: 601.23
 0.00

Lot 2

<u>Point #</u> <u>Station</u>	<u>Direction</u>	<u>Distance</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>
2,567 0.00			10,639.508	10,096.008	100.00
2,563 20.62	S14°02'10"E	20.62	10,619.508	10,101.008	100.00
2,560 102.62	S0°00'00"W	82.00	10,537.508	10,101.008	100.00
2,410 137.62	N90°00'00"W	35.00	10,537.508	10,066.008	100.00

2,562 550.62	N0°00'00"E	82.00	10,619.508	10,121.008	100.00
2,566 571.23	N14°02'10"E	20.62	10,639.508	10,126.008	100.00
2,567 601.23	N90°00'00"W	30.00	10,639.508	10,096.008	100.00

Set description: (No description)
 Area: 3,520.00
 Perimeter: 0.08
 Closure: 269.62
 0.00

LOT 1

<u>Point #</u> <u>Station</u>	<u>Direction</u>	<u>Distance</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>
2,567 0.00			10,639.508	10,096.008	100.00
2,564 30.00	N90°00'00"W	30.00	10,639.508	10,066.008	100.00
2,410 132.00	S0°00'00"W	102.00	10,537.508	10,066.008	100.00
2,560 167.00	N90°00'00"E	35.00	10,537.508	10,101.008	100.00
2,563 249.00	N0°00'00"E	82.00	10,619.508	10,101.008	100.00
2,567 269.62	N14°02'10"W	20.62	10,639.508	10,096.008	100.00



(907) 586-0715
 CDD_Admin@juneau.org
 www.juneau.org/CDD
 155 S. Seward Street • Juneau, AK 99801

Kantola Subdivision

Case Number: PAC2021 0064
 Applicant: Shawn Kantola
 Property Owner: Southeast Endeavors
 Property Address: 8284 Garnet Street
 Parcel Code Number: 5B2401440030
 Site Size: 18,730 Square Feet
 Zoning: D-5
 Existing Land Use: Single family home

Conference Date: October 6, 2021
 Report Issued: October 13, 2021

DISCLAIMER: Pre-application conferences are conducted for purposes of providing applicants with a preliminary review of a project and timeline. Pre-application conferences are not based on a complete application, and are not a guarantee of final project approval.

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Shawn Kantola	Applicant	shawnkantola@yahoo.com
Teri Camery	Planning	teri.camery@juneau.org

Pre-Application Conference Final Report

Conference Summary

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Project Overview

The applicant would like to subdivide an 18,730 square foot D-5 lot into two bungalow lots of 3520 square feet each, and a third lot with 11,689 square feet to accommodate construction of a duplex. The lot has an existing manufactured home that would be torn down. The applicant intends to use the panhandle subdivision process.

The applicant has also asked whether the bungalow lot setbacks adjacent to the panhandle may be reduced through CBJ Code 49.25.430(4) (K), and specifically seeks a reduction of the setback to 8 feet. The Panhandle Subdivision Code, 49.15.423(2) (B), dictates that the setback from the panhandle would be considered to be either a front yard setback or a street side setback. The applicant notes that the similar development that he proposed and was approved at 8287 Garnet Street (SMF20140001) has street side yard setbacks of 5.63 and 6.05 feet. Averaging these two numbers with a third standard street side setback of 13 feet would reduce the setback to 8 feet as the applicant wishes. However section 49.25.430(4) (K) also states that *"In no instance shall the required setback be less than half that required by this chapter or ten feet, whichever is greater."* Following this requirement, the maximum reduction of the street side yard setback would be 10 feet. The setback would be determined at the time of a building permit, not at the subdivision stage. The setback analysis offered with this pre-application report is intended to be preliminary.

Staff notes that the draft subdivision layout shows a panhandle width of 30 feet, however the panhandle code 49.15.423(a) (1) (B) states that the panhandle can be 20 feet wide. This reduction may provide some additional area.

CBJ Code 49.65.620(A) (1) (B) states that *"Subdivisions containing one standard lot and two bungalow lots shall be processed as major subdivisions."* Therefore the major subdivision process applies to the proposed draft subdivision.

Planning Division

1. **Zoning – D-5**
2. **Subdivision**
 - D-5 minimum lot size 7,000 square feet
 - D-5 minimum lot size for a duplex 10,500 square feet
 - D-5 minimum lot width 70'
 - D-5 minimum lot depth 85'
 - D-5 bungalow lot minimum lot size 3,500 square feet
 - D-5 bungalow lot minimum lot width 35'
 - D-5 bungalow minimum lot depth 85'
3. **Setbacks – 20' front; 20' rear; 5' side; 13' street side yard**
4. **Height – 35' permissible uses; 25' bungalow dwelling; 25' accessory uses**

Pre-Application Conference Final Report

5. **Access** – Garnet Street
6. **Parking & Circulation**– two parking spaces required for each dwelling unit
7. **Maximum Lot Coverage** – for permissible uses, 50 percent; for conditional uses, 50 percent
8. **Vegetative Coverage** – 20 percent
9. **Flood** – The parcel is not within a mapped floodplain or other hazard area.
10. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – Not applicable. The parcel is flat and not within a mapped hazard zone.
11. **Wetlands** – There are no known wetlands on the parcel.
12. **Nonconforming situations** – There are no known nonconforming situations on the parcel.

Building Division

13. **Building** – n/a
14. **Outstanding Permits** – n/a

General Engineering/Public Works

15. **Engineering** –
16. **Drainage** –
17. **Utilities** – (water, power, sewer, etc.)

Fire Marshal

18. **Fire Items/Access** – n/a

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. Development Permit Application
2. Major Subdivision Application

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.

Exceptions to Submittal Requirements

Submittal requirements staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

1. n/a

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Pre-Application Conference Final Report

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Major Subdivision preliminary plat, \$110 per lot; Major subdivision final plat, \$70 per lot.
2. Public Notice sign: \$50 + \$100 deposit returned when signed is returned = \$150 total.

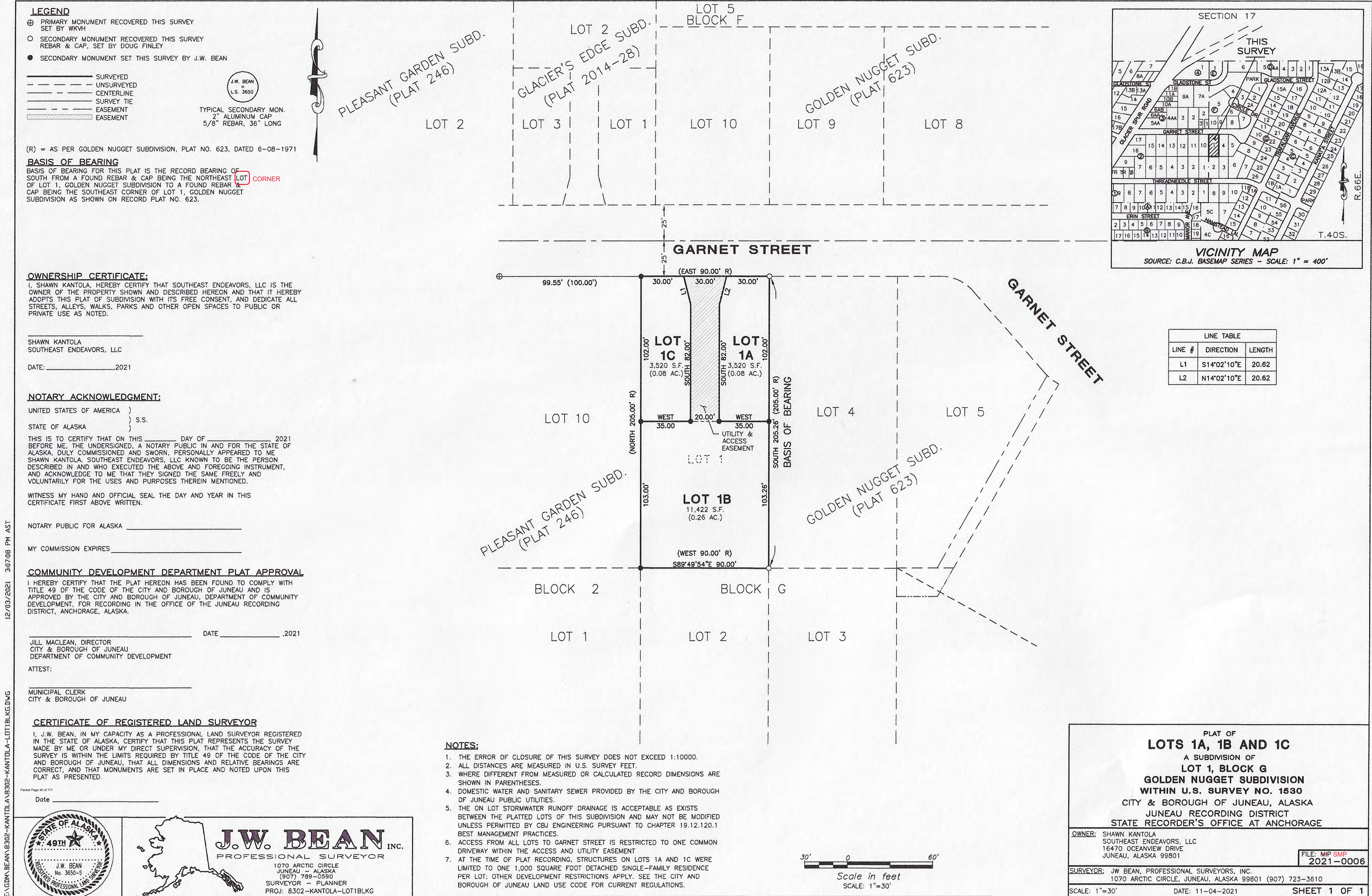
For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/cdd.

Submit your Completed Application

You must submit your application(s) in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

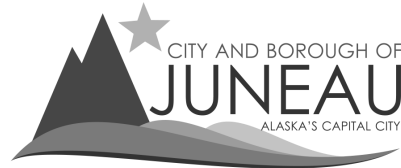
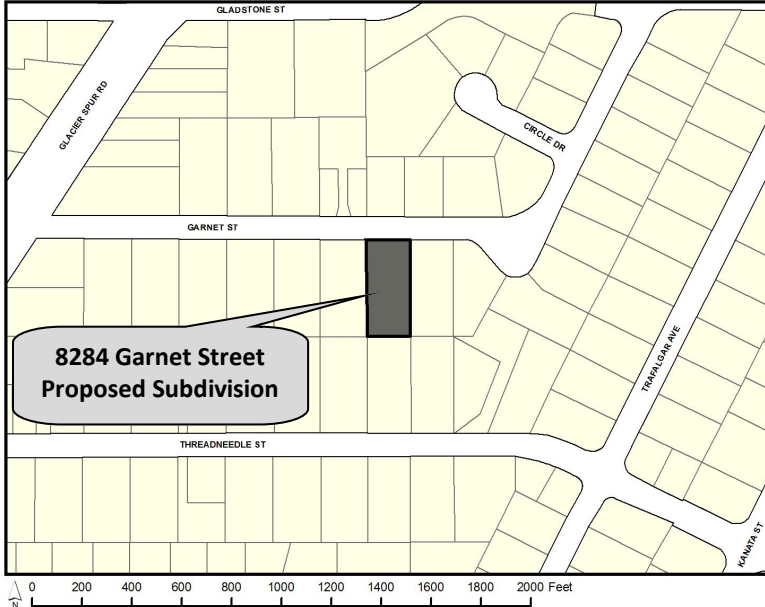
Phone: (907) 586-0715
Web: www.juneau.org/cdd



Attachment B - Preliminary Plat

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



COMMUNITY DEVELOPMENT

155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for a **proposed subdivision of one (1) lot into three (3) lots with one standard lot and two bungalow lots at 8284 Garnet Street in a D5 zone.**

TIMELINE

Staff Report expected to be posted **January 31, 2022**, at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Jan. 18

Comments received during this period will be sent to the Planner, **Joseph Meyers**, to be included as an attachment in the staff report.

Jan. 19 noon, Feb. 4

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Feb. 8, 2022

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/82676484943> . The Webinar ID is: 826 7648 4943 . To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

Feb. 9

The results of the hearing will be posted online.

Phone: **(907)586-0715** ♦ Email: pc_comments@juneau.org
Mail: **Community Development, 155 S. Seward St, Juneau AK 99801**

Printed January 4, 2022

Case No.: SMP2021 0006
Parcel No.: 5B2401440030
CBJ Parcel Viewer: <http://epv.juneau.org>



From: [Charlie Ford](#)
To: [Joseph Meyers](#)
Subject: RE: Request for comment
Date: Friday, January 14, 2022 8:41:16 AM

Hi Joseph,

Buildings has no issues with this subdivision at this time.

Thanks,

From: Joseph Meyers <Joseph.Meyers@juneau.org>
Sent: Friday, January 14, 2022 8:39 AM
To: Charlie Ford <Charlie.Ford@juneau.org>
Subject: Request for comment

Hi Charlie,

I have a subdivision that I am seeking comment on. I have attached the plat for your review.

Thank you sir!

-Joseph

Joseph Meyers, MURP | Planner I

[Community Development Department](#) | City & Borough of Juneau, AK

230 S. Franklin Street, 4th Floor Marine View Building

Personal line: 907.586.0753; Ext: 4209

He/him



Fostering excellence in development for this generation and the next.

From: [Dan Jager](#)
To: [Joseph Meyers](#)
Subject: RE: SMP2021 0006
Date: Friday, January 7, 2022 3:35:39 PM

Hey Joseph, there does not appear to be any concerns on this one. The driveway is less than 150 feet in length so a turnaround is not required. No other code concerns. Thanks.

Dan

From: Joseph Meyers <Joseph.Meyers@juneau.org>
Sent: Friday, January 07, 2022 1:59 PM
To: Dan Jager <Dan.Jager@juneau.org>
Subject: SMP2021 0006

Good afternoon Dan,

Will you look at this plat and determine if this proposed subdivision meets the fire code? Let me know by next Friday (1/14) if possible.

Thank you,

Joseph Meyers, MURP | Planner I

[Community Development Department](#) | City & Borough of Juneau, AK

230 S. Franklin Street, 4th Floor Marine View Building

Personal line: 907.586.0753; Ext: 4209

He/him



Fostering excellence in development for this generation and the next.

January 15, 2022

CBJ Community Development
155 S.Seward St.
Juneau, AK 99801

William Kantola
8287B Garnet
Juneau, AK 99801

Dear Joseph Meyers and Commissioners,

I write in support of the proposed subdivision at 8284 Garnet Street in Juneau (case no. SMP 2021 0006, parcel no. 5B2401440030.) As you can see from the return address I live across the street from the proposed subdivision.

I support the proposal because the two bungalow lots will help the city move toward its goal of providing affordable housing, since the city has stated on many occasions it supports the provision of low-income housing. The bungalow lots, if approved, will provide for environmentally friendly living in smaller and more energy efficient homes.

You all should approve the subdivision plan.

Respectfully,



William Kantola

RECEIVED

JAN 19 2022

Permit Center/CDD



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION

NOTICE OF DECISION

Date: February 14, 2022

File No.: SMP2021 0006

Southeast Endeavors, LLC
Attn: Shawn Kantola
8287 C Garnet Street
Juneau, AK 99801

Proposal: Applicant requests a preliminary plat review for subdivision of one standard lot in the D5 zoning district into two (2) bungalow lots and one standard lot.

Property Address: 8284 Garnet Street

Legal Description: Golden Nugget Block G Lot 1

Parcel Code No.: 5B2401440030

Hearing Date: February 8, 2022

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated February 2, 2022, and approved the preliminary plat to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Prior to final plat approval, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
2. Prior to final plat approval, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of Engineering & Public Works for compliance with CBJ 49.35.140.
3. Prior to final plat approval, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.

Southeast Endeavors, LLC
 File No.: SMP2021 0006
 February 14, 2022
 Page 2 of 2

4. Prior to final plat approval, the applicant shall submit a joint use and maintenance agreement for the access and utility easement to be recorded with the plat.
5. Prior to final plat approval, the applicant shall submit a parking plan showing two (2) off-street parking spaces for each lot.

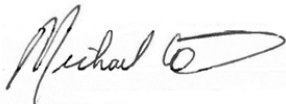
Attachment: February 2, 2022 memorandum from Joseph Meyers, Community Development, to the CBJ Planning Commission regarding SMP2021 0006.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, February 8, 2022.

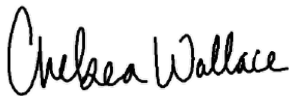
Expiration Date: The permit will expire five (5) years after the effective date, or February 8, 2027, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.



Michael LeVine, Chair
 Planning Commission

February 17, 2022

Date



Filed With City Clerk

February 17, 2022

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

**PLANNING COMMISSION AGENDA
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

MSM2021 0001: Kensington Mine plan of operation amendment - APPROVED AS RECOMMENDED

AGENDA ITEM:

Case No.: MSM2021 0001
 Applicant: Coeur Alaska
 Location: Kensington Mine
 Proposal: Kensington Mine plan of operation amendment

RECOMMENDATION:

Staff recommends the Planning Commission adopt the Director's analysis and findings and ratify the requested Summary Approval. The ratification would allow the development of a Summary Approval plan of operations amendment for the Kensington Mine.

ATTACHMENTS:

Description	Upload Date	Type
☐ Staff Report for MSM2021 0001	2/1/2022	Staff Report
☐ Notice of Decision for MSM2021 0001	2/17/2022	Notice of Decision



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD

155 S. Seward Street • Juneau, AK 99801

DATE: February 1, 2022
TO: Michael LeVine, Chair, Planning Commission
BY: Teri Camery, Senior Planner, CFM 
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: A Summary Approval plan of operations amendment for the Kensington Mine.

STAFF RECOMMENDATION: Staff recommends that the Commission ratify the Summary Approval.

KEY CONSIDERATIONS FOR REVIEW:

- The development is located entirely outside of the roaded service area.
- The development has a Final Supplemental Environmental Impact Statement resulting from state and federal agency review.
- The development meets 49.65.170(b)(2) summary approval criteria.

GENERAL INFORMATION	
Property Owner	Couer Alaska
Applicant	Couer Alaska
Property Address	Kensington Mine
Legal Description	USMS 59 & 37-57 & 300 & 015 & 2018
Parcel Number	3M000BB00040
Zoning	Rural Reserve
Land Use Designation	Not designated
Lot Size	743.74 acres
Water/Sewer	On-site water and sewer
Access	Lynn Canal/Berners Bay
Existing Land Use	Large mine

ALTERNATIVE ACTIONS:

1. **Ratify.** Ratify the summary approval.
2. **Reject:** Reject the summary approval. If the Commission rejects the summary approval, it may return the matter to the director or require an Allowable Use Permit.
3. **Continue:** Continue to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

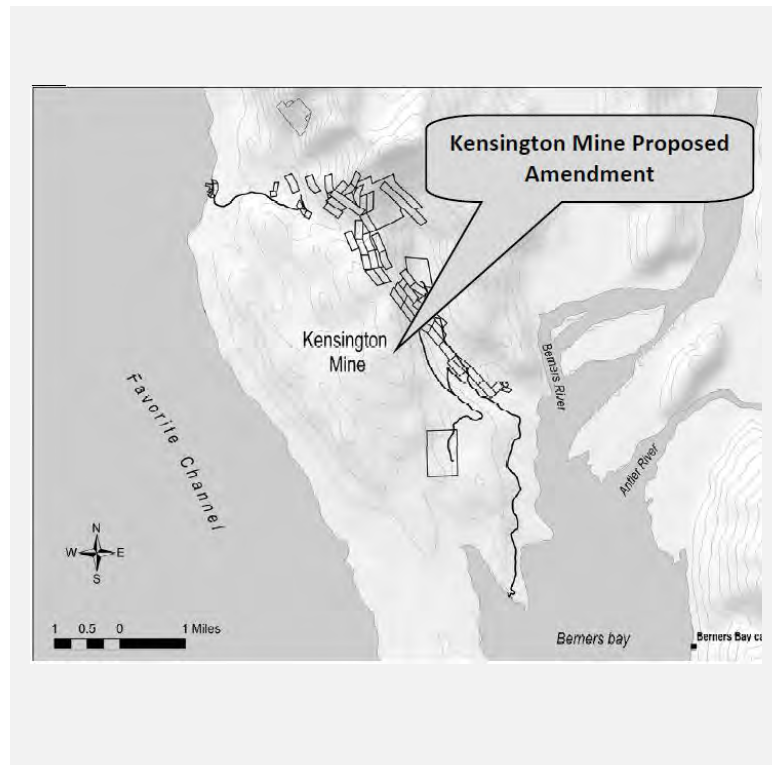
Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - o 49.65.170

The Commission shall hear and decide the case per 49.65.170(b)(2), Summary Approval. *The director may summarily approve a proposed change in mining operations not constituting a new land use or separate development upon a written determination of conformance with 49.65.170(b)(2)(i-iv). In accordance with 49.65.160(b)(2)(C), the director shall forward the proposed summary approval to the Planning Commission after the determination is completed. The Planning Commission may ratify or reject the proposed summary approval. If the commission rejects the summary approval, it may return the matter to the director for further consideration and consultation with the applicant, or direct that the change be processed as an allowable use permit under CBJ 49.15.320.*

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (Zone)	Vacant federal land, private mining claims; Rural Reserve
South (Zone)	Vacant federal land; Rural Reserve
East (Zone)	Berners Bay
West (Zone)	Vacant federal land; Rural Reserve

SITE FEATURES	
Anadromous	None
Flood Zone	None
Hazard/Hillside	Not applicable to the proposed development
Wetlands	Not applicable to the proposed development

BACKGROUND INFORMATION

Project Description – The applicant requests a Summary Approval for a plan of operations amendment to the Kensington Mine. The amendment consists of the following components:

- Raising the tailings treatment facility dam by 36 feet and constructing a 40-foot high Back Dam between the tailings treatment facility and Upper Slate Lake, to increase tailings disposal capacity to 8.5 million tons, an increase of 4.0 million tons;
- Continuing to backfill approximately 40 percent of the total tailings produced;
- Relocating components of the seepage collection system (sumps, access road, power line, pipelines, and stormwater diversion channels);
- Expanding the size of the existing Kensington, Pit #4, and Comet Waste Rock Storage facilities to provide an additional 2.7 million tons of capacity;
- Constructing a new Pipeline Road Waste Rock Storage area to accommodate a 2.3 million ton capacity;
- Increasing the mill throughput rate from 2,000 to 3,000 tons per day;
- Enhancing Dolly Varden char spawning habitat by constructing two deltas, constructing a new stream channel to reroute Fat Rate Creek into South Creek, constructing approximately 0.6 miles (3.1 acres) of new temporary access roads to address the two proposed deltas (0.2 acres and 0.5 acres) that would be constructed as part of the proposed fish enhancement, and replacing three culverts to provide fish passage;
- Constructing 1.75 miles of new access road (Spillway, Back Dam, Fat Rat Diversion, and Upper Slate Creek Delta Access Roads);

- The proposed amendment would generate 184 acres of additional disturbance of which approximately 128 acres are located on National Forest Service lands.

Site plans are included in Figures 1-6 in the application materials, including the following:

- Figure 1: General Location Map
- Figure 2: Stage 4 Dam Raise and Tailings Treatment Facility Expansion
- Figure 3: Kensington Waste Rock Storage Expansion
- Figure 4: Pit #4 Waste Rock Storage Expansion
- Figure 5: Comet Waste Rock Storage Expansion
- Figure 6: Pipeline Road Waste Rock Storage Expansion

The development and federal review process is described in detail in the Final Supplemental Environmental Impact Statement and Draft Record of Decision, available here:

- Final Supplemental Environmental Impact Statement:
 - o https://www.fs.usda.gov/nfs/11558/www/nepa/110916_FSPLT3_5643919.pdf
- Draft Record of Decision:
 - o https://www.fs.usda.gov/nfs/11558/www/nepa/110916_FSPLT3_5643920.pdf

Background – The table below summarizes relevant history for the lot and proposed development.

Item	Summary
Building permits	The development has building permits dating back to 1997. Building permits appear to be up to date.
Land Use permits	M-06-90 Original Large Mine Permit MIN-M96-01 Large Mine Permit modification MIN2004-0003 Allowable Use Permit for mine development SUB-MS94-25 Accretion Survey USE1999-00019 Extension of previously issued Large Mine permit USE2000-00063 Extension of existing Large Mine Permit VAR1997-00011 Variance to the 45-foot height limit in Rural Reserve USE2011 0020 Modification to MIN2004-0003 for dormitory housing

ZONING REQUIREMENTS

Standard		Requirement	Proposed	Existing	Code Reference
Lot	Size	36,000 sq. feet		743.74 acres	49.25.400
	Width			exceeds minimum	49.25.400
	Depth			exceeds minimum	49.25.400
Setbacks	Front	0 feet; tidewater		exceeds minimum	49.25.400
	Rear	25 feet		exceeds minimum	49.25.400
	Side	15 feet		exceeds minimum	49.25.400
Lot Coverage Maximum		10% permissible; 20% conditional		under maximum	49.25.400

Standard		Requirement	Proposed	Existing	Code Reference
Vegetative Cover Minimum		none			49.50.300
Height	Permissible	45'		Increase approved with VAR97-11	49.25.400
	Accessory	45'			49.25.400
Maximum Dwelling Units (X/Acre)		1		n/a	49.25.500

PLANNING COMMISSION REVIEW PROCESS

The requirements for Summary Approval have been established in the City and Borough mining ordinance, CBJ 49.65.170(b)(2), as follows:

49.65.170(b)(2). Summary Approval. *Upon request of the applicant, the Director [of CDD] may summarily approve a proposed change in mining operations not constituting a new land use or separate development upon a written determination that:*

- (i) *the mine is located entirely outside the roaded service area established in CBJ 01.30.320;*
- (ii) *the application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in [these] subsections (i)-(iv);*
- (iii) *the proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion, and;*
- (iv) *the proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.*

49.65.170(b)(2)(C) Planning Commission review.

- (i) *The director shall promptly forward the proposed summary approval to the Planning Commission after the determination is completed. The Planning Commission may ratify or reject the proposal summary approval.*
- (ii) *If the Commission rejects the proposed summary approval, it may:*
 - a) *return the matter to the director for further consideration of whether the director, in consultation with the applicant, can address issues identified by the commission through imposition of conditions or changes in the proposed mining operation; or*
 - b) *direct that the proposed change be processed by the department as an application for an allowable use permit for which the commission may impose conditions under CBJ 49.15.320(f)(1)-(8) and such additional conditions areas are necessary to reduce to non-significant any impacts in the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.*

ANALYSIS

1. 49.65.155 (b)(2)(A). *The change in mining operations does not constitute a new land use.*

CBJ 49.80.120 defines a new land use as a use falling under a different category in the Table of Permissible Uses than the “mining operations” use designation in 14.400. The plan of operations amendment components, including raising the level of the tailings treatment facility dam and expanding waste rock capacity, can only occur as an essential expansion of an existing mining operation. These components fall under 14.400, Mining Operations, in the Table of Permissible Uses. Therefore the proposal does not constitute a new land use.

Finding: Staff finds that Summary Approval Criterion One is met.

2. 49.65.155 (b)(2)(A). *The change in mining operations does not constitute a separate development.*

CBJ 49.80.120 defines separate development as a facility or infrastructure located outside the land area encompassing, and not an integral part of, the mining operation for which a development permit already exists. The tailings treatment facility dam and waste rock expansion areas are located within the land area encompassing the mining operation. These areas are an integral part of the mining operation. Mining operations could not proceed as planned without expanded facilities for waste rock disposal. The mining operation has an existing development permit under CBJ 49.65.190, which provides that pre-existing and pre-approved large mines in territory annexed to the City and Borough are presumptively permitted provided that all state and federal permits and approvals remain valid. The Kensington Mine met this requirement at the time the mine was annexed to the City and Borough and was granted Large Mine Permit # M-06-90.

Finding: Staff finds that Summary Approval Criterion Two is met.

3. 49.65.155 (b)(2)(A)(i). *The mine is located entirely outside the roaded service area established in CBJ 01.30.320.*

Attachment C illustrates the roaded service area. The Kensington Mine is located entirely outside of the roaded service area.

Finding: Staff finds that Summary Approval Criterion Three is met.

4. 49.65.155 (b)(2)(A)(ii). *The application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in subsections (i)-(iv).*

The application is complete, and provides all of the information necessary for the director to make a Summary Approval determination.

Finding: Staff finds that Summary Approval Criterion Four is met.

5. 49.65.155 (b)(2)(A)(iii). The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion.

The applicant has provided the following table regarding off-site impacts, also included as Attachment D.

Requirement	Proposed change	Reference location	Impact on roaded service area
Habitat	The amendment would affect wildlife and fish habitat in the project area through the construction of POA 1 components. Fish habitat enhancement will be completed to mitigate for losses of fish habitat. Three culverts in mine site roads will be replaced for fish habitat mitigation.	Sections 2.3.3 (p. 2-34), 3.5.3.2 (p. 3-67), and 3.7.3.2 (p. 3-95) of FSEIS. Draft ROD (p. 4, 6, and 11).	None
Sound (Noise)	Noise effects from POA 1 will be similar to effects of existing noise and noise caused during initial construction.	Section 3.7.3.2 (p. 3-95) of FSEIS.	None
Screening	The Pipeline Road WRS would be partially visible from the Berners Bay Cabin. The Comet WRS expansion would be visible from Lynn Canal.	Section 3.11.3.3 (p. 3-124) of the FSEIS.	None
Drainage	No change.	Sections 3.3.2 (p. 3-19), 3.3.2.1 (p. 3-20), and 2.2.5 (p. 2-11) of FSEIS.	None
Traffic	POA 1 would extend the life of mine for at least another 10 years. Therefore duration of current level of traffic would be extended.	Table 3.1-1 (p.3-2) and Sections 3.7.3.2 (p. 3-98) and 2.2.5 (p. 2-10) of FSEIS.	None
Lighting	Lighting will be implemented to the level needed to ensure safe working conditions. The effects would be similar to the effects of the initial construction lighting and existing operations lighting.	Section 3.7.3.2 (p. 3-95) of FSEIS.	None
Safety	Dam safety issues for the POA 1 Stage 4 dam raise would be similar to those for Stage 3.	Section 3.2.4.2 (p. 3-12), and Table 2.7-3 (p. 2-60) of FSEIS.	None
Dust	No change. Fugitive dust will continue to be controlled.	Section 2.2.8.9 (p. 2-18) of FSEIS.	None

Requirement	Proposed change	Reference location	Impact on roaded service area
Surface subsidence	No change. POA 1 involves surface impacts only.	See comment and USFS response in Appendix A (p. A-60-61)	None
Avalanches	No change. Avalanche risk would remain the same.	Sections 3.2.3.2 (p. 3-8), and 3.12.3.1 (p. 3-129) of FSEIS.	None
Landslides	No change. Landslide risk would not change due to POA 1.	Sections 3.2.3.2 (p. 3-8), and 3.12.3.1 (p. 3-129) of FSEIS.	None
Erosion	Erosion effects from POA 1 construction will be similar to effects during initial construction.	Sections 2.2.5 (p. 2-11), 3.8.3.2 (p. 3-101), 3.8.3.3 (p. 3-101) of FSEIS.	None

Finding: Staff finds that Summary Approval Criterion Five is met.

6. 49.65.155(b)(2)(A)(iv). *The proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.*

The proposed change in mining operations has a completed National Environmental Protection Act review by federal and state agencies. CBJ participated in the review as a Cooperating Review Agency. This review process resulted in the Final Supplemental Environmental Impact Statement (FSEIS) and Draft Record of Decision (DROD). The FSEIS is available at this link:

https://www.fs.usda.gov/nfs/11558/www/nepa/110916_FSPLT3_5643919.pdf

The DROD is available at this link:

https://www.fs.usda.gov/nfs/11558/www/nepa/110916_FSPLT3_5643920.pdf

Finding: Staff finds that Summary Approval Criterion Six is met.

Conclusion: Staff finds that Summary Approval Criteria 1-6 have been met.

AGENCY REVIEW

CDD conducted an agency review comment period between December 17 and January 7. No comments were received.

PUBLIC COMMENTS

CDD conducted a public comment period between January 13 and February 8, 2022. Public notice was mailed to property owners within 500 feet of the proposed development. Public notice signs were posted at Echo Cove, Amalga Harbor, and Statter Harbor two weeks prior to the scheduled hearing. No public comments have been received at the time of this writing.

FINDINGS

Summary Approval Criteria – Per CBJ 49.65.170(b)(2) Summary Approval, the Director makes the following findings on the proposed development:

1. *Does the change in mining operations constitute a new land use?*

Analysis: The change in mining operations includes an increase in the height of the tailings treatment facility dam and expansion of waste rock facilities.

Finding: No. No evidence indicates that the change in mining operations constitutes a new use.

2. *The change in mining operations does not constitute a separate development.*

Analysis: The change in mining operations includes an increase in the height of the tailings treatment facility dam and expansion of waste rock facilities.

Finding: Yes. No evidence indicates that the change in mining constitutes a separate development.

3. *Is the mine located entirely outside the roaded service area established in CBJ 01.30.320?*

Analysis: The mine is located on the northwest side of Berners Bay and is accessible only by boat or plane.

Finding: Yes. The mine is located entirely outside the roaded service area established in CBJ 01.30.320.

4. *Is the application complete, providing all of the information necessary for the director to make the summary approval determinations set forth in subsections i-iv?*

Analysis: The application contains all required information

Finding: Yes. The application provides all information necessary to make summary approval determinations.

5. *Will the proposed change in mining operations will have a significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion.*

Analysis: The applicant's table describes the impacts of the proposed development for each of these categories and demonstrates that there are no significant impacts within the roaded service area.

Finding: No. The proposed change in mining operations will not have a significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion.

6. *Has the proposed change in mining operations undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both?*

Analysis: The proposed change has had a Supplemental Environmental Impact Statement review by federal and state agencies.

Finding: Yes. The proposed change in mining operations has a completed environmental review by one or more federal and state agencies.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and ratify the requested Summary Approval. The ratification would allow the development of a Summary Approval plan of operations amendment for the Kensington Mine.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Abutters Notice and Public Notice Sign Photo
Attachment C	Roaded Service Area Map
Attachment D	Applicant Off-Site Impacts Table



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address Kensington Mine, 45 miles north-northwest of Juneau		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) See attached project description. USMS 59 & 37-57 & 300 & 015 & 2018		
	Parcel Number(s) 3M000B00040		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner Coeur Alaska	Contact Person Kevin Eppers	
	Mailing Address 3031 Clinton Dr., Juneau, AK 99801	Phone Number(s) 907-523-3328; 907-209-6805	
	E-mail Address keppers@coeur.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X <u>Kevin Eppers</u> Landowner/Lessee Signature		<u>10-11-2021</u> Date	
X _____ Landowner/Lessee Signature		_____ Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME"			
Applicant Same	Contact Person		
Mailing Address	Phone Number(s)		
E-mail Address			
X <u>Kevin Eppers</u> Applicant's Signature		<u>10-11-2021</u> Date of Application	

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

Attachment A - Application Packet

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials <u>Bme</u>
Case Number <u>MSM21-01</u>
Date Received <u>11/16/21</u>

RURAL MINING DISTRICT PERMIT APPLICATION

Project Number	Project Name (15 characters)	Case Number MSM 21-01.	Date Received 11/16/21
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LOCATION OF PROPOSED MINE:

Kensington Mine, located approx 45 miles north-northwest of Juneau.

WILL THE PROPOSED MINING ACTIVITIES HAVE IMPACTS ON THE MINING AND EXPLORATION EXCLUSION DISTRICT? ☐ Yes ☒ No

IMPACTS:

DESCRIPTION OF ACTIVITY WHICH REQUIRES A MINING PERMIT:

Coeur Alaska requests summary approval of the proposed Plan of Operations Amendment 1 (POA 1) under the City and Borough of Juneau's mining ordinance.
See attached project description.

PREVIOUS EXPLORATION NOTICES AND/OR MINING PERMITS? ☒ Yes ☐ No

Previous Case Number(s), if known:

UNIQUE CHARACTERISTICS OF LAND OR BUILDING(S):

The mine is accessible only by floatplane, helicopter, or boat.

WHAT IS THE TOTAL AREA TO BE DISTURBED? Approx 184 acres

HAS A FINANCIAL WARRANTY BEEN ESTABLISHED? ☐ Yes ☐ No

AMOUNT \$ **WARRANTY HOLDER**

CONTACT INFORMATION OF WARRANTY HOLDER:

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

RURAL MINING DISTRICT PERMIT FEE

	Fees	Check No.	Receipt	Date
Application Fees	\$ 1,600			
Adjustment	\$			
Pub. Not. Sign Fee	\$ 100			
Pub. Not. Sign Deposit	\$ 50			
Total Fee	\$ 1,750			

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM

Attachment A - Application Packet

Rural Mining District Permit Application Instructions

Applications for mines within the Rural Mining District are reviewed in accordance with the Allowable Use permit procedure by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications and not duplicate reviews done by other state agencies, federal agencies, or both. The Commission may stipulate conditions pursuant to CBJ49.15.320(f)(1)-(8) and that relate to traffic, lighting, safety, noise, dust, visual screening, surface subsidence, avalanches, landslides, and erosion. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application: An application for a Rural Mining District Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed Rural Mining District Permit Application and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

Fees: The fee for a Rural Mining District Permit is dependent upon class of the proposed use, which is determined by the square feet of building space or the disturbed area of land. The Land Use fees for rural mines generally range from \$1,200 to \$3,600. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.

Project Description: A detailed letter or narrative describing the project.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

- A. Site plan, floor plan and elevation views of existing and proposed structures;
- B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
- C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
- D. Existing and proposed lighting (including cut sheets for each type of lighting);
- E. Existing and proposed vegetation with location, area, height and type of plantings;
- F. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.); and
- G. Copies of any permits, notices of intent, or operating plans filed with any federal or state agency.

Supporting Documentation: The following items may be included with the application as supporting documentation, but are not required for this review of a Rural Mining District Permit application:

- A. A socioeconomic impact assessment; and
- B. Copies of studies evaluating the impacts of the proposed mine (i.e. Environmental Impact Statements, etc.).

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

- A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
- B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Please consult with the Community Development Department to discuss whether additional information may be required for your application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. During this review period, the Community Development Department also sends all applications out for a 15-day agency review period. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All Allowable Use Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting.

Public Notice Responsibilities: As part of the Allowable Use permitting process, all permit requests must be given proper public notice, which consists of the following:

Community Development Department: Will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the Department will mail abutters notices to all property owners within 500-feet of the project site.

Applicant: Will post a sign on the site at least 14-days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by the Department. Signs may be produced by the Community Development Department for a preparation fee of \$50, and a \$100 deposit that will be refunded in full if the sign is returned by 4:30 p.m. on the Monday following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, \$50.00 may be refunded. The applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED



Teri Camery, Senior Planner, CFM
 Community Development Department
 City & Borough of Juneau
 230 S. Franklin Street
 Juneau, Alaska 99801
Teri.Camery@juneau.org

November 8, 2021

**RE: CBJ Rural Mining District Permit Application
 Plan of Operations Amendment 1 for the Kensington Mine**

Dear Teri,

Coeur Alaska is requesting summary approval of the proposed Kensington Mine Plan of Operations Amendment 1 (POA 1) under the City and Borough of Juneau (CBJ) mining ordinance. We believe our application meets the requirements for summary approval per CBJ Code 49.65.170 (b)(2) as follows:

- The mine and all components of POA 1 are located entirely outside the roaded service area established in CBJ 01.30.320, approximately 45 miles north northwest of Juneau.
- POA 1 will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.
- POA 1 will not result in expanded employment at the mine, and the daily marine commute schedule will remain unchanged.
- POA 1 has been the subject of a National Environmental Policy Act (NEPA) review that was led by the United States Forest Service (USFS) and involved multiple federal and state agencies as well as the CBJ as cooperating agencies. The Final Supplemental Environmental Impact Statement (FSEIS) and Draft Record of Decision (ROD) were released on June 29, 2021. Links to online copies of the draft ROD and FSEIS were sent to CBJ on August 23, 2021. POA 1 can be viewed on the USFS project website: https://www.fs.usda.gov/nfs/11558/www/nepa/110916_FSPLT3_4667427.pdf

CBJ staff attended a site visit to the mine with other agency personnel in 2019. Coeur held a pre-application meeting with CBJ staff on September 15, 2021.

Prior to the start of POA 1 construction activities, POA 1 will require several additional permits including a US Army Corps of Engineers (USACE) Clean Water Act Section 404 permit and a State of Alaska Department of Environmental Conservation (ADEC) Waste Management Permit. Coeur Alaska has submitted applications for each of these and the agencies are currently processing the permits. The 404 permit public notice can be viewed on the USACE website: <https://www.poa.usace.army.mil/LinkClick.aspx?fileticket=Zq08H-H4wec%3d&portalid=34>.

To support this request, we are also submitting the following materials:

1. CBJ Rural Mining District Permit Application Form and \$1750 fee payment
2. CBJ Development Permit Application Form
3. Project Description
4. Figures 1-6
5. Kensington Mine Overview photo

Thank you for our consideration,

A handwritten signature in black ink that reads "Kevin Eppers".

Kevin Eppers, Environmental Manager
 Coeur Alaska, Inc.
 3031 Clinton Drive, Suite 202
 Juneau, Alaska 99801
keppers@coeur.com

Attachment A - Application Packet

Kensington Mine Plan of Operations Amendment 1

Project Description

Coeur Alaska's Kensington Mine (Mine) is located at the southern end of the Kakuhan Range off the coastal mountains in the Tongass National Forest on the small peninsula formed between Lynn Canal and Berners Bay (Figure 1). The Mine is located approximately 45 air miles northwest of Juneau, 35 air miles south of Haines, Alaska, and within the boundary of the City and Borough of Juneau (CBJ). The Mine is accessible by passenger ferry, cargo barge, floatplane, or helicopter. Coeur Alaska employs approximately 387 people to operate the Mine and process facilities.

The Mine facilities are located in five areas as shown on Figure 1: Jualin, Comet, Slate Lakes, Pit #4, and Slate Cove Marine Terminal. The Jualin area is accessed by the Jualin Road and hosts the process and administrative area. The Comet area is accessed by the Kensington Portal through the main underground tunnel, or by water at Comet Beach via the Lynn Canal. The Slate Lakes area consists of the Tailings Treatment Facility (TTF) dam and resulting impoundment. The TTF facilities and access road are connected to the Jualin Road on the west side of Johnson Creek. The Pit #4 area is located in the Johnson Creek drainage and is accessed by the Jualin Road. The Slate Cove Marine Terminal is located off Berners Bay. The marine terminal serves to accommodate the daily ferry services for employees, delivery of supplies barged to the Mine, and also supports concentrate shipment.

Coeur Alaska's underground mining operations at the Mine began in 2010 and the current gold production rate is approximately 125,000 ounces of gold per year. Production has historically averaged approximately 1,800 tons of ore daily (650,000 tons per year) and 800 tons of waste rock per day (300,000 tons on an annual basis).

The existing mill is a conventional flotation circuit and the resulting concentrate is shipped off site for processing. The current permitted mill processing rate is 2,000 tons per day (tpd). Approximately 40 percent (800 tpd) of the mill tailings are sent to the underground paste plant for use as underground backfill and the remaining 60 percent (1,200 tpd) is deposited sub-aqueously in the TTF as conventional slurry tailings.

Coeur Alaska operates the Mine in accordance with a Plan of Operations that was approved in 2005. The current remaining life of mine (LOM) is expected through 2023 and the existing TTF has the capacity to store the resultant tailings within the authorized Stage 3 facility.

In December 2018, Coeur Alaska proposed Plan of Operations Amendment 1 (POA 1) to extend the life of the mine a minimum of 10 years to 2033, and would consist of the following components:

- Raising the TTF dam by 36 feet (Stage 4) and constructing a 40-foot-high Back Dam between the TTF and Upper Slate Lake (both the Stage 4 and Back Dam are subject to dam safety approval) (Figure 2), which would increase tailings disposal capacity to 8.5 million tons, an increase of 4.0 million tons;
- Continue to backfill approximately 40 percent of the total tailings produced;

- Relocating components of the seepage collection system (sumps, access road, power line, pipelines, and stormwater diversion channels);
- Expanding the size of the existing Kensington (Figure 3), Pit #4 (Figure 4), and Comet Waste Rock Storage (WRS) facilities (Figure 5) to provide an additional 2.7 million tons of capacity;
- Constructing a new Pipeline Road WRS (Figure 6) area to accommodate a 2.3-million-ton capacity;
- Increasing the mill throughput rate from 2,000 to 3,000 tpd;
- Enhancing Dolly Varden char spawning habitat by constructing two deltas, constructing a new stream channel to reroute Fat Rat Creek into South Creek, constructing approximately 0.6 miles (3.1 acres) of new temporary access roads to access the two proposed deltas (0.3 acres and 0.5 acres) that would be constructed as part of the proposed fish enhancement, and replacing three culverts to provide fish passage (Figure 2); and
- Constructing 1.75 miles of new access road (Spillway, Back Dam, Fat Rat Diversion, and Upper Slate Creek Delta Access Roads) (Figure 2). The proposed amendment would generate 184 acres of additional disturbance of which approximately 128 acres are located on National Forest Service lands.

Table 1. Land Ownership status and legal descriptions of the POA 1 Components

POA 1 Component	Land Ownership	Geographic Coordinates (Decimal Degrees, WGS 84); Range, Township, Section (Copper River Meridian)
Stage 4 Tailings Treatment Facility Expansion	USFS	N58.831, W135.042 Range 62E, Township 35S, Sections 22, 23, 26, and 27
Kensington WRS Expansion	USFS	N58.849, W135.052 Range 62E, Township 35S, Section 10
Pit #4 WRS Expansion	USFS/Private	N58.831, W135.033 Range 62E, Township 35S, Section 14
Comet WRS Expansion	USFS	N58.865, W135.102 Range 62E, Township 35S, Section 5
Comet Portal Topsoil Stockpile	USFS/Private	N58.867, W135.107 Range 62E, Township 35S, Section 5
Pipeline Road WRS	Private	N58.84, W135.049 Range 62E, Township 35S, Sections 10 and 15

Note: TTF = tailings treatment facility; USFS = U.S. Forest Service; WRS = waste rock stockpile

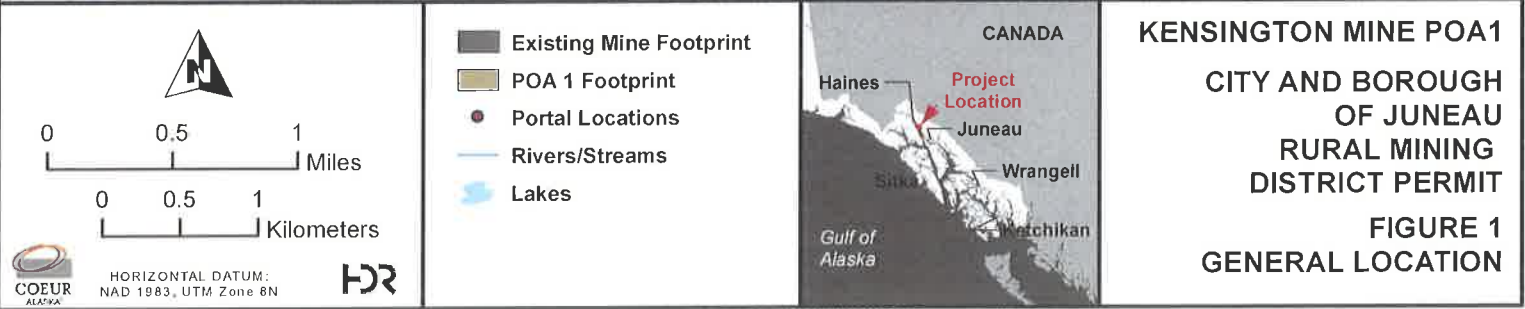
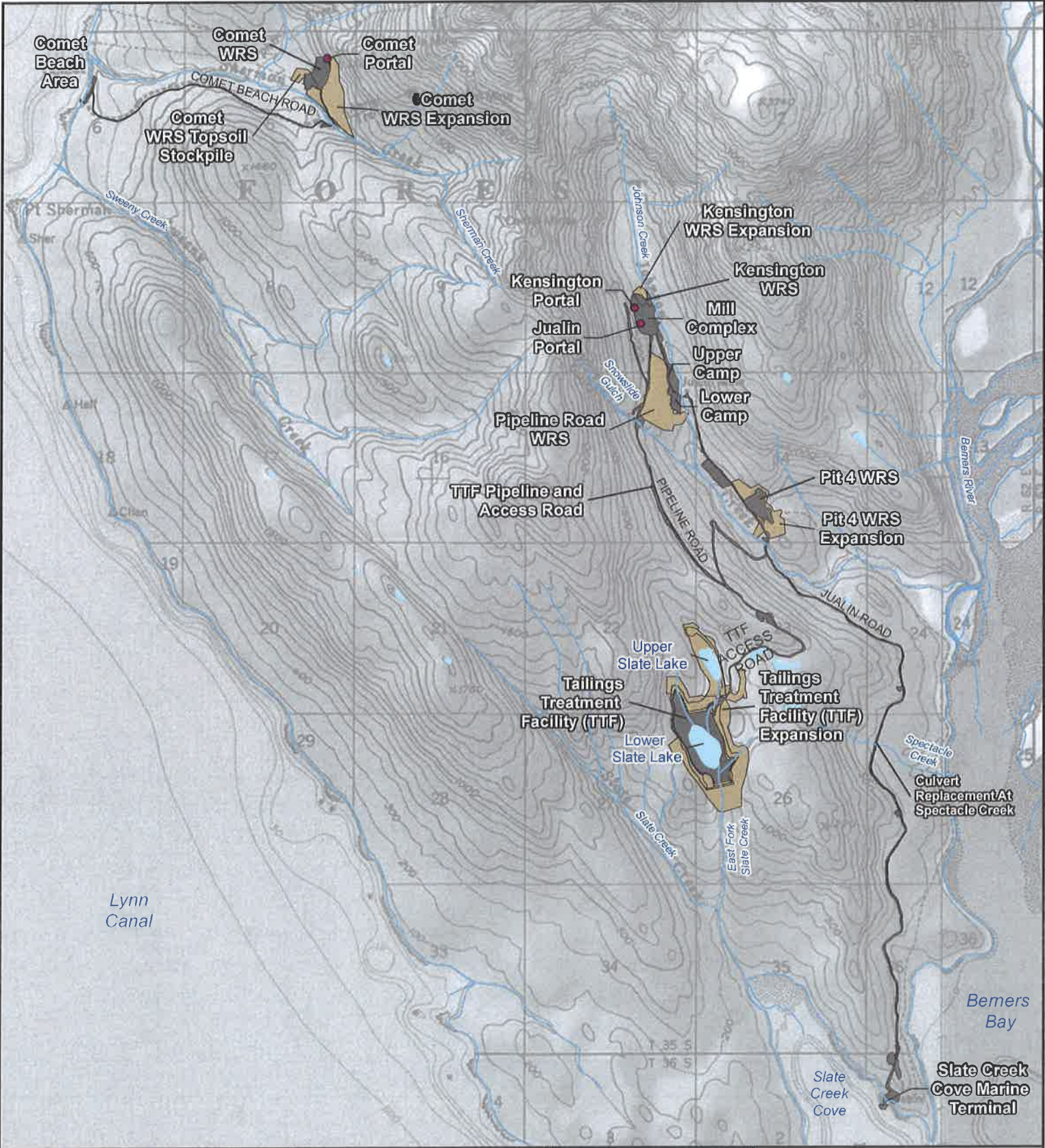
The USFS released the Final Supplemental Environmental Impact Statement (FSEIS) and Draft Record of Decision (ROD) on June 29, 2021. The project record for the NEPA process, including the draft ROD and FSEIS may be found on the USFS website here: www.fs.usda.gov/project/?project=55533

A summary of potential permits required for POA 1 is provided in Table 2.

Table 2. Potential POA 1 Permits

Permit	Agency	Status	Description
POA 1 Approval	USFS	Agency preparing Final Record of Decision	Required for mining on NFS land.
CWA Section 404 Permit	USACE	Agency processing application	Required for discharge of fill into waters of the US.
CWA 401 Water Quality Certification	ADEC	Certification issued by agency	Required for issuance of CWA 404 permit
Waste Management Permit	ADEC	Agency processing application	Required for management of mining-related waste.
Dam Safety Permit	ADNR	Application development in progress	Required for construction, modification, repair, removal, or abandonment of dams.
Fish Habitat Permits	ADFG	Application development in progress	Required for activities in waterbodies that support anadromous fish
Rural Mining District Permit	CBJ	Application development in progress	Required for mines within the Rural Mining District

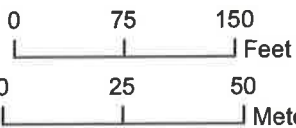
Note: CWA = Clean Water Act; USACE = United States Army Corps of Engineers; USFS = U.S. Forest Service; NFS = National Forest Service; ADEC = Alaska Department of Environmental Conservation; ADNR = Alaska Department of Natural Resources; ADFG = Alaska Department of Fish and Game; CBJ = City and Borough of Juneau

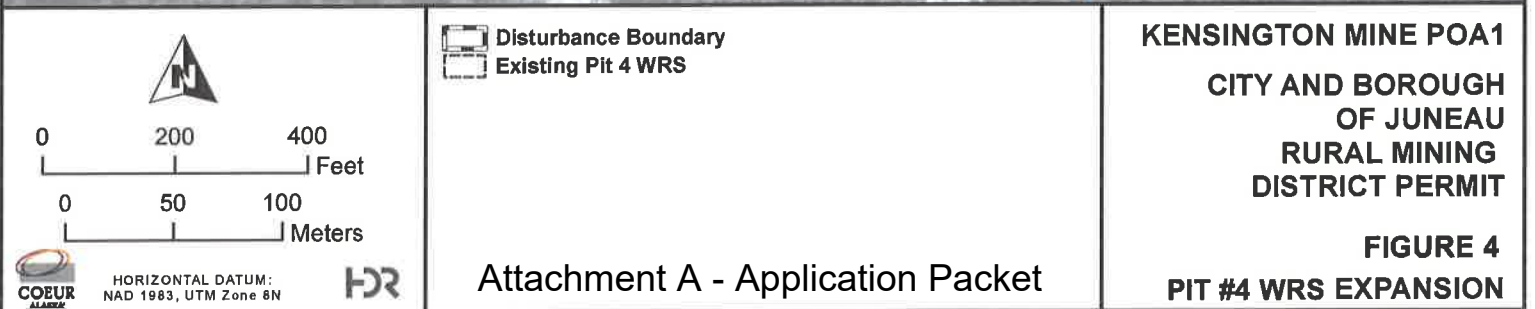


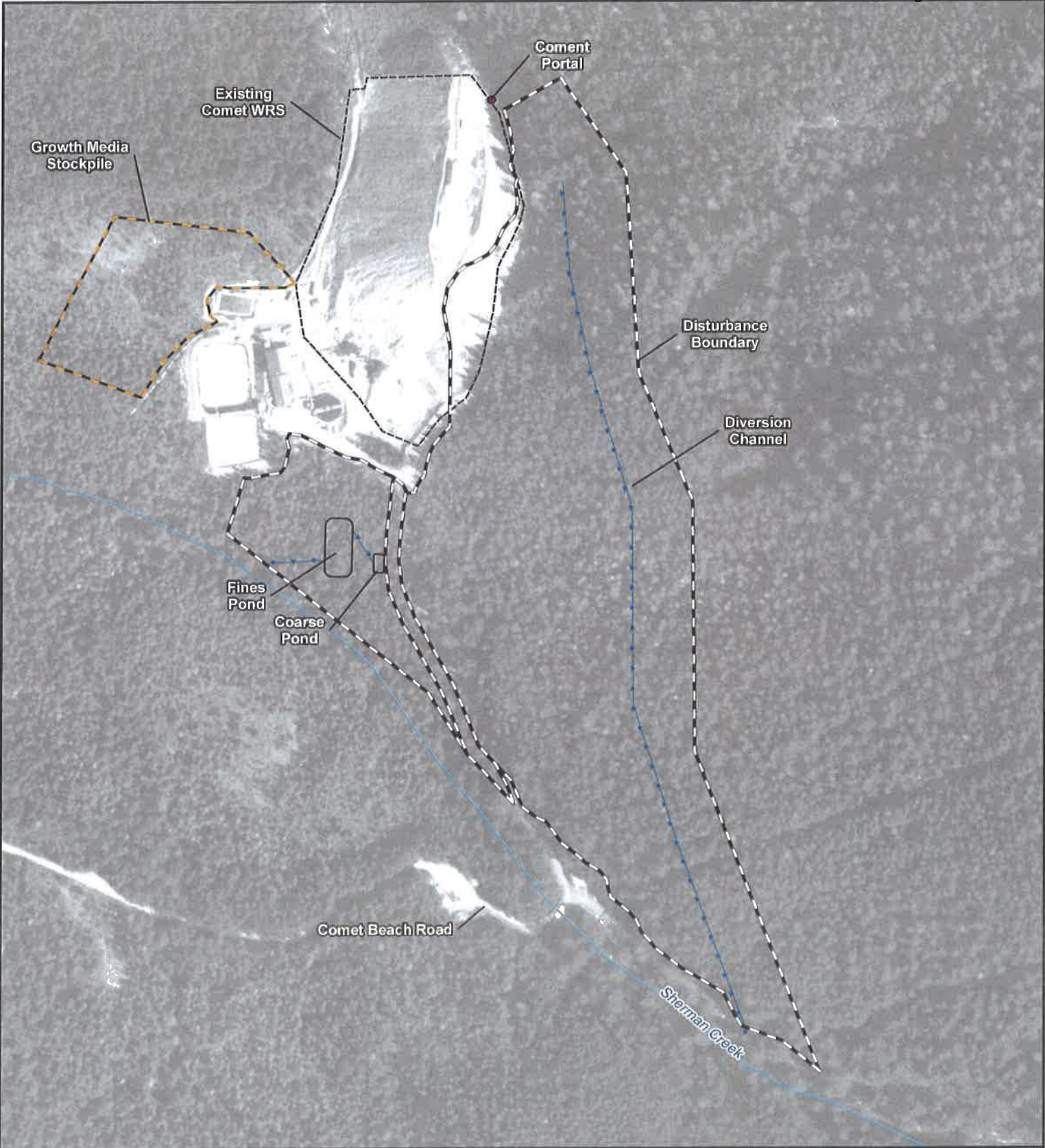


 0 500 1,000 Feet 0 150 300 Meters COEUR ALASKA HORIZONTAL DATUM: NAD 1983, UTM Zone 6N 	 Disturbance Area  Proposed Features  Stage 3 Post-Closure Water Limit  Stage 4 Post-Closure Water Limit  Fat Rat Creek Diversion Attachment A - Application Packet	KENSINGTON MINE POA1 CITY AND BOROUGH OF JUNEAU RURAL MINING DISTRICT PERMIT FIGURE 2 STAGE 4 DAM RAISE AND TTF EXPANSION
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   HORIZONTAL DATUM: NAD 1983, UTM Zone 8N 	 Disturbance Boundary  Existing WRS Outline  Portal Locations Attachment A - Application Packet	KENSINGTON MINE POA1 CITY AND BOROUGH OF JUNEAU RURAL MINING DISTRICT PERMIT FIGURE 3 KENSINGTON WRS EXPANSION
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0 200 400 Feet 0 50 100 Meters HORIZONTAL DATUM: NAD 1983, UTM Zone 8N	- Disturbance Boundary - Growth Media Stockpile, Proposed - Existing WRS Outline - Proposed Channel - Portal Locations
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Attachment A - Application Packet

PATH: \\RANC-SRV04\PROJECT_SAM\009229 COEUR ALASKA\10168061 COEUR AK_POA1_ENVSUP\7.2\WPMAP_DOCS\PERMIT_CBJ_LARGEMINE\KEN_FROD_COMET_WRS.MXD - USER: TJULLY - DATE: 10/21/2021



0 250 500 Feet 0 50 100 Meters HORIZONTAL DATUM: NAD 1983, UTM Zone 8N	Disturbance Boundary Proposed Channel Attachment A - Application Packet	KENSINGTON MINE POA1 CITY AND BOROUGH OF JUNEAU RURAL MINING DISTRICT PERMIT FIGURE 6 PIPELINE ROAD WRS
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> Kensington Mine Overview





(907) 586-0715
 CDD_Admin@juneau.org
 www.juneau.org/CDD
 155 S. Seward Street • Juneau, AK 99801

Kensington Mine Plan of Operations Amendment

Case Number: PAC2021 0060

Applicant: Amy Ostman, HDR Inc.

Property Owner: Couer Alaska Inc.

Property Address: Kensington Mine Site

Parcel Code Number: 3M000BB00040

Site Size: 743.74 acres

Zoning: Rural Reserve

Existing Land Use: Mine

Conference Date: September 15, 2021

Report Issued: September 15, 2021

DISCLAIMER: Pre-application conferences are conducted for purposes of providing applicants with a preliminary review of a project and timeline. Pre-application conferences are not based on a complete application, and are not a guarantee of final project approval.

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Amy Ostman	Applicant	amy.ostman@hdrinc.com
Kevin Eppers	Coeur Alaska	keppers@coeur.com
Teri Camery	Planning	teri.camery@juneau.org

Conference Summary

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Project Overview

The applicant proposes a Plan of Operations Amendment to the existing Kensington Mine. The proposed development has undergone extensive state and federal agency review, culminating in a Supplemental Environmental Impact Statement and Draft Record of Decision from the U.S. Forest Service.

The proposed development, as described in the Selected Alternative of the Draft Record of Decision, is described as follows:

Selected Alternative

The Selected Alternative authorizes Coeur Alaska, the project applicant, to construct and operate 1 Kensington Mine, and includes amendments to the approved 2005 Plan Operations to extend the life of the mine for a minimum of 10 years. In addition to the already approved operations, the Selected Alternative would extend the mine life a minimum of 10 years or to approximately 2033 and will result in the following:

- Raising the Tailings Treatment Facility dam by 36 feet (Stage 4) and constructing a 40-foot high Back Dam between the Tailings Treatment Facility and Upper Slate Lake (both the Stage 4 and Back Dam are subject to dam safety approval), which would increase tailings disposal capacity to 8.5 million tons, an increase of 4.0 million tons;

- Continue to backfill approximately 40 percent of the total tailings produced, consistent with the No Action alternative;
- Relocating components of the seepage collection system (sumps, access road, power line pipelines, and stormwater diversion channels);
- Expanding the size of the existing Kensington, Pit #4, and Comet WRS facilities to provide an additional 2.7 million tons of capacity;
- Constructing a new Pipeline Road WRS area to accommodate a 2.3 million ton capacity;
- Increasing the mill throughput rate from 2,000 to 3,000 tons per day. (Note: the Forest Service did not view Coeur Alaska's increase in the mill throughput in their POA 1 request as a production limit because the Forest Service does not regulate mining rates or potential increases;
- Enhancing Dolly Varden char spawning habitat by constructing two deltas, constructing a stream channel to reroute Fat Rat Creek into South Creek, constructing approximately 0.3 (3.1 acres) of new temporary access roads to access the two proposed deltas (0.3 acres a delta) that would be constructed as part of the proposed fish enhancement, and replacing culverts to provide fish passage; and
- Constructing 1.75 miles of new access road (Spillway, Back Dam, Fat Rat Diversion, and Upper Slate Creek Delta Access Roads).

The Selected Alternative would generate 184 acres of additional disturbance of which approximately 128 acres are located on NFS lands. The Selected Alternative disturbance footprints are displayed in Figures 2.3-2 through Figure 2.3-10 and Table 2.3-1 in the FSEIS, which show the acres of disturbance by facility, including land ownership.

The CBJ Land Use Code mining regulations are listed in 49.65.100, Exploration and Mining. The Community Development Department has determined that Section 49.65.170, Technical revisions, summary approval, and amendments applies to the proposed development. Specifically, the development qualifies for the Summary Approval review process described in CBJ 65.170(b)(2)(A) because the development is outside of the roaded service area, has no significant impact within the roaded service area, and has undergone environmental review by one or more federal agencies.

The summary approval process requires approval by the CBJ Planning Commission at a scheduled public hearing. A Rural Large Mine Permit is required, with a note on the application form about Summary Approval. The application information should include a project narrative with a summary of the proposed development, project purpose, a description of the agency and public review process, current status of the review and state and federal permits, and weblinks to final environmental review documents. In the project narrative please also note whether the development will result in increased employment and/or traffic impacts on the Juneau road system. In addition to the project narrative,

Pre-Application Conference Final Report

please include site plans and area drawings. The drawings and imagery that was provided at the pre-application meeting would be very helpful.

Please send the completed application to permits@juneau.org, and cc me, Teri Camery, at teri.camery@juneau.org. Please allow approximately 3-4 months for final approval by the Planning Commission after the Department receives a complete application.

Planning Division

1. **Zoning** – Rural Reserve
2. **Setbacks** – 25' front; 25' rear; 15' sides; no setback from tidewater
3. **Height** – 45' for both permissible and accessory uses
4. **Access** – Lynn Canal and Berners Bay
5. **Lot Coverage** – 10 percent permissible uses; 20 percent conditional uses
6. **Vegetative Coverage** – The minimum vegetative cover requirement for the Rural Reserve zoning district is zero.
7. **Lighting** – The development has an approved Large Mine Permit. Lighting will be addressed through the Summary Approval process if necessary.
8. **Noise** – The development has an approved Large Mine Permit. Additional noise impacts will be addressed through the Summary Approval process if necessary.
9. **Flood** – The proposed development is not within a mapped or known floodplain.
10. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – The proposed development is not within a mapped hazard area.
11. **Wetlands** – Wetland impacts have been noted in the Supplemental EIS
12. **Habitat** – Check with the U.S. Fish and Wildlife on the presence of eagle nests in the area. The presence of eagle nests may impact construction scheduling. No anadromous waterbodies are on the subject parcel, or within 50 feet.
13. **Nonconforming situations** – There are no known nonconforming situations on the parcel.

Building Division

14. **Building** – The CDD Building Official has confirmed that no building permits are required for the work as proposed. In the pre-application meeting the applicant noted that the wastewater treatment plant will need to be moved in approximately 2030 as part of the waste rock expansion. A building permit will be required at that time.
15. **Outstanding Permits** – n/a

General Engineering/Public Works

16. **Engineering** – n/a
17. **Drainage** – n/a
18. **Utilities** – n/a

Fire Marshal

Pre-Application Conference Final Report

19. Fire Items/Access – n/a

Other Applicable Agency Review

20. n/a

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. Development Permit Application. This form is available at the following link, fourth one from the top:
[CDD – Documents – City and Borough of Juneau](#)
2. Rural Large Mine Permit Application (In the application form narrative space, note Summary Approval process.) This form is attached.

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.

Exceptions to Submittal Requirements

Submittal requirements staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

1. n/a

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Mining summary approval for an unenclosed industrial use using three or more acres of land: \$1600.00
2. Public Notice Sign. \$150 with \$100 refundable sign deposit.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/cdd.

Submit your Completed Application

Please submit your application(s) in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Web: www.juneau.org/cdd

Or on-line to permits@juneau.org, and we will call you for payment.

Pre-Application Conference Final Report

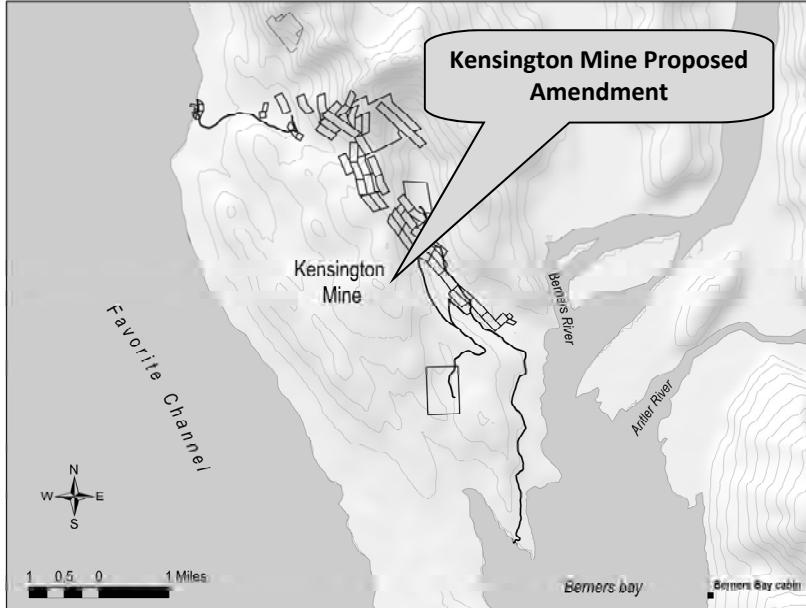
Attachments:

49.65.170 Mining

Rural Large Mine Permit application

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for a **Kensington Mine plan of operation amendment at Kensington Mine in a Rural Reserve Zone.**

TIMELINE

Staff Report expected to be posted January 31, 2022, at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Jan. 18

Comments received during this period will be sent to the Planner, **Teri Camery**, to be included as an attachment in the staff report.

Jan. 19 — noon, Feb. 4

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Feb. 8, 2022

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/82676484943> . The Webinar ID is: 826 7648 4943 . To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

Feb. 9

The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed January 13, 2022

Case No.: MSM2021 0001
Parcel No.: 3M000BB00040
CBJ Parcel Viewer: <http://epv.juneau.org>

AMALGA HARBOR
LAUNCHING RAMP

OPERATED & MAINTAINED BY
CITY & BOROUGH OF JUNEAU

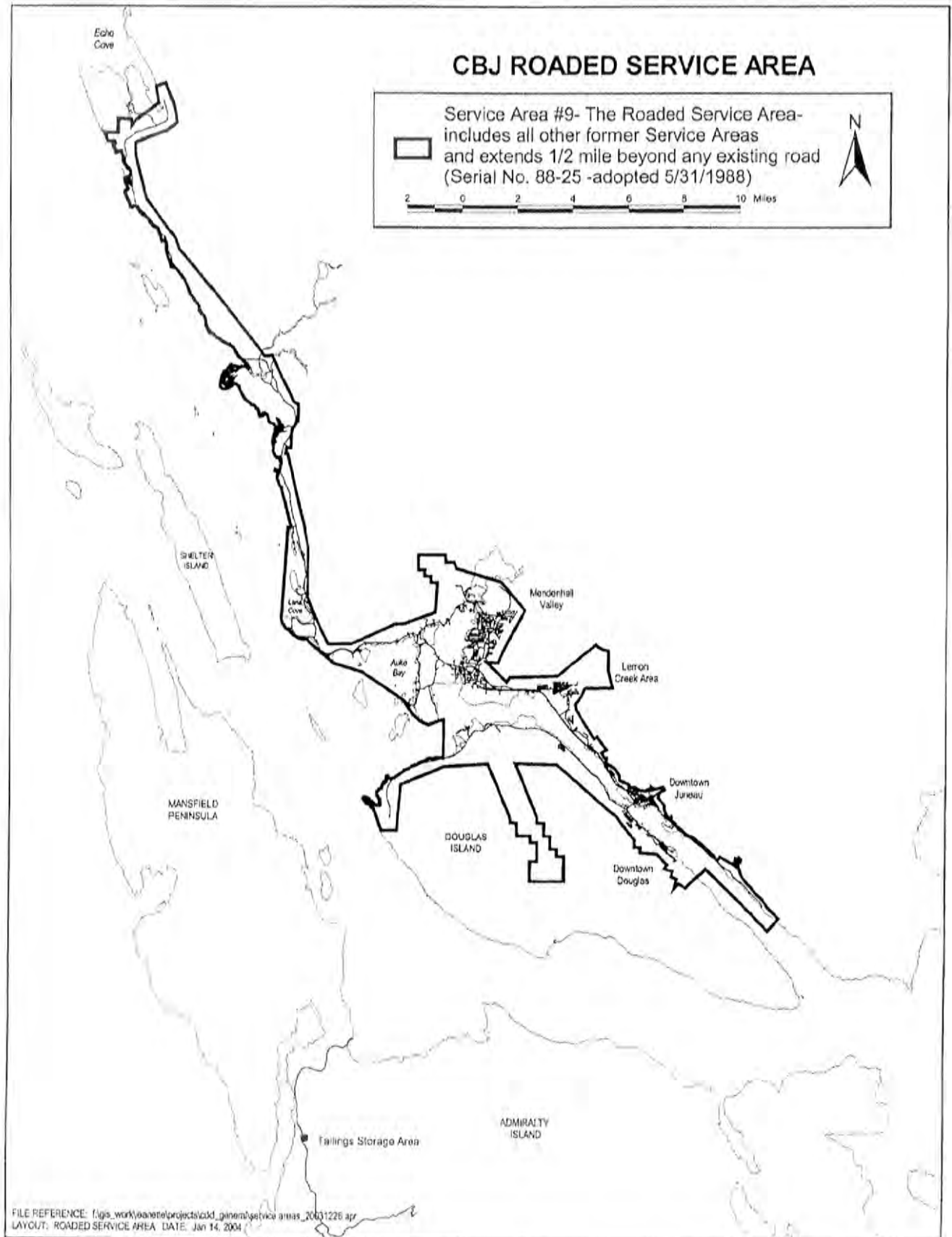
PUBLIC NOTICE

**KENSINGTON MINE
PLAN OF
OPERATION AMENDMENT**
Case: MSM20210001
HEARING DATE: 2/8/2022

TO SUBMIT COMMENTS OR OBTAIN ADDITIONAL
INFORMATION, CONTACT THE
DEVELOPMENT DEPARTMENT AT THE MARINE
CENTER BY CALLING 586-0715







1. 49.65.155 (b)(2)(A)(iii). *The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion.*

Requirement	Proposed change	Reference location	Impact on roaded service area
Habitat	POA 1 would affect wildlife and fish habitat in the project area through the construction of POA 1 components. Fish habitat enhancement will be completed to mitigate for losses of fish habitat. Three culverts in mine site roads will be replaced for fish habitat mitigation.	Sections 2.3.3 (p. 2-34), 3.5.3.2 (p. 3-67), and 3.7.3.2 (p. 3-95) of FSEIS. Draft ROD (p. 4, 6, and 11).	None
Sound (Noise)	Noise effects from POA 1 will be similar to effects of existing noise and noise caused during initial construction.	Section 3.7.3.2 (p. 3-95) of FSEIS.	None
Screening	The Pipeline Road WRS would be partially visible from the Berners Bay Cabin. The Comet WRS expansion would be visible from Lynn Canal.	Section 3.11.3.3 (p. 3-124) of the FSEIS.	None
Drainage	No change.	Sections 3.3.2 (p. 3-19), 3.3.2.1 (p. 3-20), and 2.2.5 (p. 2-11) of FSEIS.	None
Traffic	POA 1 would extend the life of mine for at least another 10 years. Therefore duration of current level of traffic would be extended.	Table 3.1-1 (p.3-2) and Sections 3.7.3.2 (p. 3-98) and 2.2.5 (p. 2-10) of FSEIS.	None
Lighting	Lighting will be implemented to the level needed to ensure safe working conditions. The effects would be similar to the effects of the initial construction lighting and existing operations lighting.	Section 3.7.3.2 (p. 3-95) of FSEIS.	None
Safety	Dam safety issues for the POA 1 Stage 4 dam raise would be similar to those for Stage 3.	Section 3.2.4.2 (p. 3-12), and Table 2.7-3 (p. 2-60) of FSEIS.	None
Dust	No change. Fugitive dust will continue to be controlled.	Section 2.2.8.9 (p. 2-18) of FSEIS.	None
Surface subsidence	No change. POA 1 involves surface impacts only.	See comment and USFS response in Appendix A (p. A-60-61)	None
Avalanches	No change. Avalanche risk would remain the same.	Sections 3.2.3.2 (p. 3-8), and 3.12.3.1 (p. 3-129) of FSEIS.	None
Landslides	No change. Landslide risk would not change due to POA 1.	Sections 3.2.3.2 (p. 3-8), and 3.12.3.1 (p. 3-129) of FSEIS.	None
Erosion	Erosion effects from POA 1 construction will be similar to effects during initial construction.	Sections 2.2.5 (p. 2-11), 3.8.3.2 (p. 3-101), 3.8.3.3 (p. 3-101) of FSEIS.	None



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

February 14, 2022

File No.: MSM2021 0001

Coeur Alaska
Attn: Kevin Eppers
3031 Clinton Drive
Juneau, AK 99801
Via email keppers@couer.com

Proposal: A Summary Approval plan of operations amendment for the Kensington Mine

Property Address: Kensington Mine

Legal Description: USMS 59 & 37-57 & 300 & 015 & 2018

Parcel Code No.: 3M000BB00040

Hearing Date: February 8, 2022

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated February 1, 2022, and approved the Summary Approval plan of operations amendment for the Kensington Mine to be conducted as described in the project description and project drawings submitted with the application.

Attachments: February 1, 2022, memorandum from Teri Camery, Community Development, to the CBJ Planning Commission regarding MSM20210001

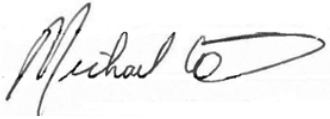
This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

Coeur Alaska
File No.: MSM2021 0001
February 14, 2022
Page 2 of 2

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, February 8, 2022.

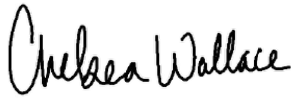
Expiration Date: The permit will expire 18 months after the effective date, or August 8, 2023, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.



Michael Levine, Chair
Planning Commission

February 17, 2022

Date



Filed With City Clerk

February 17, 2022

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

**PLANNING COMMISSION AGENDA
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

CSP2021 0007: Reconstruction of Harris Street starting at Harris and Fourth Street to the Gold and Seventh Street intersection - NOTICE GIVEN FOR RECONSIDERATION

AGENDA ITEM:

Case No.: CSP2021 0007

Applicant: City & Borough of Juneau

Location: Harris Street

Proposal: Reconstruction of Harris Street starting at Harris and Fourth Street to the Gold and Seventh Street intersection

RECOMMENDATION:

Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of APPROVAL to the CBJ Assembly for the reconstruction of Harris Street starting at Harris and Fourth to the Gold and Seventh Street intersection.

ATTACHMENTS:

Description	Upload Date	Type
☐ Staff Report for CSP2021 0007	2/2/2022	Staff Report
☐ Presentation for CSP2021 0007	2/9/2022	Presentation
☐ Notice of Recommendation for CSP2021 0007	2/17/2022	Notice of Recommendation



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD

155 S. Seward Street • Juneau, AK 99801

DATE: February 2, 2022
TO: Michael LeVine, Chair, Planning Commission
BY: Joseph Meyers, Planner 
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: Applicant requests a City Project Review for reconstruction of Harris Street starting at Harris and Fourth Street to the Seventh and Gold Street intersections to include replacement of road base, pavement, curb, and gutter, existing sidewalks, and water and sewer utilities.

STAFF RECOMMENDATION: Approval

KEY CONSIDERATIONS FOR REVIEW:

- This is a replacement-in-kind of Harris Street
- The project separates the combined sewer facilities and reconstructs degrading curbs, sidewalks, road bed, and utilities
- The road has not been upgraded for approximately 50 years
- Approval will require a Waiver to Road Construction Standards
- The project is in compliance with Title 49 and the Comprehensive Plan

GENERAL INFORMATION	
Property Owner	City and Borough of Juneau
Applicant	City and Borough of Juneau Engineering
Property Address	Harris Street from Fourth Street to Seventh Street; Seventh Street from Harris Street to Gold Street
Legal Description	Harris Street from Fourth Street to Seventh Street; Seventh Street from Harris Street to Gold Street
Parcel Number	0 (N/A)
Zoning	D18 and Mixed Use
Land Use Designation	MDR and TTC
Lot Size	N/A
Water/Sewer	CBJ
Access	Harris Street/Seventh Street/Fourth Street
Existing Land Use	Right-of-way
Associated Applications	N/A

ALTERNATIVE ACTIONS:

1. **Amend:** amend the recommendation to include conditions and recommend approval to the Assembly.
2. **Deny:** recommend denial of the proposed project. Planning Commission must make its own findings.
3. **Continue:** continue the hearing to a later date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

A Notice of Recommendation will be forwarded to the Assembly for further action.

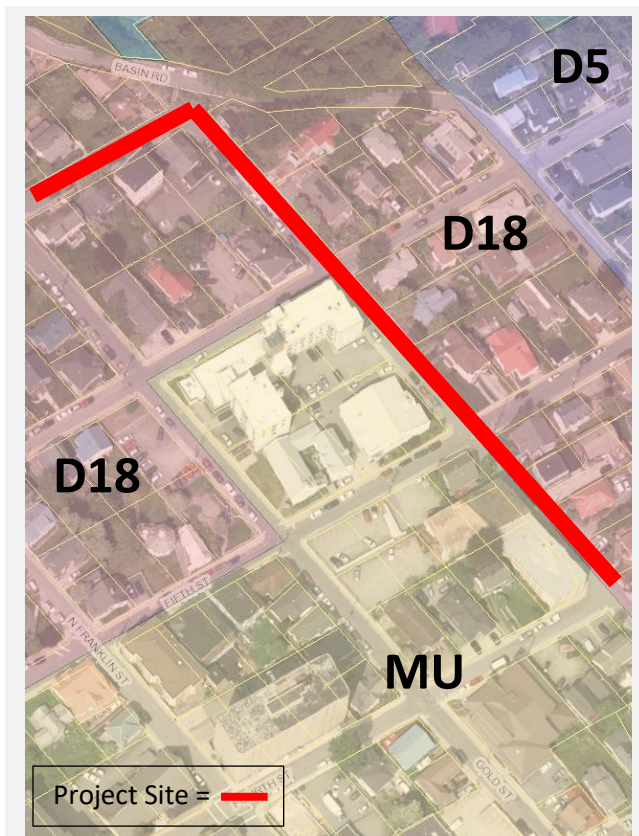
STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - 49.15.580(a)
 - 49.80

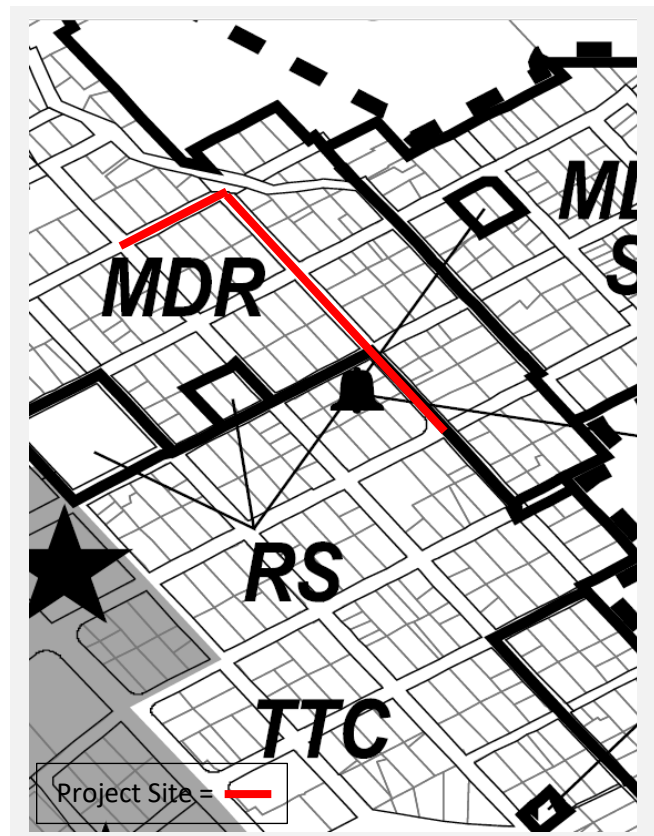
The Commission shall hear and decide the case per CBJ 49.15.580(a) - CBJ Project Review: *The commission shall review all proposed City and Borough capital improvement projects estimated to cost \$500,000 or more for consistency with this title. The commission may review, at the director's discretion, all proposed City and Borough capital projects estimated to cost more than \$250,000 but less than \$500,000. The commission may recommend conditions on and modifications to any project reviewed by the commission through a notice of recommendation. The notice of recommendation shall be forwarded to the assembly for further action.*

CBJ 49.10.170(c) Planning Commission Duties: *The commission shall review and make recommendations to the assembly on land acquisitions and disposals as prescribed by Title 53, or capital improvement project by any City and Borough agency. The report and recommendation of the commission shall be based upon the provisions of this title, the comprehensive plan, and the capital improvements program.*

CURRENT ZONING MAP



LAND USE DESIGNATION MAP



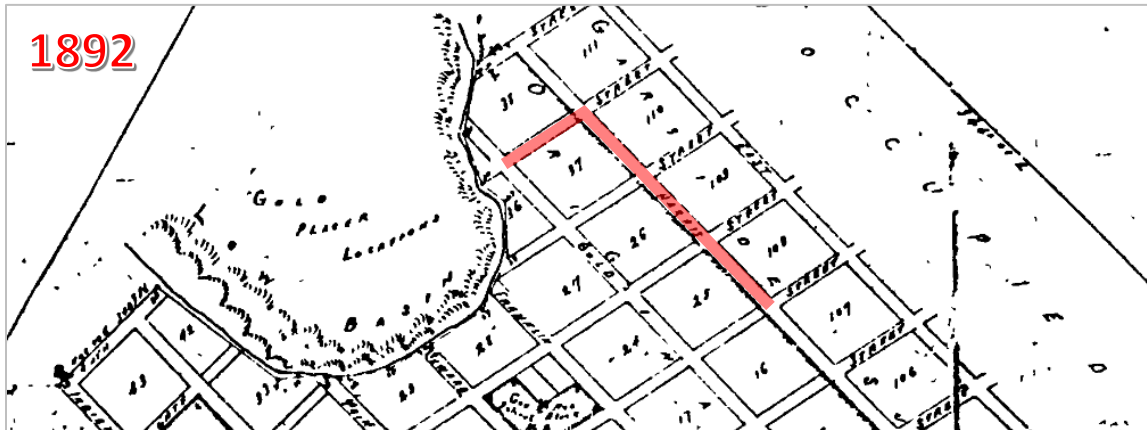
SURROUNDING LAND USES AND ZONING

Direction	Zoning District	Land Use
Seventh Street (between Harris and Gold Streets)	D18	MDR
Harris Street (between Fifth and Seventh Streets)	D18 (NE)/MU(SW)	MDR
Harris Street (between Fourth and Fifth Streets)	MU	TTC (SW); MDR (NE)

BACKGROUND INFORMATION

Project Description – The applicant proposes replacing the road base material, pavement, concrete sidewalks, concrete curbs and gutters, and underground water and sewer utilities. Most replacements will be in kind, with the exception of the currently combined sanitary and storm sewer system. Sanitary and storm sewers will be separated under the proposed project.

Background – Harris Street dates back to at least 1892 as shown on a map from that time.



According to the applicant, the primary goal of this project is to reconstruct the sewer to separate the sanitary and stormwater systems. This will reduce the load on treatment facilities and reduce outfall of untreated sewage into Gastineau Channel during wet weather events.

This sewer reconstruction serves another practical purpose. Harris Street was originally platted in the Juneau Townsite in 1892. The most recent improvements were completed around fifty years ago and are in need of replacement. According to the applicant, “The pavement, sidewalks, and other utilities are a hodge-podge of patches and original and are generally due to be replaced” (Attachment C). Cross-streets were rebuilt in the 1990’s and 2000’s and are newer with updated infrastructure.

The table below summarizes relevant history for the project and proposed development.

Item	Summary
Site photos	Illustrates road, curb, gutter, and sidewalk existing conditions.
Plat	Plat of Juneau Townsite in 1892.
Plans	Typical sections to determine the width of curbs, roads, and sidewalks and any other utilities and infrastructure.

Current Conditions – Harris Street is currently a patchwork of decades of improvements and repairs. The road bed is fractured, areas of sidewalk are eroded and have been patched with asphalt, there are no clearly defined driving lanes, and the sidewalk network is incomplete.

The current sewer system has exceeded its design life. It also has a combined system for sanitary sewer and storm sewer. This routes all storm runoff through the treatment plant, increasing loads, reducing life span, and increasing costs.

ZONING ANALYSIS

49.05.100 - Purpose and intent. The purpose and Intent of Title 49 Land Use Code is:

- (1) To achieve the goals and objectives, and implement the policies, of the Juneau comprehensive plan, and coastal management program;*
- (2) To ensure that future growth and development in the City and Borough is in accord with the values of its residents;*
- (3) To identify and secure, for present and future residents, the beneficial impacts of growth while minimizing the negative impacts;*
- (4) To ensure that future growth is of the appropriate type, design and location, and is served by a proper range of public services and facilities such as water, sewage, and electrical distribution systems, transportation, schools, parks and other public requirements, and in general to promote public health, safety and general welfare;*
- (5) To provide adequate open space for light and air; and*
- (6) To recognize the economic value of land and encourage its proper and beneficial use.*

Roadway Construction Standard Waivers – Public improvements must meet the standards of 49.35 Table 240 or receive a waiver. This project requires a Planning Commission waiver [CBJ 49.35.2240(i)(4)(B), Roadway construction standards waivers].

Public improvements include any construction incidental to servicing or furnishing facilities to a development.

Harris Street does not meet the standards outlined in 49.35 Table 240 due to the historic nature of the road and neighborhood.

Using the Institute of Transportation Engineers Trip Generation Manual, 9th Edition, Harris Street has an estimated average daily traffic rate (ADT) of approximately 73 daily trips.

The Commission may waive roadway standards if (CBJ 49.35.240(i)(4)(B):

- (i) The existing roadway does not comply with the roadway construction standards identified in Table 49.35.240;**

Table 240 requires 60-foot public right-of-way. Due to geographic constraints and historic development, the right-of-way varies from 29 feet to 33 feet and cannot meet the minimum 60-foot minimum public right-of-way width.

Additionally, one portion of the travel lane on Harris Street is five feet in width and cannot meet the minimum travel way requirement. In areas of Juneau that were developed before the 1950s, modern use has functionally created a two-way, one lane road, where one vehicle may have to pull over so oncoming traffic can pass. This scenario can be observed in the Flats neighborhood.

(ii) There are unique circumstances that make compliance with the requirements of the table unreasonable;

The original road was constructed before 1892 and before the prevalence of the automobile. It has inadequate right-of-way to conform to established modern standards. Structures have been built in a manner that does not provide for acquiring additional land to increase the existing right-of-way.

(iii) The proposed project will not aggravate the intent of the requirements of this chapter; and

The design meets the intent of Title 49, the 2013 Comprehensive Plan, and other adopted plans.

- Reconstructing existing sidewalks, curbs, gutters, and road bed;
- Providing improvements to water and sewer systems, including separating storm and sanitary sewers;
- Improving pedestrian infrastructure and
- Preserving the historic features of downtown when integrating modern standards.

(i) Unique circumstances make compliance with the American Association of State Highway and Transportation Officials' guidelines unreasonable, and the Commission requires sufficient safeguards to protect public health, safety, and welfare under the circumstances.

AASHTO recognizes that practical considerations of the built environment and terrain constrain old roads in urban areas. This often limits available right-of-way [AASHTO Policy on Geometric Design of Highways and Streets, 7th Edition, 2018, page 5-13]. Where available right-of-way imposes severe limitations, nine-foot lanes can be used in residential areas. As noted above, there are areas where the road is functionally a one-lane, two-way road.

Roadway Classification Maps – Harris Street is designated as a local street by the CBJ Roadway Classification Map.

Hazard Areas – Adjacent to moderate hazard areas at the corner of Harris and Seventh Streets, and the corner of Fourth and Harris Streets.

COMMUNITY SERVICES

Service	Summary
Urban Service Boundary	The project is within the existing Urban Service Boundary.
Water/Sewer	Water and sewer are on site and will be replaced as part of this project.
Fire Service Area	The project is within the CCFR Fire Protection Area.
Schools	Discovery Preschool, Harborview Elementary, Juneau Community Charter, and Juneau Douglas High School.
Recreation	Capital School Park, Chicken Yard Park, Cathedral Park, and Cope Park.

ENVIRONMENTAL, CONSERVATION, HISTORIC, AND ARCHEOLOGICAL RESOURCES

The below table summarizes Conservation, Historic, and Archeological Resources which may be affected by the reconstruction of Harris Street.

Resource	Summary
Environmental	Positive impacts to water quality.
Wetlands	No
Anadromous	No
Impaired Waterbodies	No
Historic	Built circa 1892, Harris Street is outside of the Juneau Downtown Historic District. Structures along the route date from 1885 to 1986 with the average structure age in this area being around 86 years.
Archeological	No known.
Comprehensive Plan View sheds	No

CONFORMITY WITH ADOPTED PLANS

2013 COMPREHENSIVE PLAN VISION: *The City and Borough of Juneau is a vibrant State Capital that values the diversity and quality of its natural and built environments, creates a safe and satisfying quality of life for its diverse population, provides quality education and employment for its workers, encourages resident participation in community decisions and provides an environment to foster state-wide leadership.*

2013 COMPREHENSIVE PLAN – The proposed text amendment is in compliance with the 2013 Comprehensive Plan.

Chapter	Page No.	Item	Summary
5	45	IA5.2-IA1(D)	Preserve the visual dominance of historic features when integrating modern standards. The average age of homes along this corridor is 86 years.
7	85	7.7 – SOP1	Coordinate the various Comprehensive Plan sections that affect water quality to ensure that implementing actions protect and maintain surface and groundwater quality.
12	207	12.9	To require improvements to rights-of-way to meet minimum standards for public safety and maintenance, and to ensure that existing rights-of-way are maintained and protected from encroachment so as to facilitate their use in providing access and the provision of urban services.
12	201	12.2 - IA4	Separate sanitary and storm sewer systems.

Juneau Climate Action & Implementation Plan – The proposed text amendment complies with the Juneau Climate Action & Implementation Plan

Chapter	Page No.	Item	Summary
3.3	45	Strategy T8-A	<i>“...Invest in public infrastructure that will support residential development in these areas”.</i>
3.4	47	Strategy UI-B	This goal seeks to minimize greenhouse gas (GHG) emissions from the treatment of wastewater. This project seeks to separate sanitary

Juneau Climate Action & Implementation Plan – The proposed text amendment complies with the Juneau Climate Action & Implementation Plan

and stormwater sewers to limit the amount of wastewater that is being sent to the treatment plant, thereby improving efficiency and mitigating GHG from this process.

AGENCY REVIEW

CDD conducted an agency review comment period between January 11, 2022 and January 25, 2022. Agency review comments can be found in Attachment C.

Agency	Summary
Engineering	“One of the main drivers is the combined sanitary and storm sewer line. The separation of the storm water and wastewater will result in less flow going to the treatment plants. All the cross streets have been reconstructed within the last 20 or so years, while Harris Street (and Seventh) have not seen significant work in a much longer timeframe. The pavement, sidewalks, and other utilities are a hodge-podge of patches and original and are generally due to be replaced.”
CBJ Assessor	No comments received as of the writing of this report.
Streets	No comments received as of the writing of this report.
CCFR	No comments received as of the writing of this report.

PUBLIC COMMENTS

Public notice was sent to property owners within 500 feet of the project and a sign was posted onsite more than two weeks prior to the Planning Commission hearing. No public comments were submitted at the time of writing of this staff report.

FINDINGS

In accordance with CBJ 49.15.580, staff finds the proposed street reconstruction complies with Title 49 Land Use Code and is in general conformity with adopted plans, specifically the adopted 2013 Comprehensive Plan.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of APPROVAL to the CBJ Assembly for the reconstruction of Harris Street starting at Harris and Fourth to the Gold and Seventh Street intersection.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Abutters Notice and Public Notice Sign Photo
Attachment C	Agency Comments



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address Harris St from 4th Street to 7th Street; 7th Street from Harris Street to Gold Street		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) see Attached Location Map		
	Parcel Number(s) NA		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner CBJ	Contact Person Michael Eich	
	Mailing Address 155 S. Seward Street Juneau, AK 99801	E-mail Address michael.eich@juneau.org	Phone Number(s) 907.586.0800 x4192
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
	I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.		
X	 Landowner/Lessee Signature	12/09/2021 Date	
X	 Landowner/Lessee Signature	Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME"			
Applicant CBJ Engineering	Contact Person Michael Eich		
Mailing Address 155 S. Seward Street Juneau, AK 99801	E-mail Address michael.eich@juneau.org	Phone Number(s) 907.586.0800 x4192	
X	 Applicant's Signature	12/09/2021 Date of Application	

DEPARTMENT USE ONLY BELOW THIS LINE

Attachment A - Application Packet

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number <i>CS021-007</i>	Intake Initials <i>TC</i>
Date Received <i>12/14/21</i>	



CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

See reverse side for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

Replacement of road base, pavement, curb and gutter, existing sidewalks, and water mains on Harris Street and 7th Street from the Harris and 4th Street intersection to the 7th and Gold Street intersection. Work will further include replacement of existing combined sanitary and storm sewer with new separate sanitary sewer and storm sewer mains.

TYPE OF PROJECT REVIEW:

☒ City Project Review ☐ City Land Acquisition /Disposal ☐ State Project Review

PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? ☐ YES Case No.: _____ ☒ NO

Capital Improvement Program # (CIP) R72-156

Local Improvement District # (LID) NA

State Project # NA

ESTIMATED PROJECT COST: \$ 1,500,000

ALL REQUIRED MATERIALS ATTACHED

- ☒ Complete application
- ☐ Pre-Application notes (if applicable)
- ☐ Narrative including:
 - ☒ Current use of land or building(s)
 - ☒ Proposed use of land or building(s)
 - ☒ How the proposed project complies with the Comprehensive Plan
 - ☒ How the proposed project complies with the Land Use Code (Title 49)
- ☒ Site Plan (details on page 2)

NOTE: This application is required even if the proposed project is associated with other Land Use permits.

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

CITY/STATE PROJECT FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u> </u>			

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Attachment A - Application Packet

Case Number	Date Received
<u>SP 21-007</u>	<u>12/14/21</u>

City/State Project and Land Action Review Information

City and State project review is outlined in CBJ 49.15.580

Each application for a City/State Project is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make recommendations tailored to individual applications.

Application: An application for a City/State Project Review will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

1. **Forms:** Completed City/State Project Review Application and Development Permit Application forms.
2. **Fees:** No fee required for projects that cost less than \$2.5 million. For projects costing more than this amount, the fee is \$1,600.00. All fees are subject to change.
3. **Project Narrative:** A detailed narrative describing the project.
4. **Plans:** All plans are to be drawn to scale and clearly show the items listed below:
 - a. Plat, site plan, floor plan and elevation views of existing and proposed structures and land;
 - b. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
 - c. Proposed traffic circulation within the site including access/egress points and traffic control devices;
 - d. Existing and proposed lighting (including cut sheets for each type of lighting);
 - e. Existing and proposed vegetation with location, area, height and type of plantings; and,
 - f. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

Document Format: All materials submitted as part of an application shall be submitted in either of the following formats:

1. Electronic copies in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf (other formats may be preapproved by the Community Development Department).
2. Paper copies 11" X 17" or smaller (larger paper size may be preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All City/State Project Review Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting. The Planning Commission will make a recommendation based on staff's analysis and forward it to the Assembly for final approval/denial.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Attachment A - Application Packet

CSP Application Narrative

Harris and 7th Streets Reconstruction between 4th Street and Gold Street

CBJ Contract No. BE22-195

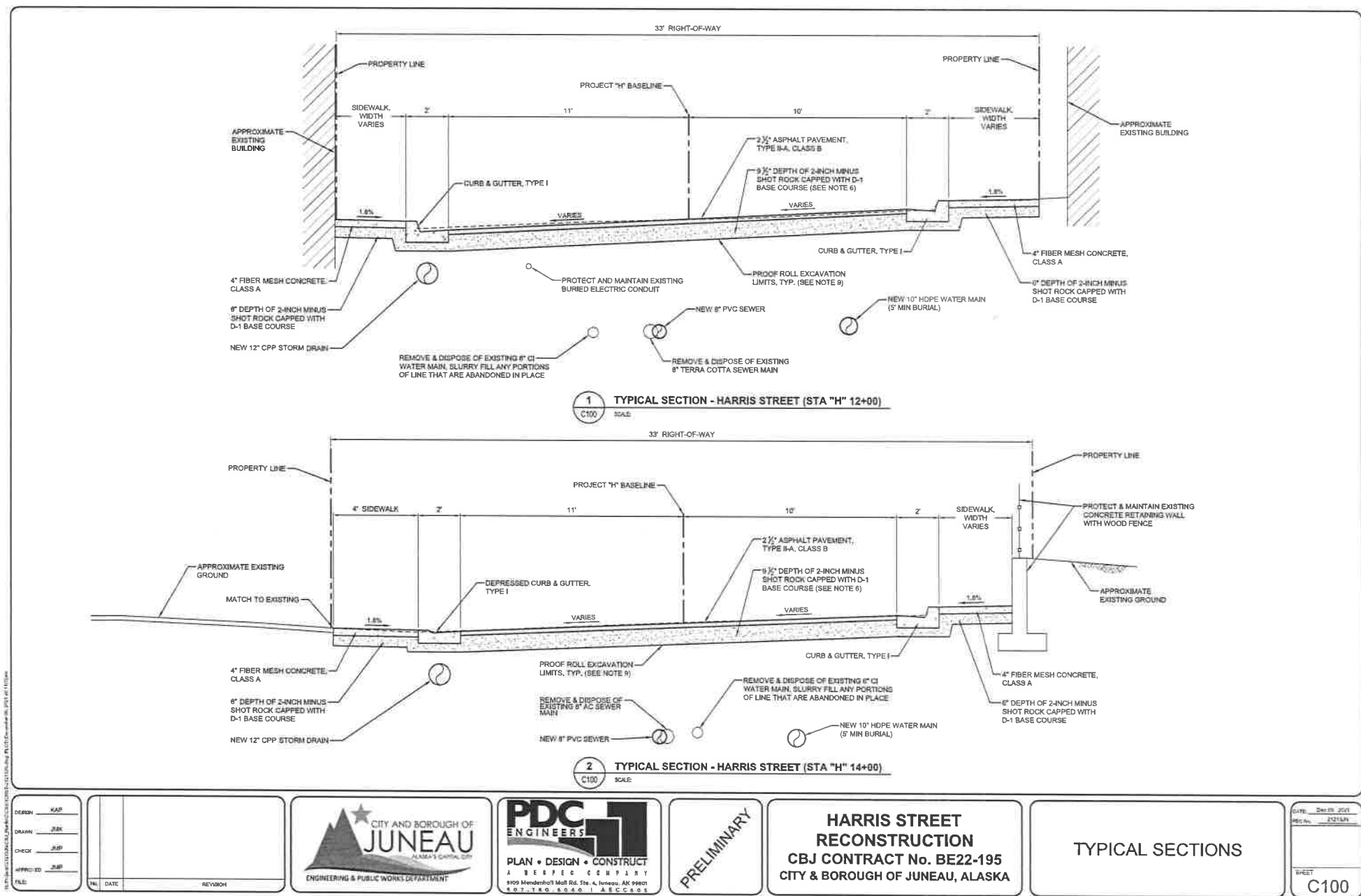
Project Goals

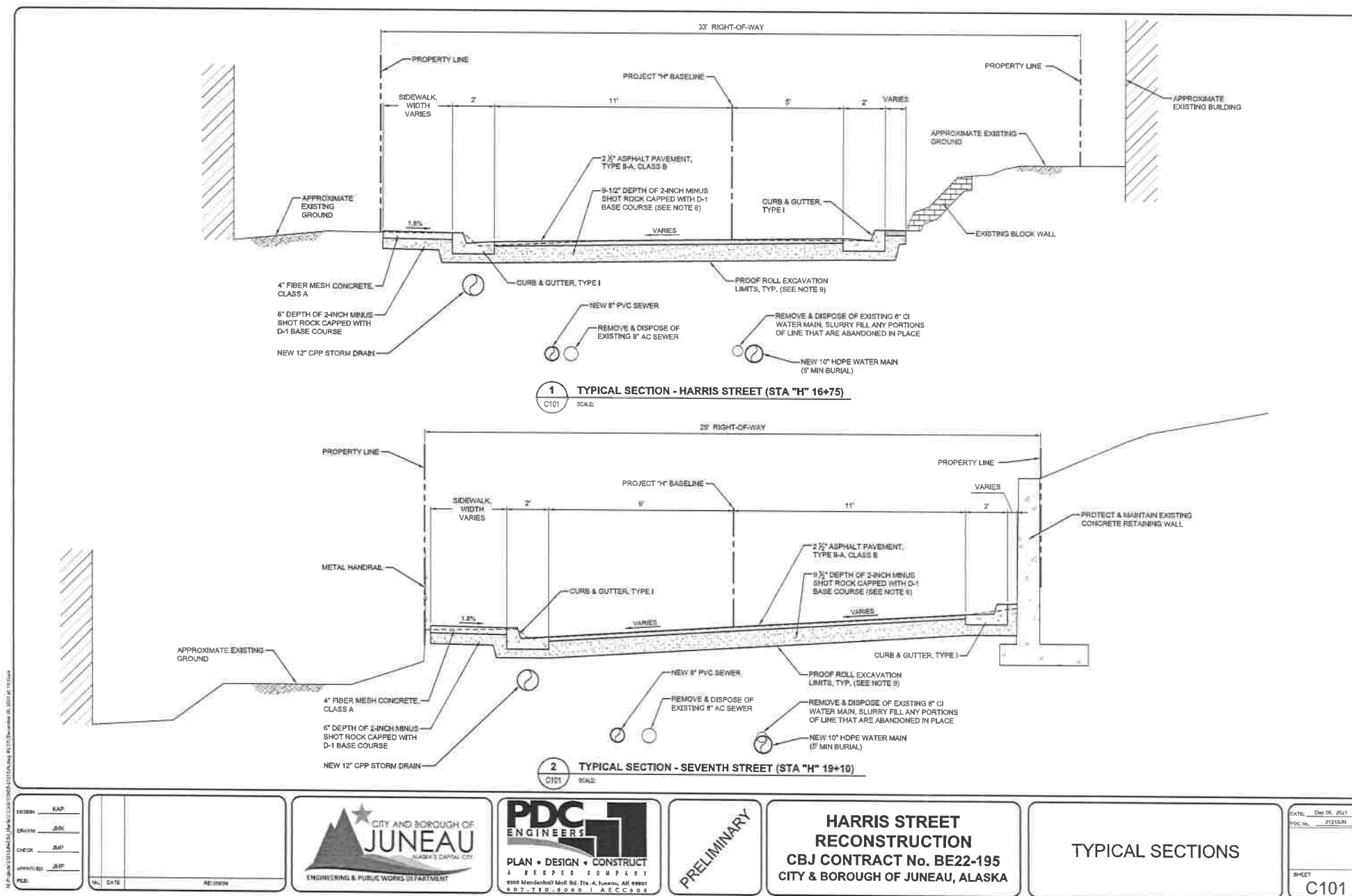
The Harris and 7th Streets Reconstruction project will replace the road base material, pavement, concrete sidewalks, concrete curbs and gutters, and underground water and sewer utilities. All of the work will involve generally in-kind replacement with the exception of the sewer utility. Much of the project corridor is currently served by a combined sanitary and storm sewer system. For this project, the existing combined sewer will be replaced with new and separate sanitary sewer and storm sewer mains.

The attached map taken from CBJ's parcel viewer depicts the project location. Typical sections depicting the reconstructed roadway and utilities are also attached.



The City and Borough of Juneau is not responsible and shall not be liable to the user for damages of any kind arising out of the use of data or information provided by the City and Borough of Juneau, including the installation of the data or information, its use, or the results obtained from its use. ANY DATA OR INFORMATION PROVIDED BY THE City Borough of Juneau IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Data or information provided by the City Borough of Juneau shall be used and relied upon only at the user's sole risk, and the user agrees to indemnify and hold harmless the City Borough of Juneau, its officials, officers and employees from any liability arising out of the use of the data/information provided. NOT FOR ENGINEERING PURPOSES.





Invitation to Comment

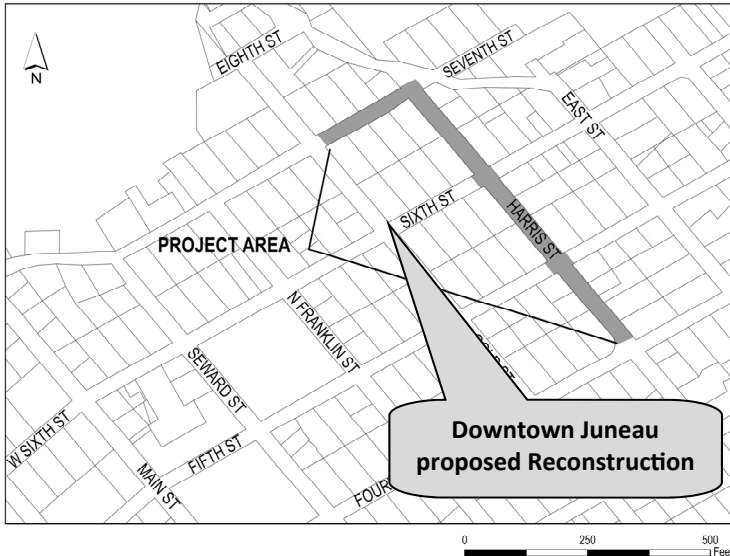
On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



COMMUNITY DEVELOPMENT

155 S. Seward Street Juneau, Alaska 99801

TO:



An application has been submitted for consideration and public hearing by the Planning Commission for a **Reconstruction of Harris Street starting at Harris and Fourth Street to the Gold and Seventh Street Intersection** in a **D18 and MU Zone**.

TIMELINE

Now — noon, Feb. 4

Comments received during this period will be sent to Commissioners to read in preparation for the hearing. The planner handling this case, Joseph Meyers, will also read any written comments that are received. You may also contact him via the phone number below.

Staff Report expected to be posted Monday January 31, 2022, at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

HEARING DATE & TIME: 7:00 pm, Feb. 8, 2022

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/82676484943> . The Webinar ID is: 826 7648 4943 . To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

Feb. 9

The results of the hearing will be posted online.

Phone: **(907)586-0715** ♦ Email: pc_comments@juneau.org
Mail: **Community Development, 155 S. Seward St, Juneau AK 99801**

Printed January 27, 2022

Case No.: CSP2021 0007
Parcel No.: N/A
CBJ Parcel Viewer: <http://epv.juneau.org>



Attachment B - Abutters Notice & Public Notice Sign Photo

From: [Michael Eich](#)
To: [Joseph Meyers](#)
Subject: RE: CSP2021 0007
Date: Thursday, December 16, 2021 12:33:24 PM

Hi Joseph,

I hadn't seen a case number assigned to it yet, but if it refers to the Harris/7th Street reconstruction, we have had extensive one on one discussions with many residents, and the design engineer has been in contact with most of the affected property owners. Flyers were distributed door to door prior to survey in the fall, and we have a public meeting via Zoom scheduled for January 12th at 6pm. Flyers for that meeting will be mailed out to the property owners of record shortly after Christmas in all likelihood so that they are not received too early and forgotten about. Due to the limited ROW width (meaning few options for significant changes from existing footprints), the proposed largely in-kind replacement, and positive interactions to date with affected residents, we are hopeful the public meeting will result in a positive outcome.

Hope that helps, let me know if you need anything else.

Michael Eich
 Project Manager
 City and Borough of Juneau
 155 South Seward Street
 Juneau, AK 99801
 W: 907.586.0800 x4192
 C: 907.500.4401
michael.eich@juneau.org

From: Joseph Meyers <Joseph.Meyers@juneau.org>
Sent: Thursday, December 16, 2021 12:21 PM
To: Michael Eich <Michael.Eich@juneau.org>
Subject: CSP2021 0007

Good afternoon Mr. Eich,

I am writing to touch base about CSP2021 0007. For general knowledge, where are you at in the public outreach process for this project? I would like to have signs created for the CDD case but I want to ensure that I'm not interfering with your public process.

Thank you and kind regards,

Joseph Meyers, MURP | Planner I

Community Development Department | City & Borough of Juneau, AK
230 S. Franklin Street, 4th Floor Marine View Building
Personal line: 907.586.0753; Ext: 4209
He/him/his



Fostering excellence in development for this generation and the next.

From: [Michael Eich](#)
To: [Joseph Meyers](#)
Subject: RE: CSP2021 0007
Date: Tuesday, January 18, 2022 9:09:18 AM
Attachments: [7th from Gold to Harris.JPG](#)
[Harris St near 4th.JPG](#)
[Harris St sidewalk.JPG](#)

Hi Joseph,

Attached are a few photos of the visible conditions within the project area.

The last significant work I'm aware of was reconstruction of the portion of Harris Street between 3rd and 4th Streets as part of E07-122 Fourth and Harris Street Reconstruction, completed around 2009. That area is outside the scope of this reconstruction project. Otherwise, cross streets were rebuilt through the 90s and 00s, so intersections are newer. I'm finding records are a little limited but the last significant reconstruction work on the target portion of these roads was approximately 50 years ago, in some instances longer. The streets between intersections are some of the last remaining downtown streets with combined sewer and stormwater services.

There hasn't been a traffic count completed associated with the reconstruction. It's pretty localized traffic and there isn't much room to change things.

When you have a draft Staff Report complete, I'd appreciate being able to look it over prior to it going public. Thanks!

Michael Eich
 Project Manager
 City and Borough of Juneau
 155 South Seward Street
 Juneau, AK 99801
 W: 907.586.0800 x4192
 C: 907.500.4401
michael.eich@juneau.org

From: Joseph Meyers <Joseph.Meyers@juneau.org>
Sent: Friday, January 14, 2022 2:46 PM
To: Michael Eich <Michael.Eich@juneau.org>
Subject: CSP2021 0007

Good afternoon Michael,

I just wanted to pick your brain a little bit about this project and the history.

Two main things: Do you have any historical knowledge of this street and work that has been done on it. When was the most recent improvement that you are aware of?

Do you have any photos of the project site (curbs, gutters, sidewalks, road etc) that you can share with me?

Also, has a traffic count been done on this street? Could you send me this information if you have it?

Thank you!

Joseph Meyers, MURP | Planner I

[Community Development Department](#) | City & Borough of Juneau, AK

230 S. Franklin Street, 4th Floor Marine View Building

Personal line: 907.586.0753; Ext: 4209

He/him



Fostering excellence in development for this generation and the next.

From: [Michael Eich](#)
To: [Joseph Meyers](#)
Subject: RE: CSP2021 0007
Date: Monday, January 24, 2022 7:03:04 AM

Yes, that's correct. The roadway width is significantly narrowed at this location. This is at the corner between Harris St. and 7th Street, which is just below Basin Rd. See the attached Google Earth street view for an idea of the conditions. The typical section is on Harris St. as it approaches this corner. Because of the existing retaining walls and elevation differences between here and Basin Rd., there isn't room to make changes.



Michael

From: Joseph Meyers <Joseph.Meyers@juneau.org>
Sent: Friday, January 21, 2022 4:28 PM
To: Michael Eich <Michael.Eich@juneau.org>
Subject: CSP2021 0007

Good afternoon Michael,

I am wrapping up my staff report, but I have one additional question. On the plans attached, one lane is five feet in width. Is this the actual width of the lane?

Kindly,

Joseph Meyers, MURP | Planner I
[Community Development Department](#) | City & Borough of Juneau, AK
 230 S. Franklin Street, 4th Floor Marine View Building
 Personal line: 907.586.0753; Ext: 4209
 He/him



Fostering excellence in development for this generation and the next.

Attachment C - Agency Comments



CSP2021 0007

Reconstruction of Harris Street
(between Fourth and Seventh Streets
and Seventh Street between Gold and
Harris Streets)

and

A waiver to roadway construction
standards

February 8, 2022
Planning Commission

Vicinity Map

- Designated as a local street by CBJ
- Inside Urban Service Boundary
- Inside CCFR Fire Protection Area
- Water and Sewer provided by CBJ to be replaced as a part of this project



Project Key Considerations

- Replacement in kind of Harris Street
- Replacement of water utility mains, degraded curbs, gutters, sidewalks, and road bed.
- Separate currently combined sewer facilities per EPA requirements
- Has not been upgraded for approximately 50 years
- Waiver to roadway construction standards
- In compliance with Title 49, Comprehensive Plan and Juneau Climate Action & Implementation Plan



Existing Conditions

- Right of Way width (29 to 33 feet)
- Variable pavement width (16 to 21 feet)
- Fractured and patched asphalt road surface, degraded sidewalks, curbs, and gutters
- Combined sanitary & storm sewers



Traffic

- No traffic study has been completed for this section of Harris Street
- Staff estimated the average daily traffic (ADT) rate using the Institute of Transportation Engineers Trip Generation Manual
- The ADT for Harris Street is approximately 73 daily trips



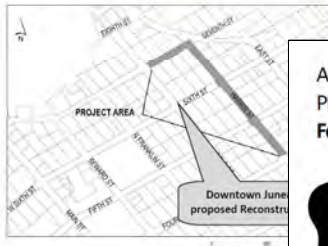
Public Notice

- A public notice sign was posted on site two weeks prior to this hearing
- Abutters notices were sent to residents within 500 feet of the proposed project area





Invitation to Comment
On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



CITY AND BOROUGH OF
JUNEAU

PROJECT AREA

Downtown Juneau proposed Reconstruction

An application has been submitted for consideration and public hearing by the Planning Commission for a **Reconstruction of Harris Street starting at Harris and Fourth Street to the Gold and Seventh Street Intersection in a D18 and MU Zone.**



TIMELINE

Now — noon, Feb. 4

HEARING DATE & TIME: 7:00 pm, Feb. 8, 2022

Feb. 9

Comments received during this period will be sent to Commissioners to read in preparation for the hearing. The planner handling this case, Joseph Meyers, will also read any written comments that are received. You may also contact him via the phone number below.

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/82676484943>. The Webinar ID is: 826 7648 4943. To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801
Printed January 27, 2022

Case No.: CSP2021 0007
Parcel No.: N/A
CBJ Parcel Viewer: <http://epv.juneau.org>



CITY AND BOROUGH OF
JUNEAU
ALASKA'S CAPITAL CITY

Public Comment

- Two public comments were received after the issuance of the staff report
- These comments addressed the following issues:
 - Undergrounding of utilities
 - EV charging stations
 - Alternating of one-way streets between Fourth and Seventh Streets



Agency Review

- CCFR, Streets, and the CBJ Assessor had no comments regarding this project



Waiver Request, CBJ 49.35.420

- Existing roads don't meet standards
- Historical land use make compliance unreasonable
- Conflicts with AASHTO "Green Book"



Conformity with Adopted Plans



This project conforms with the:

- 2013 Comprehensive Plan
- Juneau Climate Action and Implementation Plan

Commission Role

1. Harris Street Reconstruction Project

- Evaluate for compliance with Title 49 of CBJ code
- Recommended conditions or modifications

Recommend APPROVAL to Assembly

2. Waiver of Street Construction Standards

Staff Recommends the Planning Commission **APPROVE** the waiver of road construction standards for the Harris Street Reconstruction project

Thank you!

Contact Information:

Joseph Meyers, Planner I

Joseph.Meyers@juneau.org

(907) 586-0753 ext. 4209





Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF RECOMMENDATION

Date: February 17, 2022
File No.: CSP2021 0007

City and Borough of Juneau
CBJ Assembly Members
155 S Seward Street
Juneau, AK 99801

Proposal: Planning Commission Recommendation to the City and Borough Assembly regarding the reconstruction of Harris Street

Property Address: Harris Street from Fourth Street to Seventh Street; Seventh Street from Harris Street to Gold Street

Legal Description or ROW name: Harris Street from Fourth Street to Seventh Street; Seventh Street from Harris Street to Gold Street

Parcel Code No: 0

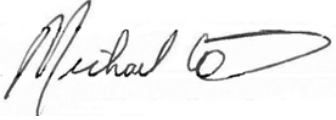
Hearing Date: February 8, 2022

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated February 2, 2022, and recommended that the Assembly direct CBJ staff to design and build the project.

Attachments: February 2, 2022 memorandum from Joseph Meyers, Community Development, to the CBJ Planning Commission regarding CSP2021 0007.

This Notice of Recommendation constitutes a recommendation of the CBJ Planning Commission to the City and Borough Assembly. Decisions to recommend an action are not appealable, even if the recommendation is procedurally required as a prerequisite to some other decision, according to the provisions of CBJ 01.50.020(b).

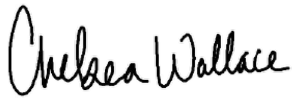
City and Borough of Juneau
CBJ Assembly
File No.: CSP2021 0007
February 17, 2022
Page 2 of 2



Michael LeVine, Chair
Planning Commission

February 17, 2022

Date



Filed With Municipal Clerk

February 17, 2022

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ - adopted regulations. The CBJ and project designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

**PLANNING COMMISSION AGENDA
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

SMP2021 0004: Chilkat Subdivision Phase II: Proposing subdivision of one (1) tract into fifteen (15) lots and three (3) tracts of land - APPROVED AS RECOMMENDED

AGENDA ITEM:

Case No.: SMP2021 0004

Applicant: William & Michael Heumann

Location: Hillcrest Avenue

Proposal: Chilkat Subdivision Phase II: Proposing subdivision of one (1) tract into fifteen (15) and three (3) tracts of land

RECOMMENDATION:

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested preliminary plat for the Chilkat Subdivision Phase II: Proposing subdivision of one tract into fifteen (15) lots and three (3) tracts of land at Hillcrest Avenue in a D15 zone. This permit would allow the applicant to submit for the final plat application.

This approval is subject to the following conditions:

1. Provide a wetlands fill permit from the United States Army Corps of Engineers.
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of Engineering & Public Works for compliance with CBJ 49.35.140.
4. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
5. Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510.

ATTACHMENTS:

Description	Upload Date	Type
❑ Staff Report for SMP2021 0004 - Part 1	2/1/2022	Staff Report
❑ Staff Report for SMP2021 0004 - Part 2	2/1/2022	Staff Report
❑ Staff Report for SMP2021 0004 - Part 3	2/1/2022	Staff Report
❑ Staff Report for SMP2021 0004 - Part 4	2/1/2022	Staff Report
❑ Staff Report for SMP2021 0004 - Part 5	2/1/2022	Staff Report
❑ Staff Report for SMP2021 0004 - Part 6	2/1/2022	Staff Report
❑ Presentation for SMP2021 0004	2/8/2022	Presentation
❑ Notice of Decision for SMP2021 0004	2/25/2022	Notice of Decision



(907) 586-0715
 CDD_Admin@juneau.org
 www.juneau.org/CDD
 155 S. Seward Street • Juneau, AK 99801

DATE: February 1, 2022
TO: Michael LeVine, Chair, Planning Commission
BY: Irene Gallion, Senior Planner 
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: Applicant requests a preliminary plat review for Chilkat Subdivision Phase II: Proposing subdivision of one tract into fifteen (15) lots and three (3) tracts of land at Hillcrest Avenue in a D15 zone.

STAFF RECOMMENDATION: Approval with conditions

KEY CONSIDERATIONS FOR REVIEW:

- Dense development with nine bungalow lots and four regular lots (total of 13).
- Roadway and sidewalk standards established in Phase I.
- Construction and drainage plans will be submitted and reviewed after the preliminary plat is approved.

GENERAL INFORMATION	
Property Owner	William & Michael Heumann
Applicant	William & Michael Heumann
Property Address	Hillcrest Avenue
Legal Description	Chilkat Vistas Tract A
Parcel Number	7B1001160011
Zoning	D15
Lot Size	1,242,513 square feet, 28.5242 acres
Water/Sewer	CBJ, to be constructed
Access	Hillcrest Avenue
Existing Land Use	Vacant
Associated Applications	SMP2019 0004/SMF2020 0001

ALTERNATIVE ACTIONS:

1. **Amend:** require additional conditions, or delete or modify the recommended conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-6 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - o 49.15.402
 - o 49.15.411
 - o 49.35
 - o 49.80

The Commission shall hear and decide the case per 49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska.*

And per 49.15.402(a) *A major subdivision permit is required for subdivisions resulting in 14 or more lots.*

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (D18)	Vacant
South (D5)	Residential
East (RR)	Tongass National Forest
West (D15)	Residential

SITE FEATURES	
Anadromous	No
Flood Zone	No
Hazard	No
Hillside	Possible
Wetlands	Yes
Parking District	No
Historic District	No
Overlay Districts	No

BACKGROUND INFORMATION

Project Description – This project is Phase II of the Chilkat Vista Subdivision (**Attachment A**). Note that since public notice went out, the subdivision design has been modified to accommodate CBJ feedback. Rather than 15 lots, 13 lots are proposed, in addition to three tracts (**Attachment B**).

The applicant anticipates completing Hooter Lane during this phase.

Background – The table below summarizes relevant history for the lot and proposed development.

Item	Summary
PAC2020 0064	Pre-application conference for Phase II
SMP2019 0004/SMF2020 0001	Phase I of Chilkat Vistas subdivision (Attachment H)

ANALYSIS

Phasing – A sketch plat was provided under SMP2019 0004. The Phase II presented in this plat differs from the sketch plat (image below, left), creating some lots along Hillcrest Avenue and modifying some lots originally part of Phase C (image below, right). As a reminder, sketch plats are not binding, and are used to anticipate infrastructure and other needs.



Minimum Lot Dimensions – The proposed lots shown on the preliminary plat meet or exceed the dimensional standards listed in CBJ 49.25.400. The CBJ 49.25.400 Dimensional Standards are listed below.

Standard	Regular Lot Requirement	Bungalow Lot Requirement
Lot size, square feet	5,000	3,000
Lot width, linear feet	50	25

Additionally, bungalow lots:

- Must connect to municipal water and sewer (proposed for construction) [CBJ 49.65.610(a)(1)].
- May be platted without creating standard lots in D15 [CBJ 49.65.610 (a)(3)]
- Must include a plat note limiting structures to one 1,000-square-foot, detached single-family residence per lot [CBJ 49.65.610(a)(4)] (See Note 15 on the Preliminary Plat).

The proposed lots meet lot development standards.

Lot	Lot Type	Square Feet	Width
15	Bungalow	3427	42.84
16	Bungalow	3427	40.84
17	Bungalow	3466	44.47
18	Regular	5107	54.34
19	Regular	5029	53.5
20	Bungalow	4408	73.85
21	Bungalow	3795	45
22	Bungalow	3004	37.5
23	Bungalow	3405	32.2
24	Bungalow	3485	~36 (curve)
25	Regular	5110	54.98
26	Bungalow	3060	34
27	Regular	6445	69.59

Width of the lot is measured at the setback line. **Attachment C** shows setback and width for lots 17, 20, 24, 25, and 27.

Lot 18 includes a drainage easement 15 feet wide and 94 feet long, impacting possible development on 1,410 square feet of the lot.

Density – Bungalow lots are limited to one residential structure of 1,000 square feet, with no more than 300 additional square feet for storage [CBJ 49.65.630(a)]. Accessory apartments, mobile homes, and recreational vehicles are prohibited [CBJ 49.65.630(b)].

Regular lot density is based on acreage under D15 zoning [CBJ 49.25.500].

Lot	Lot Type	Acres	Units Allowed
18	Regular	0.12	2
19	Regular	0.12	2
25	Regular	0.12	2
27	Regular	0.15	2

Habitat – No anadromous resources exist on this lot.

Application materials included a delineation showing that proposed Phase II will impact a conifer wetland boundary and alder wetland boundary. The applicant is in the process of pursuing a Wetlands Fill Permit with the United States Army Corps of Engineers.

Condition: None.

Plat Note: WETLANDS MAY EXIST ON PARTS OF THIS SUBDIVISION. SPECIAL REGULATIONS MAY APPLY. (Note 8 on the draft plat).

Hazard Zones – The lots are located outside of mapped hazard areas.

A Hillside Endorsement will be required for excavation or creation of 18 percent slopes [CBJ 49.70.210]. Topography provided in CBJ's Parcel Viewer indicates that some lots may have slopes of 18 percent or more.

The Hillside Endorsement requires a soils analysis, and CDD has granted grading permits in order to collect this data. A subsequent building permit will be required to meet the standards of the Hillside Endorsement if applicable. Hillside Endorsements include engineered plans, a geotechnical memo, and explicit direction on landscaping.

A construction plan will be submitted before final plat approval, and will provide more information on slopes.

Condition: None.

Plat Note: None.

LOT DESIGN

Bungalow Lots – LOTS 15, 16, 17, 20, 21, 22, 23, 24, and 26.

Standard	Requirement	Met?	Conditions and Plat Notes
49.65.600(a)(1) Public Water and Sewer	Bungalow lots must be provided public water and sewer.	☒ Meets/Exceeds ☐ Not met	<i>Developer will construct water and sewer, which will be accepted for ownership and maintenance by CBJ if standards are met.</i>
49.65.600(a)(1) Publically Maintained Roads	Bungalow lots must be served by publically maintained roads.	☒ Meets/Exceeds ☐ Not met	<i>Developer will construct roads, which will be accepted for ownership and maintenance by CBJ if standards are met.</i>
49.65.600(a)(4) Plat Note Required	A Bungalow lot plat note has been required that lists the restrictions on the size of the residence.	☒ Meets/Exceeds ☐ Not met	Plat Note: LOTS 15, 16, 17, 20, 21, 22, 23, 24, AND 26 ARE BUNGALOW LOTS. AT THE TIME OF PLAT RECORDING, STRUCTURES ON LOTS 15, 16, 17, 20, 21, 22, 23, 24, AND 26 WERE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS. (See note 15 on the Draft Plat.

TRAFFIC

Traffic – According to CBJ 49.40.300(a)(3), a traffic impact analysis may be required. For projected Average Annual Daily Traffic (AADT) between 250 and 500, the Director will determine if an analysis is necessary based on type of development, location, likelihood of expansion, and other factors that may impact traffic.

Total Average Annual Daily Traffic (AADT) is 356.79 for Phase I and Phase II.

Phase 1 Lot Number	Total # of Dwellings per lot	ADTs
1, 2, 3 (Bungalow Lots)	1 Single-family	9.52 x 3 = 28.56
4, 5, 6, 7, 8, 9 10, 11, 12, 13, 14	1 Single-family and 1 accessory apartment	16.17 x 11 = 177.87
		TOTAL: 206.43 ADTs

Phase 2 Lot Number	Total # of Dwellings per lot	ADTs
LOTS 15, 16, 17, 20, 21, 22, 23, 24, AND 26 (Bungalow Lots)	1 Single-family	9.52 x 9 = 85.68
18, 19, 25 and 27 (Regular Lots)	1 Single-family and 1 accessory apartment	16.17 x 4 = 64.68
		TOTAL: 150.36 ADTs

The applicant submitted a Traffic Impact Analysis under Phase I (**Attachment D**). That analysis considered the impact of an eventual 47 single-family structures and 356 multi-family units.

Condition: None.

Plat Note: None.

ACCESS AND PUBLIC IMPROVEMENTS

Conformance with roadway construction standards will be confirmed when the applicant submits a construction plan, after approval of the Preliminary Plat. Roadway construction standards for this project are [CBJ 49.35.240]:

ADTs	TIA	Sidewalks	Travel Way Width	Street Lights	ROW Width	Paved	Publically Maintained
150	See above	See below	22 feet	Yes	See below	Yes	Yes

Access – Per 49.35.250(a), staff has determined that the primary access to the subdivision is Hillcrest Avenue. The applicant has demonstrated that each lot will have direct and practical access to a public right-of-way through the frontage of the lot, as required in 49.35.250(b).

Lot Number	Primary access
15, 16, 17 ^A , 18, 19, 20, 21 ^B , 25 ^A , 26, 27A	Hillcrest Avenue
21 ^B , 22, 23, 24	Hooter lane

A: Corner lot fronts Hillcrest Avenue, therefore cul de sacs are not required at the end of Hooter Lane or the eventual entrance to Mountainside Drive.

B: Lot 21 can access Hooter Lane or Hillcrest Avenue if driveway setbacks from the intersection can be met.

49.35.240 Table of Roadway Construction Standards – Under Phase I, right-of-way width was reduced from a required 60 feet to 50 feet with the Department of Engineering and Public Works' (E&PW) approval. Per that

approval, "...remaining phases shall also be constructed at a width of 50 feet unless further engineering indicates this is not feasible."

Condition: None.

Plat Note: None.

Pedestrian Access – Phase II development would not, in itself, generate enough ADT to require sidewalks. However, under Phase I, E&PW approved sidewalks on one side of the street. This standard is consistent with the Mountainside Subdivision, and with the Hooter Lane right-of-way requirement for sidewalk on one side.

Condition: None.

Plat Note: None.

Street Lighting – Streetlights are required at the intersection of subdivision streets and the external street system. A luminaire is 50 feet from the Hooter Lane/Tamarack Trails Driveway.

Condition: None.

Plat Note: None.

Drainage – E&PW will conduct a formal review of the proposed drainage plan after approval of the preliminary plat. As part of the permitting process for Hooter Lane, Alaska Department of Transportation and Public Facilities has proposed a drainage plan for the intersection with Old Glacier Highway.

Condition: None.

Plat Note: None.

Fire Code Improvements – Construction plans will be reviewed when they are submitted after the Preliminary Plat approval. Phase 2 was designed so that lots front onto Hooter Lane or Hillcrest Avenue, both of which are slated for construction during this phase. No *cul de sacs* are required.

Condition: None.

Plat Note: None.

AGENCY REVIEW

CDD conducted an agency review comment period between August 24, 2021 and January 16, 2022. Discussions with E&PW are extensive and on-going. Other agency review comments can be found in **Attachment E**.

Agency	Summary
Alaska Department of Environmental Conservation	No requirements for review of subdivision or platting.

Agency	Summary
United States Postal Service	Would like to be involved when closer to construction.
Capital City Fire and Rescue	No concerns at this time.
CBJ Building Division	No issues at this time.
Alaska Department of Transportation and Public Facilities	Have permitted Hooter Lane improvements at Glacier Highway, pending signatures from the applicant.

PUBLIC COMMENTS

CDD conducted a public comment period between January 5, 2022 and February 4, 2022. Public notice was mailed to property owners within 500 feet of the lot (**Attachment F**). A public notice sign was also posted on site two weeks prior to the scheduled hearing (**Attachment G**). Staff received one request for information, and no comments.

FINDINGS

Major Subdivision Preliminary Plat Approval Criteria – Per CBJ 49.15.402(c)(4), the Director makes the following findings on the proposed development:

1. *Does the preliminary plat comply with CBJ 49.15.411?*

Analysis: No additional analysis needed.

Finding: Yes. With recommended conditions, the preliminary plat complies with preliminary platting requirements listed in CBJ 49.15.411.

2. *Will applicable subdivision development standards be met, or can reasonably be met with conditions?*

Analysis: The applicant is required to install lighting, sidewalks, and a 22-foot-wide travelled way.

Finding: Yes. With recommended conditions, all applicable subdivision development standards can be reasonably met.

3. *Will the proposed subdivision provide suitable building sites for the zoning district?*

Analysis: Lots created through this subdivision meet minimum dimensional requirements for the D15 zoning district, and can reasonably meet setback and other dimensional requirements.

Finding: Yes. The proposed subdivision provides building sites suitable for the D15 zoning district.

4. *Will the proposed street names be unique or continuations of existing streets?*

Analysis: None required.

Finding: Yes. Proposed street names are extensions of existing streets.

5. Has the director of Engineering and Public Works reviewed the application and determined that:

- (i) The subdivision can be constructed to conform to applicable drainage and water quality requirements;***
- (ii) The streets, pioneer paths, and pedestrian ways as proposed accommodate anticipated traffic, align with, and, where appropriate, connect with streets and pedestrian ways serving adjacent properties;***
- (iii) Any proposed improvements conform to the requirements of this Title 49 and can be feasibly constructed; and,***

Analysis: A drainage plan will be submitted after approval of the preliminary plat. A construction plan, with details of road, sidewalk, lighting, water and sewer will be submitted and reviewed after approval of the preliminary plat.

Finding: Yes. Engineering and Public Works has reviewed the preliminary plat and supplemental materials, and believes the above criteria can be met.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested preliminary plat for the Chilkat Subdivision Phase II: Proposing subdivision of one tract into fifteen (15) lots and three (3) tracts of land at Hillcrest Avenue in a D15 zone. This permit would allow the applicant to submit for the final plat application.

This approval is subject to the following conditions:

1. Provide a wetlands fill permit from the United States Army Corps of Engineers.
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of Engineering & Public Works for compliance with CBJ 49.35.140.
4. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
5. Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Preliminary Plat
Attachment C	Setbacks and Lot Width
Attachment D	Traffic Impact Analysis
Attachment E	Agency Comments
Attachment F	Abutters Notice
Attachment G	Public Notice Sign
Attachment H	Phase I of Chilkat Vistas subdivision



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION	
	Physical Address <u>0 Hillcrest Ave.</u>	
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) <u>Tract A Chilkat Vistas Subdivision</u>	
	Parcel Number(s) <u>7B1001160011</u>	
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____	
	LANDOWNER/ LESSEE	
	Property Owner <u>William & Michael Neumann</u>	Contact Person <u>Michael Neumann</u>
	Mailing Address <u>6000 Thane Rd. Juneau 99801</u>	Phone Number(s) <u>971-907-723-4540</u>
	E-mail Address <u>chilkatvistas@gmail.com</u>	
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits	
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.		
X	<u>[Signature]</u> Landowner/Lessee Signature	<u>8-12-2021</u> Date
X	_____ Landowner/Lessee Signature	_____ Date
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.		
APPLICANT If the same as OWNER, write "SAME"		
Applicant <u>William & Michael Neumann</u>	Contact Person <u>Michael Neumann</u>	
Mailing Address	Phone Number(s)	
E-mail Address		
X	<u>[Signature]</u> Applicant's Signature	<u>8-12-2021</u> Date of Application

DEPARTMENT USE ONLY BELOW THIS LINE

SMP2021 0004
ATTACHMENT A, Page 1

SMPal-04

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number

Intake Initials

[Signature]

Date Received

8/17/21



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

Number of Existing Parcels 1 Total Land Area 20.52 A. Number of Resulting Parcels 18

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☒ NO

☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

☒ Preliminary Plat (MIP)

☐ Final Plat (MIF)

☐ Panhandle Subdivision

☐ Accretion Survey

☐ Boundary Adjustment

☐ Lot Consolidation (SLC)

☐ Bungalow Lot Subdivision

☐ Common Wall/Zero Lot Subdivision

☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

☒ Preliminary Plat (SMP)

☐ Final Plat (SMF)

☐ Preliminary Development Plan – PUD (PDP)

☐ Final Development Plan – PUD (PDF) Preliminary

☐ Development Plan – ARS (ARP) Final

☐ Development Plan – ARS (ARF)

☐ Bungalow Lot Subdivision

☐ Common Wall/Zero Lot Subdivision

☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

☒ Pre-application conference notes

☒ Narrative including:

☒ Legal description(s) of property to be subdivided

☒ Existing structures on the land

☒ Zoning district

☒ Density

☒ Access

☒ Current and proposed use of any structures

☒ Utilities available

☒ Unique characteristics of the land or structure(s)

☒ Preliminary Plat checklist

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>1,980</u>	<u>18 X 110 =</u>	<u>71,980</u>	
Admin. of Guarantee	\$ _____			
Adjustment	\$ _____			
Total Fee	\$ _____			

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number

SMP21-04

Date Received

8/17/21

SMP2021 0004

ATTACHMENT A, Page 2



PRELIMINARY PLAT CHECK LIST

Name of Proposed Subdivision: Chilkat Vistas Subdivision Phase II

The following items must be included with the initial submittal of a Preliminary Plat:

- ☒ Application, filled out completely
- ☐ Application fee (see fee schedule)
- ☒ Project Narrative
- ☒ Five (5) – 24" by 36" Copies
- ☒ Pre-application Conference Report
- ☐ Lot Closure Report
- ☒ Disclosure of all known environmental hazards and any proposed mitigation measures recommended in the applicable environmental document.
- ☐ Preliminary Plat Checklist: I have reviewed the checklist and all submittals for completeness and accuracy.

William C. Heumann
Applicant or Surveyor - Signature

8-12-2021
Date

William C. Heumann
Applicant or Surveyor - Print Name

GENERAL REQUIREMENTS

- ☐ The preliminary plat shall be prepared by a professional land surveyor, registered in the State of Alaska
- ☐ The preliminary plat shall be submitted on 22 by 34 inch sheets. The director of engineering and public works may approve alternate sheet sizes
- ☐ The preliminary plat shall be drawn with black ink to a scale of one-inch to 100 feet or less, or other suitable scale approved by the director of engineering and public works
- ☐ The preliminary plat shall be oriented with north toward the top of the sheet.
- ☐ A vicinity map shall be located in the upper right-hand corner of the sheet
- ☐ The vicinity map shall be oriented in the same direction as the plat
- ☐ A suitable north arrow shall be shown for the plat and vicinity map
- ☐ All line work and lettering must be of professional quality, and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion

GRAPHIC REQUIREMENTS - A preliminary plat shall contain the following information:

Title block - An enclosed title block in the lower right-hand corner containing the following information:

- ☐ The proposed name of the subdivision
- ☐ The legal description of the parcel to be subdivided including U.S. Survey, U.S. Mineral Survey, A.T.S. number or section, township, and range number, as applicable
- ☐ "City and Borough of Juneau, Alaska"
- ☐ "State Recorder's Office at Juneau"
- ☐ The date the preliminary plat was prepared and revised
- ☐ The horizontal scale
- ☐ The name and address of the owner of record
- ☐ The name, address, and telephone number of the surveyor preparing the preliminary plat

SMP2021 0004

ATTACHMENT A, Page 3

Preliminary Plat Checklist

Updated 1/2018

Page 2 of 5

Lot, block, and street information:

- ☐ The area of each lot
- ☐ The dimensions in feet and hundredths of a foot
- ☐ An identifying number and letter for lots and blocks
- ☐ Lots numbered consecutively, commencing with the number "1," with no omissions or duplications
- ☐ If the remainder of an original parcel being subdivided is relatively large, it shall be designated as a "tract" with an identifying number
- ☐ All parcels of land intended to be dedicated for public use or reserved for the use of all of the property owners in the proposed subdivision shall be shown as lots, and consecutively numbered. The purpose and any conditions or limitations on the use of the parcel shall be noted on the plat
- ☐ Abutting properties shall be shown with dashed lines, numbers, and/or letters
- ☐ For resubdivisions or public way vacations, the lines and legal description of the previous lots shall be shown with light dashed lines, numbers, and/or letters, or by a separate plat on the same sheet showing the previous lot lines
 - ☐ The minimum data shown for each curve shall be as follows:
 - ☐ Length
 - ☐ Central angle
 - ☐ Radius
 - ☐ Bearing and distance of long chord
 - ☐ Setbacks shall be shown on all corner lots and any lots with multiple frontage. Setbacks shall be shown on typical lots

Boundary lines:

- ☐ All boundary lines of the subdivision with bearings and distances described
- ☐ All retraced boundary lines shall show record and measured bearings and distances where they differ. Record dimension information shall be shown within parentheses and include a record source identification
- ☐ The exterior boundary lines of the subdivision shall be a solid black opaque line that is of a width that distinguishes it from all other property lines shown on the plat
- ☐ If phasing is proposed, then the boundaries and number of each phase, sequential lot numbering, and a subdivision name consistent with previous phases shall be shown

Monumentation:

- ☐ The monuments used to establish the basis of bearing
- ☐ Each monument found or set shall be identified on the plat by a symbol
- ☐ A complete description of the monument, including type and all information printed on the cap. A typical drawing shall be shown for each type of monument cap set
- ☐ A legend showing the symbols for all the types of monuments
- ☐ The identification, description location, elevation, and datum of the benchmark used to establish vertical control

Site access, circulation, and utilities:

- ☐ The widths and names of existing rights-of-way within the subdivision and within 100 feet of the subdivision boundary
- ☐ Proposed rights-of-way, including their widths and proposed names
- ☐ The grades of existing and proposed streets within these rights-of-way
- ☐ The width, ownership, use, and record reference of all proposed and existing easements within the subdivision and within 100 feet of the subdivision boundary
- ☐ The width, ownership, and use of all proposed easements

SMP2021 0004

ATTACHMENT A, Page 4

Preliminary Plat Checklist
Updated 1/2018
Page 3 of 5

- ☐ All proposed and existing easements shall have sufficient dimensions shown to determine their location on the ground
- ☐ Existing trails or pathways within the subdivision and within 100 feet of the subdivision boundary, including the width of any associated rights-of way or easements
- ☐ Proposed trails or pathways and widths of their rights-of-way
- ☐ If the plat submitted covers only a part of the tract under the control of the applicant, a sketch plat of the prospective street system of the unplatted part shall be submitted
- ☐ The location of any existing or proposed driveways/curb cuts that access or are proposed to access any existing or proposed street

Topographic information:

- ☐ For slopes of less than five percent, show one foot contour lines and include spot elevations at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions
- ☐ For slopes between five percent and ten percent, show two foot contour lines
- ☐ For slopes greater than ten percent, show five foot contour lines
- ☐ Every fifth elevation contour shall be distinctive and clearly labeled
- ☐ Dashed lines shall represent existing contours
- ☐ Mapping shall include any significant features which can materially affect the design of the subdivision, including, but not limited to, structures, fences, walls, and utility poles
- ☐ If irregular slopes or special features are present, additional contour information may be required by the director of engineering and public works for planning or construction purposes. Additional required information may include projecting the topography of the site after grading has taken place, showing such items as:
 - ☐ Pad elevations and drainage patterns for each lot
 - ☐ Tops and toes of all manufactured slopes, including daylight lines
 - ☐ Existing and proposed retaining wall locations and heights
- ☐ For subdivisions located in hillside areas with slopes greater than eighteen percent, additional requirements apply in accordance with CBJ 49.70, Article II

Sewer and water:

- ☐ Existing sewer and water mains within the tract with pipe sizes and grades
- ☐ A draft plan for proposed water and sewer lines showing the size, approximate slope, and connection points with elevations for the purpose of determining the feasibility of construction

Multisheet plats:

- ☐ When a plat requires more than one sheet, exclusive of a certificate sheet, an index sheet shall be included. When a plat requires more than three sheets, a cover sheet shall also be included, showing the subdivision title, a key map, and all certificates. Each additional sheet shall include the following data:
 - ☐ North arrow
 - ☐ Legend
 - ☐ Surveyor's seal and signature
 - ☐ Title block
 - ☐ Sheet _____ of _____
 - ☐ Scale
 - ☐ All plat notes
 - ☐ Vicinity map

Preliminary Plat Checklist
Updated 1/2018
Page 4 of 5

ADDITIONAL MAPPING OR REPORTS- *At the pre-application meeting, it will be determined if any of the following additional mapping or reports are required to be submitted with the preliminary plat. If required, the following additional mapping or reports shall be submitted:*

Hazard and Special Habitat Areas:

- ☐ Any portion of a special flood hazard area, landslide or avalanche area, habitat area as defined by CBJ 49.70.310, or watersheds, either existing at the proposed subdivision site or shown on the overlay maps, adopted pursuant to this title, to exist at the proposed subdivision site, must be depicted on the preliminary plat
- ☐ The boundaries of any wetland areas must be depicted on the preliminary plat. Boundaries must be determined by a person qualified to perform wetland delineations

Soils report:

- ☐ A soils report prepared by an engineer licensed by the State of Alaska shall be required if the proposed subdivision is located farther from the existing public sewer system than specified in CBJ 49.35, and the applicant chooses to provide on-lot waste disposal rather than to connect to the public system. A soils report shall include the following:
 - ☐ Certification that the proposed lots are large enough and have soil of sufficient permeability to permit the construction of approved waste treatment systems for on-lot waste disposal
 - ☐ The location and size of drain fields for each lot
 - ☐ The locations and logs of test borings, percolation test results, and a hydrological evaluation of on-site sewage disposal
 - ☐ If the soils report indicates that the soils found on the site are not of sufficient permeability or the lots are not large enough to permit the construction of systems for on-lot waste disposal, the size of the proposed lots must be increased or alternate methods for waste disposal proposed
 - ☐ The soils report shall describe the nature of the subsurface soils and any soil conditions that would affect the design of the proposed development. The soils report shall state whether the proposed subdivision plan is feasible and provide general solutions for all known geotechnical conditions or problems

Drainage report:

- ☐ A preliminary report specifying the method by which the applicant proposes to manage surface and subsurface drainage for the subdivision and the effect of such method on adjacent areas. Unlike the drainage plan required by CBJ 49.35.510, the preliminary drainage report does not need to be prepared by a licensed engineer. The report must address the following:
 - ☐ A calculation of the increase in stormwater runoff resulting from the proposed development as well as the runoff from all drainage areas associated with the site. Runoff calculations shall be based on a fully-developed subdivision and a 25-year storm event
 - ☐ How drainage from the proposed subdivision will join an established drainage channel or channels, unless the director of engineering and public works approves use of an alternative drainage way
 - ☐ An evaluation of existing drainage ways and structures located between the subdivision and the receiving water body, and verification that the existing drainage ways can accommodate the increased runoff. If the increased runoff cannot be handled, the plan must propose solutions to the problem
 - ☐ All required improvements, on or off site, that are shown on the construction plans in accordance with CBJ 49.35, Article V, and that will be constructed as part of the subdivision

Water:

- ☐ For subdivisions of five or more lots, including major subdivisions, the following shall be included, where applicable, in accordance with CBJ 49.15.412:
 - ☐ If a proposed subdivision is located at greater distance from the existing public water system than specified in CBJ 49.35, Article III, and the applicant chooses not to connect to the public system, a statement that the applicant will provide a community water system or that individual wells will be used

SMP2021 0004

ATTACHMENT A, Page 6

Preliminary Plat Checklist

Updated 1/2018

Page 5 of 5

- ☐ A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, Article III
- ☐ A copy of the State application for a permit to appropriate water in the quantity required to meet the subdivisions demands
- ☐ This does not apply to remote subdivisions unless: the subdivider of the remote subdivision chooses to provide potable water, a public water system is available and the subdivision falls within the criteria outlined in CBJ 49.35.310(a), or the subdivision has four or fewer lots.
- ☐ The director for minor subdivisions, and the planning commission for major subdivisions, may, for good cause, temporarily waive the requirement to provide a water report and proof of water, and condition the approval of the preliminary plat upon the provision of both documents as part of the final plat application and approval process.

Erosion control:

- ☐ A report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.

Traffic study:

- ☐ A traffic impact analysis may be required with the preliminary plat in accordance with CBJ 49.40.300.

Shadow plats:

- ☐ For subdivisions of five or more lots in transition areas, a shadow plat shall be submitted according to CBJ 49.70.710. The shadow plat shall consist of a sketch superimposed on the proposed subdivision layout. This sketch shall reflect any future resubdivision of the parcels into smaller lots consistent with the higher density and the lot size allowed under the transition zoning.



(907) 586-0715
 CDD_Admin@juneau.org
 www.juneau.org/CDD
 155 S. Seward Street • Juneau, AK 99801

Chilkat Vistas – Phase 2 Subdivision and Robbie Road Rezone

Case Number: PAC2020 0064

Applicant: Mike Heumann

Property Owner: City and Borough of Juneau – See Reconveyance Agreement (SMP2019004)

Property Address: Not Assigned

Parcel Code Number: 7B1001160011

Site Size: 28.52 Acres

Zoning: D15 Multi-family

Existing Land Use: Vacant

Conference Date:	10/21/20
Report Issued:	10/27/20

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Mike Heumann William Heumann	Applicants	mpheumann@hotmail.com
Laurel Christian Joseph Meyers	Planning	Laurel.christian@juneau.org Joseph.meyers@juneau.org
Autumn Sapp	General Engineering	Autumn.sapp@juneau.org
Kyle Paw	Permit Office	Kyle.paw@juneau.org

Pre-Application Conference Final Report

Conference Summary

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Note: The property owners entered into a reconveyance agreement with CBJ to cover the bond cost of the improvements for Phase 1. The applicants cannot apply for Phase 2 until the land has been reconveyed to the property owners.

Planning Division – Phase 2 Subdivision Notes

1. **Zoning** – D15 Residential. Minimum lot size is 5,000 square feet for a standard lot; minimum lot width is 50' and minimum lot depth is 80'. Minimum lot size for a bungalow lot is 3,000 square feet; minimum lot width is 25' and minimum lot depth is 80'.
2. **Setbacks** – 20' front; 15' rear; 13' street side; 5' side. Lots that abut the D5 zoning district may have a greater setback. Until the temporary cul-de-sac is vacated, setbacks will be measured from the temporary cul-de-sac easement for lots who have frontage on the temporary cul-de-sac. Additionally, structures cannot be built over the existing sewer easement.
 - a. Setbacks should be shown on the preliminary plat to demonstrate a buildable area exists on each proposed lot.
3. **Height** – 35' permissible uses; 25' accessory uses; 25' for bungalow lot homes
4. **Access** – Extension of Hillcrest Avenue
 - a. **Secondary Access** – Through the previous approval (SMP20190004) it was determined that no more than 200 homes may be served by a single public access (Craig Street). A second access or sprinkling may be required based on the number of units proposed for Phase II.
 - b. **Hooter Lane** – Due to the number of anticipated ADT's through Hooter Lane, Hooter Lane may be classified as a collector. Access restrictions may apply per 49.35.210(c).
5. **Street Standards** – In the project narrative, the applicant should discuss if they are requesting a reduction in the minimum right-of-way width and discuss how the request meets the criteria of 49.35.240(b) (5).
6. **Hammerhead Turnaround** – In lieu of constructing a temporary cul-de-sac, the applicants have discussed constructing a permanent hammerhead turnaround at the intersection of the extended Hillcrest Avenue and the future connection to Hooter Lane.
 - a. 49.35.240(g) (3) *hammerhead turnarounds may be built in lieu of a temporary cul-de-sac, upon approval by the director of engineering and public works.*
 - i. Please submit this request in writing for review with the subdivision application.
 - b. The proposed hammerhead turnaround must also meet emergency service access requirements.
7. **Parking & Circulation**– Requirements vary by use. For single-family homes, 2 spaces are required per dwelling.
8. **Lot Coverage** – Maximum 50% (reviewed with building permit).
9. **Vegetative Coverage** – Minimum 30% (reviewed with building permit).
10. **Lighting** – Lighting for dwellings will be addressed with a building permit. Street lighting shall be required based on engineering standard detail.

Pre-Application Conference Final Report

11. **Noise** – Construction noise shall follow the settlement agreement and be within allowed CBJ hours of operations.
12. **Flood** – Not in a flood hazard area.
13. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – Excavation of slopes in excess of 18% may require a hillside endorsement. A plat note will be required. Hillside Endorsements will be reviewed with building permit for single-family homes (minor development) or with Conditional Use Permits (major development) for multi-family development.
14. **Wetlands** – A wetlands delineation is needed for Phase II.
15. **Habitat** – No known.
16. **Plat or Covenant Restrictions** – Appeal settlement agreement stipulations apply. Plat notes from Phase 1 will be added to the phase 2 plat.
17. **Traffic** – Applicants have submitted a Traffic Impact Analysis for a build out of 403 dwelling units. This will be reviewed with the major subdivision application.
18. **Nonconforming situations** – No known.

Planning Division – Robbie Road Rezones Notes

The applicants have expressed interest in rezoning a portion of the lot from D15 to D5 in order to do a shared access subdivision off the end of Robbie Road. Shared access subdivisions are allowed in D5 but not in D15.

19. **Process** – Rezone requests follow the process outlined in CBJ 49.75.130 (Attached). Rezone requests are reviewed by the Planning Commission and then the Assembly.
 - a. **A rezone request must be submitted in January or July.**
 - b. The rezone request must be at least two acres or an expansion of an existing zone. The proposed rezone would be an expansion of the neighboring D5 zoning district.
 - c. The applicant should submit the metes and bounds of the area they are requesting to rezone.
 - d. The Planning Commission must find: *“the proposed zoning district and the uses allowed therein are in substantial conformance with the land use maps of the comprehensive plan”*.
 - e. Policies from adopted plans are also taken into consideration. A downzone may not be supported by policies in the Comprehensive Plan (or other adopted plans) that support housing development and the highest and best use of land.
20. **Land Use Designation** – The lot has a land use designation of Medium Density Residential (see attached map).
 - a. *These lands are characterized by urban residential lands for multifamily dwelling units at densities ranging from 5 to 20 units per acre. Any commercial development should be of a scale consistent with a residential neighborhood, as regulated in the Table of Permissible Uses (CBJ 49.25.300).*

Building Division

21. **Building Plans** will be reviewed during Building Permit Review.
22. **Outstanding Permits** -

Permit Application	Pstatus	Permit Type	Location	Permit Id	Purpose
BLD20200282	Issued	GRD	HILLCREST AVE	2023074	Grading permit for Chikket Vistas Subdivision

General Engineering/Public Works

23. **Engineering** –

Pre-Application Conference Final Report

- a. At the time of preliminary plat submittal, submit an erosion control report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.
- b. Construction plans to be submitted after the approval of the preliminary plat and before final plat submission. Construction plans must adhere to 49.35.140 and must be signed and stamped by Alaskan licensed engineers for each discipline. Construction plans for this layout of development does not need to include all phases of full buildout of development. For specific requirements, please refer to CBJ code by visiting: <http://www.juneau.org/cddftp/ordinances.php> and referencing chapter 49.35 – Public and Private Improvements.
- c. Prior to final plat, an Engineer's estimate for the installation of public improvements must be submitted. Once this is received, a performance bond amount will be determined and must be paid/posted prior to recording of the final plat. Further discussion regarding the bond can take place once the project phasing is determined. For all options regarding the financial guarantee please refer to 49.55 – Financial Responsibility.
- d. Dependent on the construction plan and schedule an inspection deposit will be required and a private inspector may be hired.
- e. Street lighting is required and shall not exceed 250' between poles.
- f. Easements: Site plan and plat shall include all existing and proposed easements for drainage, utility lines including plumbing lines, access, snow storage, trash (dumpster) storage, or any other shared use that requires crossing the property line.
- g. Permits required will determined by the subdivision process you follow. They may include Right-of-way permit, grading permit, water utility permit, and sewer utility permit.

24. Drainage –

- a. Drainage report with the submittal of the preliminary plat does not need to be engineered. At time of construction plan submittals a drainage plan with calculations must be submitted and must be signed and stamped by an Alaskan licensed engineer.
- b. Preliminary plat requirements do need to be followed see 49.15.411 - Preliminary plat requirements for full listing. Please do note that topographic information shall be shown as outlined under 48.15.411, (6) – Topographic information.

25. Utilities – (water, power, sewer, etc.) –

- a. At time of preliminary plat, a draft plan for the proposed water and sewer lines shall be submitted showing existing installed utilities including line sizing and connection points with elevations.
- b. A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, article III. Specifically for your project, it may require additional upgrades to the existing water system.

Fire Marshal

26. Fire Items/Access – Plans Will be reviewed with Building Permit

Other Applicable Agency Review

Pre-Application Conference Final Report

27. DOT&PF / Alcohol Beverage Control Board / Army Corps / DEC (wastewater) / DNR / USF&W / F&G / FAA / Corrections...

- a. Not applicable at this time. Agency review will be requested when the complete application is submitted.

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. Major Subdivision Application
2. Development Permit Application
3. Zone Change Application – submit in January or July

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report
2. Preliminary plat checklist
3. Revised sketch plat matching the settlement agreement and phase 2 as proposed
4. Wetlands delineation
5. Preliminary drainage plan
6. Preliminary water and sewer plan
7. Applicable items listed under the General Engineering section of this report

Exceptions to Submittal Requirements

Submittal requirements staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

1. None.

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Major Subdivision Preliminary Plat - \$110.00 per lot
2. Major Subdivision Final Plat - \$70.00 per lot
3. Rezone Application - \$600.00
4. Public Notice Sign Fee - \$50.00 plus \$100.00 refundable deposit.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/cdd.

Pre-Application Conference Final Report

Submit your Completed Application

You must submit your application(s) in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Fax: (907) 586-4529
Web: www.juneau.org/cdd

areas should be substantially developed in order to justify permitting within areas designated to be Wetland. The Preliminary Plat incorporates this into the design.

Utilities:

5. Water. An 8" ductile iron pipe extends onto Chilkat Vistas Phase 1 at the end of Hillcrest Drive. It has been extended as part of the Phase 1 development and will be further extended and is sufficient to provide for the water requirements of the proposed 15 lots in Phase 2.
Sewer. A sewer line was constructed running up Hooter Lane to Hillcrest Avenue and is of sufficient size to service all the lots in Phase 2 as well as the future development anticipated for Tracts A1, A2. Tract A3 will be connected to the Mountainside Estates sewer system.
6. Unique Characteristics of the land or structure(s). – None
7. Existing Structures. There are no existing structures in the Phase 2 area.
8. Drainage: We hired ProHNS Engineers to develop a drainage plan for the remaining 28 acres. In order to accommodate the drainage requirements for the anticipated future development. We plan to install a 30" culvert down Hooter Lane to Glacier Highway. We plan to install a 36" culvert under Glacier Highway. The engineering for this work has been completed and accepted by DOT and we expect the permit will be issued soon. Presently there is a 24" culvert under Glacier Highway and it is of sufficient size to handle the drainage requirements for Phase 2.

PROJECT NARRATIVE

August 12, 2021

Michael Heumann and William Heumann are applying to subdivide Tract A Chilkat Vistas Subdivision, which consist of 15 single family lots, Tract A1, Tract A2, and Tract A3.

Later phases will include additional single and multi-family. Following approval of our preliminary plat for Phase 1 in February 2019, the Mountainside Estates Neighborhood Association (MENA) appealed our subdivision and we reached settlement terms that satisfy both city code and the concerns of the appellants. The sketch plat shows a configuration that reflects that settlement. As part of the settlement process, new elevation points were collected by our surveyor and used to confirm the validity of existing LIDAR elevation data. Based on this data, we have confirmed that the roadways depicted in our sketch plat can be constructed at grades of 12% or less.

Zoning District D-15

Density 15 units per acre

Other issues of note include:

1. Water System. What is the capacity of the water system to deliver water to additional dwellings without falling below the DEC and Fire Department requirements? Included with the Phase 1 Application was a Memorandum prepare by James Dorn, a local engineer in which he reaches the conclusion that the existing system can meet the demands of an additional 80 residences. We connected 14 lots to the water system in Phase 1. As part of the Phase 2 we plan to connect the 15 single family lots to the existing water system. Also, our plan calls for bringing an 8" water line up Hooter Lane and connecting it to the Mountainside Water system. The elevation of Tract A3 (multifamily) is at an elevation low enough that we will have sufficient flow and pressure without utilizing water from the Mountainside system.
2. Fire Code Requirements. The fire code allows for the construction of additional dwellings on extensions of the street system servicing Mountainside Estates, if the water available at the hydrants is 500 gpm and if the new dwellings are provided with residential sprinkler systems. It, also, allows for the construction of new dwellings without sprinkler systems where 1,000 gpm is available. We will provide residential sprinkler systems where necessary.
3. Access. The property is accessed by Hillcrest Avenue, Mountainside Drive, and Robbie Road, as well an undeveloped right-of-way, Hooter Lane. As part of Phase 1 we placed a sewer line running from Glacier Highway up Hooter Lane to service the development of 14 homes in the Hillcrest Avenue extension. We roughed in Hooter Lane, placed shot rock and cut the slopes in anticipation of the future complete build out of Hooter Lane. We will complete development of Hooter Lane as part of this Phase 2 project.
4. Wetlands. We have negotiated with the Us Army Corp of Engineers and submitted an application for a wetlands permit a month ago. We are hopeful that they will issue the permit within 2 months. As part of our negotiations we hired a consultant to perform a Wetlands Delineation on the remaining 28 acres of our tract. The outcome of this Delineation was favorable in that large portions of the tract are not wetlands. They have stated that the uplands

Erosion Control:

Erosion control will be managed by a Storm Water Pollution Prevention Plan (SWPPP) in conjunction with the Alaska Dept. of Environmental Conservation Construction General Permit. Generally, Best managements Practices (BMP's) such as check dams, vegetive buffers and stockpile management, in addition to other BMPs as necessary will be used to prevent erosion on site and limit any impacts of unavoidable erosion to the surrounding areas during the project. The process for implementation, documentation and maintenance of storm water management and BMP's will be outlined in the Storm Water Pollution Prevention Plan (SWPPP). The implementation of BMP's during the project's construction until final stabilization will result in a minimal impact to adjacent wetlands and neighboring properties.



1945 Alex Holden Way #101	Juneau, AK 99801	907-780-4004	solutions@proHNS.com
219 Main Street #13	Haines, AK 99827	907-419-6070	www.proHNS.com

June 24, 2021

Chilkat Vistas, LLC
 6000 Thane Rd
 Juneau, AK 99801
mpheumann@hotmail.com
wheumann@hotmail.com

RE: Chilkat Vistas/Richland Manor Subdivision -Phase II – DOT Drainage Memo

To Whom It May Concern,

The following memo has been prepared for the Chilkat Vistas/Richland Manor Subdivision in Juneau, AK. The project generally consists of the construction of a residential subdivision and associated infrastructure. Part of the work required for this phase of the subdivision includes substantial upgrades to the existing City and Borough of Juneau's (CBJ) right-of-way of Hooter Lane. The work will also require upgrades to the Hooter Lane intersection with Glacier Highway, which is Alaska Department of Transportation and Public Facilities (AK DOT&PF) right-of-way. This memo will describe the proposed development of Hooter Lane and residential subdivision and show sufficient capacity in the storm drain crossing Glacier Highway is being provided to convey runoff from the 50-year storm event without backing-up or overflowing.

Site Drainage Patterns:

Pre-developed and post-developed drainage maps for the current phase of the sub-division have been prepared for the CBJ and have been included in appendix B of this memo. These maps show that the pre-developed drainage basin allows water to flow down the northern side ditch of the Hooter Lane before it crosses under Hooter Lane in an 18-inch culvert down the Tamarack Trails Condo's driveway ditch before flowing into an 18-inch pipe the drains into the roadside ditch of Glacier Highway and then ultimately flows through a 24-inch pipe under Glacier Highway before discharging into the wetlands on the western side of the highway. In the post-developed conditions, the stormwater from the entire residential subdivision, upland area, and most of the Hooter would be collected in a storm drain system and continue down the northern side of the Hooter Lane right-of-way and flow across Glacier Highway in a proposed 36-inch CPP Pipe. Any flow that remains in the southern side ditch of Hooter Lane would be from runoff from the southern crown of the Hooter Lane Road and a small area of undeveloped adjacent lots.



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Hydrology and Hydraulics:

Autodesk Storm and Sanitary Analysis software (SSA) was used to perform the hydrology computations. The hydrology method inputted into the software was SCS TR-55 and a Type 1A rainfall distribution was used to model the 50-year storm event. Though the developer only intends to develop a small portion of the overall parcel at this time (phase II), our analysis considered the full development potential of the entire parcel and the associated increase of impervious areas, which resulted in a conservative peak flow estimate for this phase of the development. This resulted in a full parcel build out estimate of peak runoff of 43.51 cfs being directed to the new storm drain system running across Glacier Highway. The SSA model showed that all stormwater could be routed across Glacier Highway if the crossing was sized as a 36" CMP without any overflow or flooding. As a double-check, HY-8 software was used to confirm that the 36-inch culvert could accommodate this peak flow without any overflow or ponding.

It should be noted that there is a small secondary drainage basin on the south side of the Hooter Lane that will consist of less than one acre of contributing area. The hydrology model shows this area will only generate 0.55 cfs of runoff, which will flow through lowered existing 18-inch pipe and across Glacier Highway in the existing 24-inch pipe. This project will result in a reduction of stormwater being directed towards this existing crossing.

Note: The CBJ pre-developed and post-developed drainage maps show different discharge amounts from the Glacier Highway Intersection Plan Set as they accompanied a report that modeled the site according to CBJ requirements, which differ from DOT requirements.

Summary:

This project proposes constructing a new storm drain network that is oversized for this phase of the development but will be adequately sized to convey the 50-year storm across Glacier Highway once the subdivision is fully developed. The existing stormwater pipe under Glacier Highway will be left in place, but the amount of stormwater directed to it will be reduced. Thus, our analysis shows that there are no capacity concerns associated with the existing stormwater system at the intersection of Glacier Highway and Hooter Lane.

Respectfully,

Lucas Chambers, P.E.
Principal Engineer – proHNS LLC Juneau



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219 Main Street #13	Haines, AK 99827	907-419-6070	www.proHNS.com

Attachments:

Appendix A: Richland Mannor Phase II – Glacier Hwy Intersection Plan Set (7 sheets)

Appendix B: CBJ Pre-Developed and Post-Developed Drainage Maps (2 sheets)

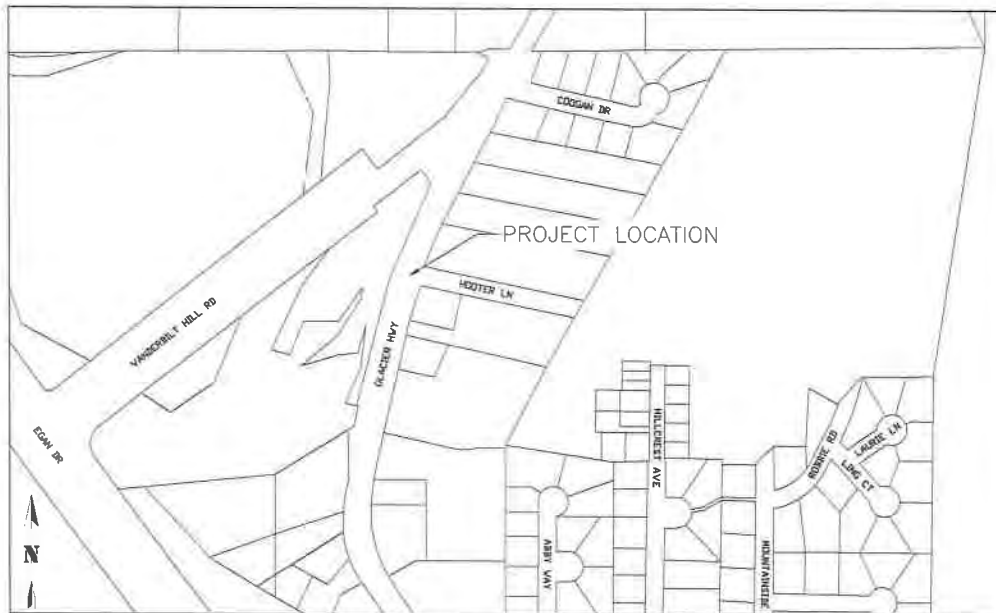
Appendix C: Autodesk Storm and Sanitary Analysis Calculations

Appendix D: HY-8 Calculations

Appendix E: Outlet 1 Hydrograph

CHILKAT VISTAS SUBDIVISION, GLACIER HWY INTERSECTION JUNEAU, AK

PREPARED FOR:
MICHAEL & WILLIAM HEUMANN



PROJECT LOCATION MAP
NTS

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	LEGEND, ABBREVIATIONS & GENERAL NOTES
3	TRENCH PATCH SECTION
4	GRADING PLAN
5	ROW PLAN VIEW
6	ROW PROFILE
7	TRAFFIC CONTROL PLAN

DOT STANDARD DRAWINGS

DOT STD NO.	DOT STD NAME
D-01.02	CULVERT PIPE & ARCH INSTALLATION DETAILS
D-04.22	PIPE & ARCH TABLES
D-06.10	CULVERT END SECTIONS
D-09.00	CULVERT MARKER POSTS
D-20.05	MANHOLES, FRAME AND COVER
D-22.01	STORMDRAIN MANHOLE FRAME AND GRATE DETAILS
D-30.11	HEADWALLS - CAST IN PLACE - TYPE II
I-20.20	CURB CUT, CURB & GUTTER AND CURB RAMP DETAILS
I-21.12	PARALLEL CURB RAMP
T-20.04	PAVEMENT MARKING APPLICATIONS
T-21.04	PAVEMENT MARKING APPLICATIONS

RECORD OF REVISIONS			
NO.	DATE	DESCRIPTION	BY



Drawn BY: L. CHAMBERS
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLADIS
1845 ALEX HOLDEN WAY #101
JUNEAU, AK 99801
(907) 780-4004
info@prohns.com
www.prohns.com

CBJ REVIEW

APPROVED: _____

DATE: _____

**RICHLAND MANNOR -
PHASE II - GLACIER HWY
INTERSECTION**
MICHAEL AND WILLIAM HEUMANN

COVER

SHEET NUMBER
1
OF
7

LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
ASPHALT			
BOLLARDS			
CONCRETE			
CURB & GUTTER			
CUT			
DITCH CENTERLINE			
EDGE GRAVEL			
FENCE			
FILL			
FIRE HYDRANT			
MONUMENT			
PROPERTY EASEMENT LINE			
PROPERTY LINE			
SANITARY SEWER CLEANOUT			
SANITARY SEWER PIPE			
SANITARY SEWER MANHOLE			
SIDEWALK RAMP			
SAWCUT & MTE LIMITS			
SIGN			
STORM DRAIN CATCH BASIN			
STORM DRAIN PIPE			
STORM DRAIN MANHOLE, GRATE			
TREES			
UNDERGROUND PIPE CAP			
UTILITY POLE			
UTILITY POLE WITH LUMINAIRE			
WATER LINE PIPE			
WATER VALVE BOX			

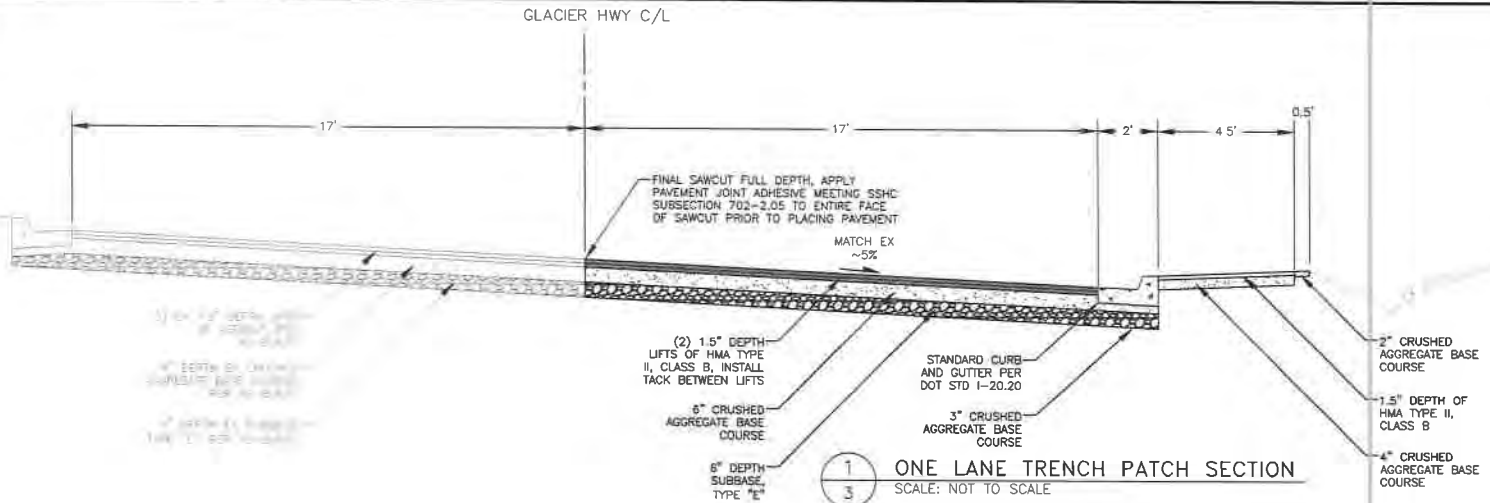
ABBREVIATIONS

AC	ASPHALT CONCRETE
BOP	BEGINNING OF PROJECT
BTM	BOTTOM
CB	CATCH BASIN
CBJ	CITY & BOROUGH OF JUNEAU
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYLENE PIPE
CONC	CONCRETE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIA	DIAMETER
DOT	DEPARTMENT OF TRANSPORTATION
EL	ELEVATION
EP	EDGE OF PAVEMENT
EOP	END OF PROJECT
FG	FINISHED GRADE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LG	UP OF GUTTER
LP	LOW POINT
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
MTE	MATCH TO EXISTING
NO	NUMBER
NTS	NOT TO SCALE
PC	POINT OF CURVATURE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
RP	RADIUS POINT
RT	RIGHT
ROW	RIGHT-OF-WAY
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TBG	TOP BACK OF GUTTER
TP	TOP OF PAVEMENT
TYP	TYPICAL
VPC	VERTICAL POINT OF CURVATURE
VPT	VERTICAL POINT OF TANGENCY

GENERAL NOTES

1. ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2020 EDITION IS MADE A PART OF THIS PROJECT AND WILL BE FOLLOWED FOR ALL WORK INSIDE DOT ROW.
2. CITY AND BOROUGH OF JUNEAU STANDARD DETAILS, 4TH EDITION, AUGUST 2011 AND CITY AND BOROUGH OF JUNEAU STANDARD SPECIFICATIONS FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS, DECEMBER 2003 ARE MADE A PART OF THIS PROJECT, INCLUDING ALL ERRATA (NOS 1-16) AND CURRENT REVISIONS AS APPLICABLE, WHICH WILL BE FOLLOWED FOR ALL WORK INSIDE CBJ ROW.
3. CALL 586-1333 BEFORE YOU DIG FOR UNDERGROUND POWER, TELEPHONE AND CABLE. CALL 411 ALASKA DIGLINE BEFORE YOU DIG FOR UNDERGROUND ACS & GCI LOCATIONS AND ELEVATION OF EXISTING UNDERGROUND WATER, SEWER, POWER, TELEPHONE AND CABLE. TELEVISION SHOWN ON THE PLANS WERE DERIVED FROM CBJ AS-BUILT'S AND FIELD LOCATES. THE ACTUAL LOCATION OF UTILITIES MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ANY DAMAGE TO THE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
4. THE ESTIMATED TOTAL AREA OF DISTURBANCE RESULTING FROM THESE IMPROVEMENTS WILL BE UNDER 100 ACRE.
5. THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) HAS IDENTIFIED ONE "ACTIVE" CONTAMINATED SITE WITHIN 1,500 FEET OF THE PROJECT LIMITS. THE ACTIVE CONTAMINATED SITE IS AT 5165 GLACIER HWY (GAS N GO), SEE DEC.AK.ALASKA.GOV FOR MORE INFO. THERE ARE NO SITES LISTED AS "INSTITUTIONAL CONTROL" WITHIN 1,500 OF THE PROJECT LIMITS. THERE ARE SEVERAL SITES LISTED AS "CLEANUP COMPLETE" WITHIN 1,500 FEET OF THE PROJECT, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSULT DEC AND OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK.
6. FINISHED GRADE AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. LOCATION OF PROPOSED WATER, SEWER AND STORM DRAINAGE FACILITIES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
7. HORIZONTAL AND VERTICAL CONTROL IS STATE PLANE ZONE AK 1 ABOUT POINT#20 MAG [LAT: 58 20 42.12902, LON: 134 29 24.31493] [2379175.08N, 2527721.72E] (115.39' MLLW) (CONVERGENCE [DEGREES] 0.4340527E) (POINT SCALE 0.99961092)
8. THE CONTRACTOR SHALL PERFORM A CLOSED LEVEL LOOP THROUGH ALL TBM'S AS LISTED HEREON TO VERIFY ELEVATIONS PRIOR TO BEGINNING ANY WORK.
9. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS, CONCRETE NAILS, CHISELED X'S) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER SURFACING IS REPLACED. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
10. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES (LONI VANKIRK AT 723-4975) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" TO CBJ WATER UTILITIES SUPERINTENDENT FOR APPROVAL AT LEAST 48 HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED. THE CONTRACTOR CANNOT SHUT OFF WATER SUPPLY TO SERVICES FOR MORE THAN 4 HOURS AT ONE TIME.
11. ALL MATERIALS PROPOSED FOR THE WATER SYSTEM THAT COME IN DIRECT CONTACT WITH THE WATER SHALL BE CERTIFIED BY AN ANSI ACCREDITED ORGANIZATION TO CONFORM WITH ANSI/NSF STANDARD 61 OR AN ANSI/NSF STANDARD WITH EQUIVALENT HEALTH REQUIREMENTS.
12. THE MATERIALS USED FOR THIS PROJECT SHALL COMPLY WITH THE NEW LEAD FREE REQUIREMENTS INCLUDING NOT MORE THAN 0.2% WHEN USED WITH RESPECT TO SOLDER AND NOT MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAD WHEN USED WITH RESPECT TO THE WETTED SURFACES OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS AND FIXTURES.
13. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN (NOT ALL ARE LABELED) ON DRAWINGS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTIONS TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
14. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.

DRAFT	RECORD OF REVISIONS			 1645 ALEX HOLDEN WAY #101 JUNEAU AK 99801 (907) 780-4004 info@prohns.com www.prohns.com	CBJ REVIEW APPROVED: _____ DATE: _____	RICHLAND MANNOR - PHASE II - GLACIER HWY INTERSECTION MICHAEL AND WILLIAM HEUMANN	LEGEND, ABBREVIATIONS AND GENERAL NOTES	SHEET NUMBER	
	No.	DATE	DESCRIPTION					BY	2
									OF
									7



ONE LANE TRENCH PATCH SECTION
SCALE: NOT TO SCALE

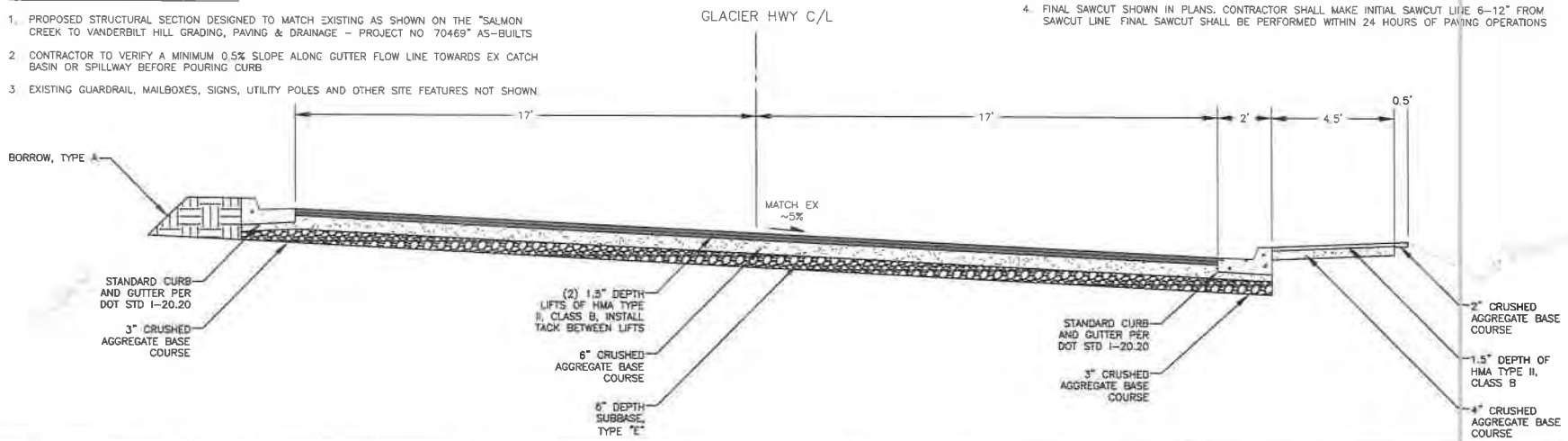
TRENCH PATCH SECTION NOTES:

1. PROPOSED STRUCTURAL SECTION DESIGNED TO MATCH EXISTING AS SHOWN ON THE "SALMON CREEK TO VANDERBILT HILL GRADING, PAVING & DRAINAGE - PROJECT NO. 70469" AS-BUILTS
2. CONTRACTOR TO VERIFY A MINIMUM 0.5% SLOPE ALONG GUTTER FLOW LINE TOWARDS EX CATCH BASIN OR SPILLWAY BEFORE POURING CURB
3. EXISTING GUARDRAIL, MAILBOXES, SIGNS, UTILITY POLES AND OTHER SITE FEATURES NOT SHOWN
4. FINAL SAWCUT SHOWN IN PLANS. CONTRACTOR SHALL MAKE INITIAL SAWCUT LINE 6-12" FROM SAWCUT LINE. FINAL SAWCUT SHALL BE PERFORMED WITHIN 24 HOURS OF PAVING OPERATIONS

TWO LANE TRENCH PATCH SECTION
SCALE: NOT TO SCALE

TRENCH PATCH SECTION NOTES:

1. PROPOSED STRUCTURAL SECTION DESIGNED TO MATCH EXISTING AS SHOWN ON THE "SALMON CREEK TO VANDERBILT HILL GRADING, PAVING & DRAINAGE - PROJECT NO. 70469" AS-BUILTS
2. CONTRACTOR TO VERIFY A MINIMUM 0.5% SLOPE ALONG GUTTER FLOW LINE TOWARDS EX CATCH BASIN OR SPILLWAY BEFORE POURING CURB
3. EXISTING GUARDRAIL, MAILBOXES, SIGNS, UTILITY POLES AND OTHER SITE FEATURES NOT SHOWN



RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY



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DATE: _____

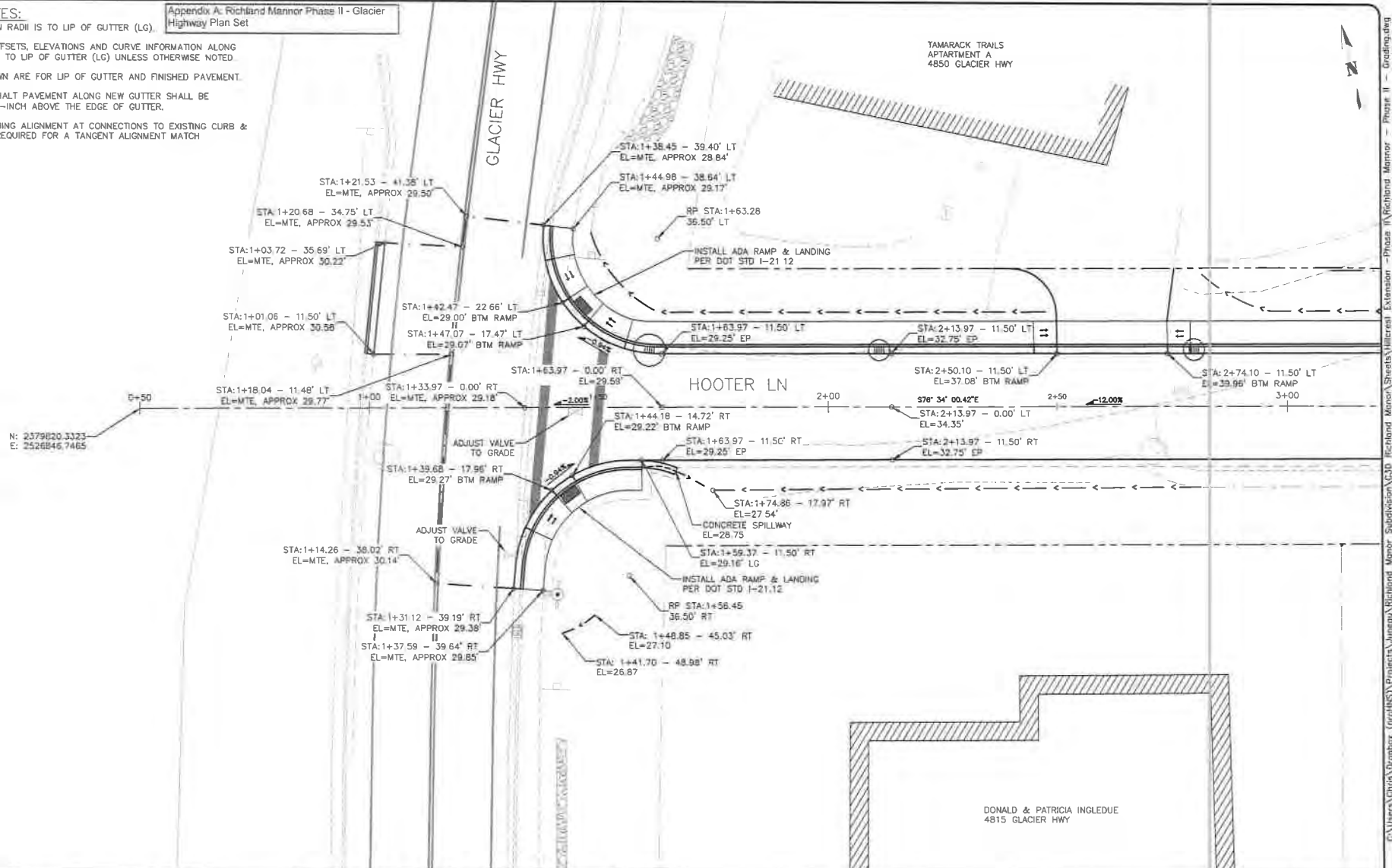
RICHLAND MANNOR - PHASE II - GLACIER HWY INTERSECTION
MICHAEL AND WILLIAM HEUMANN

DOT - TRENCH PATCH SECTION - TRENCH PATCHING DETAIL

SHEET NUMBER
3
OF
7

1. CURB RETURN RADII IS TO LIP OF GUTTER (LG). Highway Plan Set
2. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO LIP OF GUTTER (LG) UNLESS OTHERWISE NOTED.
3. SLOPES SHOWN ARE FOR LIP OF GUTTER AND FINISHED PAVEMENT.
4. TOP OF ASPHALT PAVEMENT ALONG NEW GUTTER SHALL BE FINISHED 1/4-INCH ABOVE THE EDGE OF GUTTER.
5. ADJUST CURBING ALIGNMENT AT CONNECTIONS TO EXISTING CURB & GUTTER AS REQUIRED FOR A TANGENT ALIGNMENT MATCH.

Highway Plan Set

[illegible]

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**RICHLAND MANNOR -
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INTERSECTION**
MICHAEL AND WILLIAM HEUMANN

GRADING PLAN

SHEET NUMBER
4
OF
7

SHEET NOTE:
1. INSTALL CULVERT PIPE PER DOT STD D-01.02

Appendix A: Richland Manor Phase II - Glacier Highway Plan Set

TAMARACK TRAILS
APTARTMENT A
4850 GLACIER HWY

SAWCUT &
MTE (TYP)

CULVERT END SECTION
PER STD D-06.10
STA: 0+86.56
OFF: 26.76 LT

CONTRACTOR TO REFERENCE
ANY REMOVED PAVEMENT
MARKINGS AND REPLACE
PER DOT STD T-21.04

CURB INLET FRAME AND
GRATE PER STD D-22.01

CROSSWALK STRIPING
PER STD T-20.04

S-1	PRECAST CONCRETE
STA: 1+51.29	OFF: 12.29 LT
FRAME EL=	29.17
P-1 IE=	24.40
P-2 IE=	24.50
SHALL MEET & BE INSTALLED PER DOT STD D-20.05	

S-2	TYPE I SDMH
STA: 2+11.32	OFF: 12.28 LT
FRAME EL=	32.39
P-1 IE=	27.80
P-3 IE=	27.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

S-3	TYPE I SDMH
STA: 2+79.83.32	OFF: 12.26 LT
FRAME EL=	40.60
P-3 IE=	36.80
P-4 IE=	36.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

HYDRAULIC SUMMARY			
PIPE NO.	RETURN PERIOD	Q50 FLOW RATE	CAPACITY
P-1	Q50	7.42 cfs	47.76 cfs

STORM DRAIN PIPE SUMMARY						
PIPE NO.	DIA	LENGTH	TYPE	SLOPE	START INV	END INV
P-1	36"	76.24	CMP	-0.50%	24.40	24.02
P-2	30"	118.64	CPP	-6.58%	27.80	24.50
P-3	30"	68.51	CPP	-12.99%	36.80	27.90
P-EX-1	18"	34.92	CPP	1.15%	27.50	27.10

INSTALL & BACKFILL CULVERTS & STORM DRAIN PIPES PER DOT D-01.02 INSIDE DOT ROW



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DATE: _____

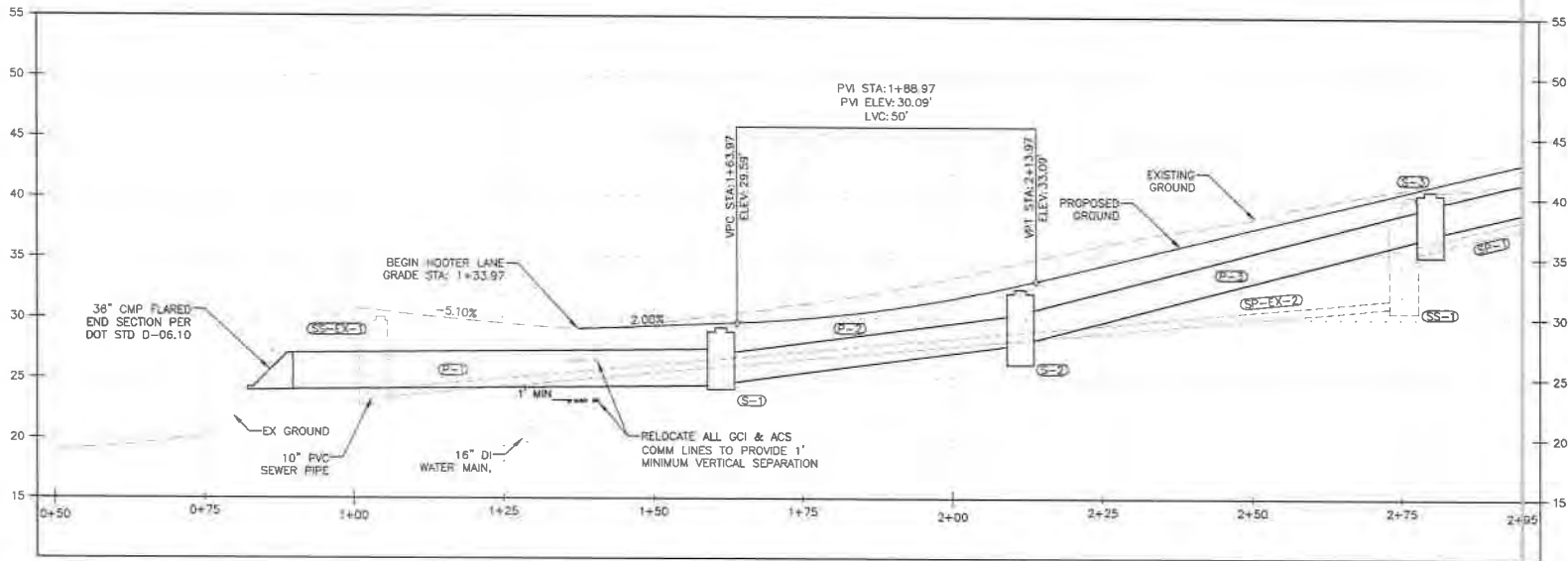
RICHLAND MANNOR -
PHASE II - GLACIER HWY
INTERSECTION
MICHAEL AND WILLIAM HEUMANN

PLAN VIEW

SHEET NUMBER
5
OF
7

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May 19, 2021



HYDRAULIC SUMMARY			
PIPE NO.	RETURN PERIOD	Q50 FLOW RATE	CAPACITY
P-1	Q50	7.42 cfs	47.76 cfs

STORM DRAIN PIPE SUMMARY						
PIPE NO.	DIA	LENGTH	TYPE	SLOPE	START INV	END INV
P-1	36"	76.24	CMP	-0.50%	24.40	24.02
P-2	30"	118.64	CPF	-6.58%	27.80	24.50
P-3	30"	68.51	CPF	-12.99%	36.80	27.90

INSTALL & BACKFILL CULVERTS & STORM DRAIN PIPES PER DOT D-01.02 INSIDE DOT ROW

PRECAST CONCRETE	
S-1	STA: 1+61.29 OFF: 12.29 LT
FRAME EL=	24.17
P-1 IE=	24.40
P-2 IE=	24.50
SHALL MEET & BE INSTALLED PER DOT STD D-20.05	

TYPE I SDMH	
S-2	STA: 2+13.97 OFF: 12.26 LT
FRAME EL=	32.39
P-2 IE=	27.80
P-3 IE=	27.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

TYPE I SDMH	
S-3	STA: 2+79.83,32 OFF: 12.26 LT
FRAME EL=	40.60
P-3 IE=	36.80
P-4 IE=	36.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

- SHEET NOTES:**
1. NOT ALL ELECTRICAL UTILITIES PAST STA 1+75 HAVE BEEN SHOWN IN PROFILE VIEW FOR CLARITY.
 2. CROSSING PIPES HAVE BEEN SHOWN IN THE LOCATION WHERE THEY INTERSECT THE PROPOSED STORM DRAIN PIPE.

RECORD OF REVISIONS			
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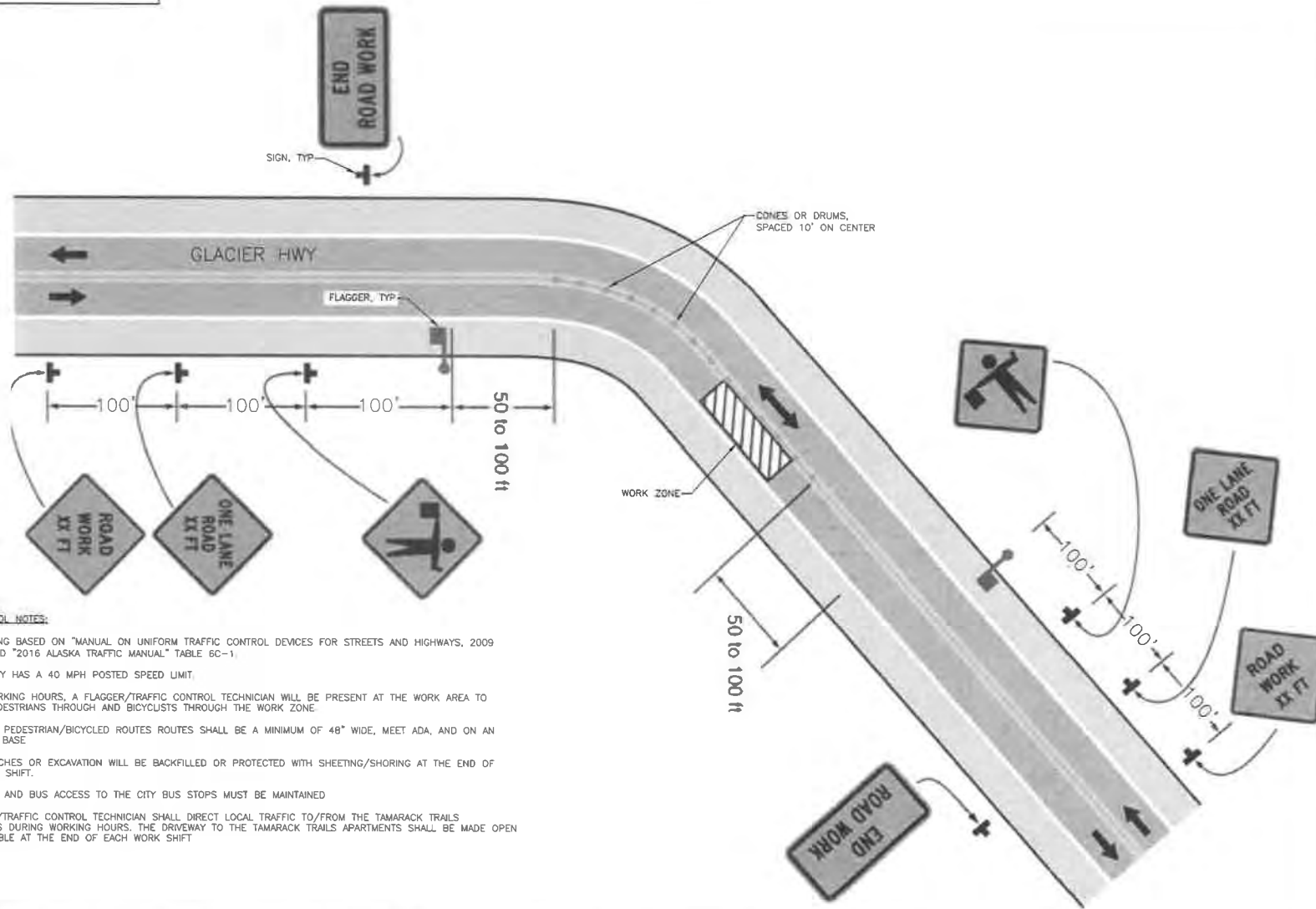
CBJ REVIEW
 APPROVED: _____
 DATE: _____

RICHLAND MANNOR - PHASE II - GLACIER HWY INTERSECTION
 MICHAEL AND WILLIAM HEUMANN

PROFILE VIEW

SHEET NUMBER
6
OF
7

May 19, 2021



TRAFFIC CONTROL NOTES:

1. SIGN SPACING BASED ON "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2009 EDITION" AND "2016 ALASKA TRAFFIC MANUAL" TABLE 6C-1.
2. GLACIER HWY HAS A 40 MPH POSTED SPEED LIMIT.
3. DURING WORKING HOURS, A FLAGGER/TRAFFIC CONTROL TECHNICIAN WILL BE PRESENT AT THE WORK AREA TO ESCORT PEDESTRIANS THROUGH AND BICYCLISTS THROUGH THE WORK ZONE.
4. TEMPORARY PEDESTRIAN/BICYCLED ROUTES SHALL BE A MINIMUM OF 48" WIDE, MEET ADA, AND ON AN UNYIELDING BASE.
5. OPEN TRENCHES OR EXCAVATION WILL BE BACKFILLED OR PROTECTED WITH SHEETING/SHORING AT THE END OF EACH WORK SHIFT.
6. PEDESTRIAN AND BUS ACCESS TO THE CITY BUS STOPS MUST BE MAINTAINED.
7. A FLAGGER/TRAFFIC CONTROL TECHNICIAN SHALL DIRECT LOCAL TRAFFIC TO/FROM THE TAMARACK TRAILS APARTMENTS DURING WORKING HOURS. THE DRIVEWAY TO THE TAMARACK TRAILS APARTMENTS SHALL BE MADE OPEN AND PASSABLE AT THE END OF EACH WORK SHIFT.

RECORD OF REVISIONS			
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CBJ REVIEW

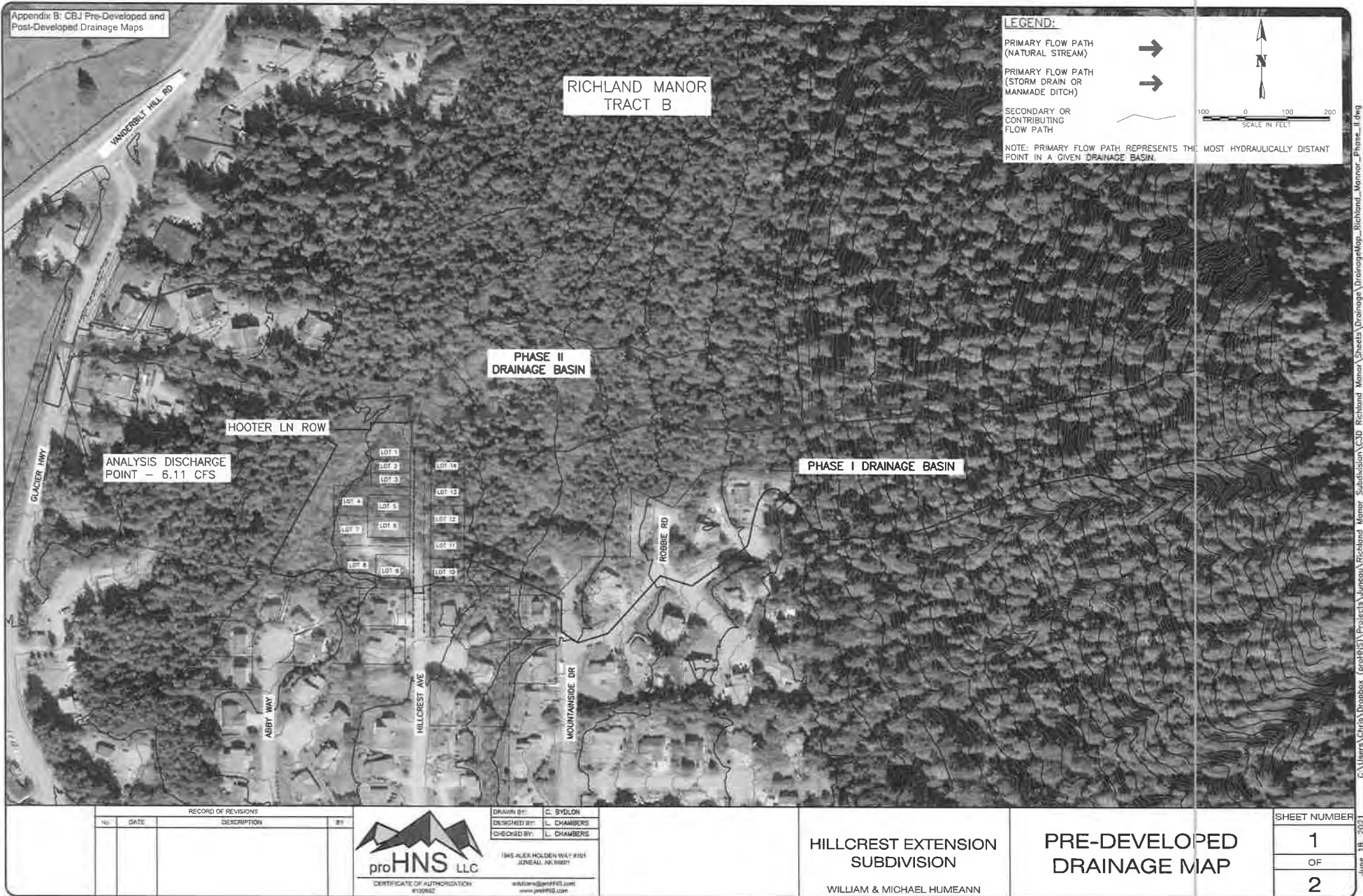
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**RICHLAND MANOR -
PHASE II - GLACIER HWY
INTERSECTION**
MICHAEL AND WILLIAM HEUMANN

TRAFFIC CONTROL PLAN

SHEET NUMBER
7
OF
7



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NO.	DATE	DESCRIPTION	BY



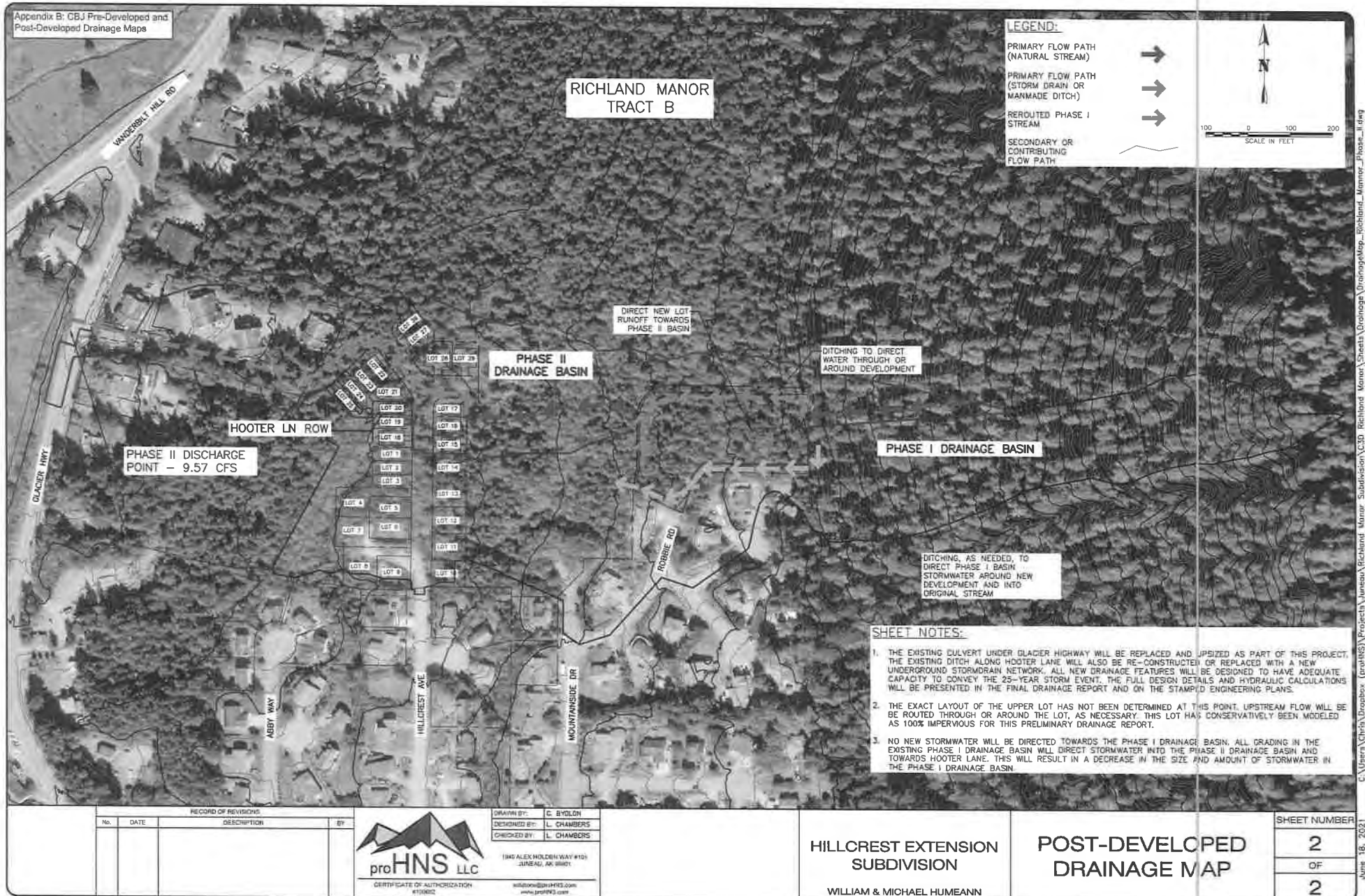
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**HILLCREST EXTENSION
 SUBDIVISION**
 WILLIAM & MICHAEL HUMEANN

**PRE-DEVELOPED
 DRAINAGE MAP**

SHEET NUMBER	1
OF	2

JUNE 18, 2021



Phase II SSA Calculations

SN	Element Description ID	From (Inlet Node)	To (Outlet Node)	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness
				(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)		(inches)	(inches)	
4	P-1	S-1	OUTLET-1	68.73	23.90	0.00	22.90	0.00	1.00	1.4500	CIRCULAR	36.000	36.00	0.0120
5	P-10	S-10	S-9	36.36	104.70	0.00	104.00	0.10	0.70	1.9200	CIRCULAR	18.000	18.00	0.0120
6	P-11	S-11	S-9	47.65	105.90	0.00	104.00	0.10	1.90	3.9900	CIRCULAR	18.000	18.00	0.0120
7	P-12	S-12	S-11	45.94	111.00	0.00	106.00	0.10	5.00	10.8800	CIRCULAR	18.000	18.00	0.0120
8	P-2	S-2	S-1	118.64	36.70	0.00	24.15	0.25	12.55	10.5800	CIRCULAR	24.000	24.00	0.0120
9	P-3	S-3	S-2	119.42	51.20	0.00	36.80	0.10	14.40	12.0600	CIRCULAR	24.000	24.00	0.0120
10	P-4	S-4	S-3	288.75	83.90	0.00	51.30	0.10	32.60	11.2900	CIRCULAR	24.000	24.00	0.0120
11	P-5	S-5	S-4	56.25	92.00	0.00	84.00	0.10	8.00	14.2200	CIRCULAR	24.000	24.00	0.0120
12	P-6	S-6	S-4	80.51	96.00	0.00	84.00	0.10	12.00	14.9100	CIRCULAR	18.000	18.00	0.0120
13	P-7	S-7	S-4	27.15	85.90	0.00	84.00	0.10	1.90	7.0000	CIRCULAR	18.000	18.00	0.0120
14	P-8	S-8	S-7	74.17	88.50	0.00	86.00	0.10	2.50	3.3700	CIRCULAR	18.000	18.00	0.0120
15	P-9	S-9	S-8	177.29	103.90	0.00	88.60	0.10	15.30	8.6300	CIRCULAR	18.000	18.00	0.0120

Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow	Flap Gate	Lengthening Factor	Peak Flow	Time of Peak Flow Occurrence	Max Flow Velocity	Travel Time	Design Flow Capacity	Max Flow / Design Flow Ratio	Max Flow Depth / Total Depth Ratio	Total Time Surcharged	Max Flow Depth	Reported Condition
			(cfs)			(cfs)	(days hh:mm)	(ft/sec)	(min)	(cfs)			(min)	(ft)	
0.5000	0.5000	0.0000	0.00	NO	1.00	7.42	0 08:00	7.52	0.15	87.16	0.09	0.20	0.00	0.59	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.29	0 07:55	3.44	0.18	15.79	0.02	0.10	0.00	0.14	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	2.77	0 08:07	8.68	0.09	22.72	0.12	0.24	0.00	0.35	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00		37.54	0.00	0.00	0.00	0.00	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	7.36	0 08:00	15.86	0.12	79.71	0.09	0.21	0.00	0.41	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	5.66	0 08:01	15.29	0.13	85.10	0.07	0.18	0.00	0.35	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	5.51	0 08:00	14.82	0.32	82.35	0.07	0.18	0.00	0.35	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00		92.42	0.00	0.00	0.00	0.00	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.60	0 07:55	8.78	0.15	43.93	0.01	0.08	0.00	0.12	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	4.64	0 08:00	12.34	0.04	30.10	0.15	0.27	0.00	0.40	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	3.45	0 08:01	8.73	0.14	20.89	0.16	0.27	0.00	0.41	Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	3.07	0 08:02	11.81	0.25	33.43	0.09	0.20	0.00	0.31	Calculated

SN	Element ID	X Coordinate	Y Coordinate	Description	Invert Elevation	Boundary Type	Flap Gate	Fixed Water Elevation	Peak Inflow	Peak Lateral Inflow	Maximum HGL Depth Attained	Maximum HGL Elevation Attained
					(ft)			(ft)	(cfs)	(cfs)	(ft)	(ft)
1	OUTLET-1	2526890.89	2379822.38		22.90	FREE	NO		7.42	0.00	0.59	23.49
2	OUTLET-2	2526822.95	2379778.33		14.72	FREE	NO		0.46	0.00	0.09	14.81

SN	Element ID	X Coordinate	Y Coordinate	Description	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation	Max (Rim) Elevation	Max (Rim) Offset	Initial Water Elevation
									(ft)	(ft)	(ft)	(ft)
1	S-10	2527761.39	2379627.74		FHWA HEC-22 GENERIC	N/A	On Grade	1	104.70	110.63	5.93	104.70
2	S-6	2527550.68	2379686.40		FHWA HEC-22 GENERIC	N/A	On Grade	1	96.00	101.07	5.07	96.00
3	S-B1	2526916.19	2379758.86		FHWA HEC-22 GENERIC	N/A	On Grade	1	24.72	29.35	4.63	24.72

Initial Water Depth	Ponded Area	Grate Clogging Factor	Roadway Longitudinal Slope	Roadway Cross Slope	Roadway Manning's Roughness	Gutter Cross Slope	Gutter Width	Gutter Depression	Median Ditch Longitudinal Slope	Median Ditch Bottom Width	Median Ditch Left Side Slope	Median Ditch Right Side Slope	Median Ditch Manning's Roughness	Peak Flow
(ft)	(ft²)	(%)	(ft/ft)	(ft/ft)		(ft/ft)	(ft)	(inches)	(ft/ft)	(ft)	(V:H)	(V:H)		(cfs)
0.00	N/A	0.00	0.0200	0.0500	0.0130	0.0620	2.00	0.0000	45.0000	45.0000	64	64	45.0000	0.36
0.00	N/A	0.00	0.0200	0.0500	0.0130	0.0620	2.00	0.0000	45.0000	45.0000	64	64	45.0000	0.84
0.00	N/A	0.00	0.0200	0.0500	0.0130	0.0620	2.00	0.0000	45.0000	45.0000	64	64	45.0000	0.46

Peak Lateral Inflow	Peak Flow Intercepted by Inlet	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak Flow	Allowable Spread	Max Gutter Spread during Peak Flow	Max Gutter Water Elev. during Peak Flow	Max Gutter Water Depth during Peak Flow	Time of Maximum Depth Occurrence	Total Flooded Volume	Total Time Flooded
(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-inches)	(minutes)
0.36	0.31	0.05	86.56	7.00	1.97	110.76	0.12	0 07:49	0.00	0.00
0.84	0.61	0.23	72.22	7.00	2.87	101.24	0.17	0 07:54	0.00	0.00
0.46	0.38	0.08	83.68	7.00	2.20	29.49	0.13	0 07:56	0.00	0.00

SN	Element ID	X Coordinate	Y Coordinate	Description	Invert Elevation	Ground/Rim (Max) Elevation	Ground/Rim (Max) Offset	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Surcharge Depth	Ponded Area	Minimum Pipe Cover
					(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft ²)	(inches)
1	S-1	2526957.75	2379806.45		23.90	29.25	5.35	23.90	0.00	29.25	0.00	0.00	28.24
2	S-11	2527773.16	2379653.88		105.90	110.22	4.32	105.90	0.00	110.22	0.00	0.00	32.60
3	S-12	2527805.92	2379686.09		111.00	114.97	3.97	111.00	0.00	114.97	0.00	0.00	29.66
4	S-2	2527073.14	2379778.86		36.70	41.96	5.26	36.70	0.00	41.96	0.00	0.00	37.91
5	S-3	2527189.29	2379751.13		51.20	54.96	3.76	51.20	0.00	54.96	0.00	0.00	19.91
6	S-4	2527470.20	2379684.30		83.90	89.77	5.87	83.90	0.00	89.77	0.00	0.00	45.25
7	S-5	2527519.29	2379711.77		92.00	99.42	7.42	92.00	0.00	99.42	0.00	0.00	65.08
8	S-7	2527476.55	2379657.90		85.90	92.83	6.93	85.90	0.00	92.83	0.00	0.00	63.98
9	S-8	2527550.64	2379654.41		88.50	91.80	3.30	88.50	0.00	91.80	0.00	0.00	20.41
10	S-9	2527727.39	2379640.64		103.90	110.66	6.76	103.90	0.00	110.66	0.00	0.00	61.87

Peak Inflow	Peak Lateral Inflow	Maximum HGL Elevation Attained	Maximum HGL Depth Attained	Maximum Surge Depth Attained	Minimum Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Maximum HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-inches)	(minutes)
7.42	0.07	24.56	0.66	0.00	4.69	24.32	0.42	0 08:00	0 00:00	0.00	0.00
2.77	2.77	106.25	0.35	0.00	3.96	106.06	0.16	0 08:07	0 00:00	0.00	0.00
0.00	0.00	111.00	0.00	0.00	3.97	111.00	0.00	0 00:00	0 00:00	0.00	0.00
7.36	1.73	37.15	0.45	0.00	4.81	36.95	0.25	0 08:01	0 00:00	0.00	0.00
5.66	0.16	51.65	0.45	0.00	3.31	51.45	0.25	0 08:00	0 00:00	0.00	0.00
5.51	0.07	84.40	0.50	0.00	5.37	84.16	0.26	0 08:00	0 00:00	0.00	0.00
0.00	0.00	92.00	0.00	0.00	7.42	92.00	0.00	0 00:00	0 00:00	0.00	0.00
4.64	1.29	86.41	0.51	0.00	6.42	86.17	0.27	0 08:01	0 00:00	0.00	0.00
3.45	0.41	88.91	0.41	0.00	2.89	88.73	0.23	0 08:01	0 00:00	0.00	0.00
3.07	0.06	104.35	0.45	0.00	6.30	104.14	0.24	0 08:07	0 00:00	0.00	0.00

SN	Element Description ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period	Rainfall Depth	Rainfall Distribution
								(years)	(inches)	
1	JUNEAU	Time Series	25-YEAR	Cumulative	inches	Alaska	Juneau (B)	25	4.82	SCS Type IA 24-hr

Appendix C: Autodesk Storm and Sanitary Analysis Calculations

SN	Element Description ID	Area (acres)	Drainage Node ID	Weighted Curve Number	Rain Gage ID	Peak Rate Factor	Total Precipitation (inches)	Total Runoff (inches)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	LOT-15	0.10	S-10	92.00	JUNEAU	484	4.82	3.91	0.10	0 00:05:24
2	LOT-16	0.10	S-10	92.00	JUNEAU	484	4.82	3.91	0.10	0 00:05:00
3	LOT-17	0.10	S-10	92.00	JUNEAU	484	4.82	3.91	0.10	0 00:05:00
4	LOT-19	0.07	S-8	92.00	JUNEAU	484	4.82	3.91	0.07	0 00:08:23
5	LOT-20	0.09	S-8	92.00	JUNEAU	484	4.82	3.91	0.09	0 00:05:00
6	LOT-21	0.12	S-8	92.00	JUNEAU	484	4.82	3.91	0.12	0 00:06:53
7	LOT-22	0.12	S-7	92.00	JUNEAU	484	4.82	3.91	0.12	0 00:08:01
8	LOT-23	0.16	S-6	92.00	JUNEAU	484	4.82	3.91	0.16	0 00:08:17
9	LOT-24	0.20	S-6	92.00	JUNEAU	484	4.82	3.91	0.20	0 00:07:19
10	LOT-25	0.18	S-6	92.00	JUNEAU	484	4.82	3.91	0.18	0 00:07:49
11	LOT-26	0.19	S-6	92.00	JUNEAU	484	4.82	3.91	0.20	0 00:08:45
12	OFFSITE-WOODS-B1	0.78	S-B1	77.00	JUNEAU	484	4.82	2.47	0.35	0 00:42:34
13	ROAD-1	0.06	S-1	98.00	JUNEAU	484	4.82	4.58	0.07	0 00:05:00
14	ROAD-11	0.09	S-11	98.00	JUNEAU	484	4.82	4.58	0.10	0 00:05:00
15	ROAD-12	0.11	S-8	98.00	JUNEAU	484	4.82	4.58	0.13	0 00:05:00
16	ROAD-13	0.04	S-7	98.00	JUNEAU	484	4.82	4.58	0.04	0 00:05:00
17	ROAD-14	0.04	S-10	98.00	JUNEAU	484	4.82	4.58	0.04	0 00:05:00
18	ROAD-15	0.05	S-9	98.00	JUNEAU	484	4.82	4.58	0.06	0 00:05:00
19	ROAD-2	0.06	S-2	98.00	JUNEAU	484	4.82	4.58	0.07	0 00:05:00
20	ROAD-3	0.14	S-3	98.00	JUNEAU	484	4.82	4.58	0.16	0 00:05:00
21	ROAD-4	0.06	S-4	98.00	JUNEAU	484	4.82	4.58	0.07	0 00:05:00
22	ROAD-5	0.08	S-6	98.00	JUNEAU	484	4.82	4.58	0.10	0 00:05:00
23	ROAD-BASIN_2_1	0.18	S-B1	98.00	JUNEAU	484	4.82	4.58	0.21	0 00:05:00
24	TAMARACK-TRAILS-CONDO	1.53	S-2	95.00	JUNEAU	484	4.82	4.24	1.67	0 00:09:55
25	TRACT-B1	0.97	S-7	98.00	JUNEAU	484	4.82	4.58	1.12	0 00:05:00
26	UPLANDS-1	5.13	S-11	77.00	JUNEAU	484	4.82	2.47	2.70	0 00:24:58

Full Build-Out SSA Calculations

SN	Element Description	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness
	ID			(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)		(inches)	(inches)	
1	P-1	S-1	OUTLET-1	68.73	23.90	1.33	22.90	-0.28	1.00	1.4500	CIRCULAR	36.000	36.00	0.0120
2	P-10	S-10	S-9	36.36	104.70	-2.80	104.00	1.43	0.70	1.9300	CIRCULAR	18.000	18.00	0.0120
3	P-11	S-11	S-9	47.64	105.90	0.00	104.00	1.43	1.90	3.9900	CIRCULAR	18.000	18.00	0.0120
4	P-12	S-12	S-11	45.94	111.00	1.33	106.00	0.10	5.00	10.8800	CIRCULAR	18.000	18.00	0.0120
5	P-13	S-13	S-11	189.74	127.90	0.00	106.00	0.10	21.90	11.5400	CIRCULAR	18.000	18.00	0.0120
6	P-14	S-14	S-13	103.20	141.90	0.00	128.00	0.10	13.90	13.4700	CIRCULAR	18.000	18.00	0.0120
7	P-15	S-15	S-14	97.41	153.90	0.00	142.00	0.10	11.90	12.2200	CIRCULAR	18.000	18.00	0.0120
8	P-16	S-16	S-15	119.13	167.00	0.00	154.00	0.10	13.00	10.9100	CIRCULAR	18.000	18.00	0.0120
9	P-17	S-17	S-15	146.47	186.25	0.00	154.00	0.10	32.25	22.0200	CIRCULAR	18.000	18.00	0.0120
10	P-2	S-2	S-1	117.72	36.70	1.33	24.15	1.58	12.55	10.6600	CIRCULAR	24.000	24.00	0.0120
11	P-3	S-3	S-2	121.65	51.20	1.33	36.80	1.43	14.40	11.8400	CIRCULAR	24.000	24.00	0.0120
12	P-4	S-4	S-3	287.44	83.90	0.00	0.00	-49.87	83.90	29.1900	CIRCULAR	24.000	24.00	0.0120
13	P-5	S-5	S-4	56.25	92.00	1.33	84.00	0.10	8.00	14.2200	CIRCULAR	18.000	18.00	0.0120
14	P-6	S-6	S-4	80.51	96.00	1.33	84.00	0.10	12.00	14.9000	CIRCULAR	18.000	18.00	0.0120
15	P-7	S-7	S-4	27.16	85.90	77.33	84.00	0.10	1.90	7.0000	CIRCULAR	18.000	18.00	0.0120
16	P-8	S-8	S-7	74.17	88.50	1.33	86.00	77.43	2.50	3.3700	CIRCULAR	18.000	18.00	0.0120
17	P-9	S-9	S-8	177.29	103.90	1.33	88.60	1.43	15.30	8.6300	CIRCULAR	18.000	18.00	0.0120
18	P-B10	S-10	S-9	38.25	107.50	0.00	104.90	2.33	2.60	6.8000	CIRCULAR	18.000	18.00	0.0150
19	P-B16	S-16	S-15	121.81	167.00	0.00	153.90	0.00	13.10	10.7500	CIRCULAR	18.000	18.00	0.0150
20	P-B6	S-6	S-4	83.30	97.00	2.33	83.90	0.00	13.10	15.7300	CIRCULAR	18.000	18.00	0.0150

Entrance	Exit/Bend	Additional	Initial	Flap	Lengthening	Peak	Time of	Max Travel	Design	Max Flow /	Max	Total	Max	Reported
Losses	Losses	Losses	Flow	Gate	Factor	Flow	Peak	Flow	Flow	Design Flow	Flow	Time	Flow	Condition
							Occurrence	Velocity	Capacity	Ratio	Depth /	Surcharged	Depth	
			(cfs)			(cfs)	(days hh:mm)	(ft/sec)	(min)	(cfs)	Ratio	Ratio	(min)	(ft)
0.5000	0.5000	0.0000	0.00	NO	1.00	43.51	0 07:56	10.85	0.11	73.70	0.59	0.55	0.00	1.66 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.69	0 07:55	7.77	0.08	35.31	0.02	0.10	0.00	0.15 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	15.40	0 07:55	13.81	0.06	22.73	0.68	0.60	0.00	0.91 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	10.96	0 07:56	18.43	0.04	37.54	0.29	0.37	0.00	0.56 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	3.56	0 07:50	13.68	0.23	38.66	0.09	0.21	0.00	0.31 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	3.31	0 07:49	14.14	0.12	41.76	0.08	0.19	0.00	0.29 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	3.25	0 07:49	13.57	0.12	39.77	0.08	0.19	0.00	0.29 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.13	0 07:51	4.95	0.40	37.59	0.00	0.04	0.00	0.07 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	3.04	0 07:49	16.37	0.15	53.40	0.06	0.16	0.00	0.24 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	43.44	0 07:56	25.98	0.08	80.02	0.54	0.53	0.00	1.05 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	41.61	0 07:56	26.74	0.08	84.32	0.49	0.50	0.00	0.99 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	41.43	0 07:56	26.71	0.18	84.33	0.49	0.49	0.00	0.99 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	22.67	0 08:00	24.61	0.04	42.91	0.53	0.52	0.00	0.78 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.71	0 07:51	9.19	0.15	43.93	0.02	0.09	0.00	0.13 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	18.06	0 07:55	17.79	0.03	30.10	0.60	0.56	0.00	0.84 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	16.62	0 07:55	13.12	0.09	20.89	0.80	0.67	0.00	1.01 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	16.16	0 07:55	18.75	0.16	33.43	0.48	0.49	0.00	0.74 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00		35.25	0.00	0.00	0.00	0.00 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00		33.23	0.00	0.00	0.00	0.00 Calculated
0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00		41.33	0.00	0.00	0.00	0.00 Calculated

SN	Element ID	X Coordinate	Y Coordinate	Description	Invert Elevation	Boundary Type	Flap Gate	Fixed Water Elevation	Peak Inflow	Peak Lateral Inflow	Maximum HGL Depth Attained	Maximum HGL Elevation Attained
					(ft)			(ft)	(cfs)	(cfs)	(ft)	(ft)
1	OUTLET-1	2526890.89	2379822.38		23.18	FREE	NO		43.51	0.00	1.66	24.84
2	OUTLET-2	2526870.62	2379763.69		0.00	FREE	NO		0.55	0.55	0.00	0.00

SN	Element ID	X Coordinate	Y Coordinate	Description	Inlet Manufacturer Manufacturer	Inlet Number Part Location of Inlets Number	Catchbasin Invert Elevation	Max (Rim) Elevation	Max (Rim) Offset	Initial Water Elevation
							(ft)	(ft)	(ft)	(ft)
1	S-10	2527761.39	2379627.74	FHWA HEC-22 GENERIC	N/A	On Grade	1 107.50	110.63	3.13	107.50
2	S-16	2528092.90	2379403.80	FHWA HEC-22 GENERIC	N/A	On Grade	1 167.00	170.13	3.13	167.00
3	S-6	2527550.68	2379686.40	FHWA HEC-22 GENERIC	N/A	On Grade	1 94.67	101.07	6.40	97.00

Initial Water Depth	Ponded Area	Grate Clogging Factor	Roadway Longitudinal Slope	Roadway Cross Slope	Roadway Manning's Roughness	Gutter Cross Slope	Gutter Width	Gutter Depression	Median Ditch Longitudinal Slope	Median Ditch Bottom Width	Median Ditch Left Side Slope	Median Ditch Right Side Slope	Median Ditch Manning's Roughness	Peak Flow
(ft)	(ft²)	(%)	(ft/ft)	(ft/ft)		(ft/ft)	(ft)	(inches)	(ft/ft)	(ft)	(V:H)	(V:H)		(cfs)
0.00	N/A	0.00	0.0200	0.0500	0.0130	0.0620	2.00	0.0000	45.0000	45.0000	64	64	45.0000	0.69
0.00	N/A	0.00	0.0200	0.0500	0.0130	0.0620	2.00	0.0000	45.0000	45.0000	64	64	45.0000	0.13
2.33	N/A	0.00	0.0200	0.0500	0.0130	0.0620	2.00	0.0000	45.0000	45.0000	64	64	45.0000	0.71

Peak Lateral Inflow	Peak Flow Intercepted by Inlet	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak Flow	Allowable Spread	Max Gutter Spread during Peak Flow	Max Gutter Water Elev. during Peak Flow	Max Gutter Water Depth during Peak Flow	Time of Maximum Depth Occurrence	Total Flooded Volume	Total Time Flooded
(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-inches)	(minutes)
0.69	nan	nan	nan	7.00	2.64	110.79	0.16	0 07:55	0.00	0.00
0.13	nan	nan	nan	7.00	1.36	170.22	0.08	0 07:48	0.00	0.00
0.71	nan	nan	nan	7.00	2.67	101.23	0.16	0 07:51	0.00	0.00

SN	Element ID	X Coordinate	Y Coordinate	Description	Invert Elevation	Ground/Rim (Max) Elevation	Ground/Rim (Max) Offset	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Surcharge Depth	Ponded Area	Minimum Pipe Cover
					(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft ²)	(inches)
1	S-1	2526957.75	2379806.45		22.57	29.25	6.68	24.90	2.33	29.25	0.00	0.00	28.24
2	S-11	2527773.16	2379653.88		105.90	110.22	4.32	105.90	0.00	110.22	0.00	0.00	32.60
3	S-12	2527805.92	2379686.09		109.67	114.97	5.30	111.00	1.33	114.97	0.00	0.00	29.66
4	S-13	2527962.90	2379653.62		127.90	132.75	4.85	127.90	0.00	132.75	0.00	0.00	39.00
5	S-14	2528057.02	2379611.29		141.90	145.96	4.06	141.90	0.00	145.96	0.00	0.00	29.56
6	S-15	2528097.80	2379522.83		153.90	158.00	4.10	153.90	0.00	158.00	0.00	0.00	30.04
7	S-17	2528244.23	2379526.31		186.25	188.38	2.13	186.25	0.00	188.38	0.00	0.00	7.60
8	S-2	2527072.17	2379778.77		35.37	40.58	5.21	0.00	-35.37	0.00	-40.58	0.00	21.36
9	S-3	2527190.75	2379751.59		49.87	54.96	5.09	0.00	-49.87	0.00	-54.96	0.00	21.12
10	S-4	2527470.20	2379684.30		83.90	89.77	5.87	83.90	0.00	89.77	0.00	0.00	46.45
11	S-5	2527519.29	2379711.77		90.67	99.42	8.75	95.00	4.33	99.42	0.00	0.00	71.08
12	S-7	2527476.55	2379657.90		8.57	92.83	84.26	87.90	79.33	92.83	0.00	0.00	63.98
13	S-8	2527550.64	2379654.41		87.17	91.80	4.63	88.90	1.73	91.80	0.00	0.00	20.41
14	S-9	2527727.39	2379640.64		102.57	110.66	8.09	104.90	2.33	110.66	0.00	0.00	51.07

Peak Inflow	Peak Lateral Inflow	Maximum HGL Elevation Attained	Maximum HGL Depth Attained	Maximum Surcharge Depth Attained	Minimum Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Maximum HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume (ac-inches)	Total Time Flooded (minutes)
(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)		
43.51	0.07	25.56	2.99	0.00	3.69	24.56	1.99	0 07:56	0 00:00	0.00	0.00
15.40	0.92	106.81	0.91	0.00	3.41	106.23	0.33	0 07:55	0 00:00	0.00	0.00
10.96	10.96	111.56	1.89	0.00	3.42	111.21	1.54	0 07:56	0 00:00	0.00	0.00
3.56	0.25	128.29	0.39	0.00	4.46	128.11	0.21	0 07:49	0 00:00	0.00	0.00
3.31	0.07	142.29	0.39	0.00	3.67	142.12	0.22	0 07:49	0 00:00	0.00	0.00
3.25	0.07	154.24	0.34	0.00	3.76	154.10	0.20	0 07:49	0 00:00	0.00	0.00
3.04	3.04	186.49	0.24	0.00	1.89	186.35	0.10	0 07:49	0 00:00	0.00	0.00
43.44	1.83	37.79	2.42	0.00	2.79	37.17	1.80	0 07:56	0 00:00	0.00	0.00
41.61	0.18	52.19	2.32	0.00	2.77	51.57	1.70	0 07:56	0 00:00	0.00	0.00
41.43	0.07	84.89	0.99	0.00	4.88	84.30	0.40	0 07:56	0 00:00	0.00	0.00
22.67	22.67	92.78	2.11	0.00	6.65	92.30	1.63	0 08:00	0 00:00	0.00	0.00
18.06	1.45	87.01	78.44	0.00	5.82	86.35	77.78	0 07:55	0 00:00	0.00	0.00
16.63	0.47	89.51	2.34	0.00	2.29	88.88	1.71	0 07:55	0 00:00	0.00	0.00
16.16	0.07	104.91	2.34	0.00	5.75	104.90	2.33	0 07:55	0 00:00	0.00	0.00

SN	Element Description	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period	Rainfall Depth	Rainfall Distribution
								(years)	(inches)	
1	JUNEAU	Time Series	50-YEAR	Cumulative	inches	Alaska	Juneau (B)	50	5.41	SCS Type IA 24-hr

Appendix C: Autodesk Storm and Sanitary Analysis Calculations

SN	Element Description ID	Area (acres)	Drainage Node ID	Weighted Curve Number	Rain Gage ID	Peak Rate Factor	Total Precipitation (inches)	Total Runoff (inches)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	FUTURE-1	9.46	S-5	98.00	JUNEAU	484	5.41	5.17	12.27	0 00:05:00
2	FUTURE-2	2.34	S-17	98.00	JUNEAU	484	5.41	5.17	3.04	0 00:05:00
3	FUTURE-3	0.73	S-12	98.00	JUNEAU	484	5.41	5.17	0.95	0 00:05:00
4	LOT-15	0.10	S-10	92.00	JUNEAU	484	5.41	4.49	0.12	0 00:05:24
5	LOT-16	0.10	S-10	92.00	JUNEAU	484	5.41	4.49	0.12	0 00:05:00
6	LOT-17	0.10	S-10	92.00	JUNEAU	484	5.41	4.49	0.12	0 00:05:00
7	LOT-19	0.07	S-8	92.00	JUNEAU	484	5.41	4.49	0.08	0 00:08:23
8	LOT-20	0.09	S-8	92.00	JUNEAU	484	5.41	4.49	0.11	0 00:05:00
9	LOT-21	0.12	S-8	92.00	JUNEAU	484	5.41	4.49	0.14	0 00:06:53
10	LOT-22	0.12	S-7	92.00	JUNEAU	484	5.41	4.49	0.14	0 00:08:01
11	LOT-23	0.13	S-6	92.00	JUNEAU	484	5.41	4.49	0.15	0 00:06:01
12	LOT-24	0.13	S-6	92.00	JUNEAU	484	5.41	4.49	0.15	0 00:06:11
13	LOT-25	0.13	S-6	92.00	JUNEAU	484	5.41	4.49	0.15	0 00:06:34
14	LOT-26	0.13	S-6	92.00	JUNEAU	484	5.41	4.49	0.15	0 00:07:18
15	LOT-27	0.13	S-12	92.00	JUNEAU	484	5.41	4.49	0.15	0 00:05:51
16	LOT-28	0.13	S-12	92.00	JUNEAU	484	5.41	4.49	0.15	0 00:06:11
17	LOT-29	0.14	S-12	92.00	JUNEAU	484	5.41	4.49	0.17	0 00:06:13
18	LOT-30	0.20	S-12	92.00	JUNEAU	484	5.41	4.49	0.23	0 00:06:34
19	LOT-31	0.17	S-12	92.00	JUNEAU	484	5.41	4.49	0.20	0 00:05:42
20	LOT-32	0.16	S-12	92.00	JUNEAU	484	5.41	4.49	0.19	0 00:05:30
21	LOT-33	0.17	S-12	92.00	JUNEAU	484	5.41	4.49	0.20	0 00:06:26
22	LOT-34	0.18	S-12	92.00	JUNEAU	484	5.41	4.49	0.21	0 00:06:38
23	LOT-35	0.17	S-12	92.00	JUNEAU	484	5.41	4.49	0.20	0 00:06:39
24	LOT-36	0.18	S-12	92.00	JUNEAU	484	5.41	4.49	0.21	0 00:06:46
25	LOT-37	0.20	S-12	92.00	JUNEAU	484	5.41	4.49	0.23	0 00:06:54
26	LOT-42	0.11	S-10	92.00	JUNEAU	484	5.41	4.49	0.12	0 00:13:59
27	LOT-43	0.14	S-10	92.00	JUNEAU	484	5.41	4.49	0.16	0 00:13:57
28	LOT-44	0.16	S-13	92.00	JUNEAU	484	5.41	4.49	0.19	0 00:07:26
29	LOT-45	0.14	S-11	92.00	JUNEAU	484	5.41	4.49	0.17	0 00:06:44
30	OFFSITE-BASIN_1	0.78	OUTLET-2	77.00	JUNEAU	484	5.41	2.97	0.44	0 00:42:34
31	ROAD-1	0.06	S-1	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
32	ROAD-10	0.05	S-13	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
33	ROAD-11	0.09	S-11	98.00	JUNEAU	484	5.41	5.17	0.12	0 00:05:00
34	ROAD-12	0.11	S-8	98.00	JUNEAU	484	5.41	5.17	0.14	0 00:05:00
35	ROAD-13	0.04	S-7	98.00	JUNEAU	484	5.41	5.17	0.05	0 00:05:00
36	ROAD-14	0.04	S-10	98.00	JUNEAU	484	5.41	5.17	0.05	0 00:05:00
37	ROAD-15	0.05	S-9	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
38	ROAD-2	0.06	S-2	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
39	ROAD-3	0.14	S-3	98.00	JUNEAU	484	5.41	5.17	0.18	0 00:05:00
40	ROAD-4	0.06	S-4	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
41	ROAD-5	0.08	S-6	98.00	JUNEAU	484	5.41	5.17	0.11	0 00:05:00
42	ROAD-6	0.22	S-12	98.00	JUNEAU	484	5.41	5.17	0.28	0 00:05:00
43	ROAD-7	0.10	S-16	98.00	JUNEAU	484	5.41	5.17	0.13	0 00:05:00
44	ROAD-8	0.06	S-15	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
45	ROAD-9	0.05	S-14	98.00	JUNEAU	484	5.41	5.17	0.07	0 00:05:00
46	ROAD-BASIN_2_1	0.18	OUTLET-2	98.00	JUNEAU	484	5.41	5.17	0.23	0 00:05:00
47	ROBBIE ROAD	2.51	S-12	92.00	JUNEAU	484	5.41	4.49	2.88	0 00:14:24
48	TAMARACK_TRAILS_APTS	1.42	S-2	95.00	JUNEAU	484	5.41	4.83	1.76	0 00:09:46
49	TRACT-A	0.49	S-11	98.00	JUNEAU	484	5.41	5.17	0.64	0 00:05:00
50	TRACT-B1	0.97	S-7	98.00	JUNEAU	484	5.41	5.17	1.26	0 00:05:00
51	UPLAND-1	16.44	S-5	77.00	JUNEAU	484	5.41	2.97	11.27	0 00:18:07
52	UPLAND-2	6.59	S-12	77.00	JUNEAU	484	5.41	2.97	4.76	0 00:06:49

HY-8 Analysis Results

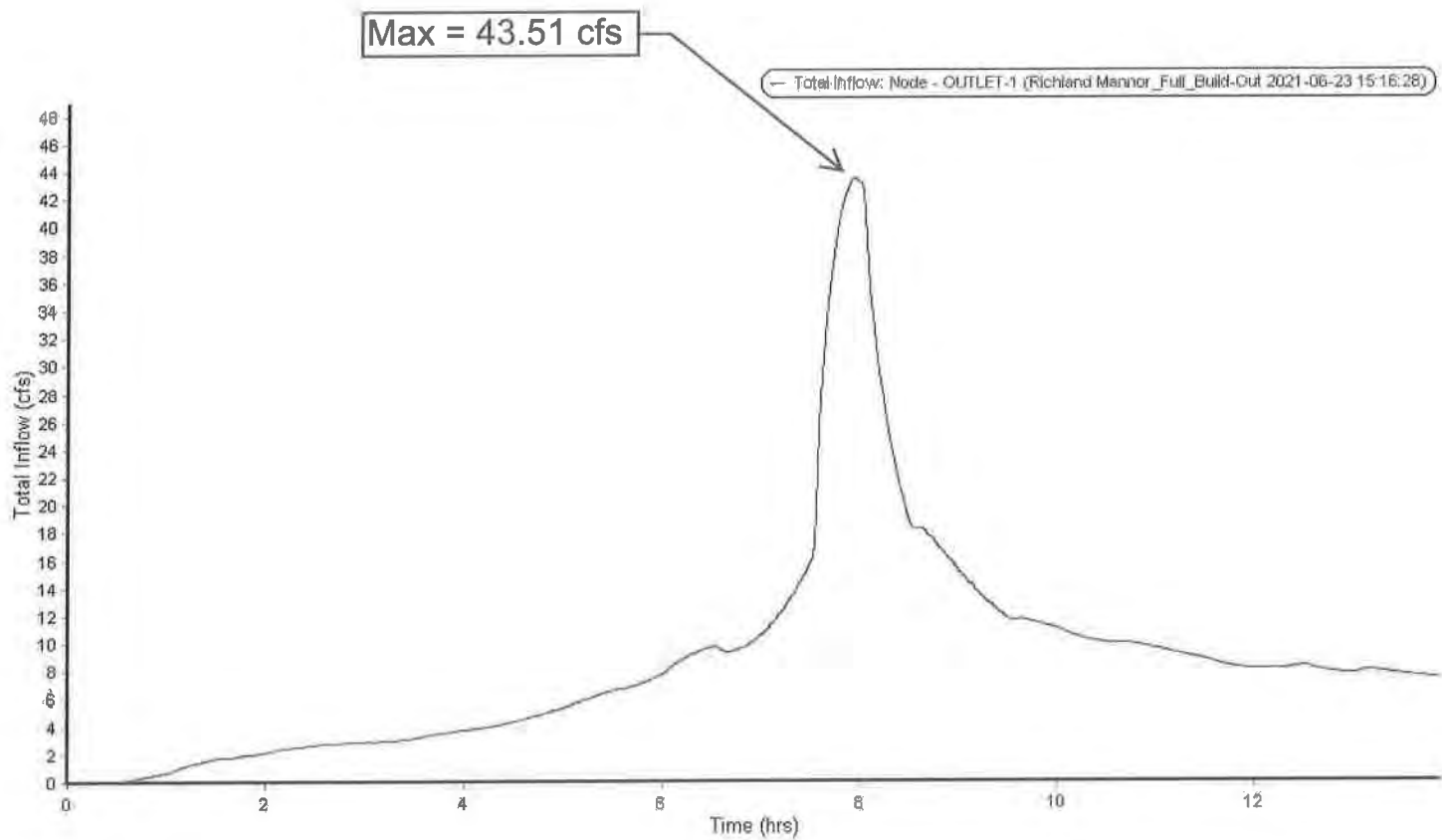
Crossing Summary Table

Culvert Crossing: 36-INCH CMP (PROPOSED)

Headwater Elevation (ft)	Total Discharge (cfs)	36-INCH Discharge (cfs)	Roadway Discharge (cfs)	Iterations
24.89	1.00	1.00	0.00	1
25.63	5.90	5.90	0.00	1
26.10	10.80	10.80	0.00	1
26.50	15.70	15.70	0.00	1
26.86	20.60	20.60	0.00	1
27.20	25.50	25.50	0.00	1
27.54	30.40	30.40	0.00	1
27.89	35.30	35.30	0.00	1
28.29	40.20	40.20	0.00	1
28.66	43.51	43.51	0.00	1
29.29	50.00	48.73	1.25	7
29.17	47.76	47.76	0.00	Overtopping

Pipe can accomidate 47.76 cfs before reaching top of structure.

Appendix E: Outlet 1 Hydrograph - Full Build-Out



CHILKAT SURVEYING & MAPPING, LLC
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Date: 26 May 2021

To: CBJ COMMUNITY DEVELOPMENT DEPARTMENT
 155 SOUTH SEWARD ST.
 Juneau, Alaska 99801

Subject: Lot closure reports

Remarks: The lot closure reflects the proposed subdivision of Chilkat Vistas Phase 2

Tract A1

Northing	Easting	Bearing	Distance
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2379595.332	2528263.968		
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S 00°00'00" E 118.940

2379476.392	2528263.968		
-------------	-------------	--	--

S 08°32'51" W 53.680

2379423.308	2528255.990		
-------------	-------------	--	--

S 64°45'24" E 109.360

2379376.670	2528354.907		
-------------	-------------	--	--

N 39°40'42" E 118.350

2379467.757	2528430.470		
-------------	-------------	--	--

S 89°59'32" E 245.092

2379467.730	2528675.562		
-------------	-------------	--	--

N 00°00'13" W 202.600

2379670.330	2528675.550		
-------------	-------------	--	--

N 90°00'00" W 336.581

2379670.330	2528338.969		
-------------	-------------	--	--

Radius: 75.000 Chord: 106.064 Degree: 76°23'40" Dir: Left

Length: 117.807 Delta: 89°59'53" Tangent: 74.998

Chord BRG: S 45°00'04" W Rad-In: S 00°00'01" W Rad-Out: S 89°59'53" E

Radius Point: 2379595.330, 2528338.968

2379595.332	2528263.968		
-------------	-------------	--	--

Closure Error Distance > 0.00000

Total Distance > 1302.410

Polyline Area: 92174 sq ft, 2.1160 acres

TRACT A2

Northing	Easting	Bearing	Distance
----------	---------	---------	----------

2379595.330	2528263.969		
-------------	-------------	--	--

S 00°00'00" E 118.945

2379476.385	2528263.969		
-------------	-------------	--	--

S 08°32'51" W 53.677

2379423.305	2528255.991		
-------------	-------------	--	--

S 00°02'36" W 164.300

2379259.005	2528255.866		
-------------	-------------	--	--

N 89°55'40" W 115.180

2379259.150	2528140.687		
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SMP2021 0004

ATTACHMENT A, Page 53

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S 00°06'22" W 29.900
2379229.250 2528140.631
S 43°40'22" W 86.777
2379166.484 2528080.708
S 89°42'06" W 110.311
2379165.910 2527970.399
N 01°00'49" E 20.021
2379185.928 2527970.753
S 89°59'39" W 109.840
2379185.917 2527860.913
N 00°00'00" W 444.906
2379630.823 2527860.913
S 88°09'10" E 26.378
2379629.973 2527887.277
N 00°00'00" W 133.704
2379763.677 2527887.277
N 90°00'00" W 106.394
2379763.677 2527780.883
N 00°00'00" W 28.512
2379792.189 2527780.883
N 38°35'23" W 30.475
2379816.009 2527761.874
S 51°24'37" W 6.085
2379812.213 2527757.118
N 38°09'17" W 45.000
2379847.599 2527729.318
N 45°04'37" W 50.000
2379882.907 2527693.915
S 44°55'24" W 281.399
2379683.661 2527495.202
N 28°21'14" E 954.853
2380523.961 2527948.677
S 89°52'00" E 726.810
2380522.270 2528675.485
S 00°00'13" E 851.940
2379670.330 2528675.550
N 90°00'00" W 336.581
2379670.330 2528338.969
Radius: 75.000 Chord: 106.066 Degree: 76°23'40" Dir: Left
Length: 117.810 Delta: 90°00'00" Tangent: 75.000
Chord BRG: S 45°00'00" W Rad-In: S 00°00'00" E Rad-Out: N 90°00'00" E
Radius Point: 2379595.330,2528338.969
2379595.330 2528263.969

Closure Error Distance> 0.00000
Total Distance> 4949.797
Polyline Area: 955771 sq ft, 21.9415 acres

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TRACT A3

Northing	Easting	Bearing	Distance
2379646.963	2527524.288		
		S 45°04'37" E	94.638
2379580.133	2527591.297		
		N 90°00'00" E	45.600
2379580.133	2527636.897		
		S 00°00'00" E	164.010
2379416.123	2527636.897		
		N 90°00'00" W	86.000
2379416.123	2527550.897		
		S 00°00'00" E	140.000
2379276.123	2527550.897		
		N 90°00'00" E	20.100
2379276.123	2527570.997		
		S 00°00'00" E	93.360
2379182.763	2527570.997		
		N 81°21'10" W	323.535
2379231.407	2527251.139		
		N 28°21'14" E	457.091
2379633.661	2527468.220		
		N 90°00'00" E	6.233
2379633.661	2527474.453		
Radius: 100.000 Chord: 51.579 Degree: 57°17'45" Dir: Left			
Length: 52.169 Delta: 29°53'26" Tangent: 26.693			
Chord BRG: N 75°03'17" E Rad-In: N 00°00'00" W Rad-Out: N 29°53'26" W			
Radius Point: 2379733.661, 2527474.453			
2379646.963	2527524.288		

Closure Error Distance> 0.00000
 Total Distance> 1482.736
 Polyline Area: 100730 sq ft, 2.3125 acres

LOT 15

Northing	Easting	Bearing	Distance
2379500.137	2527860.913		
		N 90°00'00" W	80.000
2379500.137	2527780.913		
		N 00°00'00" W	42.840
2379542.977	2527780.913		
		N 90°00'00" E	80.000
2379542.977	2527860.913		
		S 00°00'00" E	42.840
2379500.137	2527860.913		

Closure Error Distance> 0.00000
 Total Distance> 245.680
 Polyline Area: 3427 sq ft, 0.0787 acres

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LOT 16

North	East	Bearing	Distance
2379542.977	2527860.913	N 90°00'00" W	80.000
2379542.977	2527780.913	N 00°00'00" W	42.840
2379585.817	2527780.913	N 90°00'00" E	80.000
2379585.817	2527860.913	S 00°00'00" E	42.840
2379542.977	2527860.913		

Closure Error Distance> 0.00000
 Total Distance> 245.680
 Polyline Area: 3427 sq ft, 0.0787 acres

LOT 17

North	East	Bearing	Distance
2379585.817	2527860.913	N 90°00'00" W	80.000
2379585.817	2527780.913	N 00°00'00" W	20.000
2379605.817	2527780.913		
Radius: 25.000 Chord: 35.355 Degree: 229°10'59" Dir: Right			
Length: 39.270 Delta: 90°00'00" Tangent: 25.000			
Chord BRG: N 45°00'00" E Rad-In: N 90°00'00" E Rad-Out: S 00°00'00" E			
Radius Point: 2379605.817,2527805.913			
2379630.817	2527805.913	N 90°00'00" E	55.000
2379630.817	2527860.913	S 00°00'00" E	45.000
2379585.817	2527860.913		

Closure Error Distance> 0.00000
 Total Distance> 239.270
 Polyline Area: 3466 sq ft, 0.0796 acres

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LOT 18

North	East	Bearing	Distance
2379512.124	2527730.895	N 90°00'00" W	94.000
2379512.124	2527636.895	N 00°00'00" W	43.850
2379555.974	2527636.895	N 90°00'00" E	94.000
2379555.974	2527730.895	S 00°00'00" W	43.850
2379512.124	2527730.895		

Closure Error Distance> 0.00000
 Total Distance> 275.700
 Polyline Area: 4122 sq ft, 0.0946 acres

LOT 19

North	East	Bearing	Distance
2379555.974	2527730.895	N 00°00'00" W	32.000
2379587.974	2527730.895	N 90°00'00" W	94.000
2379587.974	2527636.895	S 00°00'00" E	32.000
2379555.974	2527636.895	N 90°00'00" E	94.000
2379555.974	2527730.895		

Closure Error Distance> 0.00000
 Total Distance> 252.000
 Polyline Area: 3008 sq ft, 0.0691 acres

LOT 20

North	East	Bearing	Distance
2379587.974	2527730.895	N 00°00'00" W	32.000
2379619.974	2527730.895	N 90°00'00" W	94.000
2379619.974	2527636.895	S 00°00'00" E	32.000
2379587.974	2527636.895	N 90°00'00" E	94.000
2379587.974	2527730.895		

Closure Error Distance> 0.00000
 Total Distance> 252.000
 Polyline Area: 3008 sq ft, 0.0691 acres

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LOT 21

North	East	Bearing	Distance
2379619.974	2527636.895	N 44°47'33" W	15.205
2379630.764	2527626.183	N 44°55'23" E	86.415
2379691.950	2527687.206	S 38°35'23" E	61.292
2379644.042	2527725.436		
Radius: 25.000 Chord: 16.521 Degree: 229°10'59" Dir: Right			
Length: 16.838 Delta: 38°35'23" Tangent: 8.752			
Chord BRG: S 19°17'41" E Rad-In: S 51°24'37" W Rad-Out: N 90°00'00" W			
Radius Point: 2379628.449, 2527705.895			
2379628.449	2527730.895	S 00°00'00" E	8.475
2379619.974	2527730.895	N 90°00'00" W	94.000
2379619.974	2527636.895		

Closure Error Distance > 0.00000
 Total Distance > 282.225
 Polyline Area: 4408 sq ft, 0.1012 acres

LOT 22

North	East	Bearing	Distance
2379660.088	2527655.429	N 45°04'37" W	80.095
2379716.648	2527598.718	N 44°55'23" E	26.103
2379735.130	2527617.150		
Radius: 25.000 Chord: 37.299 Degree: 229°10'59" Dir: Right			
Length: 42.101 Delta: 96°29'14" Tangent: 28.004			
Chord BRG: S 86°50'00" E Rad-In: S 45°04'37" E Rad-Out: S 51°24'37" W			
Radius Point: 2379717.476, 2527634.852			
2379733.070	2527654.393	S 38°35'23" E	52.607
2379691.950	2527687.206	S 44°55'23" W	44.999
2379660.088	2527655.429		

Closure Error Distance > 0.00000
 Total Distance > 245.905
 Polyline Area: 3795 sq ft, 0.0871 acres

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LOT 23

North	East	Bearing	Distance
2379633.536	2527628.948	N 44°55'23" E 37.500	
2379660.088	2527655.429	N 45°04'37" W 80.095	
2379716.648	2527598.718	S 44°55'23" W 37.500	
2379690.096	2527572.237	S 45°04'37" E 80.095	
2379633.536	2527628.948		

Closure Error Distance> 0.00000

Total Distance> 235.190

Polyline Area: 3004 sq ft, 0.0690 acres

Lot 24

North	East	Bearing	Distance
2379667.296	2527549.498	N 44°55'23" E 32.200	
2379690.096	2527572.237	S 45°04'37" E 80.095	
2379633.536	2527628.948	S 44°55'23" W 3.916	
2379630.764	2527626.183	S 44°47'33" E 15.205	
2379619.974	2527636.895	S 00°00'00" E 39.840	
2379580.133	2527636.895	N 45°04'37" W 123.432	
2379667.296	2527549.498		

Closure Error Distance> 0.00000

Total Distance> 294.687

Polyline Area: 3405 sq ft, 0.0782 acres

CHILKAT SURVEYING & MAPPING, LLC
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Lot 25

North	East	Bearing	Distance
2379646.963	2527524.288		
Radius: 100.000 Chord: 26.428 Degree: 57°17'45" Dir: Left			
Length: 26.505 Delta: 15°11'11" Tangent: 13.331			
Chord BRG: N 52°30'58" E Rad-In: N 29°53'26" W Rad-Out: N 45°04'37" W			
Radius Point: 2379733.661, 2527474.453			
2379663.045	2527545.259		
		N 44°55'23" E	6.004
2379667.296	2527549.498		
		S 45°04'37" E	123.432
2379580.133	2527636.895		
		N 90°00'00" W	45.599
2379580.133	2527591.297		
		N 45°04'37" W	94.638
2379646.963	2527524.288		

Closure Error Distance> 0.00000

Total Distance> 296.179

Polyline Area: 3485 sq ft, 0.0800 acres

Lot 26

North	East	Bearing	Distance
2379812.426	2527757.385		
		S 51°24'37" W	80.000
2379762.527	2527694.854		
		N 38°35'23" W	13.584
2379773.145	2527686.382		
Radius: 25.000 Chord: 33.298 Degree: 229°10'59" Dir: Right			
Length: 36.439 Delta: 83°30'46" Tangent: 22.318			
Chord BRG: N 03°10'00" E Rad-In: N 51°24'37" E Rad-Out: S 45°04'37" E			
Radius Point: 2379788.738, 2527705.923			
2379806.392	2527688.221		
		N 44°55'23" E	58.197
2379847.599	2527729.318		
		S 38°35'23" E	44.999
2379812.426	2527757.385		

Closure Error Distance> 0.00000

Total Distance> 233.219

Polyline Area: 3134 sq ft, 0.0719 acres

CHILKAT SURVEYING & MAPPING, LLC
 10654 PORTER LANE JUNEAU, AK 99801
 907 957-1908 chilkat.surveying@gmail.com

Lot 27

North	East	Bearing	Distance
2379686.752	2527757.777	N 00°00'00" W	62.019
2379748.770	2527757.777	N 57°10'22" E	27.497
2379763.677	2527780.883	N 00°00'00" W	28.512
2379792.189	2527780.883	N 38°35'23" W	30.475
2379816.009	2527761.874	S 51°24'37" W	85.743
2379762.527	2527694.854	S 38°35'23" E	88.845
2379693.083	2527750.271		
Radius: 25.000 Chord: 9.812 Degree: 229°10'59" Dir: Left			
Length: 9.876 Delta: 22°38'05" Tangent: 5.003			
Chord BRG: S 49°54'25" E Rad-In: N 51°24'37" E Rad-Out: N 28°46'32" E			
Radius Point: 2379708.677, 2527769.811			
2379686.764	2527757.777		

Closure Error Distance > 0.01218 Error Bearing > S 00°00'00" E
 Closure Precision > 1 in 27334.1 Total Distance > 332.967
 Polyline Area: 5200 sq ft, 0.1194 acres

Lot 28

North	East	Bearing	Distance
2379763.677	2527780.883	N 90°00'00" E	43.894
2379763.677	2527824.777	S 00°00'00" E	80.000
2379683.677	2527824.777	N 90°00'00" W	55.859
2379683.677	2527768.918		
Radius: 25.000 Chord: 11.557 Degree: 229°10'59" Dir: Right			
Length: 11.663 Delta: 26°43'46" Tangent: 5.940			
Chord BRG: N 74°34'11" W Rad-In: N 02°03'55" E Rad-Out: N 28°47'42" E			
Radius Point: 2379708.660, 2527769.819			
2379686.752	2527757.777	N 00°00'00" W	62.019
2379748.770	2527757.777	N 57°10'22" E	27.497
2379763.677	2527780.883		

Closure Error Distance > 0.00000
 Total Distance > 280.932
 Polyline Area: 5176 sq ft, 0.1188 acres

CHILKAT SURVEYING & MAPPING, LLC
 10654 PORTER LANE JUNEAU, AK 99801
 907 957-1908 chilkat.surveying@gmail.com

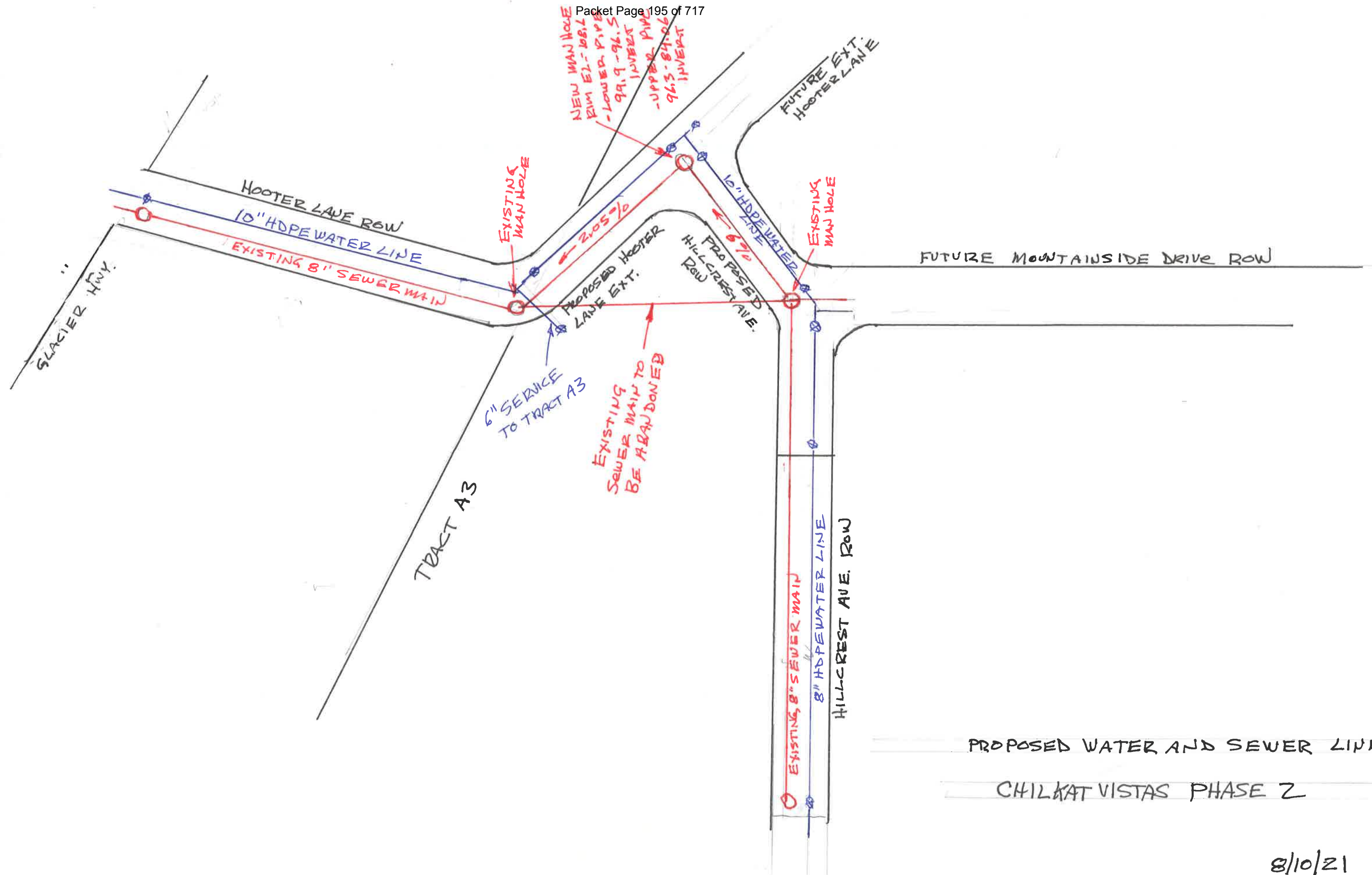
Lot 29

North	East	Bearing	Distance
2379763.677	2527824.777		
		N 90°00'00" E	62.500
2379763.677	2527887.277		
		S 00°00'00" E	80.000
2379683.677	2527887.277		
		N 90°00'00" W	62.500
2379683.677	2527824.777		
		N 00°00'00" W	80.000
2379763.677	2527824.777		

Closure Error Distance> 0.00000

Total Distance> 285.000

Polyline Area: 5000 sq ft, 0.1148 acres

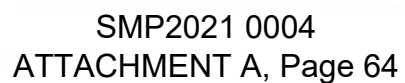


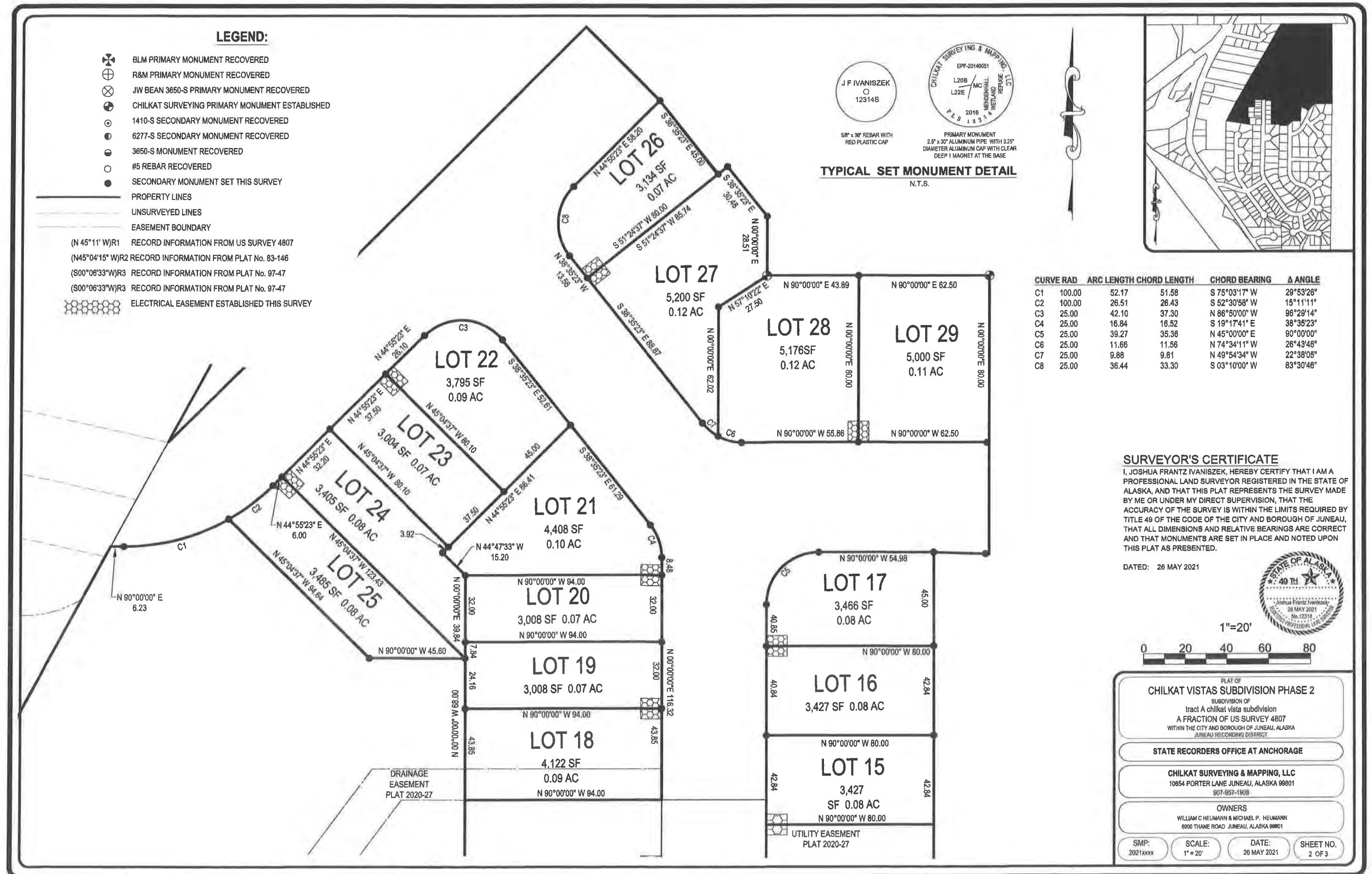
PROPOSED WATER AND SEWER LINES

CHILKAT VISTAS PHASE 2

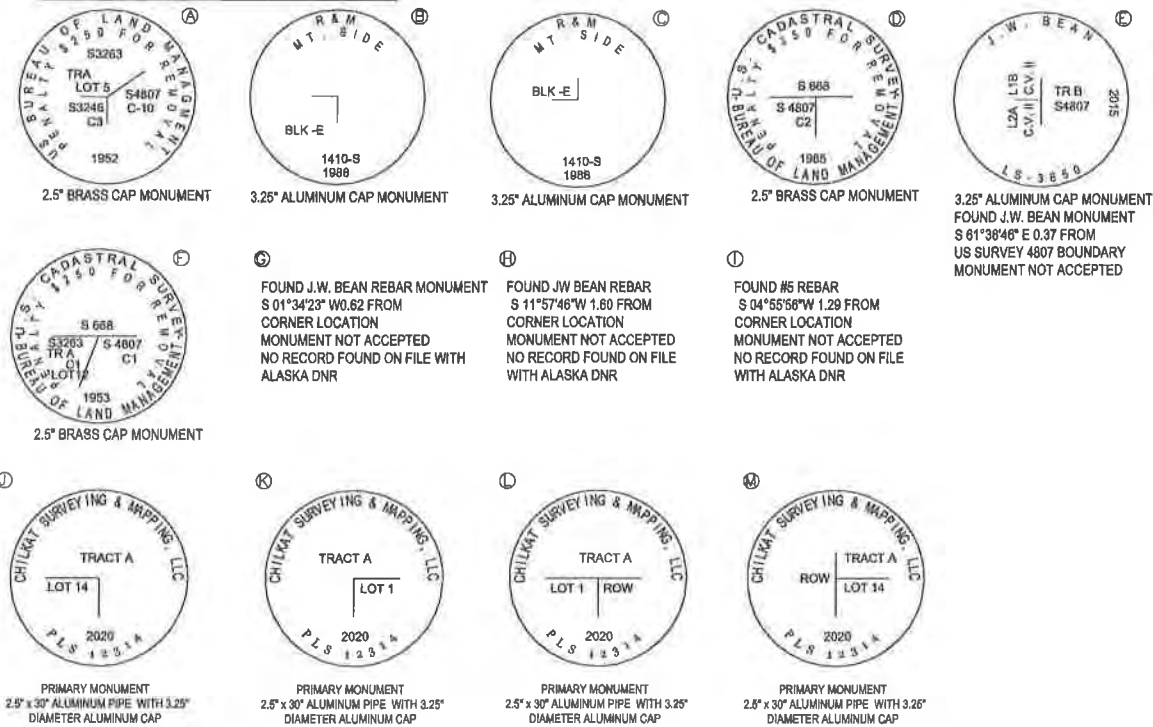
8/10/21

1"=80'



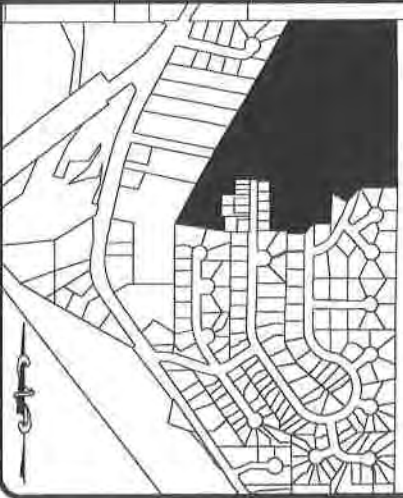


FOUND MONUMENT DESCRIPTIONS:



NOTES:

- 1) THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.
- 2) ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET.
- 3) RECORD INFORMATION DERIVED FROM THE OFFICIAL PLAT OF US SURVEY 3283; US SURVEY 4807, PLAT OF SUBDIVISION OF LOTS 9 AND 10 US SURVEY 3283 TRACT A PLAT NO. 298 RECORDED 9 AUGUST 1981; MOUNTAINSIDE SUBDIVISION PLAT NO. 83-148 RECORDED 23 SEPTEMBER 1983; FAIRWEATHER SUBDIVISION PLAT NO. 83-147 RECORDED 23 SEPTEMBER 1983; DESERET SUBDIVISION PLAT NO. 91-9 RECORDED 28 FEBRUARY 1991; MOUNTAINSIDE SUBDIVISION II PLAT NO. 88-39 RECORDED 28 DECEMBER 1988; RICHLAND MANOR SUBDIVISION PLAT NO. 97-47 RECORDED 24 JULY 1997; VANDERBILT HILL SUBDIVISION PLAT NO. 99-52 RECORDED 28 OCTOBER 1999; A PLAT OF RESUBDIVISION OF LOT 1 CHILKAT VIEW SUBDIVISION PLAT NO. 2003-23; RECORDED 9 SEPTEMBER 2003; CHILKAT VIEW SUBDIVISION II PLAT NO. 2005-20 RECORDED 20 APRIL 2005; A PLAT OF FALLING TREE SUBDIVISION PLAT NO. 2009-18 RECORDED 7 JULY 2009; PLAT OF LOT 2A, CHILKAT VIEW SUBDIVISION II AND TRACT 1A1, US SURVEY 3246 PLAT NO. 2015-41 RECORDED 6 OCTOBER 2015 ON FILE WITH IN THE JUNEAU RECORDING DISTRICT.
- 4) WHERE DIFFERENT FROM RECORD OR CALCULATED, RECORD DIMENSIONS ARE SHOWN IN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).
- 5) DOMESTIC WATER & SANITARY SEWER PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.
- 6) SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
- 7) THE STORMWATER RUNOFF IS ACCEPTABLE PER CHILKAT VISTAS SUBDIVISION DRAINAGE PLAN IN APPROVED CONSTRUCTION PLAN SET. ALL REQUIRED CHILKAT VISTAS SUBDIVISION PUBLIC IMPROVEMENTS INCLUDING SURFACE DRAINAGE, DRIVEWAYS AND ROADSIDE DRAINAGE SHALL BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE FOR MAINTENANCE BY CBJ PUBLIC WORKS. MODIFICATIONS TO THE APPROVED PLANS WILL NOT BE ALLOWED UNLESS PERMITTED BY CBJ ENGINEERING PURSUANT TO CBJ 19.12.120 BEST MANAGEMENT PRACTICES.
- 8) LOTS 1, 2, AND 3 ARE BUNGALOW LOTS. AT THE TIME OF PLAT RECORDING, STRUCTURES ON LOTS 1 & 2 & 3 WERE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.
- 9) LOTS 4, 5, 6, 7, 8, AND 9 ARE PANHANDLE LOTS. AT THE TIME OF PLAT RECORDING, FURTHER SUBDIVISION OF LOTS 4, 5, 6, 7, 8, AND 9 IS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.
- 10) WETLANDS MAY EXIST ON PARTS OF THIS SUBDIVISION. SPECIAL REGULATIONS MAY APPLY. WETLANDS DELINEATED BY KOREN BOSWORTH NOVEMBER 2018
- 11) HOOTER LANE WILL BE DEVELOPED AS A PUBLIC TWO-WAY STREET, AS SET OUT IN THE SKETCH PLAT SUBMITTED WITH SMP20190004, SUBJECT TO CBJ PUBLIC IMPROVEMENT STANDARDS IN CBJ 49.35.
- 12) HOOTER LANE FROM GLACIER HIGHWAY TO HILLCREST AVENUE, AND HILLCREST AVENUE AND MOUNTAINSIDE DRIVE SHALL BE DEVELOPED WITH A SIDEWALK ON ONE SIDE. THE NUMBER OF SIDEWALKS IN THE REMAINDER OF CHILKAT VISTAS WILL BE DETERMINED AT THE TIME OF FUTURE DEVELOPMENT APPLICATIONS.
- 13) ROBBIE ROAD SHALL TERMINATE AND SHALL NOT BE A POINT OF ACCESS TO CHILKAT VISTAS, UNLESS REQUIRED, AND GATED, FOR FIRE/EMERGENCY SERVICE ACCESS ONLY.
- 14) HILLCREST AVENUE SHALL TERMINATE AT HOOTER LANE. HILLCREST AVENUE MAY CONNECT TO HOOTER LANE WEST OF THE EXISTING HILLCREST ALIGNMENT AS SHOWN IN THE SKETCH PLAT SUBMITTED WITH SMP20190004. ALTERNATIVELY ROAD ACCESS TO THE NORTHEAST PORTION OF 'TRACT A' MAY CONNECT TO THE EAST/WEST PORTION OF MOUNTAINSIDE DRIVE ACROSS FROM THE ENTRANCE TO THE 'POCKET' BETWEEN HILLCREST AND MOUNTAINSIDE.
- 15) OTHER THAN SHOWN, THERE IS AN IMPLIED PRIVATE DRAINAGE EASEMENT ALONG ALL SIDE PROPERTY LINES WITHIN THE SUBDIVISION BEING 10 FEET IN WIDTH CENTERED ON EACH ADJOINING PROPERTY LINE.
- 16) TEMPORARY CUL-DE-SAC EASEMENT SHALL BE VACATED UPON EXTENSION OF HILLCREST AVENUE UNLESS THE DIRECTOR DETERMINES ALL OR A PORTION OF THE CUL-DE-SAC MAY REMAIN.
- 17) ACCESS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. ACCESS TO PANHANDLE LOTS CREATED THIS SUBDIVISION SHALL BE RESTRICTED TO A SINGLE DRIVEWAY APRON IN THE RIGHT OF WAY UNLESS A SECOND DRIVEWAY TO IS APPROVED BY CBJ. USE OF THE ACCESS EASEMENT DELINEATED ON THIS PLAT IS SUBJECT TO THE REQUIREMENTS SET FORTH IN THE COMMON DRIVEWAY ACCESS, JOINT USE AND HOLD HARMLESS AGREEMENT RECORDED WITH THIS SUBDIVISION.



OWNERSHIP CERTIFICATE:

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH OUR FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE: _____, 2021 DATE: _____, 2021

WILLIAM C. HEUMANN

MICHAEL P. HEUMANN

NOTARY ACKNOWLEDGEMENT:

UNITED STATES OF AMERICA

STATE OF ALASKA

THIS IS TO CERTIFY THAT ON THIS _____ DAY OF _____, 2021, BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED WILLIAM C. HEUMANN AND MICHAEL P. HEUMANN TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED AUTHORIZED TO DO SO.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION PLAT APPROVAL

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. _____, DATED _____, 2021, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT RECORDING OFFICE, ANCHORAGE, ALASKA.

_____, DATED _____, 2021

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

ATTEST:

MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU



5/8" x 3/8" REBAR WITH
RED PLASTIC CAP



PRIMARY MONUMENT
2.5" x 30" ALUMINUM PIPE WITH 3.25"
DIAMETER ALUMINUM CAP WITH CLEAR
DEEP 1 MAGNET AT THE BASE

TYPICAL SET MONUMENT DETAIL

N.T.S.

PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2

SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99901
907-957-1908

OWNERS

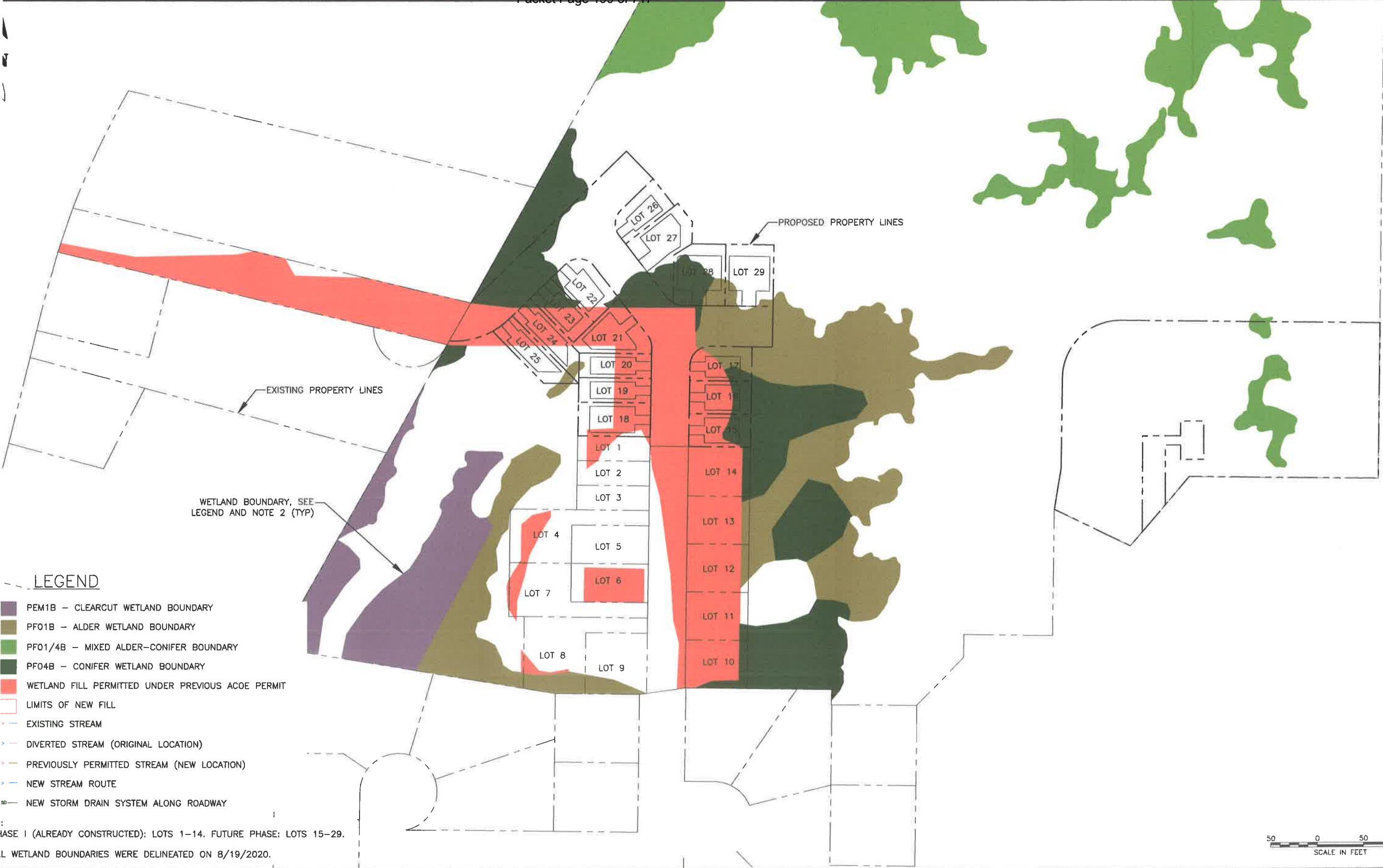
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6800 THANE ROAD JUNEAU, ALASKA 99901

SMP:
2021XXXX

SCALE:
1" = 30'

DATE:
26 MAY 2021

SHEET NO.
3 OF 3



LEGEND

- PEM1B - CLEARCUT WETLAND BOUNDARY
- PFO1B - ALDER WETLAND BOUNDARY
- PFO1/4B - MIXED ALDER-CONIFER BOUNDARY
- PFO4B - CONIFER WETLAND BOUNDARY
- WETLAND FILL PERMITTED UNDER PREVIOUS ACOE PERMIT
- LIMITS OF NEW FILL
- EXISTING STREAM
- DIVERTED STREAM (ORIGINAL LOCATION)
- PREVIOUSLY PERMITTED STREAM (NEW LOCATION)
- NEW STREAM ROUTE
- NEW STORM DRAIN SYSTEM ALONG ROADWAY

PHASE I (ALREADY CONSTRUCTED): LOTS 1-14. FUTURE PHASE: LOTS 15-29.
WETLAND BOUNDARIES WERE DELINEATED ON 8/19/2020.



RECORD OF REVISIONS				 proHNS LLC CERTIFICATE OF AUTHORIZATION #100882	 CITY AND BOROUGH OF JUNEAU ALASKA'S CAPITAL CITY SMP2021 0004 ENGINEERING & PUBLIC WORKS	JUNEAU, AK	CHILKAT VISTAS WETLAND IMPACTS	SHEET NUMBER
No.	DATE	DESCRIPTION	BY					
								1
								OF
								6



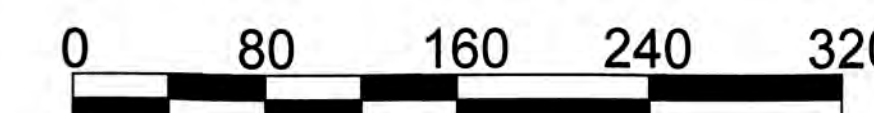
SURVEYOR'S CERTIFICATE

I, JOSHUA FRANTZ IVANISZEK, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 21 JULY 2021



1"=80'



SKETCH PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2
SUBDIVISION OF
TRACT A CHILKAT VISTA SUBDIVISION
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

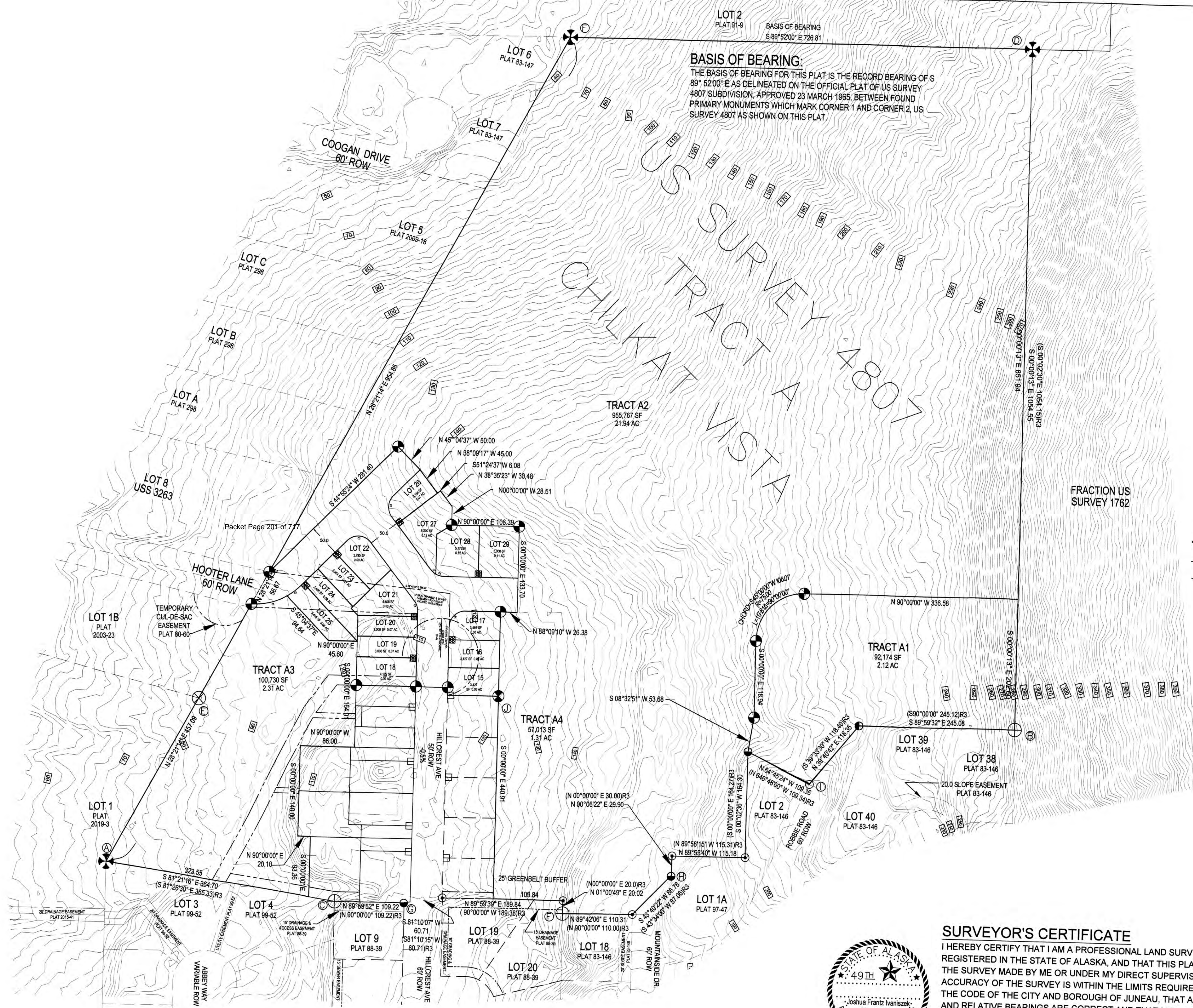
OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP:
2021XXXX

SCALE:
1" = 80'

DATE:
29 JULY 2021

SHEET NO.
1 OF 1



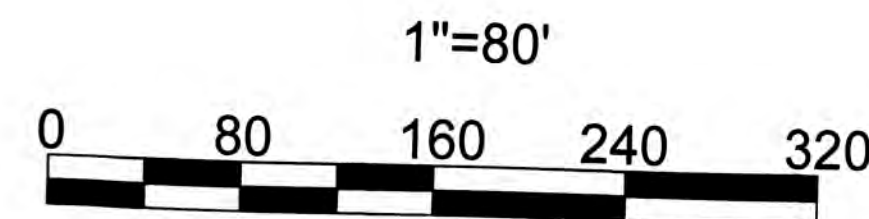
BASIS OF BEARING:
THE BASIS OF BEARING FOR THIS PLAT IS THE RECORD BEARING OF S 89° 52'00" E AS DELINEATED ON THE OFFICIAL PLAT OF US SURVEY 4807 SUBDIVISION, APPROVED 23 MARCH 1965, BETWEEN FOUND PRIMARY MONUMENTS WHICH MARK CORNER 1 AND CORNER 2, US SURVEY 4807 AS SHOWN ON THIS PLAT.



LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- JW BEAN 3650-S PRIMARY MONUMENT RECOVERED
- CHILKAT SURVEYING PRIMARY MONUMENT ESTABLISHED
- CHILKAT SURVEYING PRIMARY MONUMENT RECOVERED
- 1410-S SECONDARY MONUMENT RECOVERED
- 6277-S SECONDARY MONUMENT RECOVERED
- 3650-S MONUMENT RECOVERED
- #5 REBAR RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY

- PROPERTY LINES
- UNSURVEYED LINES
- EASEMENT BOUNDARY
- (N 45°11'21" W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S00°06'33"W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- (S00°06'33"W)R4 RECORD INFORMATION FROM PLAT No. 2020-27
- ELECTRICAL EASEMENT ESTABLISHED THIS SURVEY



PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2
SUBDIVISION OF
TRACT A CHILKAT VISTA SUBDIVISION
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP: 2021XXXX SCALE: 1" = 80' DATE: 21 JULY 2021 SHEET NO. 1 OF 3

SURVEYOR'S CERTIFICATE

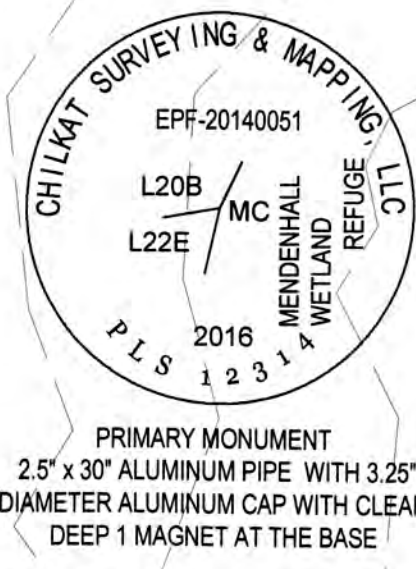
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 21 JULY 2021



LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- JW BEAN 3650-S PRIMARY MONUMENT RECOVERED
- CHILKAT SURVEYING PRIMARY MONUMENT ESTABLISHED
- 1410-S SECONDARY MONUMENT RECOVERED
- 6277-S SECONDARY MONUMENT RECOVERED
- 3650-S MONUMENT RECOVERED
- #5 REBAR RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
- UNSURVEYED LINES
- EASEMENT BOUNDARY
- (N 45°11' W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S00°06'33"W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- (S00°06'33"W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- ELECTRICAL EASEMENT ESTABLISHED THIS SURVEY

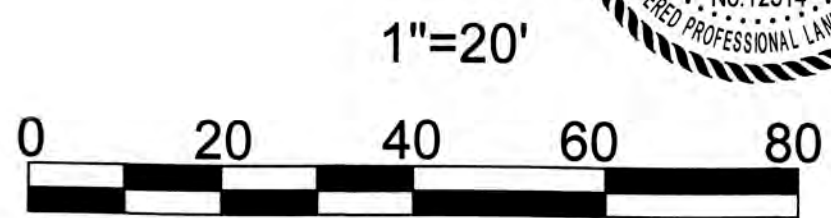


CURVE RAD	ARC LENGTH	CHORD LENGTH	CHORD BEARING	Δ ANGLE	
C1	100.00	52.17	51.58	S 75°03'17" W	29°53'26"
C2	100.00	26.51	26.43	S 52°30'58" W	15°11'11"
C3	25.00	42.10	37.30	N 86°50'00" W	96°29'14"
C4	25.00	16.84	16.52	S 19°17'41" E	38°35'23"
C5	25.00	39.27	35.36	N 45°00'00" E	90°00'00"
C6	25.00	11.66	11.56	N 74°34'11" W	26°43'46"
C7	25.00	9.88	9.81	N 49°54'34" W	22°38'05"
C8	25.00	36.44	33.30	S 03°10'00" W	83°30'46"

SURVEYOR'S CERTIFICATE

I, JOSHUA FRANTZ IVANISZEK, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 21 JULY 2021



PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2

SUBDIVISION OF
TRACT A CHILKAT VISTA SUBDIVISION
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

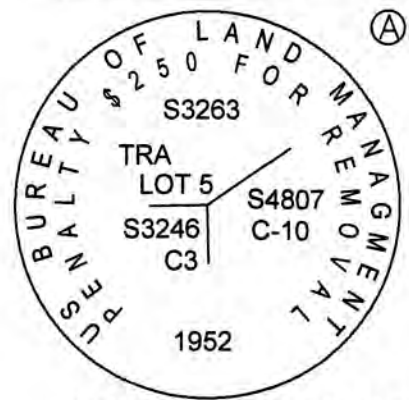
SMP: 2021xxxx

SCALE: 1" = 20'

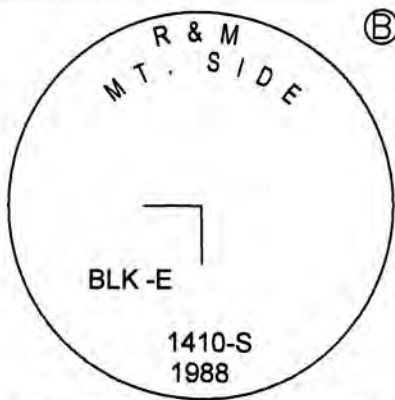
DATE: 21 JULY 2021

SHEET NO. 2 OF 3

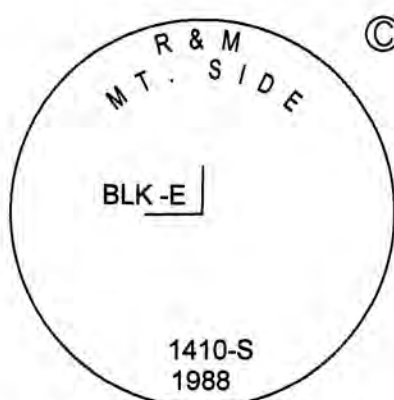
FOUND MONUMENT DESCRIPTIONS:



2.5" BRASS CAP MONUMENT



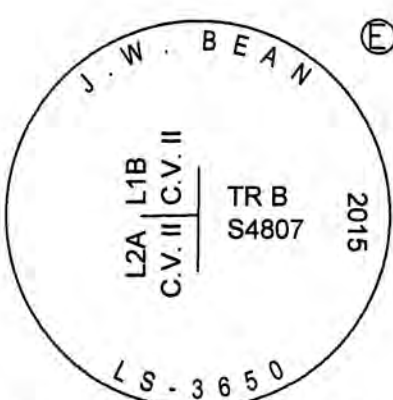
3.25" ALUMINUM CAP MONUMENT



3.25" ALUMINUM CAP MONUMENT



2.5" BRASS CAP MONUMENT



3.25" ALUMINUM CAP MONUMENT
FOUND J.W. BEAN MONUMENT
S 61°38'46" E 0.37 FROM
US SURVEY 4807 BOUNDARY
MONUMENT NOT ACCEPTED



2.5" BRASS CAP MONUMENT

FOUND J.W. BEAN REBAR MONUMENT
S 01°34'23" W 0.62 FROM
CORNER LOCATION
MONUMENT NOT ACCEPTED
NO RECORD FOUND ON FILE WITH
ALASKA DNR

FOUND JW BEAN REBAR
S 11°57'46" W 1.60 FROM
CORNER LOCATION
MONUMENT NOT ACCEPTED
NO RECORD FOUND ON FILE
WITH ALASKA DNR

FOUND #5 REBAR
S 04°55'56" W 1.29 FROM
CORNER LOCATION
MONUMENT NOT ACCEPTED
NO RECORD FOUND ON FILE
WITH ALASKA DNR



PRIMARY MONUMENT
2.5" x 30" ALUMINUM PIPE WITH 3.25"
DIAMETER ALUMINUM CAP



5/8" x 36" REBAR WITH
RED PLASTIC CAP



PRIMARY MONUMENT
2.5" x 30" ALUMINUM PIPE WITH 3.25"
DIAMETER ALUMINUM CAP WITH CLEAR
DEEP 1" MAGNET AT THE BASE

TYPICAL SET MONUMENT DETAIL

Packet Page 203 of 717

N.T.S.

OWNERSHIP CERTIFICATE:

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH OUR FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE: _____, 2021

DATE: _____, 2021

WILLIAM C. HEUMANN

MICHAEL P. HEUMANN

NOTARY ACKNOWLEDGEMENT:

UNITED STATES OF AMERICA)
) SS
STATE OF ALASKA)

THIS IS TO CERTIFY THAT ON THIS ____ DAY OF _____, 2021, BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED WILLIAM C. HEUMANN AND MICHAEL P. HEUMANN TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARY FOR THE USES AND PURPOSES THEREIN MENTIONED AUTHORIZED TO DO SO.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION PLAT APPROVAL

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. _____, DATED _____, 2021, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT RECORDING OFFICE, ANCHORAGE, ALASKA.

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

ATTEST:

MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU

NOTES:

1) THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.

2) ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET.

3) RECORD INFORMATION DERIVED FROM THE OFFICIAL PLAT OF US SURVEY 3263; US SURVEY 4807, PLAT OF SUBDIVISION OF LOTS 9 AND 10 US SURVEY 3263 TRACT A PLAT NO. 298 RECORDED 9 AUGUST 1961; MOUNTAINSIDE SUBDIVISION PLAT NO. 83-146 RECORDED 23 SEPTEMBER 1983; FAIRWEATHER SUBDIVISION PLAT NO. 83-147 RECORDED 23 SEPTEMBER 1983; DESERET SUBDIVISION PLAT NO. 91-9 RECORDED 28 FEBRUARY 1991; MOUNTAINSIDE SUBDIVISION II PLAT NO. 88-39 RECORDED 28 DECEMBER 1988; RICHLAND MANOR SUBDIVISION PLAT NO. 97-47 RECORDED 24 JULY 1997; VANDERBILT HILL SUBDIVISION PLAT NO. 99-52 RECORDED 29 OCTOBER 1999; A PLAT OF RESUBDIVISION OF LOT 1 CHILKAT VIEW SUBDIVISION PLAT NO. 2003-23; RECORDED 9 SEPTEMBER 2003; CHILKAT VIEW SUBDIVISION II PLAT NO. 2005-20 RECORDED 20 APRIL 2005; A PLAT OF FALLING TREE SUBDIVISION PLAT NO. 2009-18 RECORDED 7 JULY 2009; PLAT OF LOT 2A, CHILKAT VIEW SUBDIVISION II AND TRACT 1A1, US SURVEY 3246 PLAT NO. 2015-41 RECORDED 6 OCTOBER 2015; CHILKAT VISTAS SUBDIVISION PHASE 1 PLAT NO. 2020-27 RECORDED 11 AUGUST 2020 ON FILE WITH THE ALASKA DEPARTMENT OF NATURAL RESOURCES RECORDERS OFFICE IN THE JUNEAU RECORDING DISTRICT.

4) WHERE DIFFERENT FROM RECORD OR CALCULATED, RECORD DIMENSIONS ARE SHOWN IN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).

5) DOMESTIC WATER & SANITARY SEWER PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.

6) SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

7) THE STORMWATER RUNOFF IS ACCEPTABLE PER CHILKAT VISTAS SUBDIVISION DRAINAGE PLAN IN APPROVED CONSTRUCTION PLAN SET. ALL REQUIRED CHILKAT VISTAS SUBDIVISION PUBLIC IMPROVEMENTS INCLUDING SURFACE DRAINAGE, DRIVEWAYS AND ROADSIDE DRAINAGE SHALL BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE FOR MAINTENANCE BY CBJ PUBLIC WORKS. MODIFICATIONS TO THE APPROVED PLANS WILL NOT BE ALLOWED UNLESS PERMITTED BY CBJ ENGINEERING PURSUANT TO CBJ 19.12.120 BEST MANAGEMENT PRACTICES.

8) LOTS 1, 2, AND 3 ARE BUNGALOW LOTS. AT THE TIME OF PLAT RECORDING, STRUCTURES ON LOTS 1 & 2 & 3 WERE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

9) WETLANDS MAY EXIST ON PARTS OF THIS SUBDIVISION. SPECIAL REGULATIONS MAY APPLY. WETLANDS DELINEATED BY KOREN BOSWORTH NOVEMBER 2018

10) HOOTER LANE WILL BE DEVELOPED AS A PUBLIC TWO-WAY STREET, AS SET OUT IN THE SKETCH PLAT SUBMITTED WITH SMP20190004, SUBJECT TO CBJ PUBLIC IMPROVEMENT STANDARDS IN CBJ 49.35.

11) HOOTER LANE FROM GLACIER HIGHWAY TO HILLCREST AVENUE, AND HILLCREST AVENUE AND MOUNTAINSIDE DRIVE SHALL BE DEVELOPED WITH A SIDEWALK ON ONE SIDE. THE NUMBER OF SIDEWALKS IN THE REMAINDER OF CHILKAT VISTAS WILL BE DETERMINED AT THE TIME OF FUTURE DEVELOPMENT APPLICATIONS.

12) ROBBIE ROAD SHALL TERMINATE AND SHALL NOT BE A POINT OF ACCESS TO CHILKAT VISTAS, UNLESS REQUIRED, AND GATED, FOR FIRE/EMERGENCY SERVICE ACCESS ONLY.

13) HILLCREST AVENUE SHALL TERMINATE AT HOOTER LANE. HILLCREST AVENUE MAY CONNECT TO HOOTER LANE WEST OF THE EXISTING HILLCREST ALIGNMENT AS SHOWN IN THE SKETCH PLAT SUBMITTED WITH SMP20190004. ALTERNATIVELY ROAD ACCESS TO THE NORTHEAST PORTION OF "TRACT A" MAY CONNECT TO THE EAST/WEST PORTION OF MOUNTAINSIDE DRIVE ACROSS FROM THE ENTRANCE TO THE "POCKET" BETWEEN HILLCREST AND MOUNTAINSIDE.

14) OTHER THAN SHOWN, THERE IS AN IMPLIED PRIVATE DRAINAGE EASEMENT ALONG ALL SIDE PROPERTY LINES WITHIN THE SUBDIVISION BEING 10 FEET IN WIDTH CENTERED ON EACH ADJOINING PROPERTY LINE.

15) TEMPORARY CUL-DE-SAC EASEMENT SHALL BE VACATED UPON EXTENSION OF HILLCREST AVENUE UNLESS THE DIRECTOR DETERMINES ALL OR A PORTION OF THE CUL-DE-SAC MAY REMAIN.



SURVEYOR'S CERTIFICATE

I, JOSHUA FRANTZ IVANISZEK, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 21 JULY 2021



PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2

SUBDIVISION OF
TRACT A CHILKAT VISTA SUBDIVISION
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS

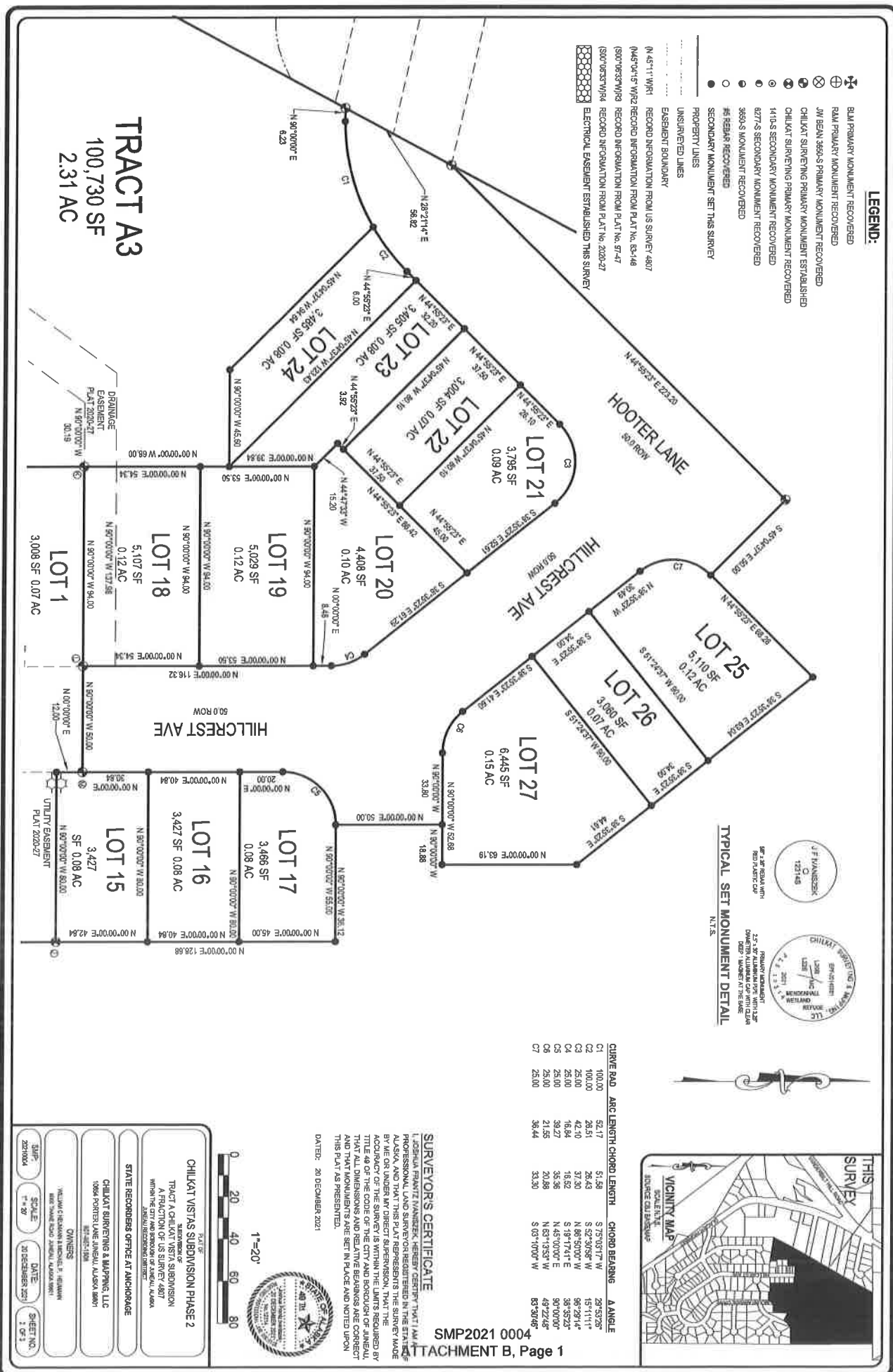
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP:
2021XXXX

SCALE:
1" = 30'

DATE:
21 JULY 2021

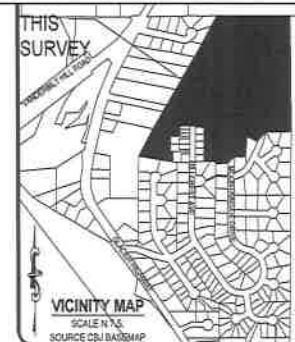
SHEET NO.
3 OF 3



CURVE TABLE					
CURVE RAD	ARC LENGTH	CHORD LENGTH	CHORD BEARING	Δ ANGLE	
C1	100.00	52.17	51.58	S 75°03'17" W	22°53'26"
C2	100.00	28.51	28.43	S 52°30'58" W	15°11'11"
C3	25.00	42.10	37.30	N 86°50'00" W	90°30'14"
C4	25.00	16.84	16.52	S 18°17'41" E	38°15'33"
C5	25.00	39.27	35.38	N 45°00'00" E	90°00'00"
C6	25.00	21.55	20.88	N 63°19'53" W	49°22'48"
C7	25.00	36.44	33.30	S 63°10'00" W	83°30'46"

LOT 2
PLAT 914
BASIS OF BEARING
S 89°12'00" E 728.81 (728.81)

BASIS OF BEARING:
THE BASIS OF BEARING FOR THIS PLAT IS THE RECORD BEARING OF S 89°12'00" E AS DELINEATED ON THE OFFICIAL PLAT OF US SURVEY 4807 SUBDIVISION, APPROVED 23 MARCH 1985, BETWEEN FOUND PRIMARY MONUMENTS WHICH MARK CORNER 1 AND CORNER 2 US SURVEY 4807 AS SHOWN ON THIS PLAT.



LEGEND:

- ⊕ BLM PRIMARY MONUMENT RECOVERED
- ⊗ R&M PRIMARY MONUMENT RECOVERED
- ⊙ JW BEAN 3850-S PRIMARY MONUMENT RECOVERED
- ⊕ CHILKAT SURVEYING PRIMARY MONUMENT ESTABLISHED
- ⊗ CHILKAT SURVEYING PRIMARY MONUMENT RECOVERED
- ⊙ 1410-S SECONDARY MONUMENT RECOVERED
- ⊕ #277-S SECONDARY MONUMENT RECOVERED
- ⊗ 3850-S MONUMENT RECOVERED
- #5 REBAR RECOVERED
- ⊕ CHILKAT SURVEYING SECONDARY MONUMENT RECOVERED
- ⊗ SECONDARY MONUMENT SET THIS SURVEY

- PROPERTY LINES
- - - UNSURVEYED LINES
- - - EASEMENT BOUNDARY

- (N 45°11' W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N 45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-148
- (S 00°08'33" W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- (S 00°08'33" W)R4 RECORD INFORMATION FROM PLAT No. 2020-27

- ELECTRICAL EASEMENT ESTABLISHED PLAT 2020-27
- DRAINAGE EASEMENT ESTABLISHED PLAT 2020-27
- ACCESS EASEMENT ESTABLISHED PLAT 2020-27

1"=80'

0 80 160 240 320

PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2
SUBDIVISION OF
TRACT A CHILKAT VISTA SUBDIVISION
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
12854 PORTER LANE JUNEAU, ALASKA 99901
907-457-1928

OWNERS
WILLIAM C. HEDMAN & MICHAEL P. HEDMAN
8000 TRAMER ROAD JUNEAU, ALASKA 99901

SMP: 20210004 SCALE: 1"=80' DATE: 20 DECEMBER 2021 SHEET NO. 1 OF 3

SURVEYOR'S CERTIFICATE

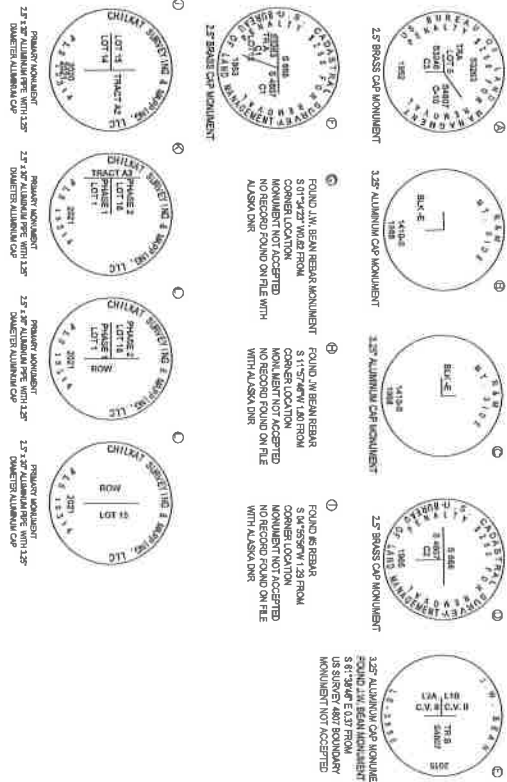
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 20 DECEMBER 2021



SMP2021 0004
ATTACHMENT B, Page 2

FOUND MONUMENT DESCRIPTIONS:



NOTES:

- [illegible]

SURVEYOR'S CERTIFICATE

1. JOSHUA PHANTZ INVENTOR, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 46 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 20 DECEMBER 2021



OWNERSHIP CERTIFICATE:

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH OUR FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE _____ 2011

DATE _____ 2011

WILLIAM C. HEUBANN

MICHAEL P. HEUBMAN

NOTARY ACKNOWLEDGEMENT:

UNITED STATES OF AMERICA)
)SS
STATE OF ALASKA)

THIS IS TO CERTIFY THAT ON THIS _____ DAY OF _____, 2011, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALABAMA, DULY COMMISSIONED AND EXERCISING PERSONALLY DESCRIBED WILLIAM C. HERMAN, AND MICHAEL P. HERMAN, TO BE KNOWN TO BE THE PERSONS APPEARED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THENMENTIONED AUTHORIZED TO DO SO.

WITNESS MY HAND AND OFFICIAL SEAL, THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION PLAT APPROVAL

_____ DATED _____, 2021, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT RECORDING OFFICE, ANCHORAGE, ALASKA.

DATE _____

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

ATTEST:

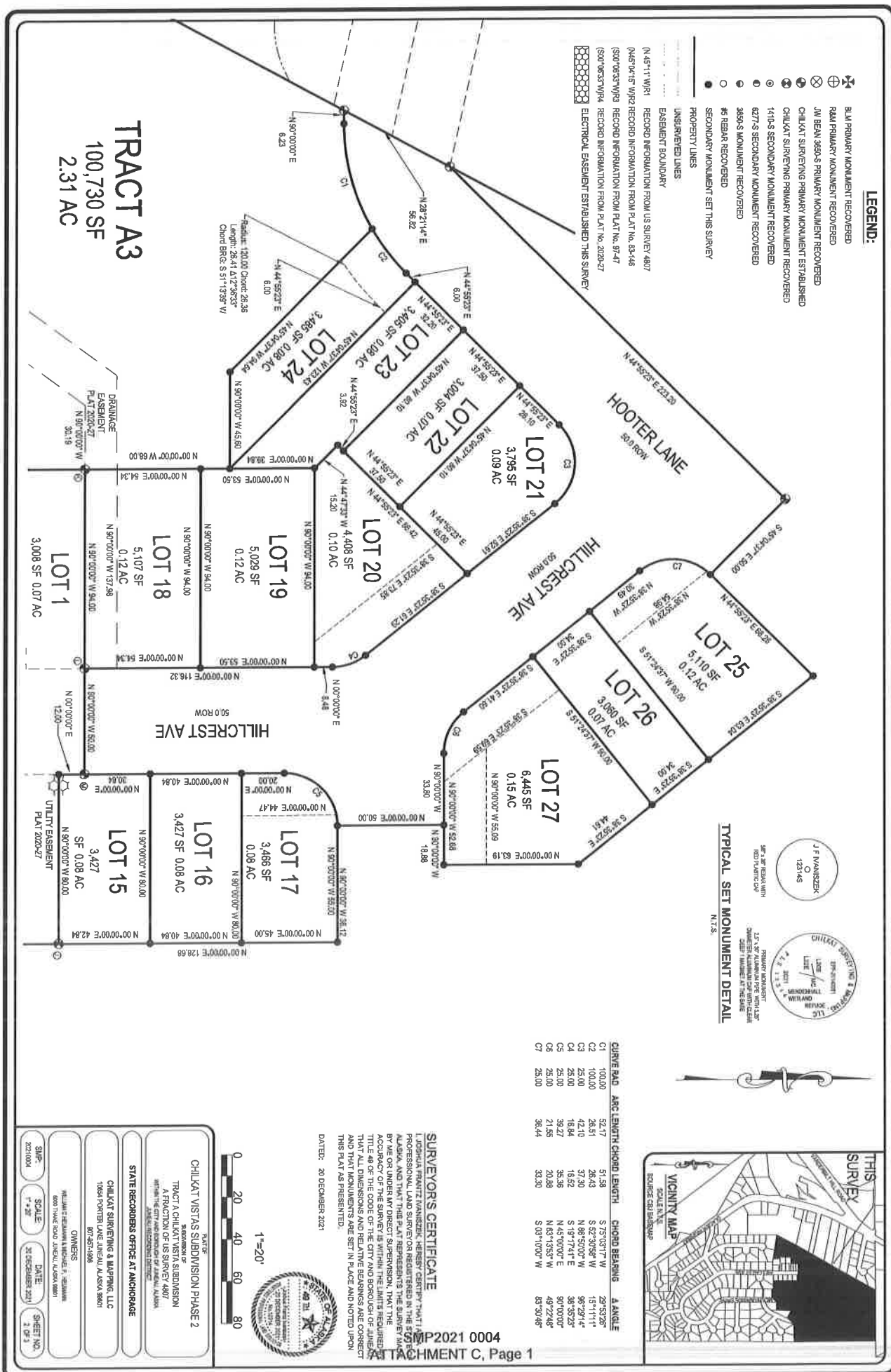
MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU

TYPICAL SET MONUMENT DETAIL



SMP2021 0004
 ATTACHMENT B, Page 3

SUP- 2017004	SCALE	DATE- NO DISCHARGE ENTRY	SHEET NO. 1 OF 3
CHILCAT VISTAS SUBDIVISION PHASE 2 SUBSECTION OF TRACT A CHILCAT VISTA SUBDIVISION A PORTION OF US SURVEY 14807 WITHIN THE CUMULUS RESERVATION ACT STATE RECORDS OFFICE AT ANCHORAGE			
CHILCAT SURVEYING & MAPPING, LLC 10664 PORTER LANE, LAUREL, ALASKA 99601 907.877.1948			
OWNERS INCLUDES E. JOHNSON & MICHAEL J. JOHNSON ASSIGNED FROM JAMES ALAN JOHNSON			





MEMORANDUM

DATE: February 28, 2020
TO: William Heumann, Owner
FROM: Michael Read, PE, Principal, TENW
SUBJECT: Richland Manor- Traffic Impact Analysis
TENW Project No. 3709

This memorandum summarizes a traffic impact analysis of *Richland Manor*, a proposed residential development in the vicinity of Hooter Lane and Craig Street north of Glacier Highway in Juneau, Alaska. This memo includes a summary of the project, a description of existing transportation conditions within the immediate site vicinity, methodology used to derive the trip generation estimate, traffic operational traffic impact analysis at key study intersections, review of site access, and identification of any transportation mitigation measures.

Project Description

The proposed *Richland Manor* residential development would consist of up to 47 single family homes (detached) and approximately 356 multifamily homes in the vicinity of Hooter Lane and Craig Street north of Glacier Highway in Juneau, Alaska. A site vicinity map is provided in **Figure 1**. The proposed development would be constructed in phases, beginning in 2020, with full build-out and occupancy anticipated by 2029.

Primary vehicular access would be provided via construction of a public roadway within the undeveloped right-of-way of Hooter Lane, with secondary vehicular access via Hillcrest Drive and Abey Way via Craig Street. Additional gated access would be provided onto Robbie Road for emergency vehicles only. A conceptual site plan has been developed for the project and is shown in **Figure 2**.

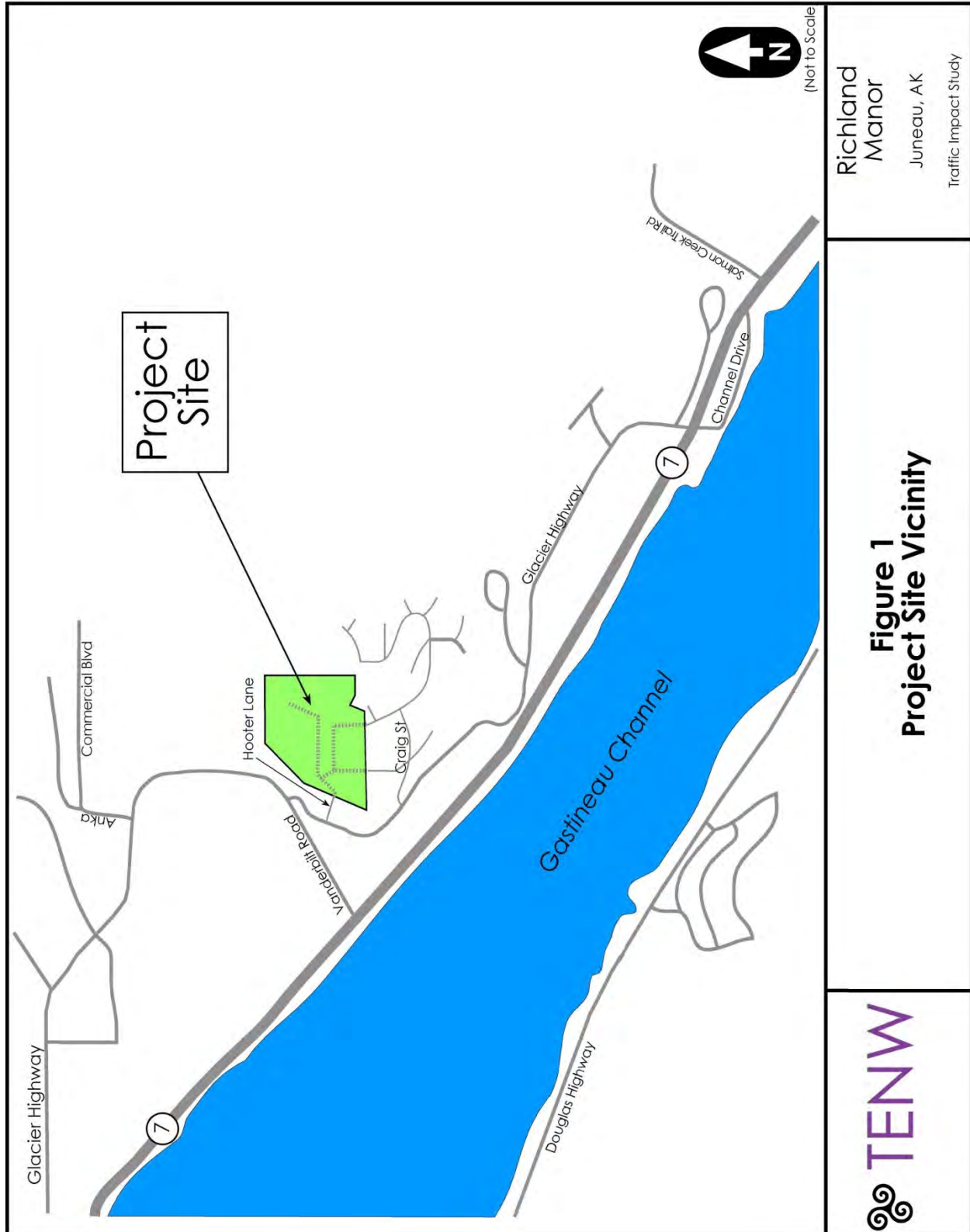
Existing Transportation Conditions

This section includes an inventory of existing roadway conditions, traffic volumes, levels of service and planned roadway improvements.

Roadway Conditions

The following paragraphs describe existing arterial roadways that would be used for site access. Roadway characteristics are described in terms of number of lanes, speed limits, shoulder types and widths.

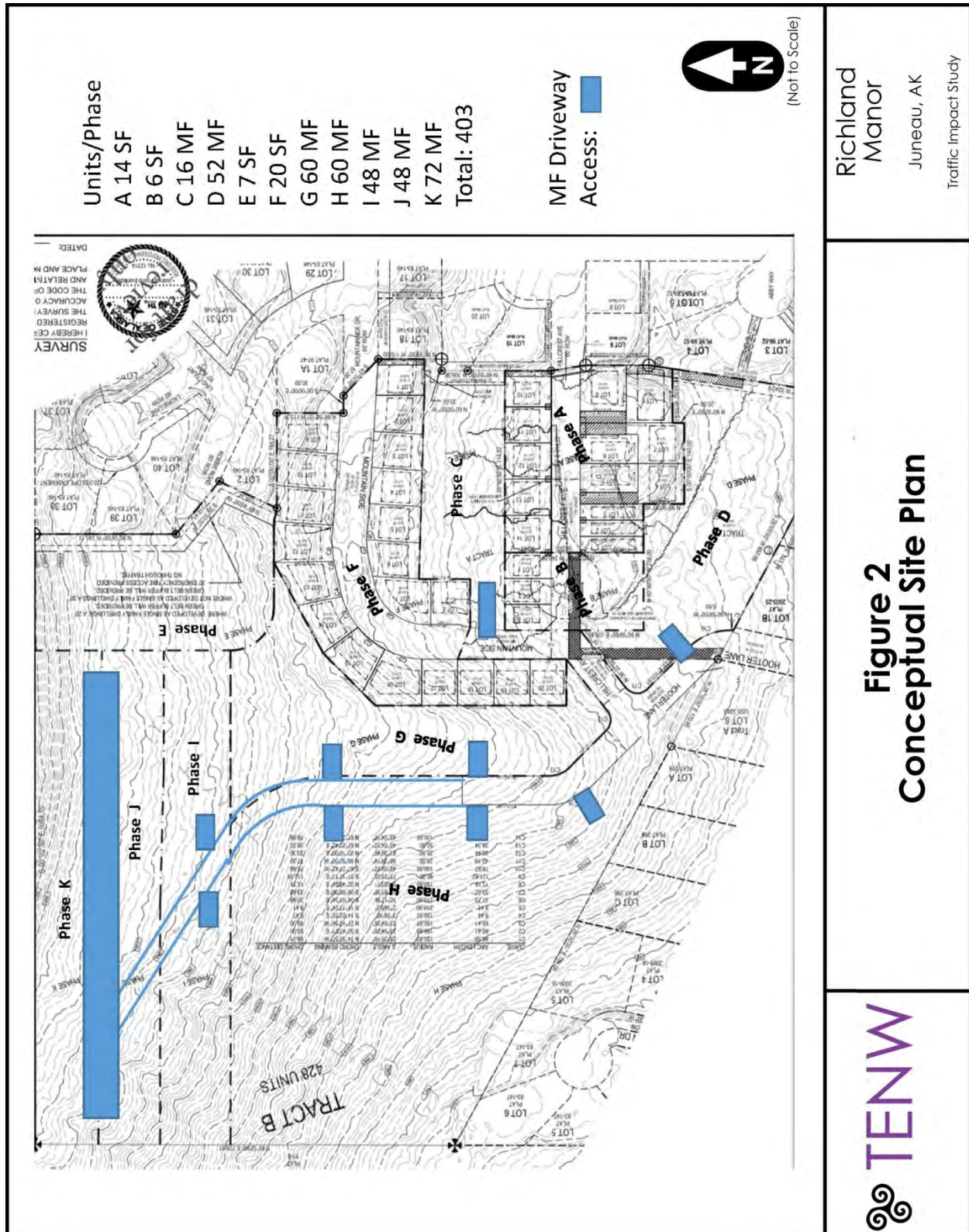
Glacier Highway is a three-lane roadway with a center southbound left-turn lane north of Glacier Highway. East of Vanderbilt Road and Glacier Highway, the roadway consists of two lanes with curbs and gutters on both sides of the street, and a sidewalk on the north side of street. Bicycle lanes are provided on both sides of the street. The posted speed limit is 40 mph.



Richland
 Manor
 Juneau, AK
 Traffic Impact Study

Figure 1
Project Site Vicinity





Vanderbilt Road is a three-lane roadway with a center refuge lane, which transitions into a left turn lane at Egan Drive. Bicycle lanes are provided on both sides of the street. The posted speed limit is 45 mph south of Glacier Highway.

Hillcrest Drive is a local street approximately 26 feet in width. The roadway is unchannelized with two travel lanes, curbs, and gutters, but no sidewalks. There is no posted speed.

Traffic Counts

Peak hour traffic volumes represent the highest hourly volume of vehicles passing through an intersection during a typical 7-9 a.m. and 4-6 p.m. weekday peak period. Peak period turning movement counts at several study intersections during the afternoon p.m. peak period were conducted by PDC Engineers early December 2019 (**Attachment 1**). **Figure 3** overviews channelization/traffic control at study intersections. **Figure 4** summarizes the existing p.m. peak period turning movements at study intersections determined in scoping discussions with the Alaska Department of Transportation and Public Facilities (DOT&PF).

Intersection Levels of Service

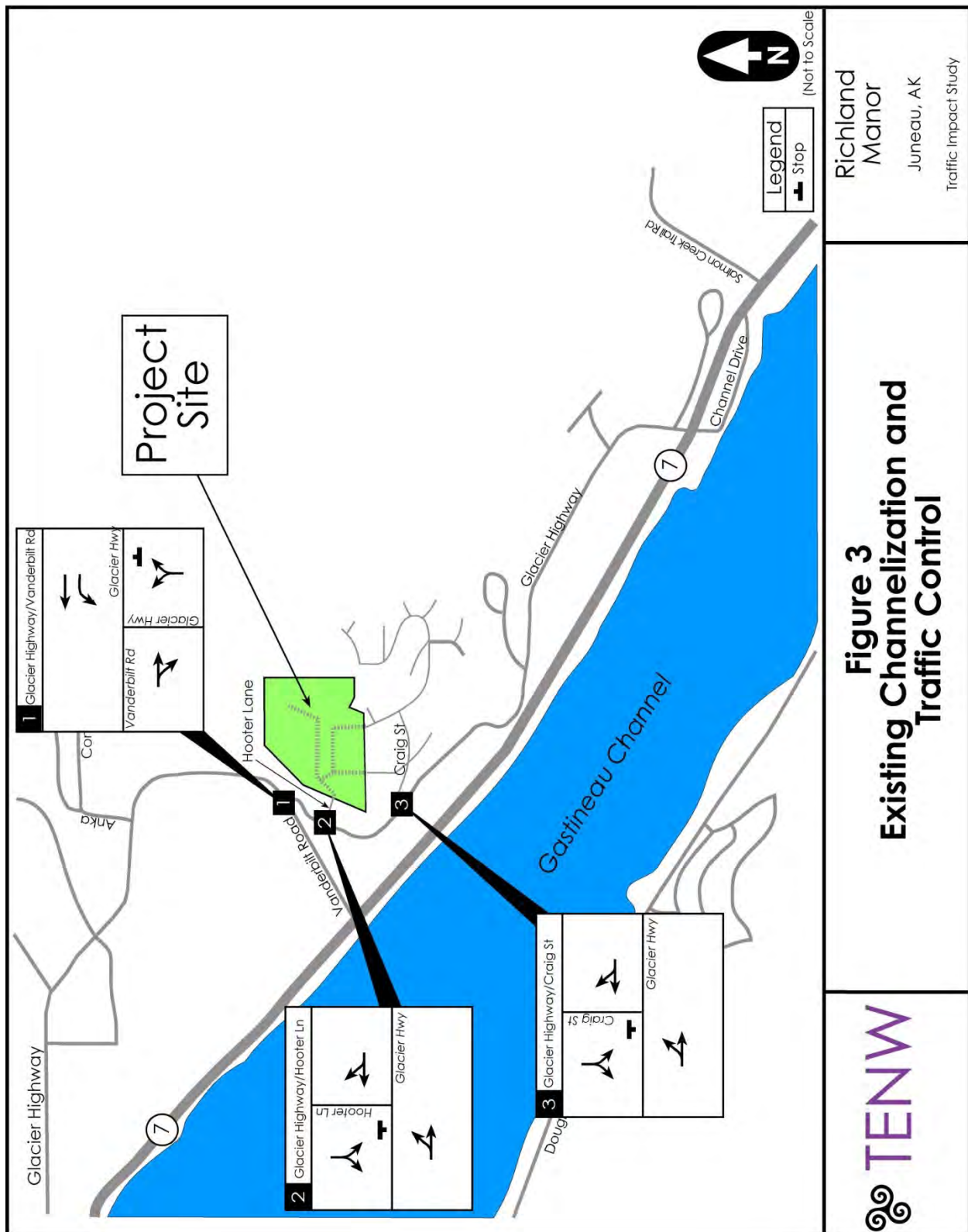
Intersection level of service (LOS) analyses were conducted at the study intersections during the weekday p.m. peak hour of existing conditions and with and without project traffic generated by the proposed development. LOS refers to the degree of congestion on a roadway or intersection. It is a measure of vehicle operating speed, travel time, travel delays, and driving comfort. A letter scale from A to F generally describes LOS. At signalized intersections, LOS A represents free-flow conditions-motorists experience little or no delays, and LOS F represents forced-flow conditions-motorists experience an average delay in excess of 80 seconds per vehicle. The LOS reported for signalized intersections represents the average control delay per vehicle entering the intersection. The LOS reported at stop-controlled intersections is also based on the average control delay (sec/veh) and is reported for each movement. Therefore, the reported LOS at unsignalized intersections does not represent a measure of the overall operations of the intersection.

LOS calculations for both signalized and stop-controlled intersections were calculated using the methodologies and procedures outlined in the 2000 and 2010 *Highway Capacity Manual (HCM)*, Special Report 209, Transportation Research Board (TRB), using the *Synchro 10* software program. **Table 1** outlines the LOS criteria for signalized and unsignalized intersections based on these methodologies. ADOT&PF maintains a level of service standard of LOS D for development review. Existing p.m. peak hour LOS analyses are summarized in **Table 2**. As shown, all intersections or critical movements operate at LOS B or better under existing conditions. Detailed LOS summary worksheets are included in **Attachment 2**.

Table 1: Level of Service Criteria for Signalized and Unsignalized Intersections

Level of Service	Signalized Intersection Average Delay Range (sec)	Unsignalized Intersection Delay Range (sec)
A	≤ 10	≤ 10
B	> 10 to ≤ 20	> 10 to ≤ 15
C	> 20 to ≤ 35	> 15 to ≤ 25
D	> 35 to ≤ 55	> 25 to ≤ 35
E	> 55 to ≤ 80	> 35 to ≤ 50
F	> 80	> 50

Source: "Highway Capacity Manual", Special Report 209, Transportation Research Board, 2000.



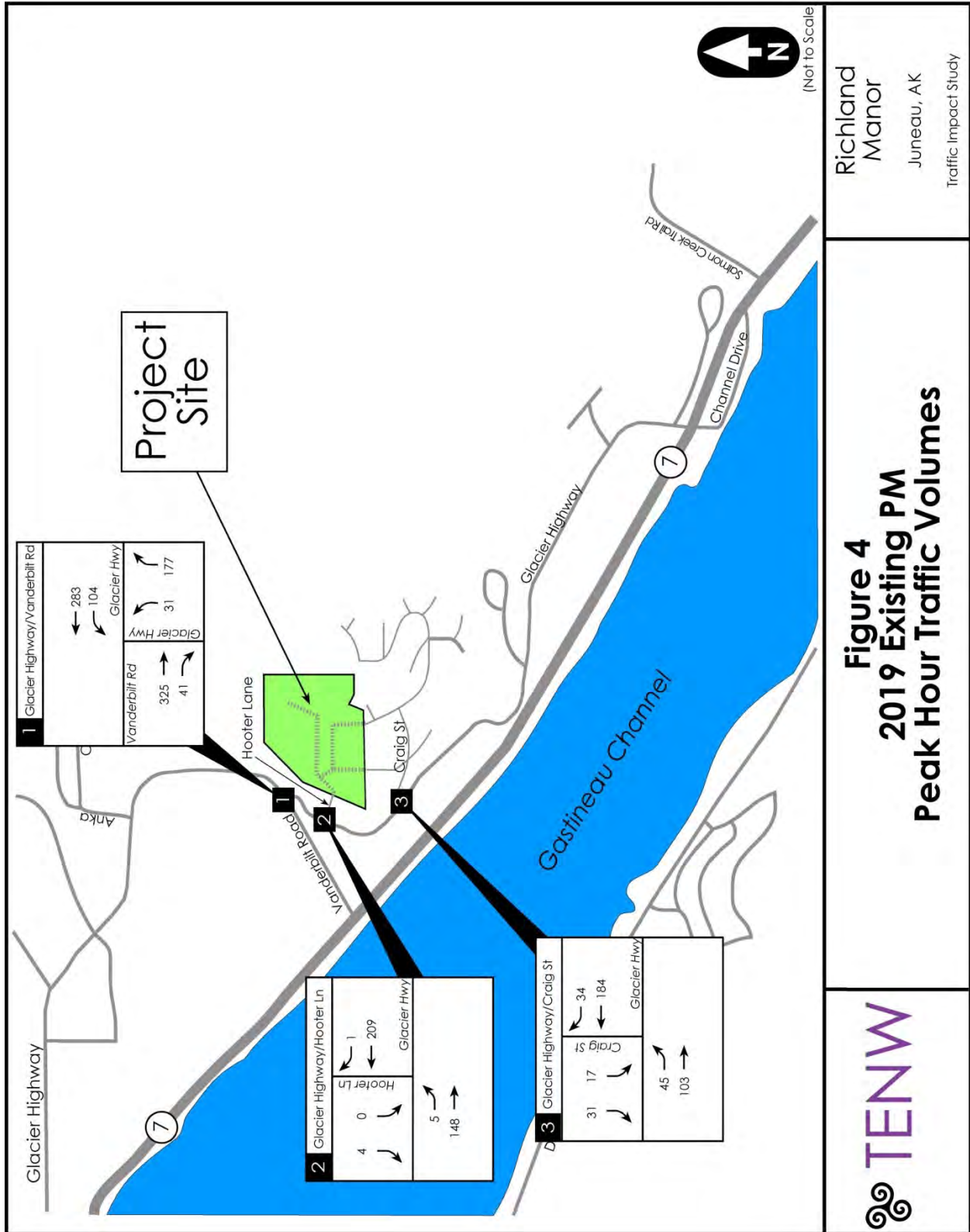


Table 2: Existing PM Peak Hour Intersection Levels of Service

Study Intersection		PM Peak Hour		
		LOS	Delay (sec)	V/C Ratio
<u>Stop Controlled Intersections</u>				
#1 – Glacier Highway at Vanderbilt Road	(NB – Stop)	B	14.2	0.37
	(WB – Left)	A	8.4	0.10
#2 – Glacier Highway at Hooter Lane	(SB – Stop)	A	9.6	0.01
#3 – Glacier Highway at Craig Street	(SB – Stop)	B	10.4	0.07

Source: TENW.

Planned Transportation Improvements

ADOT&PF has a programmed improvement at the intersection of Glacier Highway and Vanderbilt Road intersection. The improvement is part of a larger regional trail/bicycle plan and would involve installation of a pedestrian/bicycle crossing treatment west side of the intersection to include a median refuge island and pedestrian-activated rectangular rapid flashing beacon (RRFB) system. The currently planned improvement would eliminate the existing median refuge lane for northbound left turning movements from Glacier Highway onto Vanderbilt Road.

Traffic Impact Analysis

The following section describes projected future baseline traffic growth, new trips generated by the proposed development, distribution and assignment of new project trips, intersection level of service impacts, site access, safety and circulation issues, and identification of transportation mitigation to offset impacts.

2029 Baseline Traffic Volumes

To evaluate project traffic impacts at full buildout, traffic counts obtained in 2019 were factored by a 1 percent annual background growth rate to forecast 2029 future baseline traffic volumes.

Project Trip Generation

Documented trip rate equations compiled by the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition, 2017*, were used to estimate daily, a.m. peak hour and p.m. peak hour traffic that would be generated by the proposed residential uses within *Richland Manor*, assuming new detached single-family homes (ITE Land Use Code 210) and Low-Rise Multifamily uses (LUC 220).

As shown in **Table 3**, total site trip generation of the project is estimated to generate a approximately 3,050 new weekday daily trips, 199 new a.m. peak hour trips (46 entering and 153 exiting), and 246 new p.m. peak hour trips (155 entering and 91 new exiting).

Table 3: Richland Manor - Trip Generation

Time Period	In	Out	Total
Weekday Daily	1,525	1,525	3,050
Weekday AM Peak Hour	46	153	199
Weekday PM Peak Hour	155	91	246

Source: TENW. See also **Attachment 3**.

Trip Distribution and Assignment

To distribute trips onto the vicinity-street and arterial network, trip distribution patterns were determined based on review of existing travel patterns, and the relative distribution of employment and residential density in the vicinity (see also **Attachment 4**). Generally, average distribution and assignment of project trips were assumed as:

- 45 percent easterly via Glacier Highway; and
- 55 percent westerly and northwesterly via Glacier Highway and Vanderbilt Road.

Figure 5 shows p.m. peak hour trip distribution, while Figure 6 summarizes p.m. peak hour trip assignment. Figure 7 summarizes p.m. peak hour traffic volume forecasts without and with the proposed *Richland Manor* project for the 2029 horizon year.

Intersection Level of Service Impacts

Table 4 summarizes level of service impacts in 2029 with and without completion of the proposed project. All study intersections and site access driveways would operate at LOS D or better with and without the project in the 2029 horizon year. Per the footnote in Table 4, the Alaska DOT&PF's proposal to remove the median refuge lane for vehicular capacity would drop the future level of service with buildout of *Richland Manor* to LOS D by 2029. If the existing intersection capacity is maintained, buildout of *Richland Manor* would operate at LOS C and not require any mitigation. Detailed LOS summary worksheets are included in **Attachment 1**.

Table 4: 2029 PM Intersection Level of Service Impacts

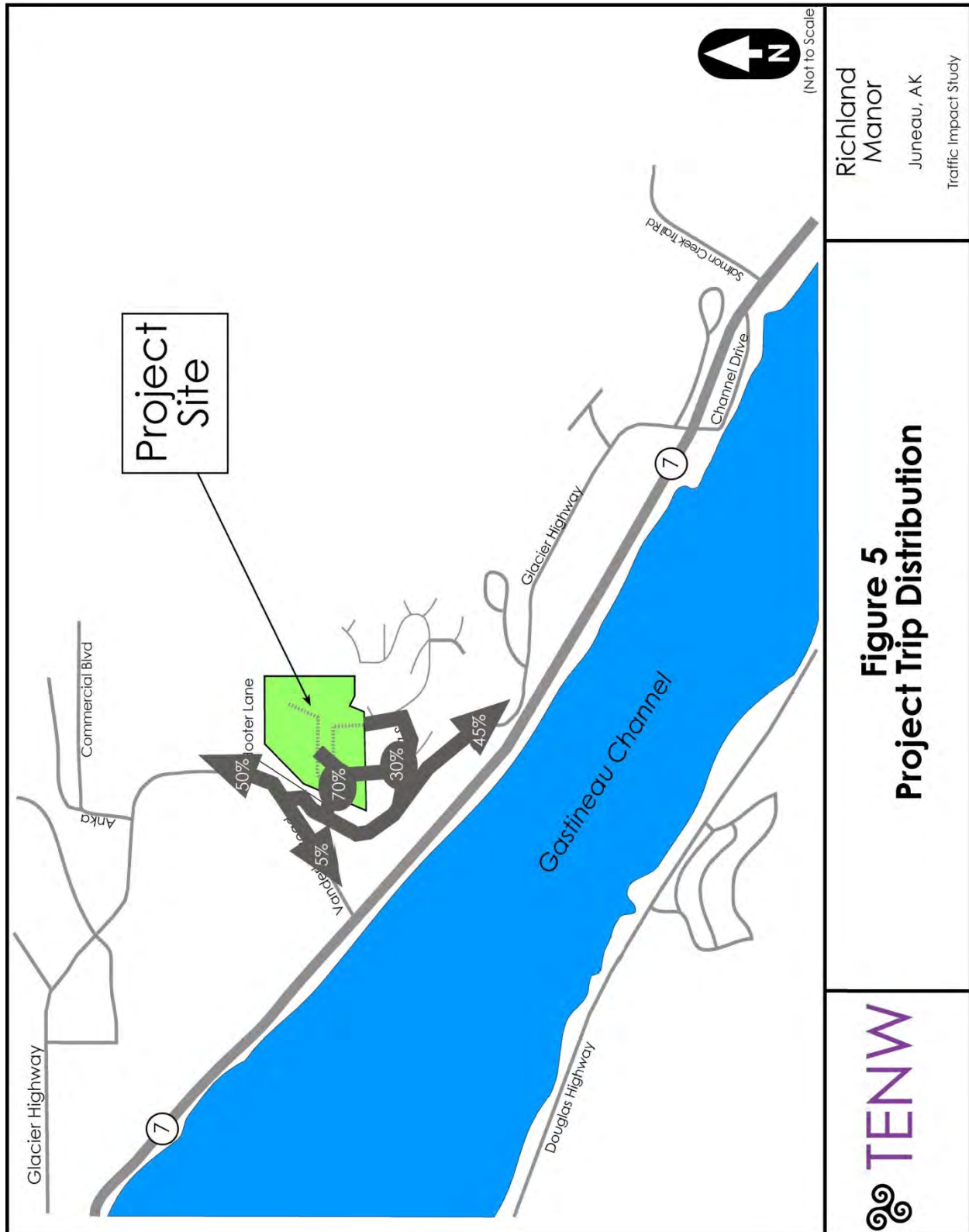
Study Intersection		PM Without Project			PM With Project		
		LOS	Delay (sec)	V/C Ratio	LOS	Delay (sec)	V/C Ratio
<u>Stop Controlled Intersections</u>							
#1 – Glacier Highway at Vanderbilt Road	(NB – Stop)	C	18.3	0.48	D*	25.8	0.65
	(WB – Left)	A	8.6	0.11	A	9.0	0.19
#2 – Glacier Highway at Hooter Lane	(SB – Stop)	A	9.8	0.01	B	11.9	0.14
#3 – Glacier Highway at Craig Street	(SB – Stop)	B	10.7	0.09	B	19.3	0.55

Source: TENW. * - At the intersection of Glacier Highway and Vanderbilt Road, the DOT&PF project to remove intersection capacity to install the RFB results in a LOS D condition in at buildout of *Richland Manor* by 2029. If the median refuge lane remains available for left turns, with buildout of the project in 2029 this approach would operate at LOC C with an average delay of 19.3 Seconds per vehicle.

Site Access and Circulation

Primary vehicular access would be provided via construction of a public roadway within the undeveloped right-of-way of Hooter Lane, with secondary vehicular access via Hillcrest Drive and Abey Way via Craig Street. Additional gated access would be provided onto Robbie Road for emergency vehicles only to meet the minimum fire accessibility codes (above 200 multifamily housing units) per the International Fire Code to provide for secondary access beyond the Hooter Lane and Abey Way intersection.

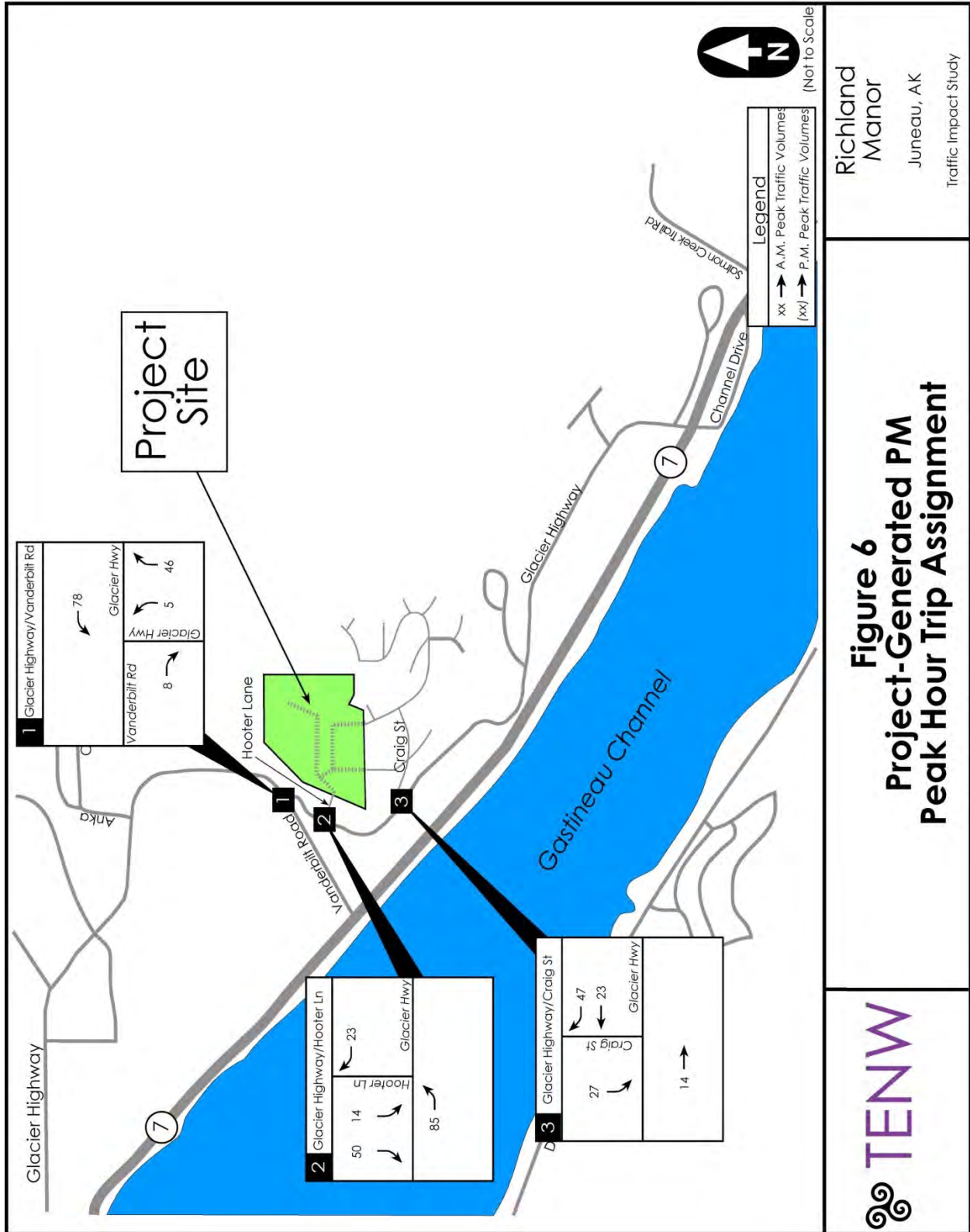
The main access points to the site would be located on Glacier Highway at Hooter Lane and Craig Street. As identified previously, all critical stop-controlled movements at these two intersections are anticipated to operate at LOS B or better with the proposed development in 2029, with little or no vehicular queuing.

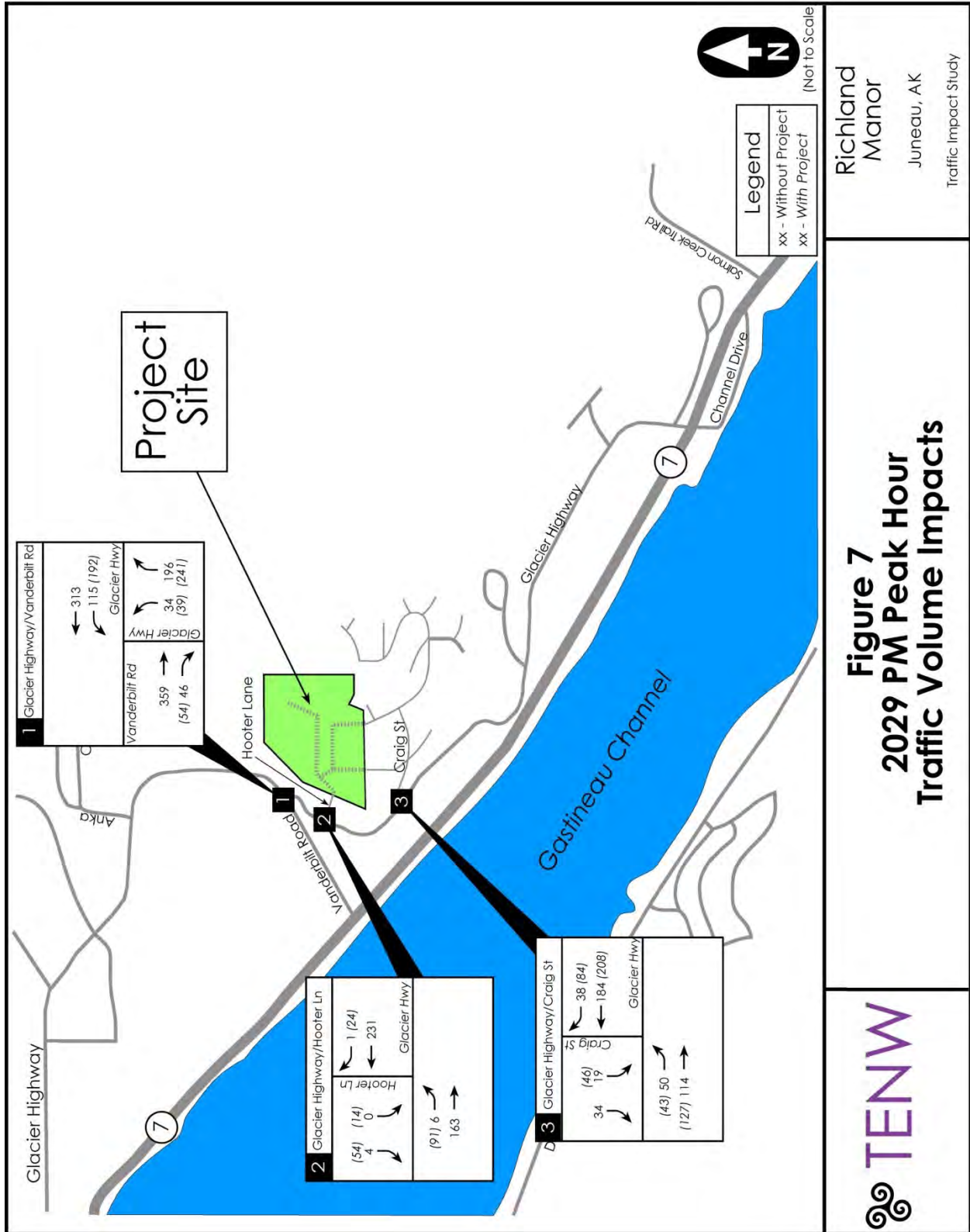


Richland
 Manor
 Juneau, AK
 Traffic Impact Study

Figure 5
Project Trip Distribution







Sight Distance

The American Association of State and Highway Transportation Officials (AASHTO) was used to determine entering and stopping sight distance requirements. AASHTO requires 555 feet of entering sight distance and 425 feet of stopping sight distance for a 50 mph design speed (10 mph over posted speed limit of 40 mph) on Glacier Highway. Field-measured sight distances by TENW in 2006 on Glacier Highway east and west of Hooter Lane are estimated to be greater than 700 feet, and are estimated to be greater than 1,000 feet east of and more than 700 feet west of Craig Street. Therefore, entering sight distance at the main site access points onto Glacier Highway at Hooter Lane and Craig Street would exceed AASHTO requirements.

Left-Turn Lane Warrants

Left-turn movements represent critical turning movements at unsignalized intersections, increasing the potential for intersection delay and safety issues. Therefore, the potential need for a left-turn lane onto Glacier Highway at Hooter Lane was analyzed considering typical evening commute periods.

Based upon procedures and guideline's found in Volume Warrants for Left-Turn Storage Lanes at Unsignalized Intersections (Highway Research Record 211), an eastbound left-turn lane is not warranted based upon approximately 35 percent of eastbound left-turns, a 40 mph posted speed limit, advancing volume of approximately 255 vehicles and an opposing volume of 255 vehicles (**Attachment 5**).

Project Mitigation

A traffic analysis and review was conducted of vehicular trip generation, intersection impacts, and site access, circulation, and safety issues for the proposed *Richland Manor* residential development in Juneau, AK. No direct mitigation measures were found to be necessary as a result of the proposed project. To meet level of service objectives of DOT&PF, the planned pedestrian/bicycle crossing treatment should be modified to preserve existing intersection capacity at its intersection with Vanderbilt Road or review of traffic operational impacts consider that level of service standards would not trigger any project mitigation if existing intersection capacity was maintained under existing conditions per 17 AAC 10.070.

As part of the development, the development would pay for the improvement and/or construction of all new site public access roadways and access connections including construction of Hooter Lane the extension of Abey Way and Hillcrest Drive, and Robbie Road (to serve as secondary fire/emergency vehicle access). A gated control for fire/emergency vehicles utilizing Opticom pre-emption is recommended for ease of fire/emergency vehicle access via Robbie Road.

If you have any questions regarding the information presented in this memo, please call me at (206) 361-7333 x 101 or mikeread@tenw.com.

Attachments:

1. 2019 Traffic Counts
2. Level of Service Summary Sheets
3. Trip Generation Estimates
4. Trip Distribution Observations
5. Turn Lane Warrant per HRR 211

Attachment 1 2019 Traffic Counts

TABULAR SUMMARY OF TURNING MOVEMENT COUNTS														
Name: <u>PDC</u>			Date: <u>9/25/2019</u>			City: <u>Juneau</u>								
Intersection of: <u>Craig Street</u>			Project: <u>Richland Manor</u>			and <u>Glacier Highway</u>								
Street:	<u>Craig Street</u>			<u>Craig Street</u>			<u>Glacier Highway</u>			<u>Glacier Highway</u>			Total All	Hour Total
Time Begins	East Bound			West Bound			North Bound			South Bound				
	L	T	R	L	T	R	L	T	R	L	T	R		
3:00 PM													0	
3:15 PM													0	
3:30 PM													0	
3:45 PM													0	0
4:00 PM				3		12		39	12	14	17		97	97
4:15 PM				4		10		36	16	8	27		101	198
4:30 PM				3		8		45	10	9	33		108	306
4:45 PM				3		3		35	11	12	24		88	394
5:00 PM				8		13		50	8	12	21		112	409
5:15 PM				3		7		37	5	12	25		89	397
5:30 PM				1		5		24	11	12	19		72	361
5:45 PM				3		7		37	5	12	25		89	362
Peak Hour	0	0	0	18	0	34	0	166	45	41	105	0		1506
Peak Hour Factor = $\frac{409}{4 \times 112} = $ 0.913														

Transportation Engineering Northwest
MJR

TABULAR SUMMARY OF TURNING MOVEMENT COUNTS

Name: <u>PDC</u>		Date: <u>9/25/2019</u>		City: <u>Juneau</u>	
Intersection of: <u>Hooter Lane</u>		Project: <u>Richland Manor</u> and <u>Glacier Highway</u>			

Street:	<u>Hooter Lane</u>			<u>Hooter Lane</u>			<u>Glacier Highway</u>			<u>Glacier Highway</u>			Total All	Hour Total
	East Bound			West Bound			North Bound			South Bound				
Time Begins	L	T	R	L	T	R	L	T	R	L	T	R		
3:00 PM													0	
3:15 PM													0	
3:30 PM													0	
3:45 PM													0	0
4:00 PM				0		0		52	1	1	30		84	84
4:15 PM				0		1		42	1	0	37		81	165
4:30 PM				0		0		65	1	2	45		113	278
4:45 PM				0		0		34	0	1	30		65	343
5:00 PM				0		2		62	0	2	34		100	359
5:15 PM				0		2		48	0	0	39		89	367
5:30 PM				1		0		35	1	1	29		67	321
5:45 PM				0		1		33	0	0	27		61	317
Peak Hour	0	0	0	0	0	4	0	209	1	5	148	0		1347

Peak Hour Factor = $\frac{367}{4 \times 113}$ = 0.812

Transportation Engineering Northwest
MJR

TABULAR SUMMARY OF TURNING MOVEMENT COUNTS

Name: <u>PDC</u>		Date: <u>9/26/2019</u>		City: <u>Juneau</u>	
Intersection of: <u>Glacier Highway</u>		Project: <u>Richland Manor and Vanderbilt Road</u>			

Street:	<u>Glacier Highway</u>			<u>Glacier Highway</u>			<u>Vanderbilt Road</u>			<u>Vanderbilt Road</u>			Total All	Hour Total
Time Begins	East Bound			West Bound			North Bound			South Bound				
	L	T	R	L	T	R	L	T	R	L	T	R		
3:00 PM													0	
3:15 PM													0	
3:30 PM													0	
3:45 PM													0	0
4:00 PM				15		47		97	5	25	56		245	245
4:15 PM				11		46		85	10	26	61		239	484
4:30 PM				8		53		80	8	27	61		237	721
4:45 PM				7		36		84	8	20	65		220	941
5:00 PM				12		40		74	15	28	89		258	954
5:15 PM				4		48		87	11	29	68		247	962
5:30 PM				10		32		45	9	18	55		169	894
5:45 PM				12		16		45	10	18	38		139	813
Peak Hour	0	0	0	31	0	177	0	325	42	104	283	0		3578

Peak Hour Factor = $\frac{962}{4 \times 258} =$ 0.932

Transportation Engineering Northwest
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Attachment 2

Intersection LOS Summary Sheets

HCM 2010 TWSC

1: Vanderbilt Rd & Glacier Highway

11/14/2019

Intersection

Int Delay, s/veh 4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	31	177	325	42	104	283
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	190	349	45	112	304

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	900	372	0
Stage 1	372	-	-
Stage 2	528	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	309	674	1164
Stage 1	697	-	-
Stage 2	592	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	279	674	1164
Mov Cap-2 Maneuver	400	-	-
Stage 1	697	-	-
Stage 2	535	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 612	1164	-
HCM Lane V/C Ratio	-	- 0.365	0.096	-
HCM Control Delay (s)	-	- 14.2	8.4	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 1.7	0.3	-

HCM 2010 TWSC

6: Glacier Highway & Hooter Wy

11/14/2019

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	148	209	1	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	183	258	1	0	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	259	0	454
Stage 1	-	-	259
Stage 2	-	-	195
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1306	-	564
Stage 1	-	-	784
Stage 2	-	-	838
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1306	-	561
Mov Cap-2 Maneuver	-	-	561
Stage 1	-	-	784
Stage 2	-	-	834

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1306	-	-	-	780
HCM Lane V/C Ratio	0.005	-	-	-	0.006
HCM Control Delay (s)	7.8	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 2010 TWSC

8: Glacier Highway & Craig St

11/14/2019

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	45	103	167	34	17	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	113	184	37	19	34

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	221	0	414
Stage 1	-	-	202
Stage 2	-	-	212
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1348	-	595
Stage 1	-	-	832
Stage 2	-	-	823
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1348	-	572
Mov Cap-2 Maneuver	-	-	572
Stage 1	-	-	832
Stage 2	-	-	791

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1348	-	-	-	720
HCM Lane V/C Ratio	0.037	-	-	-	0.073
HCM Control Delay (s)	7.8	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 2010 TWSC

1: Vanderbilt Rd & Glacier Highway

1/29/2020

Intersection

Int Delay, s/veh 4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	34	196	359	46	115	313
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	211	386	49	124	337

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	995	411	0
Stage 1	411	-	-
Stage 2	584	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	271	641	1125
Stage 1	669	-	-
Stage 2	557	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	241	641	1125
Mov Cap-2 Maneuver	241	-	-
Stage 1	669	-	-
Stage 2	496	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	2.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	515	1125
HCM Lane V/C Ratio	-	-	0.48	0.11
HCM Control Delay (s)	-	-	18.3	8.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.6	0.4

HCM 2010 TWSC

6: Glacier Highway & Hooter Wy

1/29/2020

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	6	163	231	1	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	201	285	1	0	5
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	286	0	-	0	502	286
Stage 1	-	-	-	-	286	-
Stage 2	-	-	-	-	216	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1276	-	-	-	529	753
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	820	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1276	-	-	-	526	753
Mov Cap-2 Maneuver	-	-	-	-	526	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	815	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		9.8	
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1276	-	-	-	753	
HCM Lane V/C Ratio	0.006	-	-	-	0.007	
HCM Control Delay (s)	7.8	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

HCM 2010 TWSC 8: Glacier Highway & Craig St

1/29/2020

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	114	185	38	19	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	125	203	42	21	37
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	245	0	-	0	459	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	235	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1321	-	-	-	560	815
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1321	-	-	-	535	815
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	768	-
Approach	EB		WB		SB	
HCM Control Delay, s	2.4		0		10.7	
HCM LOS					B	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1321	-	-	-	686	
HCM Lane V/C Ratio	0.042	-	-	-	0.085	
HCM Control Delay (s)	7.8	0	-	-	10.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 2010 TWSC

1: Vanderbilt Rd & Glacier Highway

1/29/2020

Intersection

Int Delay, s/veh 7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	39	241	359	54	192	313
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	259	386	58	206	337

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1164	415	0
Stage 1	415	-	-
Stage 2	749	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	215	637	1116
Stage 1	666	-	-
Stage 2	467	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	175	637	1116
Mov Cap-2 Maneuver	175	-	-
Stage 1	666	-	-
Stage 2	381	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.8	0	3.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	466	1116
HCM Lane V/C Ratio	-	-	0.646	0.185
HCM Control Delay (s)	-	-	25.8	9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	4.5	0.7

HCM 2010 TWSC

6: Glacier Highway & Hooter Wy

1/29/2020

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	91	163	231	24	14	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	112	201	285	30	17	67

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	315	0	726
Stage 1	-	-	300
Stage 2	-	-	426
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1245	-	391
Stage 1	-	-	752
Stage 2	-	-	659
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1245	-	352
Mov Cap-2 Maneuver	-	-	352
Stage 1	-	-	752
Stage 2	-	-	592

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	603
HCM Lane V/C Ratio	0.09	-	-	-	0.139
HCM Control Delay (s)	8.2	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

HCM 2010 TWSC

8: Glacier Highway & Craig St

1/29/2020

Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	127	208	84	46	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	140	229	92	51	37

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	321	0	524
Stage 1	-	-	275
Stage 2	-	-	249
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1239	-	514
Stage 1	-	-	771
Stage 2	-	-	792
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1239	-	489
Mov Cap-2 Maneuver	-	-	489
Stage 1	-	-	771
Stage 2	-	-	754

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1239	-	-	-	577
HCM Lane V/C Ratio	0.044	-	-	-	0.152
HCM Control Delay (s)	8	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

HCM 2010 TWSC

1: Vanderbilt Rd & Glacier Highway/Existing Geometry in 2029

1/29/2020

Intersection

Int Delay, s/veh 5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	39	241	359	54	192	313
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	259	386	58	206	337

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1164	415	0
Stage 1	415	-	-
Stage 2	749	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	215	637	1116
Stage 1	666	-	-
Stage 2	467	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	175	637	1116
Mov Cap-2 Maneuver	292	-	-
Stage 1	666	-	-
Stage 2	381	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	3.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	547	1116
HCM Lane V/C Ratio	-	-	0.55	0.185
HCM Control Delay (s)	-	-	19.3	9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	3.3	0.7

Attachment 3 Trip Generation Estimates

Richland Manor
Trip Generation

Richland Manor Site Plan (47 SF and 356 MF units) October 2019

New	Land Use		X	AM Peak			PM Peak			Daily Trips	Method
	Code	Size		Enter	Exit	Trips	Enter	Exit	Trips		
Single Family Detached Housing	210	47	Units	9	26	35	30	17	47	444	average
Residential Condominiums/Townhouses/Apartments	220	356	Units	38	126	164	125	74	199	2,606	average
Total Trip Generation				46	153	199	155	91	246	3,050	

Attachment 4

Trip Distribution Observations

Neighborhood Traffic Distribution along Glacier Highway

AM Peak 2006

To/From West	69	57%
To/From East	52	43%
	122	

PM Peak 2006

To/From West	93	56%
To/From East	72	44%
	165	

PM Peak 2019

To/From West	94	62%
To/From East	57	38%
	151	

Study Assumptions Were:

To/From West	55%
To/From East	45%

Average From Observations Above:

58%
42%

Attachment 5
Turn Lane Warrants per HRR 211

Contents

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A PRACTICAL COMPUTER PROGRAM FOR DESIGNING TRAFFIC-SIGNAL-SYSTEM TIMING PLANS Robert L. Bleyl.....	19
USE OF A COMPUTER AND VEHICLE LOOP DETECTORS TO MEASURE QUEUES AND DELAYS AT SIGNALIZED INTERSECTIONS A. Christensen.....	34
THE EFFECTS OF STREET GEOMETRICS AND SIGNALIZATION ON TRAVEL TIME AND THEIR RELATIONSHIPS TO TRAFFIC OPERATIONS EVALUATION J. F. Torres.....	54

Volume Warrants for Left-Turn Storage Lanes At Unsignalized Grade Intersections

M. D. HARMELINK, Project Research Engineer (Traffic), Department of Highways,
Ontario

This paper describes the derivation of volume warrants and design charts for left-turn storage lanes at unsignalized grade intersections on four-lane and two-lane highways. The design charts are based on a theoretical analysis and on a series of field studies of traffic behavior at intersections.

The analysis is based on a queuing model in which arrival and service times are assumed to follow a negative exponential distribution. The arrival rates are determined by the volumes of left-turning, through or "advancing," and opposing traffic, and by the time interval required by the left-turning vehicle to clear the advancing lane. The service rates are determined by the volume of opposing traffic, and by the time interval required to make a left-turn maneuver.

Field studies of traffic behavior conducted at seven unsignalized Ontario intersections provided average values of the time interval required by a left-turning vehicle to make a left turn and to clear the advancing lane, the delay experienced by a left-turning vehicle because of opposing traffic, gap acceptance and rejection behavior, and actual arrival rates and headway distributions at various volume levels.

*THIS study was undertaken because of the lack of consistent volume warrants for left-turn storage lanes at unsignalized intersections. The usual method of analyzing such intersections individually on the basis of past experience, accident records, complaints from the traveling public, and engineering judgment has led to inconsistency from location to location.

It was felt that the volume warrants developed should be consistent in their evaluation of traffic parameters from location to location; they should provide reasonable recommendations for specific intersections; and they should be based on traffic and operational considerations, rather than on a benefit-cost analysis, because of the difficulty of translating the benefits received to a monetary value on a suitable rational basis.

The study contained three phases: a theoretical analysis, a series of field studies of traffic behavior, and analysis of a series of questionnaires completed for specific intersections by Department of Highways regional traffic engineers.

THEORETICAL ANALYSIS

Queuing theory may be used to analyze operational flow problems where the state of the system changes from time to time and which have elements that follow this basic behavior: A sequence of units arrives at some facility which services each unit and eventually discharges it (1). In our problem, a sequence of left-turning vehicles arrives at some intersection that permits each left-turning vehicle to proceed if and when there is a suitable gap in the opposing traffic stream, and then discharges the vehicle from the intersection. Morse (1) explains that instead of trying to predict in detail how the state of the system changes with time, we can calculate the probabilities that the system is in each of the possible states.

Paper sponsored by Committee on Traffic Control Devices.

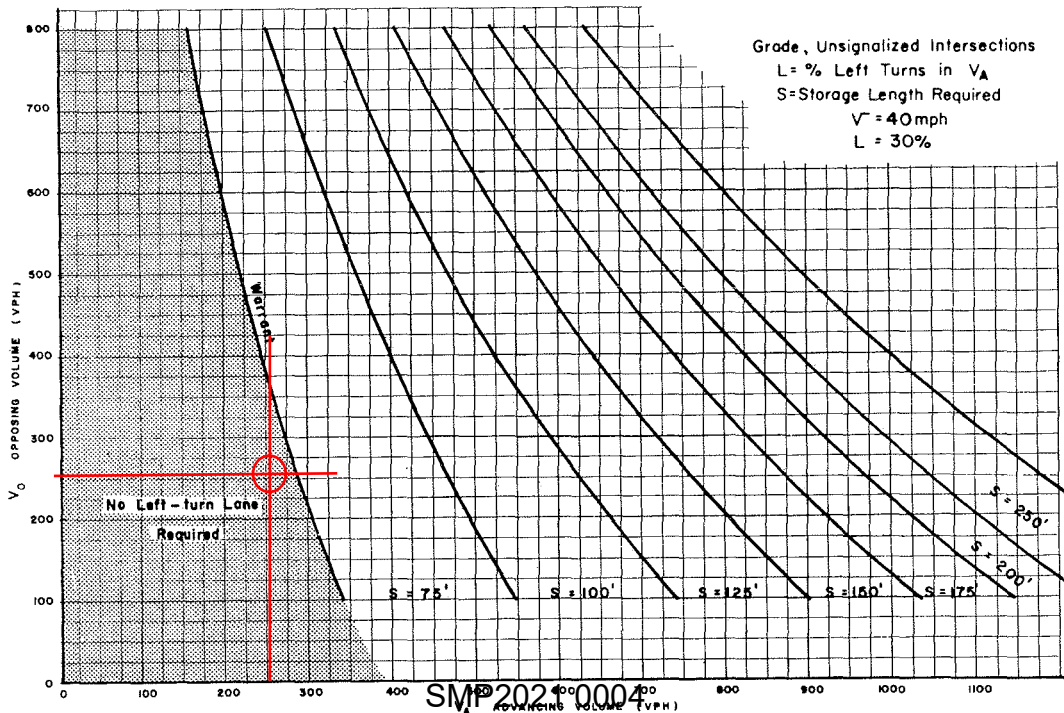


Figure 6. Warrant for left-turn storage lanes on two-lane highways.

Irene Gallion

From: Bear, Tonya (DEC) <tonya.bear@alaska.gov>
Sent: Tuesday, August 24, 2021 5:19 PM
To: Irene Gallion
Cc: Tabor, Brock N (DEC); Zimmer, Raymond T (DEC)
Subject: Re: SMP21-04: Agency Review

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hello Irene,

Your inquiry was passed on to me. ADEC repealed the regulations involving subdivision/platting reviews back in 1998. There is no review or letter we would offer specific to the subdividing a property. Be aware that we do have separation distance requirements from water systems and surface waters and the lot should be large enough to meet those distances when an onsite wastewater system is needed. If the area is served by a utility or community system, then no onsite water or septic systems should be installed and separation distances shouldn't be an issue.

Also, Sally is no longer with the Department. Our plan review engineer for the Juneau area is Ray Zimmer who is cc'd on this email. If this project involves the extension of sewer mains or the installation of a community wastewater system, then he would review the request for Approval to Construct.

Let me know if you have further questions.

Tonya Bear, P.E.

Engineer II/Section Manager
 Department of Environmental Conservation
 Division of Water, WQSAR
 Engineering Support & Plan Review
 610 University Avenue, Fairbanks, AK 99709
 Email: tonya.bear@alaska.gov
 Office: 907-451-2177

From: Irene Gallion [mailto:Irene.Gallion@juneau.org]

Sent: Tuesday, August 24, 2021 3:48 PM

To: Sally.wanstall@alaska.gov; Tabor, Brock N (DEC)

Subject: SMP21-04: Agency Review

Hello Sally and Brock,

We currently have you as our subdivision reviewers for ADEC. Let me know if that needs to be corrected, and feel free to send this information on.

CBJ is reviewing the second phase of the Chilkat Subdivision. This is the one above Mountainside Estates, between Twin Lakes and Lemon Creek.

The application package is quite large, so I'll be sending you a ZendTo that has the files for download.

Let us know if you have any questions or concerns about the development. This is the preliminary plat (basically a draft) so there is time to have meaningful input.

Thank you,

Irene Gallion | Senior Planner

[Community Development Department](#) | City & Borough of Juneau, AK
 Location: 230 S. Franklin Street | 4th Floor Marine View Building
 Office: 907.586.0753 X2

Irene Gallion

From: Nicholson, Pamela J - Juneau, AK <Pamela.J.Nicholson@usps.gov>
Sent: Wednesday, August 25, 2021 10:30 AM
To: Irene Gallion
Cc: Johnson, Susan M - Juneau, AK
Subject: FW: [EXTERNAL] SMP2021 0004: Chilkat Vistas

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hello Irene,

It is a carrier from the Mendenhall Station that delivers the mail in this area so Max forwarded the email here. I will forward the fileshare to the growth management coordinator at the district so that he is aware of the plans. We hope to avoid any future delays and frustration regarding establishing mail delivery to the new homeowners and apartment and/or condo owners.

When CBJ, USPS and the builder/developer are able to meet in the early planning stages of the development or redesign, the CBU location(s) can be planned and approved well in advance off occupancy taking into consideration customer needs and all traffic flow concerns. This also allows time for the CBU(s) to be approved and ordered, all addresses to be added to the route book and helps to avoid potential service problems or disruptions.

Thank you for taking the time to reach out. Establishing mail delivery to a brand new address is more time consuming than the customer putting up a box and wanting to know why they haven't got any mail despite our efforts to notify our customers.

Sincerely,

*Pamela Nicholson
 Supervisor Customer Service
 Mendenhall Station
 9491 Vintage Blvd
 Juneau, AK 99801-7111
 (907) 789-0934*

From: Cava Jr, Maximino F - Juneau, AK <Maximino.F.Cava@usps.gov>
Sent: Wednesday, August 25, 2021 9:15 AM
To: Johnson, Susan M - Juneau, AK <susan1.m.johnson@usps.gov>; Nicholson, Pamela J - Juneau, AK <Pamela.J.Nicholson@usps.gov>
Subject: FW: [EXTERNAL] SMP2021 0004: Chilkat Vistas

From: Irene Gallion <Irene.Gallion@juneau.org>
Sent: Wednesday, August 25, 2021 8:00 AM
To: henricksen, kaylee R - Juneau, AK <Kaylee.R.Henricksen@usps.gov>; Cava Jr, Maximino F - Juneau, AK

<Maximino.F.Cava@usps.gov>

Subject: [EXTERNAL] SMP2021 0004: Chilkat Vistas

CAUTION: This email originated from outside USPS. **STOP and CONSIDER** before responding, clicking on links, or opening attachments.

Hi Kaylee and Max,

We have a new subdivision application, the second phase of Chilkat Vistas. That is the one that is above Mountainside Estates, between Twin Lakes and Lemon Creek.

New addresses will need to be eventually created, so we wanted to give your organization the chance for an early weigh-in.

The files are too big to send via e mail so I'll send you a ZendTo. If this does not work with your system permissions, let me know and I will figure out a different way.

Thanks!

Irene Gallion | Senior Planner

Community Development Department | City & Borough of Juneau, AK
Location: 230 S. Franklin Street | 4th Floor Marine View Building
Office: 907.586.0753 X2



Fostering excellence in development for this generation and the next.



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Fire

STAFF PERSON/TITLE: Daniel Jager, Fire marshal

DATE: 9-2-2021

APPLICANT:

TYPE OF APPLICATION: Preliminary Plat for a Major Subdivision

PROJECT DESCRIPTION:

Chilkat Vistas is above Mountainside Estates, on the border between Twin Lakes and Lemon Creek. One 28-acre tract is proposed to be subdivided.
* 2.1 acres will be subdivided into 15 lots with a developed road system.
* The remainder will be divided between three Tracts. Note that the Sketch Plan has a mistake and shows a Tract A4 that has no lot lines associated with it. Tract A4 is not being proposed, and will be removed in subsequent versions.

LEGAL DESCRIPTION: CHILKAT VISTAS TR A

PARCEL NUMBER(S): 7B1001160011

PHYSICAL ADDRESS: Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

AGENCY COMMENTS:

There are no fire code or fire department concerns at this time for the proposed Phase II of this subdivision.

Irene Gallion

From: Jeffrey Hedges
Sent: Wednesday, August 25, 2021 9:12 AM
To: Irene Gallion
Subject: RE: SMP21-04: Chilkat Vistas Ph 2

Irene,

The Building division has no issues with the proposed subdivision at this time.

Thanks,

Jeff Hedges, MCP, CBO, CSP | Building Inspector III
Community Development Department | City & Borough of Juneau, AK
Location: 230 S. Franklin Street, 4th Floor Marine View Building
Mailing: 155 S. Seward Street, Juneau, AK, 99801
Office: 907.586.0767 x4137 | Cell: 907.321.4361



Fostering excellence in development for this generation and the next.

From: Irene Gallion <Irene.Gallion@juneau.org>
Sent: Wednesday, August 25, 2021 8:24 AM
To: Charlie Ford <Charlie.Ford@juneau.org>; Jeffrey Hedges <Jeffrey.Hedges@juneau.org>; Quinn Tracy <Quinn.Tracy@juneau.org>; Alec Venechuk <Alec.Venechuk@juneau.org>; Dan Jager <Dan.Jager@juneau.org>
Subject: SMP21-04: Chilkat Vistas Ph 2

Hello all,

We have a preliminary plat review for the Chilkat Vistas Phase II. This is the subdivision above Mountainside Estates, on the border of Twin Lakes and Lemon Creek.

Charlie, Jeff and Quinn, you can access electronic files here: <I:\DOCUMENTS\CASES\2021\SMP\SMP21-04 Chilkat Ph 2\REVIEW FILES for Departments>

Dan, I don't think you can access our I drive, so I'll send you a file transfer under ZendTo.

Alec, I tried to save a folder on your drive but do not have permissions. I'll put paper copies and a thumb drive on your desk.

Since this is a major subdivision I anticipate you'll need some extra time for review. If you could have comments back by **8:00 am on September 27, 2021**, that would be great. If you need more time just let me know.

Thanks all!

Irene Gallion

From: Bizzarro, Caleb T (DOT) <caleb.bizzarro@alaska.gov>
Sent: Tuesday, October 12, 2021 10:47 AM
To: Irene Gallion
Cc: Schuler, Michael K (DOT)
Subject: DOT&PF SCR ROW Review Feedback for CBJ Planning - SMP21-04 & Case No PAC2020 0064
Attachments: DW30955_For Signature.pdf; JNU SUP 21-007_For Signature.pdf

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Good morning Irene,

After reviewing the submitted documentation from CBJ Planning for the proposed Chilkat Vistas Subdivision atop Mountain Side Estates – DOT&PF SCR ROW would like to provide the following remarks;

- 1) SCR ROW has been working extensively with Chilkat Vistas, LLC (Mike and Bill Heumann). We have accepted an application for improvements on behalf of CBJ, to modify the Hooter Lane approach in accordance with requirements and standards. We have reviewed Chilkat Vistas' construction request and have forwarded two permits for signing in order to grant necessary permissions for the improvements.
 - a. The first is a Driveway Permit (# 30955) to bring the connection onto Glacier Hwy into compliance.
 - b. The second is a Special Use Permit (# JNU SUP 21-007) which allows the installation of a cross culvert within state right of way for the conveyance of higher anticipated water volumes across state property in the future.
 - c. DOT&PF Acknowledges the TIA, hydraulic report, and associative findings. We are currently working through the permits with CBJ and Chilkat Vistas, LLC at this time.

DOT&PF holds no objection to this proposed subdivision and thanks you for the opportunity to review.

Best Regards,

Caleb Bizzarro
 Right Of Way Agent
 Department of Transportation & Public Facilities
 Southcoast Region Design & Engineering Services
 Ph: (907) 465 4519
 Email: caleb.bizzarro@alaska.gov

State of Alaska
Department of Transportation and Public Facilities

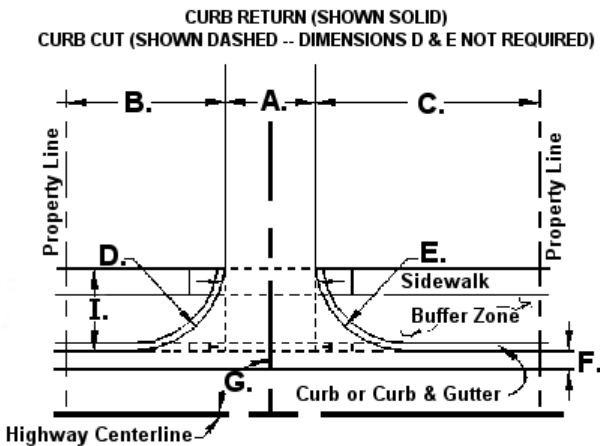
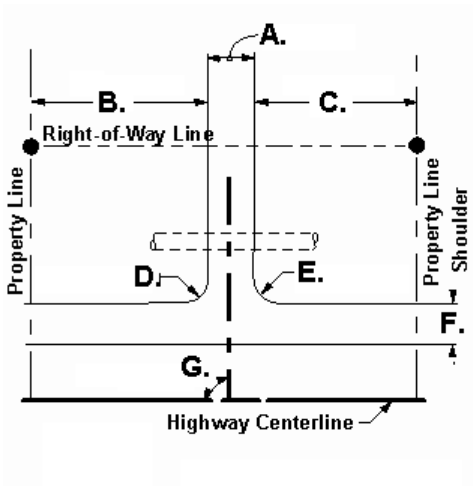
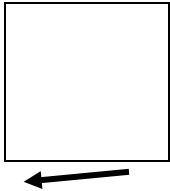
**Driveway and Approach Road
Permit**

This permit allows the permittee to construct and maintain a driveway or approach road within a State owned highway Right of Way.

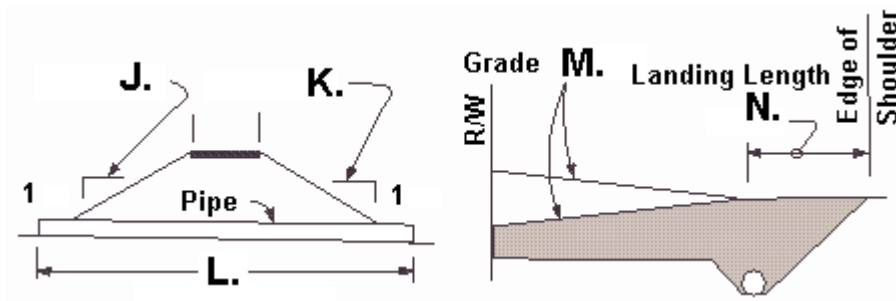
☒ Residential Approach Road ☐ Commercial ☐ Government Agency	
Applicant:	Chilkat Vistas, LLC on behalf of CITY & BOROUGH OF JUNEAU
Mailing Address:	6000 Thane Rd Juneau, AK 99801
Contact Name:	Michael Heumann
E-mail Address:	chilkatvistas@gmail.com
Phone: (971) 261-8014	Fax: _____
Driveway or Approach Road location (highway, subdivision, legal description milepost, etc.) Intersection of Hooter Lane and Glacier Highway in Juneau, AK	
Proposed or Existing:	Anticipated Completion Date:
EXISTING	10/01/2023
Number of lots served:	Max. number of vehicles in any 1 hour:
	246
Zoning Designation:	Proposed Land Use:
D-15	Residential Subdivision

Driveway Specifications

Direction of North in relation to the drawing.



A.	Driveway width	23	feet
B.	Left edge clearance	19	feet
C.	Right edge clearance	19	feet
D.	Left return radius	28	feet
E.	Right return radius	28	feet
F.	Shoulder width	4	feet
G.	Approach angle	90	degrees
H.	Curb type	Curb return w/o buffer zone	
I.	Curb to sidewalk distance		feet



J.	Left driveway foreslope	4	:1
K.	Right driveway foreslope	4	:1
L.	Culvert length	76.25	Feet
M.	Landing grade	2	Percent
N.	Landing length	30	Feet
O.	Culvert size	36	inches
P.	Culvert type	CAP OR CPP	
Q.	Ditch depth		feet
R.	Shoulder type	Paved	
S.	Pavement type	Paved	
T.	Driveway surface type	Asphalt	

Permittee upon signing this permit acknowledges and agrees to the following provisions:

This permit applies only to the State right of way.

This permit grants permission for a driveway allowing access to and from your property onto a State maintained highway. It does not permit the following within the right of way or within that portion of a driveway that is within the right of way: (1) Parking of vehicles "for sale"; (2) Obstructions of any kind (i.e. logs, cables, fencing, etc.); (3) Advertising signs or banners/flags; (4) Parking vehicles with signs/advertising on the side.

A driveway or approach road constructed under permit within a highway right-of-way is the property of the State, but all cost and liability arising from the construction, operation, or maintenance of a driveway or approach road is at the sole expense of those lands served. The Department is not obligated to change its maintenance practices to accommodate a driveway or approach road constructed under a permit, or to incur any additional expense removing snow berms or other obstructions from a driveway or approach road within a right of way resulting from the Department's activities, or activities under a permit issued under 17 AAC 15.

Permittee is responsible for adjusting or relocating the driveway or approach road without cost or liability to the Department if the use or safety of the highway requires that the driveway or approach road be adjusted or relocated.

This permit is not a property right but a temporary authorization, revocable by the State upon violation of any permit terms or conditions, or for other reasons. All reasonable attorney's fees and costs associated with legal or enforcement actions related to the terms and conditions of this permit will be borne by the Permittee.

Any survey monument or monument accessory that is disturbed or destroyed during construction or maintenance of the driveway will be restored or replaced by a Land Surveyor licensed in the State of Alaska.

The Permittee will be responsible for all necessary Federal, State, and Municipal permits and licenses required by law, pay all taxes and special assessments lawfully imposed upon the permitted area, and pay other fees and charges assessed under applicable law.

Placement of fill material in waters of the U.S., including wetlands and streams, requires prior authorization from the U.S. Army Corps of Engineers. It is the responsibility of the owner to contact the Corps before filling activities take place.

The Permittee shall construct and maintain a driveway in such a manner that the highway, and all of the highway's appurtenances or facilities, including drainage facilities, pipes, culverts, ditches, traffic control devices, street lights, pathways, and sidewalks are not impaired or endangered in any way by the construction or maintenance. (17 AAC 10.020(b) If you damage any improvements within the State owned right of way, you will be responsible for returning them to their previous condition. The Department will inspect and approve the restored improvements. (17 AAC 10.065)

Permittee shall indemnify, defend and hold harmless the State, and its officers, employees, and contractors, from any and all claims or actions resulting from injury, death, loss, or damage sustained by any person or personal property resulting directly or indirectly from Permittee's use of or activities in the permitted area.

Landings from all paved roads must be paved and maintained from edge of the road to the length of the landing as stipulated in this permit.

If a culvert is required by this driveway permit, culvert ends must be installed at the time of installation and maintained continuously by the owner.

No person shall place, leave or deposit upon any street, avenue, alley, sidewalk or other public right of way any snow or ice which has been removed from a private driveway, private parking area, or the adjacent property. Permittee is responsible for their snow removal contractor's actions concerning placement of snow from Permittee's property.

If driveway construction or maintenance interferes with the public's safety and/or use of facilities within State owned right of way, you will be directed to stop work until adjustments are made.

While doing construction or maintenance activities do not park equipment or stockpile material on the shoulder during non-working hours.

Permittee is responsible for sight distance clearing of brush and obstructions adjacent to their property.

Driveway landings as stipulated in the permit must be paved and maintained from pavement edge on all paved roads.

Please contact the Department for information about acceptable driveway markers (i.e., size, materials, distance, etc.) for placement within the right of way.

The State will not change its maintenance practices to accommodate your driveway or incur additional expense to clear snow berms or other obstacles resulting from the Department's activities.

Permittee upon signing this permit acknowledges and agrees to the following conditions:

Metal track equipment is not allowed on the paved road surface. Any damage and cost to repair the roadway will be the responsibility of the Permittee.

All equipment and materials must be kept on own site premise and off main road during non-working hours.

Along with a traffic control plan, proof of certification to direct and implement traffic control is required before work within State Right of Way may commence.

Permittee must clear any and all track-out or debris from the roadway as a result of use of this driveway immediately. Remediation should be performed by a street sweeper, wet broom, or manually sweeping up debris. Dispose of debris in accordance with all federal, state, and municipal requirements. Washing or spraying track out off the roadway is prohibited. If Department personnel is required to repair or clean up the drive as a result of the Permittee's activities, the Permittee will be charged the cost.

Ensure sight distance is maintained in compliance with the Alaska Highway Preconstruction Manual (AHPCM).

Permittee not to exceed maximum allowable hourly traffic in operation of this drive as outlined in the AHPCM.

Parking is not authorized within the right of way.

Access must be constructed to completion within two years from date of issuance.

Permittee shall submit a request for final inspection to the Department within 60 days of completion.

An inspection is required prior to reimbursement of permittee's performance deposit or refund of remaining retainer. Please contact DOT&PF for an inspection appointment.

DOT&PF retains the right to require additional work as a part of final inspection by the Department in adjudication of this permit.

Permittee acknowledges and agrees with the Department; the 36-inch Glacier Highway cross culvert is the responsibility of Chilkat Vistas, LLC to install and maintain during construction. DOT&PF shall issue a special use permit to Chilkat Vistas, LLC for the installation and maintenance of said cross culvert as referenced in associate site plan as P-1 for a term of up to two (2) years. Chilkat Vistas, LLC shall bear all cost. Upon acceptance by DOT&PF, the Department shall assume all maintenance and operation responsibility of said cross culvert in perpetuity.

Attachments included as part of this permit are:

REQUIRED for ALL DRIVEWAYS:

- [X] Plat including notes of the placement of the driveway.
- [X] Site plan.
- [X] Proof of ownership.
- [X] Traffic control plan.

REQUIRED for ALL APPROACH ROADS:

- [X] Construction plans.
- [X] Recorded plat or waiver including notes of the placement of the approach road.
- [X] Traffic control plan.

I, _____, acknowledge that I am acting on behalf of the above named organization with the full authority to do so. I further acknowledge and accept that **CITY AND BOROUGH OF JUNEAU** shall comply with all the provisions and conditions that the Department of Transportation and Public Facilities has included as a condition of issuing this permit.

CITY & BOROUGH OF JUNEAU, Permittee Signature

Date

DOT&PF, Signature

Date



SPECIAL USE PERMIT
 BETWEEN
 STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 AND CHILKAT VISTAS, LLC

PERMIT NO. JNU SUP 21-007

THIS PERMIT is issued and effective this **27TH day of August, 2021** by the **STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES, SOUTHEAST REGION RIGHT-OF-WAY**, whose mailing address is P.O. Box 112506, Juneau Alaska 99811-2506, acting through its Commissioner and referred to as "Department", and **CHILKAT VISTAS, LLC**, referred to as "Permittee," whose mailing address is: 6000 Thane Rd. Juneau, AK 99801

Permittee may occupy the following described right-of-way, which is shown on the attached drawing, and is referred to hereinafter as the "Permitted Area"

The proposed permit area is located at the intersection of Hooter Lane and Glacier Highway in Juneau, AK

This permit is subject to the provisions of Alaska Administrative Code, Title 17, Chapter 010, and the following general and special conditions:

1. **For the purpose of: Installation and maintenance of 36-inch Corrugated Aluminum Pipe (CAP) or Corrugated Plastic Pipe (CPP) cross culvert underneath Glacier Hwy. Called out as P-1 on attached drawing. In association with driveway and approach road Permit # 30955**
2. **Term:** Permittee may occupy the permitted area for a term of **two (2) years** unless sooner revoked as provided herein. Before the expiration of said term, and before subsequent term anniversary dates, Permittee may request, in writing, renewal of this Permit for an additional term.
3. **Use by the State:** The issuance of this Permit notwithstanding, the permitted area's primary use is for transportation purposes. The State may revoke this permit (as stated below), and/or enter the permitted area at any time, without notice, for emergency use, or for the planning, design, construction, inspection, or maintenance of existing or future transportation facilities. Any such use of the permitted area will in no way invoke the protections provided under 23 USC Section 138 (Preservation of Parklands).
4. **Compliance with Laws:** Permittee shall comply with all laws, ordinances, regulations, and administrative agency and/or court orders, including those relating to health, safety, noise, environmental protection, waste disposal, hazardous or toxic materials, and water and air quality. No fuel, hazardous or combustible substances are to be stored in the Permit area. Should Permittee's use of the permitted area cause any discharge, leak, spill, emission, or pollution release of any type to occur at any time during this occupancy, Permittee shall immediately notify the State and the appropriate federal, state, and local authorities. Permittee shall act immediately to contain and/or absorb the release, repair any damage, and clean up the release area, and to restore the permitted area to compliance with all applicable state, federal, or local laws or regulations. Permittee shall be held liable for any and all costs incurred by the State to dispose of cleanup materials or to clean up the permitted area unless otherwise agreed to, in writing, by both parties.
5. **Corps of Engineers Authorization:** Before any filling activities take place within the right-of-way, or on the property adjacent to the right-of-way affected by this permit, please contact the U.S. Army Corps of Engineers (USACE) to see if any further authorization is required. Placement of fill material in waters of the U.S., including wetlands and streams, requires prior authorization in most cases. You can reach the USACE

at:

Anchorage: (907) 753-2712, Fax: (907) 753-5567 Toll Free 1-800-478-2712

Fairbanks: (907) 474-2166, Fax: (907) 474-2164

Juneau: (907) 790-4490, Fax: (907) 790-4499

Kenai: (907) 283-3519, Fax: (907) 283-3981

The website is <http://www.poa.usace.army.mil/reg>

1. **Waiver of Claims:** Permittee waives any claim or right of action Permittee may have against the State in the event of damage to property, and injury to or death of any person in the permitted area that arises because of the design, construction, maintenance, management, or operation of a highway in the right of way containing the permitted area.
2. **Reimbursement of Costs:** Permittee shall reimburse the State for all costs and expenses incurred by the State, including attorney's fees, in any action brought by the State to recover any delinquent fees, or for the breach of any terms or conditions contained in this Permit, or to recover possession of the permitted area.
3. **Non-discrimination:** No person, on the basis of race, religion, color, national origin, age, or sex, shall be excluded from participation in, denied the benefits of, or otherwise subjected to discrimination in that person's use of the permitted area.
4. **Assignment:** Permittee may not assign or transfer this permit.
5. **Indemnification:** Permittee shall indemnify, defend and hold harmless the State, and its officers, employees, and contractors, from any claim resulting from injury, loss, or damage to any person or personal property resulting from Permittee's use of the permitted area. The Department shall not be responsible for damages to property or injuries to persons which may arise out of activities of the Permittee, its officers, agents, employees, representatives or contractors; or for any contamination caused by the Permittee; or for damages to property or injuries to the Department's officers, agents, servants or employees, or others who may be on the permitted premises at their invitation or the invitation of any one of them, except for claims arising out of the negligence or willful misconduct of the Department or its officers, agents, employees or invitees.
6. **Revocation:** This Permit is not a property right but a temporary authorization, revocable by the State. The State may revoke this permit in its sole discretion and upon 30 days written notice unless a shorter period is agreed to herein by Permittee. Said notice will be sent to Permittee's last known mailing address. Permittee shall have no right of action against the State. Upon the expiration or revocation of this Permit, Permittee shall remove all encroachments and restore the permitted area to a clean and safe condition. This Permit may be also revoked based upon a written determination by the Federal Highway Administration that federal funding requirements applicable to outdoor advertising have been violated.
7. **Loss of Business:** The State is not responsible for loss of business.
8. **No Relocation Benefits:** Issuance of this Permit does not entitle Permittee to a payment of just compensation or relocation benefits under AS 34.60 if Permit is revoked, Permittee elects not to renew, or the State denies Permittee's request for renewal.
9. **Cancellation by Permittee:** Permittee may cancel this Permit by providing written notice to the State at the above address. Permittee is not entitled to a refund of any fees or expenses related to the revocation or cancellation of this Permit.

10. Abandonment by Permittee: Upon abandonment by Permittee of the permitted area, Permittee's rights under this Permit will immediately terminate, but Permittee's obligations will survive until fulfilled.

11. Permittee to provide: Notification of completion in order to arrange final inspection by DOT & PF ROW Personnel

12. SPECIAL STIPULATIONS;

- I. Sod layer should be removed out 4 feet from culvert ends to assure a common flow line in the ditch after cleaning and maintenance.
- II. Any erosion, adverse settlement as deemed by the Department, water damage caused in construction or in operation of this cross culvert to the State Right of Way will be the responsibility of the Permittee to repair. The Permittee will bear all costs.
- III. Permittee shall install a Corrugated Aluminum Pipe (CAP) or Corrugated Plastic Pipe (CPP) rather than galvanized steel pipe. Ensure adequate fill requirements and compaction requirements met.
- IV. Permittee shall place appropriate sized splash pad, constructed of 6-inch minus drainage material at new culvert outfall within DOT&PF Right of Way to ensure expected conveyance within the ROW.
- V. Permittee shall meet or exceed applicable Federal, State, and municipal standards and requirements for installation and maintenance of P-1 cross culvert pipe. Provide compaction test results prior to paving.
- VI. This special use permit shall be issued in conjunction with the issuance of driveway and approach road permit # 30955 to the City and Borough of Juneau for the Hooter Lane, Glacier Hwy intersection.
- VII. Upon the Department's final inspection, and acceptance; the Department shall assume maintenance and operation responsibility for the herein described cross culvert, thereby concluding this special use permit.

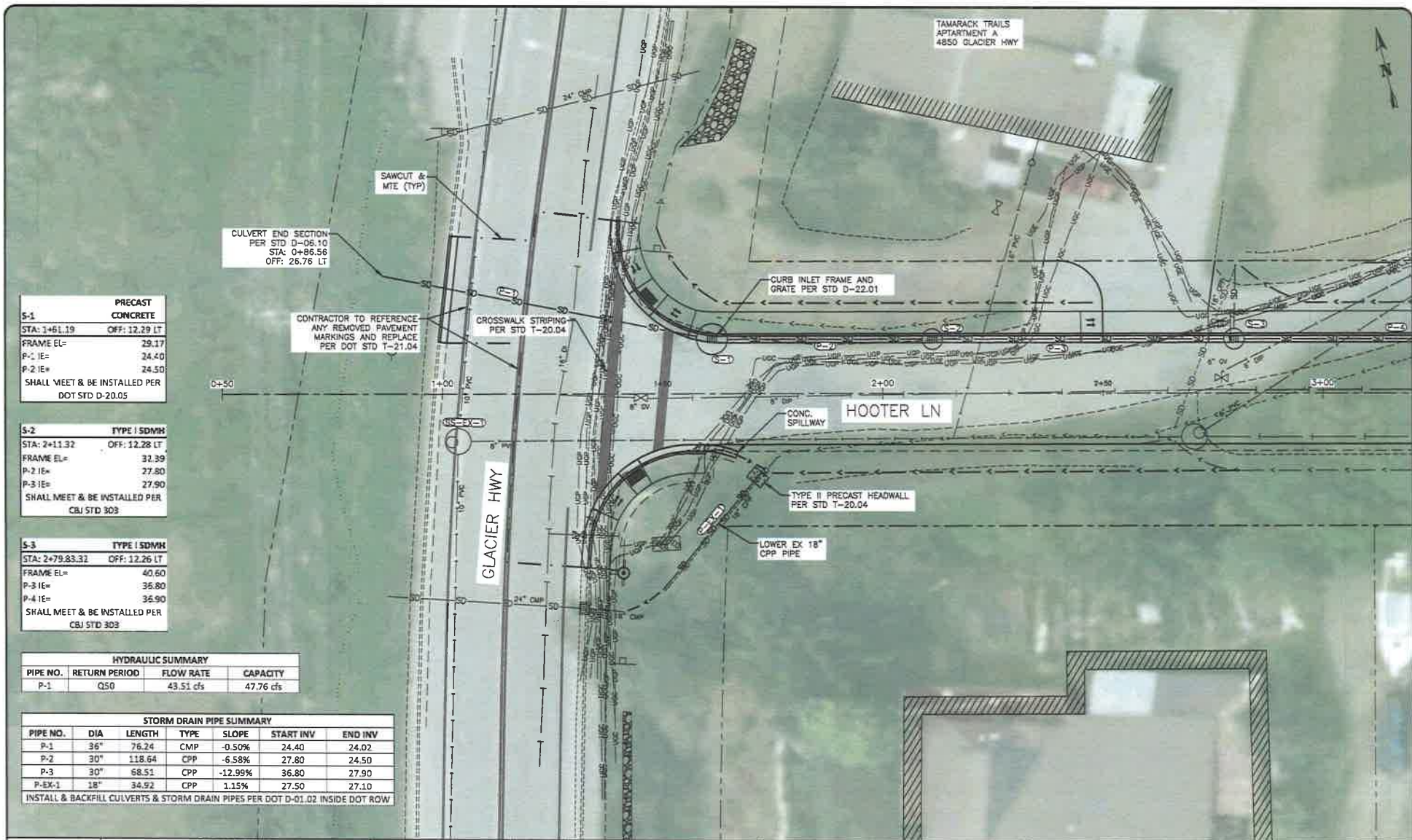
I, **MICHAEL HEUMANN**, acknowledge that I am acting on behalf of the above named organization with the full authority to do so. I further acknowledge and accept that **CHILKAT VISTAS, LLC** shall comply with all conditions that the Department of Transportation and Public Facilities has included as a condition of issuing this permit.

CHILKAT VISTAS, LLC, Permittee

Date

DOT & PF Signature
Caleb T. Bizzarro

Date



S-1	PRECAST CONCRETE
STA: 1+61.19	OFF: 12.29 LT
FRAME EL=	29.17
P-1 IE=	24.40
P-2 IE=	24.50
SHALL MEET & BE INSTALLED PER DOT STD D-20.05	

S-2	TYPE I SDMH
STA: 2+11.32	OFF: 12.28 LT
FRAME EL=	32.39
P-2 IE=	27.80
P-3 IE=	27.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

S-3	TYPE I SDMH
STA: 2+79.83	OFF: 12.26 LT
FRAME EL=	40.60
P-3 IE=	36.80
P-4 IE=	36.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

HYDRAULIC SUMMARY			
PIPE NO.	RETURN PERIOD	FLOW RATE	CAPACITY
P-1	Q50	43.51 cfs	47.76 cfs

STORM DRAIN PIPE SUMMARY					
PIPE NO.	DIA	LENGTH	TYPE	SLOPE	START INV
P-1	36"	76.24	CMP	-0.50%	24.40
P-2	30"	118.64	CPP	-6.58%	27.80
P-3	30"	68.51	CPP	-12.99%	36.80
P-EX-1	18"	34.92	CPP	1.15%	27.50
					27.10

INSTALL & BACKFILL CULVERTS & STORM DRAIN PIPES PER DOT D-01.02 INSIDE DOT ROW

RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



DRAWN BY: L. CHAMBERS
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLADISO
1148 ALER HOLDEN WAY #101
JULIEAU, AR 72091
(501) 790-0054
solutions@prohns.com
www.prohns.com

CBJ REVIEW

APPROVED: _____
DATE: SMP2021.0004

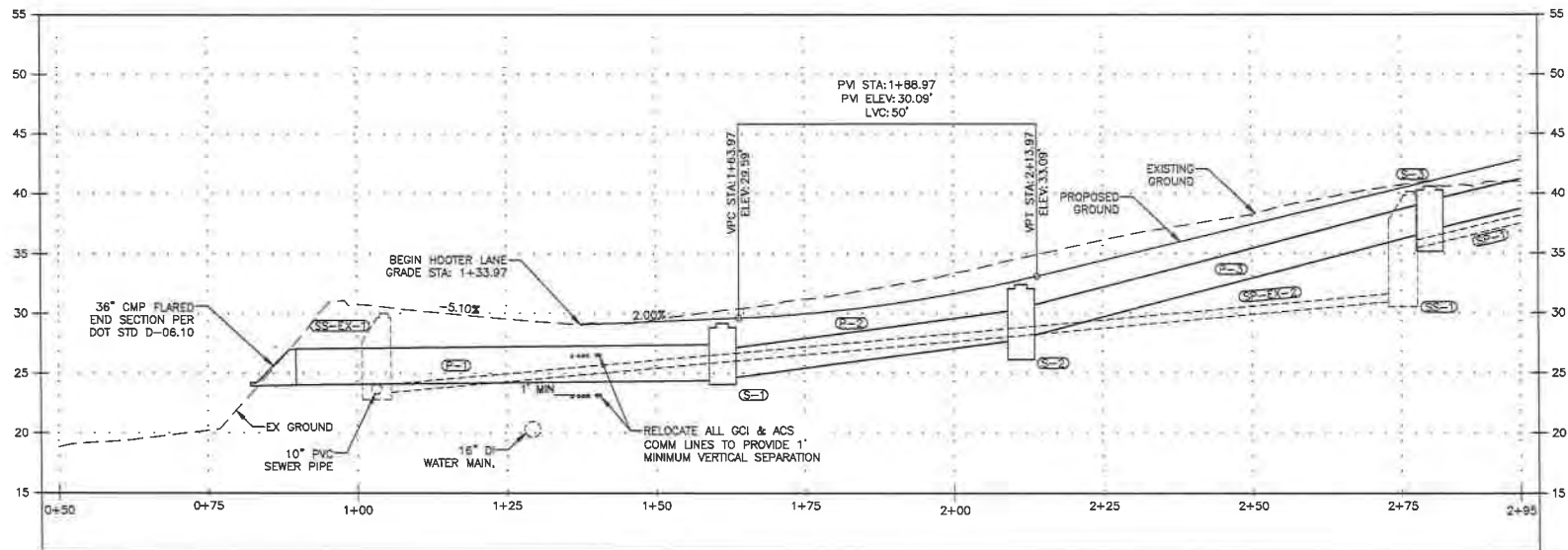
RICHLAND MANNOR -
PHASE II - GLACIER HWY
INTERSECTION

MICHAEL AND WILLIAM HEUMANN

PLAN VIEW

Page 4 of 5

SHEET NUMBER	
5	OF
7	



HYDRAULIC SUMMARY			
PIPE NO.	RETURN PERIOD	FLOW RATE	CAPACITY
P-1	Q50	43.51 cfs	47.76 cfs

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INSTALL & BACKFILL CULVERTS & STORM DRAIN PIPES PER DOT D-01.02 INSIDE DOT ROW

PRECAST CONCRETE	
S-1	STA: 1+61.19 OFF: 12.29 LT
FRAME EL=	29.17
P-1 IE=	24.40
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SHALL MEET & BE INSTALLED PER DOT STD D-20.05	

TYPE I SDMH	
S-2	STA: 2+11.92 OFF: 12.28 LT
FRAME EL=	32.39
P-2 IE=	27.80
P-3 IE=	27.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

TYPE I SDMH	
S-3	STA: 2+79.83.32 OFF: 12.26 LT
FRAME EL=	40.60
P-3 IE=	36.80
P-4 IE=	36.90
SHALL MEET & BE INSTALLED PER CBJ STD 303	

SHEET NOTES:

- NOT ALL ELECTRICAL UTILITIES PAST STA 1+75 HAVE BEEN SHOWN IN PROFILE VIEW FOR CLARITY.
- CROSSING PIPES HAVE BEEN SHOWN IN THE LOCATION WHERE THEY INTERSECT THE PROPOSED STORMDRAIN PIPE.

RECORD OF REVISIONS		
NO	DATE	DESCRIPTION



DRAWN BY: L. CHAMBERS
 DESIGNED BY: L. CHAMBERS
 CHECKED BY: D. GLADSD
 1945 ALEX HOLDEN WAY #101
 JUNEAU, AK 99801
 (907) 760-4004
 www.prohns.com

CBJ REVIEW

APPROVED: _____
 DATE: SMP2021.0004

RICHLAND MANNOR -
 PHASE II - GLACIER HWY
 INTERSECTION
 MICHAEL AND WILLIAM HEUMANN

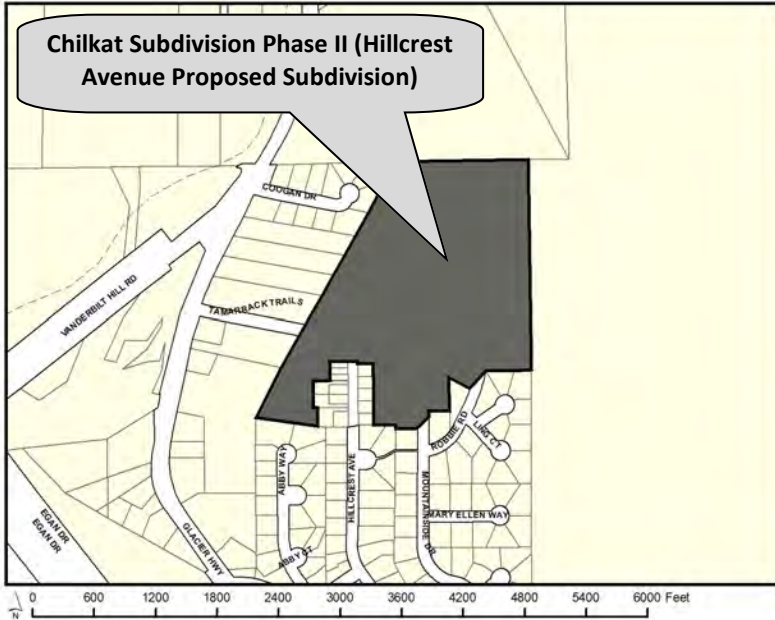
PROFILE VIEW

Page 5 of 5

SHEET NUMBER	
6	OF
7	

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for **Chilkat Subdivision Phase II: Proposing subdivision of one (1) tract into fifteen (15) lots and three (3) tracts of land at Hillcrest Avenue in a D15 zone.**

TIMELINE

Staff Report expected to be posted **January 31, 2022**, at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Jan. 18

Comments received during this period will be sent to the Planner, **Irene Gallion**, to be included as an attachment in the staff report.

Jan. 19 noon, Feb. 4

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Feb. 8, 2022

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/82676484943>. The Webinar ID is: 826 7648 4943. To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

Feb. 9

The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed January 5, 2022

SMP2021 0004

Case No.: SMP2021 0004
Parcel No.: 7B1001160011
CBJ Parcel Viewer: <http://epv.juneau.org>

Irene Gallion

From: Chilkat Vistas <chilkatvistas@gmail.com>
Sent: Monday, January 24, 2022 12:03 PM
To: Irene Gallion
Subject: Re: Reminder: Send a photo of the public notice sign
Attachments: image001.jpg; 20220124_112759.jpg

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

On Mon, Jan 24, 2022, 7:53 AM Irene Gallion <Irene.Gallion@juneau.org> wrote:

That will need to be posted by tomorrow – visible from the ROW.

The e mail you send will serve as the date stamp for the posting of the sign.

Thanks!

Irene Gallion | Senior Planner

[Community Development Department](#) | City & Borough of Juneau, AK

Location: 230 S. Franklin Street | 4th Floor Marine View Building

Office: 907.586.0753 X2

.



Fostering excellence in development for this generation and the next.



ATTACHMENT H

Attachment Page

SMP2019 0004:

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SMF2020 0001

Notice of Decision.....	193
Staff Report.....	195
Minutes.....	414



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: November 13, 2019
File No.: SMP2019 0004

William & Michael Heumann
6000 Thane Road
Juneau, AK 99801

Proposal: Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)

Property Address: 4506, 4508, & 4510 Hillcrest Avenue

Legal Description: Richland Manor Tract B

Parcel Code No.: 7B1001160010

Hearing Date: November 12, 2019

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated November 4, 2019, and **APPROVED** the preliminary plat to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Prior to approval of the final plat, all required plat corrections listed in the MEMO from the Community Development Department (CDD) to Michael Heumann (applicant), dated November 1, 2019 shall be completed (Attachment H).
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering and Public Works for compliance with CBJ 49.35.140.

4. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to the CDD and reviewed and approved by CDD and Engineering and Public Works.
5. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
6. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
7. The developer shall utilize Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
8. The developer shall submit a final drainage plan to be approved by Engineering and Public Works prior to final plat approval. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway, whichever length is greater, for all panhandle lots created with this subdivision.
10. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.
11. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue requirements in each dwelling unit constructed through Phase 1 of this subdivision.

Attachment: November 4, 2019 memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding SMP2019 0004.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, November 12, 2019.

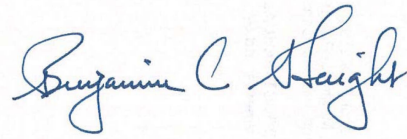
Expiration Date: The permit will expire five (5) years after the effective date, or November 12, 2024, if no Building Permit has been issued and substantial construction progress has not been

made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.

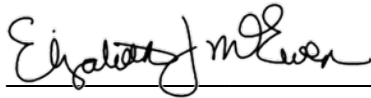
Project Planner:



Laurel Christian, Planner
Community Development Department



Benjamin Haight, Chair
Planning Commission



Filed With Municipal Clerk

11/26/2019

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

DATE: November 4, 2019

TO: Planning Commission

FROM: Laurel Christian, Planner I
Community Development Department *Laurel Christian*

FILE NO.: SMP2019 0004

PROPOSAL: Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)

GENERAL INFORMATION

Applicant: Michael & William Heumann

Property Owner: Michael & William Heumann

Legal Description: Richland Manor Tract B

Parcel Code No.: 7B1001160010

Site Size: 30.67 Acres (1,335,985 square feet)

Comprehensive Plan Future Land Use Designation: Medium Density Residential (MDR)

Zoning: D15

Utilities: Public Water & Sewer Proposed

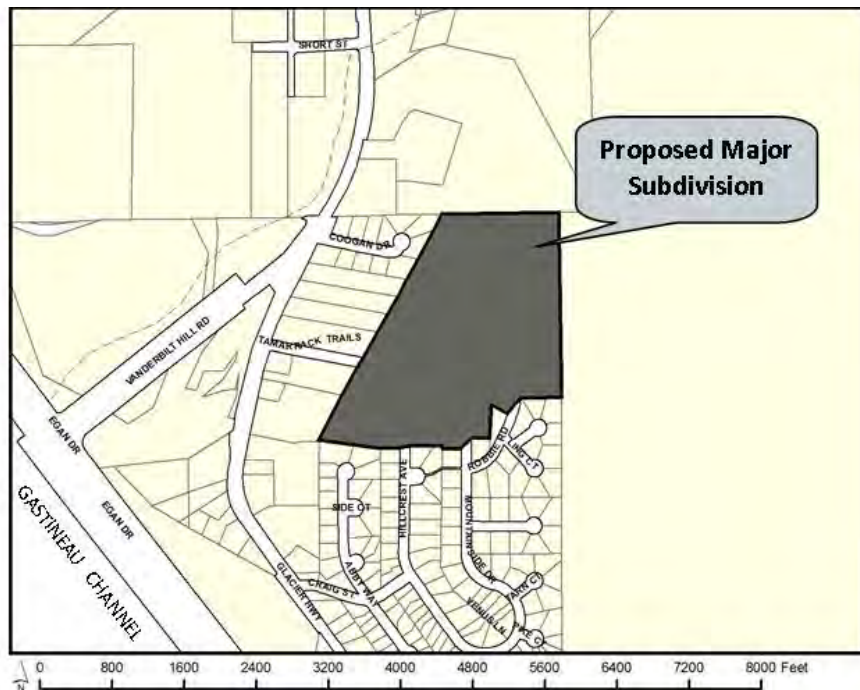
Access: Mountainside Drive, Hillcrest Avenue, and Robbie Road through Craig Street

Existing Land Use: Vacant

Surrounding Land Use:

- North – D18 Multi-family
- South – Mountainside Estates Subdivision (D5 Single-family Residential)
- East – Vacant forested RR
- West – D5 and D15 Single-family Residential and Multi-family

VICINITY MAP



ATTACHMENTS

- Attachment A – Application
- Attachment B – Preliminary Plat
- Attachment C – Sketch Plat
- Attachment D – Zoning Map and Comprehensive Plan Future Land Use Designation Map
- Attachment E – Preliminary Construction Drawings
- Attachment F – Agency Comments
- Attachment G – Public Comments
- Attachment H – Preliminary Plat Corrections MEMO Dated November 1, 2019
- Attachment I – Preliminary Drainage Plan
- Attachment J – Water Report
- Attachment K – Wetlands Delineation
- Attachment L – APL20190003 Settlement Agreement

BACKGROUND

The subject parcel was originally platted through US Survey 4807. Over time, US Survey 4807 was subdivided into the Mountainside Estates Subdivision, Vanderbilt Hill Subdivision, and the remaining tract was called Richland Manor. The parcel was originally planned to be developed with the Mountainside Estates Subdivision, however no development has been completed on the parcel and it has remained vacant.

In 2018, the applicants purchased the subject parcel intending to subdivide and develop the parcel in multiple phases for single-family homes and multifamily developments. The applicants applied, and received approval, for a preliminary plat for a phased major subdivision to include 12 single-family lots and 1 large tract (13 lots total) in February of 2019 for the Richland Manor subdivision (SMP20180002). The approved preliminary plat was appealed to the CBJ Assembly (APL20190003). As a result of this appeal, the appellants and the applicants came to a settlement agreement, which resulted in the submittal of a new preliminary plat application. The applicants submitted a new preliminary plat application on September 19, 2019 (Attachment A), preliminary plat (Attachment B) and sketch plat (Attachment C).

It should be noted that the applicants have chosen to change the subdivision name from Richland Manor 2 to Chilkat Vistas.

APL20190003 SETTLEMENT

As stated above, the applicants received preliminary plat approval in February of 2019 for SMP20180002. This Planning Commission decision was appealed to the CBJ Assembly (APL20190003). The applicants, Mountainside Estates Neighborhood Association (MENA), and the CBJ worked developed a settlement agreement, which would suit all parties. This settlement agreement may be found in Attachment L. This settlement agreement resulted in this preliminary plat application (SMP20190004). The settlement agreement is provided as certain aspects of the agreement have guided subdivision development.

Please note that the Planning Commission is not reviewing this settlement agreement and must review the preliminary plat according to CBJ 49.15.400.

PROPOSAL

The applicant requests preliminary plat approval for Phase 1 of the Chilkat Vistas Subdivision (formerly known as the Richland Manor 2 Subdivision). Phase 1 consists of 14 lots for single-family development and one (1) large tract for future development (15 lots total). Phase 1 includes the extension of Hillcrest Avenue and the installation of public water and sewer. For Phase 1, the applicant proposes a mix of bungalow lots, panhandle lots, and standard D15 lots. Future phases

may include a mix of single-family and multi-family development.

ANALYSIS

Phasing – The proposed subdivision is creating 15 total parcels (14 lots for single-family development and one (1) large tract for future development). Phasing is allowed through the major subdivision process, as long as the infrastructure provided accommodates future phases. A sketch plat has been provided to demonstrate the future potential for the remaining tract of land (Attachment C).

According to CBJ 49.15.410(a), the sketch plat serves the following purposes:

- (1) To inform the applicant of the City and Borough's subdivision requirements, public improvement requirements, and platting procedures before substantial costs are incurred by the developer in preparation of a subdivision application;*
- (2) To inform the department of the applicant's development plans; and*
- (3) To identify issues with the proposed subdivision, such as issues with the subdivision layout, the extent and nature of required improvements, the location and protection of sensitive areas, impacts to adjoining properties, and traffic, platting, drainage, and utilities requirements.*

The settlement agreement (APL2019 0003) resulted in a revised sketch plat, which contains the following features:

- The extension of Hooter Lane;
- Robbie Road terminates and is not to be a point of access to Chilkat Vistas subdivision. Robbie Road may serve as an emergency service access, but not a public through street;
- Hillcrest Avenue terminates at Hooter Lane; and
- Greenbelt buffers are depicted along the property lines shared by the Mountainside Estates and Chilkat Vistas subdivisions.

Zoning – The subject parcel is located in the D15 zoning district, which allows up to 15 dwelling units per acre. The subject parcel is currently 30.67 acres and the total density for the parcel, un-subdivided, is 460 dwelling units. This density does not take into account any land required for roads, utilities, setbacks, parking or other dimensional standard requirements.

A current zoning map zoning map may be found in Attachment D. The subject parcel is zoned D15, and is surrounded by other zoning districts. The Tamarack Trails Condominiums parcel to the west

is zoned D15, while the neighboring parcels to the south, within the Mountainside Estates subdivision, are zoned D5. To the north, parcels are zoned D18 and General Commercial.

Table of Dimensional Standard Excerpts:

Dimensional Standard		D5	D15	D18
Min. Lot Size				
	Single-Family	7,000	5,000	5,000
	Bungalow	3,500	3,000	2,500
	Duplex	10,500	5808*	4840*
	Commonwall	7,000	3,500	2,500
Min. Lot Width				
	Single-family	70'	50'	50'
	Bungalow	35'	25'	25'
	Commonwall	60'	30'	30'
Min. Lot Depth				
	All Uses	85'	80'	80'
Setbacks**				
	Front	20'	20'	20'
	Rear	20'	15'	10'
	Side	5'	5'	5'
	Street Side	13'	13'	13'

Table Notes: *Minimum lot size for duplex calculated by allowable density. 1 Acre = 43,560 sq. ft. Minimum lot size required for a duplex in D15 is 5,808sq. ft. ($43,560 / 15 = 2,904 \times 2$).
 **Per CBJ 49.25.400 Table of Dimensional Standards Note 3, *when one zoning district abuts another, the greater of the two setbacks is required for both uses on the common property line.*

All lots created in Phase 1 meet the required dimensional standards for the D15 zoning district. Future phases are required to meet the dimensional standards for the zoning district. The sketch plat shows future phases may feasibly be developed.

The D15 multifamily zoning district allows for residential construction with densities up to 15 units per acre. A lot that measures 5,000 square feet in the D15 zoning district may have one single-family dwelling. Additionally, per CBJ 49.25.510(k)(2)(G)(i) if a lot in the multifamily zoning district is used primarily for a single-family dwelling, that lot may be permitted to have one accessory apartment under certain conditions.

For multifamily development in the D15 zoning district, 2,904 sq. ft. are required per dwelling unit, as density is measured based on 15 units per acre ($43,560 \text{ sq. ft.} / 15 \text{ DU per acre} = 2,904 \text{ sq. ft.}$).

per DU). The following table demonstrates the dwelling units allowed on each lot created through phase 1:

Phase 1 Lot Number	Lot Size	Total # of Dwellings per lot
1, 2, 3	3,080 sq. ft.	1 dwelling unit
5, 6, 10, 11, 12, 13	5,000 sq. ft.	1 Single-family and 1 accessory apartment
14	5,137 sq. ft.	1 Single-family and 1 accessory apartment
4, 7	7,600 sq. ft.	2 dwelling units
8	9,438 sq. ft.	3 dwelling units
9	6,355 sq. ft.	2 dwelling units
Tract B1	28.80 acres	421 dwelling units**

**Note: this does not take into account any land required for roads, utilities, setbacks, parking or other dimensional standard requirements; this count is strictly based on 15 units per acre x 28.80 acres.

Lot Design

Bungalow Lots – CBJ 49.65 Article IV establishes standards for bungalow lots and bungalow lot subdivisions. These standards include the requirement for public utilities and roads, ratios of bungalow to standard lots, and the process for creating a bungalow lot subdivision. Staff finds all conditions of this chapter can be reasonably met. A standard plat note identifying the proposed bungalow lots and the specified use requirements has been added:

LOTS 1, 2, AND 3 ARE BUNGALOW LOTS. AT TIME OF PLAT RECORDING, STRUCTURES ON LOTS 1, 2, AND 3 BLOCK B WERE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

Note: Block information may be removed from this plat note. The note may be revised to include lot and phases information.

Panhandle Lots – CBJ 49.15.423 establishes requirements for panhandle lots; through this chapter, panhandle lots may be created through the subdivision process. Dimensional standards, setbacks, and access and parking standards specific to panhandle lots are established in this section. Staff finds all conditions of this chapter can be reasonably met. Two standard plat notes identifying the

panhandle lots have been added:

LOTS 4, 5, 6, 7, 8, AND 9 BLOCK B ARE PANHANDLE LOTS. AT TIME OF PLAT RECORDING, FURTHER SUBDIVISION OF LOTS 4, 5, 6, 7, 8, AND 9 BLOCK B IS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. SEE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

ACCESS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. ACCESS TO PANHANDLE LOTS CREATED THIS SUBDIVISION SHALL BE RESTRICTED TO A SINGLE DRIVEWAY APRON IN THE RIGHT OF WAY UNLESS A SECOND DRIVEWAY IS APPROVED BY CBJ. USE OF THE ACCESS EASEMENT DELINEATED ON THIS PLAT IS SUBJECT TO THE REQUIREMENTS SET FORTH IIN THE COMMON DRIVEWAY ACCESS, JOINT USE AND HOLD HARMLESS AGREEMENT RECORDED WITH THIS SUBDIVISION.

Note: Block information may be removed from these plat notes. The notes may be revised to include lot and phase information.

Drainage – CBJ Engineering and Public Works Department (E&PW) has reviewed the preliminary drainage plan and found that the plan is not complete though the plan appears to be feasible (Attachment F). E&PW would like to review a final drainage plan prior to the approval of construction plans. The preliminary drainage plan and report may be found in Attachment I.

The following are recommended conditions of approval:

1. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
2. The developer shall utilize Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
3. The developer shall submit a final drainage plan to be approved by CBJ Engineering and Public Works prior to final plat approval. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.

Water – The applicant has submitted a water report completed by Jim Dorn of Carson Dorn, Inc. (Attachment J). The purpose of the technical memorandum was to evaluate the water booster pump station at the corner of Craig Street and Hillcrest Avenue and determine if there would be adequate pressure with the addition of the proposed homes. It was determined that an additional 80 residential units could be constructed without significantly reducing water pressures.

E&PW has reviewed this report and believes that there is adequate water pressure for Phase I of development using the above referenced pump station (Attachment F).

Wetlands – The 2008 and 2016 Juneau Wetlands Management Plans did not include the subject

parcel in the study area. The applicant has performed wetlands delineation for Phase 1 and found that there are approximately 3.61 total acres of wetlands (Attachment K). The need for a wetlands delineation will be determined at the pre-application conference for each future phase of development. Additionally a standard plat note has been added:

WETLANDS MAY EXIST ON PARTS OF THIS SUBDIVISION. SPECIAL REGULATIONS MAY APPLY.
WETLANDS DELINEATED BY KAREN BOSWORTH NOVEMBER 2018.

The previous preliminary plat approval application (SMP20180002) was taken to the Wetlands Review Board on February 21, 2019. Phase 1 of the proposed subdivision has not significantly changed, so staff does not recommend an additional review by the Wetlands Review Board. Future phases may require additional review. The Wetlands Review Board made the following recommendation on the previous preliminary plat:

“The applicant use control measures or storm water best management practices that cause the runoff from the development to infiltrate the ground on-site. Conventional storm water systems transport water into impervious surfaces like streets and driveways which concentrates flow of water and pollutants. On-site infiltration treats water naturally.”

Under the drainage section of this report, staff recommends conditions that speak to storm water best management practices. The applicant may need an Army Corps of Engineers (ACOE) permit to fill wetlands on the subject parcel. The applicant is aware of this and is working directly with ACOE.

Habitat – There are no known habitat concerns on the subject parcel. The Alaska Department of Fish and Game (ADF&G) was invited to review the proposed subdivision. ADF&G found no issues with the proposed development (Attachment F).

Access – The subject parcel abuts four CBJ rights-of-way: Hillcrest Avenue, Mountainside Drive, Robbie Road, and Hooter Lane. Phase 1 of the proposed subdivision extends Hillcrest Avenue. Future phases of development extend Hillcrest Avenue and Mountainside Drive to form a connected loop, which then connects to Hooter Lane and feeds out onto Glacier Highway. All lots created through Phase 1 have access and frontage on the extension of Hillcrest Avenue.

The applicants request that the right-of-way width be reduced by 10 feet for the extension of Hillcrest Avenue. Per CBJ 49.35.240(a)(3) streets other than arterials and collectors are required to have a minimum right-of-way width of 60 feet; the applicant proposes 50 feet. This right-of-way width may be reduced in accordance with CBJ 49.35.240(b). According to E&PW, this is an acceptable request and *remaining phases shall also be constructed at a width of 50' unless further engineering indicates this is not feasible* (Attachment F).

In Phase 1, the applicants will construct Hillcrest Avenue to standards that are acceptable for public acceptance and maintenance, as required by CBJ 49.250(a). Preliminary construction drawings may

be found in Attachment E. According to E&PW, *the proposed improvements conform to the requirements of this title and can be feasibly constructed in accordance with Title 49* (Attachment F). Preliminary construction drawings for the extension of Hillcrest Avenue show a 50' wide right-of-way containing a 26' wide travel way with sidewalk on one side of the street. Based on the Average Daily Trips (ADTs) generated by the entire development shown on the sketch plat, sidewalks on two sides of the streets should be required.

Per CBJ 49.35.130(b) the Director of E&PW may prescribe different construction standards than those required in the Table of Roadway Construction Standards. E&PW has reviewed the request for sidewalk on one side of the street and approves this request due to the following:

"This request is consistent with the other recent local subdivision determinations of similar size developments and is also consistent with the infrastructure within the Mountainside Subdivision, with sidewalk only constructed on one side of the two main access roads, Mountainside Drive and Craig Street (and no sidewalks on the side streets). The previously platted Hooter Lane right-of-way (ROW), which will provide pedestrian connection from the development to Glacier Highway, is only required to have one sidewalk, making the requirement of two sidewalks within the new development an unnecessary redundancy."(Attachment F)

Prior to final plat approval, the applicant is required to submit construction drawings to be approved by E&PW for all required improvements, this has been added as a condition of approval.

Traffic Analysis – CBJ 49.40.300 states that a traffic impact analysis is required for developments that are projected to generate 500 or more average daily trips. The proposed development for Phase 1 includes 14 single-family homes and one (1) tract for future development. A single-family home generates 9.52 average daily trips and an accessory apartment generates 6.65 average daily trips.

The below table demonstrates the ADTs generated:

Phase 1 Lot Number	Total # of Dwellings per lot	ADTs
1, 2, 3 (Bungalow Lots)	1 Single-family	9.52 x 3 = 28.56
4, 5, 6, 7, 8, 9 10, 11, 12, 13, 14	1 Single-family and 1 accessory apartment	16.17 x 11 = 177.87
		TOTAL: 206.43 ADTs

The 14 single-family homes and potential accessory apartments would generate 206 ADTs, so

no traffic impact analysis is required for Phase 1. The potential ADTs generated by the large remaining tract (for future development) is not taken into consideration at this time, because future development of that parcel has not been applied for. All existing phases of the Chilkat Vistas subdivision should be taken into consideration when calculating the ADTs generated by the project as each phase is applied for.

Non-motorized Access – As discussed above, the developer is required to install sidewalks within the subdivision. Sidewalk on one side of the street for Phase 1 of development is required. CBJ 49.35.610(b)(1) requires a minimum width of 5 feet for sidewalks. Dimensional standards for sidewalks will be reviewed with construction drawings after preliminary plat approval.

Street Lighting – E&PW Standard Detail 118 requires street lighting at all intersections with spacing between lights not to exceed 250 feet. This is reviewed as part of the construction drawings, after preliminary plat approval.

Hillside Development – The subject parcel contains slopes that are greater than 18%. According to CBJ 49.70.210 (a), *this article applies to all development on hillsides in the City and Borough that involves the following:*

- (1) *Removal of vegetative cover;*
- (2) *Excavation of any slope in excess of 18 percent;*
- (3) *Creation of new slope in excess of 18 percent for a vertical distance of at least five feet;*
- or*
- (4) *Any hazard area identified on the landslide and avalanche maps dated September 9, 1987...*

At this time, final construction plans have not been submitted. A Hillside Development Permit may be required if any of the above listed activities occur within slopes in excess of 18%. CBJ 49.70.220(b) states that, *“The developer shall apply for and obtain a hillside development endorsement prior to any site work other than land and engineering surveys and soils exploration.”* The requirement for a Hillside Development Permit will be reviewed with construction plans for roads and utilities, and again upon submittal of building plans for the single-family dwellings.

AGENCY REVIEW

The proposed subdivision application was sent for review to Capital City Fire & Rescue; Building Division, Assessors Office, Parks and Recreation, Lands and Resources Division, E&PW; the Alaska Department of Transportation and Public Facilities; the Alaska Department of Fish and Game; Army Corps of Engineers; and AEL&P. Agency review comments may be found in Attachment F and are summarized below.

CBJ Assessors Office – Does not anticipate a negative effect on neighboring property values.

Capital City Fire & Rescue (CCFR) – Due to the number of dwellings accessed by a single point (Craig Street) CCFR requires that all homes constructed through Phase 1 be sprinkled. Once there are 200 dwelling units accessed by Craig Street, a second access is required. The requirement for sprinkling has been added as a condition of approval.

CBJ Engineering and Public Works – Comments received from E&PW have been discussed throughout this report.

Alaska Department of Fish and Game (ADF&G) – Found no issues with the proposed development, but recommends employing best management practices for managing waste. Additionally, ADF&G recommends the applicants maintain existing hydrology and drainage channels. No anadromous waterbodies were found on the subject parcel during site visits performed by ADF&G.

Alaska Department of Transportation and Public Facilities (DOT) – No issues at this time. A Traffic Impact Analysis may be required in the future.

PUBLIC COMMENTS

At time of writing this staff report, staff received two (2) public comments (Attachment G).

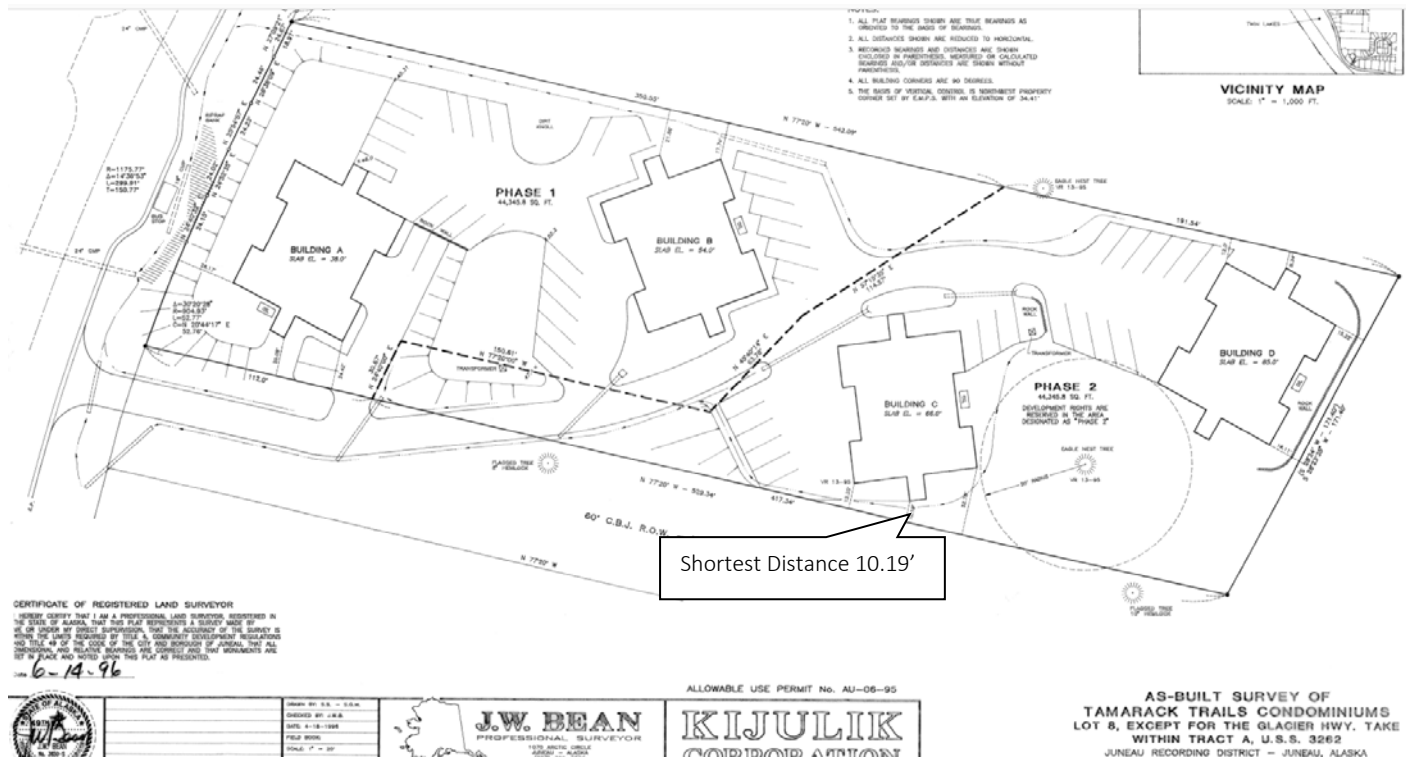
Joan Shorey 10/21/2019 – Ms. Shorey raised concerns over the use of the Hooter Lane right-of-way as an access point for the subdivision. Specific concerns included the loss of parking for the condominium complex and the close proximity of a roadway to buildings within the condominium complex and the potential for impacts on the residents.

Mountainside Estates Neighborhood Association (MENA) 10/25/2019 – A letter of support for the proposed subdivision was submitted through Paul Grant, representing MENA, in response to the settlement agreement reached between the Applicant and MENA.

Hooter Lane Right-of-Way

The Hooter Lane right-of-way was originally platted in 1971 and re-platted in 1980. The Tamarack Trails Condominiums were permitted in 1995. The undeveloped Hooter Lane right-of-way currently contains the driveway for the Tamarack Trails Condominiums.

According to CDD records, when the Tamarack Trails Condos were constructed, a surveying error was made and one of the buildings was built into the required setback from the Hooter Lane right-of-way (VR-06-96). A variance was approved for this encroachment (VR-06-96). The as-built survey on file for Tamarack Trails Condos shows one building to be within the required setback from Hooter Lane right-of-way and it shows that no structure and no parking are within the Hooter Lane right-of-way. Parking is directly adjacent to the Hooter Lane right-of-way. The following image is a clip from the 1996 as-built survey CDD has on file for Tamarack Trails Condos:



It should be noted that the construction of a public street in the Hooter Lane right-of-way is not proposed in Phase 1 of this subdivision. Hooter Lane is planned to be used as a future second access to the development. During Phase 1, the applicant plans to run a sewer line in the Hooter Lane right-of-way, and use it for construction purposes, but not to construct a full city street at this time.

FINDINGS

CBJ 49.15.402(4) Major Subdivisions, the Director shall prepare and submit a report to the Planning Commission noting any conditions of approval or plat notes recommended, and addressing the following criteria:

(A) Does the preliminary plat comply with CBJ 49.15.411?

Yes. With the conditions listed below, and the plat revisions required, staff finds that the preliminary can comply with CBJ 49.15.411. Required plat corrections can be found in Attachment H, these corrections are required as a condition of approval.

(B) The applicable subdivision development standards of this title are met, or can reasonably be met with conditions?

Yes. Staff finds that applicable subdivision development standards can be reasonably met with conditions.

- (C) Will the proposed subdivision will provide building sites suitable for the zoning district?

Yes. Staff finds the proposed subdivision can, with conditions, provide building sites suitable to the D15 zoning district.

- (D) Are the proposed street names unique in the City and Borough or are continuations of existing streets and are otherwise acceptable?

Yes. Hillcrest Avenue, platted through Phase 1 of the proposed subdivision is an extension of an existing street.

- (E) Has the director of Engineering and Public Works (E&PW) reviewed the application and determined that:

- (i) The subdivision can be constructed to conform to applicable drainage and water quality requirements;

Yes. E&PW found drainage and water quality requirements can reasonably be met with conditions (Attachment F).

- (ii) The streets, pioneer paths, and pedestrian ways as proposed accommodate anticipated traffic, align, and, where appropriate, connect with streets and pedestrian ways serving adjacent properties;

Yes. E&PW finds the proposed improvements conform to the requirements of this title and can be feasibly constructed in accordance with Title 49 (Attachment F).

- (iii) Any proposed improvements conform to the requirements of this title and can feasibly be constructed in accordance with this title; and

Yes. E&PW finds improvements can reasonably be constructed in accordance with this title (Attachment F).

- (iv) Where public sewer is not required, the applicant has shown that soils are suitable for individual on-lot wastewater treatment and disposal or has shown the feasibility of alternative methods for wastewater treatment and disposal.

Not Applicable.

CBJ 49.35.240(b)(5) The director shall make written findings supporting right-of-way minimum width reductions granted under this section. The director's findings shall state that:

- (A) The applicant has provided room for electric utility features and demonstrates that if the road is upgraded in the future to include additional sidewalks that there is sufficient right-of-way for construction of the sidewalks without need for retaining walls over two feet in height.
- (B) There is sufficient right-of-way or easements to allow for drainage improvements required by construction of the sidewalks.
- (C) That any driveways shall be constructed to accommodate the elevations of future sidewalks.
- (D) No additional right-of-way width will be required in order to provide for sufficient access to abutting lands.
- (E) There is sufficient room for snow storage.

The Director approves the right-of-way reduction request and finds the above listed conditions can be reasonably met. Additionally, E&PW agrees to this request (Attachment F).

CBJ 49.15.402(5) Major Subdivisions, in issuing its notice of decision on a preliminary plat, the commission may accept, amend, or reject the director's proposed recommendations. The decision of the commission approving or denying a preliminary plat application will be set forth in a notice of decision, and will specify any conditions or plat notes required for final plat approval. If the preliminary plat is denied, the applicant may submit a revised plat application, without paying additional application fees, within 180 days from the date of the notice of decision.

RECOMMENDATION

Staff recommends that the Planning Commission adopt the Director's analysis and findings and **APPROVE** the Preliminary Plat for Phase 1 of the Chilkat Vistas Subdivision. This approval would allow the applicant to submit for the Final Plat Application. The approval is subject to the following conditions:

1. Prior to approval of the final plat, all required plat corrections listed in the MEMO from CDD to Michael Heumann (Applicant), dated November 1, 2019 shall be completed (Attachment H).
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing

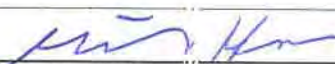
that all real property taxes and special assessments levied against the property for the year of recording have been paid.

3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of Engineering and Public Works for compliance with CBJ 49.35.140.
4. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to the Community Development Department (CDD) and reviewed and approved by CDD and Engineering and Public Works.
5. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
6. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
7. The developer shall utilize Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
8. The developer shall submit a final drainage plan to be approved by Engineering and Public Works prior to final plat approval. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway, whichever length is greater, for all panhandle lots created with this subdivision.
10. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.
11. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue requirements in each dwelling unit constructed through Phase 1 of this subdivision.



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address 4506 Hillcrest Ave; 4508 Hillcrest Ave; 4510 Hillcrest Ave		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) Richland Manor Tract B, A Fraction of US Survey 4807		
	Parcel Number(s) 7B1001160010		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner William Heumann (50%), Michael Heumann (50%)		Contact Person Michael Heumann
	Mailing Address 6000 Thane Rd Juneau, AK 99801		Phone Number(s) 971-261-8014
	E-mail Address mpheumann@hotmail.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X  Landowner/Lessee Signature		9-19-19 Date	
X _____ Landowner/Lessee Signature		_____ Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME"			
Applicant SAME		Contact Person	
Mailing Address		Phone Number(s)	
E-mail Address			
X  Applicant's Signature		9-19-19 Date of Application	

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

RECEIVED

SEP 19 2019

PERMIT CENTER/CDD

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials LC	Case Number SMP 2090004	Date Received 9/19/19
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SUBDIVISION APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

Number of Existing Parcele/s 4 Total Land Area 30.67 Number of Resulting Parcels 15

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☒ NO ☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR SUBDIVISION

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
- ☐ Final Plat (MIF)
- ☐ Panhandle Subdivision
- ☐ Accretion Survey
- ☐ Boundary Adjustment
- ☐ Lot Consolidation (SLC)
- ☐ Bungalow Lot Subdivision
- ☐ Common Wall/Zero Lot Subdivision
- ☐ Other _____

MAJOR SUBDIVISION

(changing or creating 14 or more lots)

- ☒ Preliminary Plat (SMP)
- ☐ Final Plat (SMF)
- ☐ Preliminary Development Plan - PUD (PDP)
- ☐ Final Development Plan - PUD (PDF)
- ☐ Bungalow Lot Subdivision
- ☐ Common Wall/Zero Lot Subdivision
- ☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

- ☒ Pre-application conference notes
- ☒ Narrative including:
 - ☒ Legal description(s) of property to be subdivided
 - ☒ Existing structures on the land
 - ☒ Zoning district
 - ☒ Density
 - ☒ Access
 - ☒ Current and proposed use of any structures
 - ☒ Utilities available
 - ☒ Unique characteristics of the land or structure(s)
- ☒ Preliminary Plat checklist

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>11650.00</u>			
Admin. of Guarantee	\$ _____			
Adjustment <u>Sign</u>	\$ <u>100 + 100 deposit</u>			
Total Fee	\$ <u>11800.00</u>			

RECEIVED

SEP 19 2019

PERMIT CENTER/CDD

For assistance filling out this form contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number

SMP20190004

Date Received

LL

SEP 19 2019

PERMIT CENTER/CDD

PROJECT NARRATIVE

September 18, 2019

Michael Heumann and William Heumann purchased Richland Manor (zoned D15), a subdivided tract of land to the North of Mountainside Estates at Vanderbilt Hill (Tract B, Richland Manor, A Fraction of US Survey 4807).

In our first phase we are applying to subdivide a portion of the tract into 14 lots at the end of Hillcrest Drive. Later phases will include additional single and multi-family as shown in our sketch plat. Mountainside Estates (MENA). Following approval of our preliminary plat in February 2019, MENA appealed our subdivision and we have since reached settlement terms that satisfy both city code and the concerns of the appellants. The sketch plat shows a configuration that reflects that settlement. As part of the settlement process, new elevation points were collected by our surveyor and used to confirm the validity of existing LIDAR elevation data. Based on this data, we have confirmed that the roadways depicted in our sketch plat can be constructed at grades of 12% or less.

Other issues of note include:

1. Water System. What is the capacity of the water system to deliver water to additional dwellings without falling below the DEC and Fire Department requirements? Included with this Application is a Memorandum prepared by James Dorn, a local engineer in which he reaches the conclusion that the existing system can meet the demands of an additional 80 residences. As part of our settlement with MENA, we agree to extend a water line to connect with the one on Mountainside Drive. This connection will provide a loop which will reduce frictional pressure losses and thereby increase available flow rates in the upper reaches of Mountainside Estates.
2. Fire Code requirements. The fire code allows for the construction of additional dwellings on extensions of the street system servicing Mountainside Estates, if the water available at the hydrants is 500 gpm and if the new dwellings are provided with residential sprinkler systems. It also, allows for the construction of new dwellings without sprinkler systems where 1,000 gpm is available. We will provide residential sprinkler systems where necessary.
3. Access. The property is accessed by Hillcrest Avenue, Mountainside Drive, and Robbie Road, as well as an undeveloped right-of-way, Hooter Lane. We will develop Hooter Lane as fire access in the near future, and fully develop it as a city street as necessary in a future phase of development.
4. Wetlands. We obtained a Wetlands Delineation and have met with the U.S. Army Corps of Engineers several times. They have stated that the uplands areas should be fully developed in order to justify build within areas designated to be Wetland. The Preliminary Plat incorporates this into the design. We have requested that the Hillcrest Drive ROW be reduced to 50' to reduce the fill requirements on the back of the downhill lots. Since our February we have made great headway on obtaining permits and expect to have them in hand prior to year's end.

Utilities:

Water. An 8" ductile iron pipe extends onto Richland Manor at the end of Hillcrest Drive and is sufficient to provide for the water requirements of the proposed 14 lots.

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Sewer. The planned means to connect to the CBJ sewer system will be to extend the sewer line in Hooter Lane to the proposed lots. It is possible to connect to the manhole between Lot 7 and Lot 8 on Hillcrest drive on the ROW. This would require a sewer lift station.

Unique Characteristics of the land or structure(s). – None

Existing Structures. There is an existing foundation on the land located on the western side of the proposed Hillcrest Avenue extension. This is the only current structure. We hope to use a portion of this foundation for construction of a house in the future.



PRELIMINARY PLAT CHECK LIST

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SEP 19 2019

PERMIT CENTER/CDD

Name of Proposed Subdivision:

Chilkat Vistas

The following items must be included with the initial submittal of a Preliminary Plat:

- ☒ Application, filled out completely
- ☒ Project Narrative
- ☒ Pre-application Conference Report
- ☒ Disclosure of all known environmental hazards and any proposed mitigation measures recommended in the applicable environmental document.
- ☒ Preliminary Plat Checklist: I have reviewed the checklist and all submittals for completeness and accuracy.
- ☒ Application fee (see fee schedule)
- ☒ Five (5) - 24" by 36" Copies
- ☒ Lot Closure Report

[Signature]
Applicant or Surveyor - Signature

9-19-19
Date

Applicant or Surveyor - Print Name

GENERAL REQUIREMENTS

- ☒ The preliminary plat shall be prepared by a professional land surveyor, registered in the State of Alaska
- ☒ The preliminary plat shall be submitted on 22 by 34 inch sheets. The director of engineering and public works may approve alternate sheet sizes
- ☒ The preliminary plat shall be drawn with black ink to a scale of one-inch to 100 feet or less, or other suitable scale approved by the director of engineering and public works
- ☒ The preliminary plat shall be oriented with north toward the top of the sheet.
- ☒ A vicinity map shall be located in the upper right-hand corner of the sheet
- ☒ The vicinity map shall be oriented in the same direction as the plat
- ☒ A suitable north arrow shall be shown for the plat and vicinity map
- ☒ All line work and lettering must be of professional quality, and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion

GRAPHIC REQUIREMENTS - A preliminary plat shall contain the following information:

Title block - An enclosed title block in the lower right-hand corner containing the following information:

- ☒ The proposed name of the subdivision
- ☒ The legal description of the parcel to be subdivided including U.S. Survey, U.S. Mineral Survey, A.T.S. number or section, township, and range number, as applicable
- ☒ "City and Borough of Juneau, Alaska"
- ☒ "State Recorder's Office at Juneau"
- ☒ The date the preliminary plat was prepared and revised
- ☒ The horizontal scale
- ☒ The name and address of the owner of record
- ☒ The name, address, and telephone number of the surveyor preparing the preliminary plat

Preliminary Plat Checklist
 Updated 1/2018
 Page 2 of 5

Lot, block, and street information:

- ☒ The area of each lot
- ☒ The dimensions in feet and hundredths of a foot
- ☒ An identifying number and letter for lots and blocks
- ☒ Lots numbered consecutively, commencing with the number "1," with no omissions or duplications
- ☒ If the remainder of an original parcel being subdivided is relatively large, it shall be designated as a "tract" with an identifying number
- ☒ All parcels of land intended to be dedicated for public use or reserved for the use of all of the property owners in the proposed subdivision shall be shown as lots, and consecutively numbered. The purpose and any conditions or limitations on the use of the parcel shall be noted on the plat
- ☒ Abutting properties shall be shown with dashed lines, numbers, and/or letters
- ☒ For resubdivisions or public way vacations, the lines and legal description of the previous lots shall be shown with light dashed lines, numbers, and/or letters, or by a separate plat on the same sheet showing the previous lot lines
 - ☒ The minimum data shown for each curve shall be as follows:
 - ☒ Length
 - ☒ Central angle
 - ☒ Radius
 - ☒ Bearing and distance of long chord
 - ☒ Setbacks shall be shown on all corner lots and any lots with multiple frontage. Setbacks shall be shown on typical lots

Boundary lines:

- ☒ All boundary lines of the subdivision with bearings and distances described
- ☒ All retraced boundary lines shall show record and measured bearings and distances where they differ. Record dimension information shall be shown within parentheses and include a record source identification
- ☒ The exterior boundary lines of the subdivision shall be a solid black opaque line that is of a width that distinguishes it from all other property lines shown on the plat
- ☒ If phasing is proposed, then the boundaries and number of each phase, sequential lot numbering, and a subdivision name consistent with previous phases shall be shown

Monumentation:

- ☒ The monuments used to establish the basis of bearing
- ☒ Each monument found or set shall be identified on the plat by a symbol
- ☒ A complete description of the monument, including type and all information printed on the cap. A typical drawing shall be shown for each type of monument cap set
- ☒ A legend showing the symbols for all the types of monuments
- ☒ The identification, description location, elevation, and datum of the benchmark used to establish vertical control

Site access, circulation, and utilities:

- ☒ The widths and names of existing rights-of-way within the subdivision and within 100 feet of the subdivision boundary
- ☒ Proposed rights-of-way, including their widths and proposed names
- ☒ The grades of existing and proposed streets within these rights-of-way
- ☒ The width, ownership, use, and record reference of all proposed and existing easements within the subdivision and within 100 feet of the subdivision boundary
- ☒ The width, ownership, and use of all proposed easements

Preliminary Plat Checklist
Updated 1/2018
Page 3 of 5

- ☒ All proposed and existing easements shall have sufficient dimensions shown to determine their location on the ground
- ☒ Existing trails or pathways within the subdivision and within 100 feet of the subdivision boundary, including the width of any associated rights-of way or easements
- ☒ Proposed trails or pathways and widths of their rights-of-way
- ☒ If the plat submitted covers only a part of the tract under the control of the applicant, a sketch plat of the prospective street system of the unplatted part shall be submitted
- ☒ The location of any existing or proposed driveways/curb cuts that access or are proposed to access any existing or proposed street

Topographic information:

- ☒ For slopes of less than five percent, show one foot contour lines and include spot elevations at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions
- ☒ For slopes between five percent and ten percent, show two foot contour lines
- ☒ For slopes greater than ten percent, show five foot contour lines
- ☒ Every fifth elevation contour shall be distinctive and clearly labeled
- ☒ Dashed lines shall represent existing contours
- ☒ Mapping shall include any significant features which can materially affect the design of the subdivision, including, but not limited to, structures, fences, walls, and utility poles
- ☒ If irregular slopes or special features are present, additional contour information may be required by the director of engineering and public works for planning or construction purposes. Additional required information may include projecting the topography of the site after grading has taken place, showing such items as:
 - ☒ Pad elevations and drainage patterns for each lot
 - ☒ Tops and toes of all manufactured slopes, including daylight lines
 - ☒ Existing and proposed retaining wall locations and heights
- ☒ For subdivisions located in hillside areas with slopes greater than eighteen percent, additional requirements apply in accordance with CBJ 49.70, Article II

Sewer and water:

- ☒ Existing sewer and water mains within the tract with pipe sizes and grades
- ☒ A draft plan for proposed water and sewer lines showing the size, approximate slope, and connection points with elevations for the purpose of determining the feasibility of construction

Multisheet plats:

- ☒ When a plat requires more than one sheet, exclusive of a certificate sheet, an index sheet shall be included. When a plat requires more than three sheets, a cover sheet shall also be included, showing the subdivision title, a key map, and all certificates. Each additional sheet shall include the following data:
 - ☒ North arrow
 - ☒ Legend
 - ☒ Surveyor's seal and signature
 - ☒ Title block
 - ☒ Sheet _____ of _____
 - ☒ Scale
 - ☒ All plat notes
 - ☒ Vicinity map

Preliminary Plat Checklist:
Updated 1/2018
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ADDITIONAL MAPPING OR REPORTS- At the pre-application meeting, it will be determined if any of the following additional mapping or reports are required to be submitted with the preliminary plat. If required, the following additional mapping or reports shall be submitted:

Hazard and Special Habitat Areas:

- ☒ Any portion of a special flood hazard area, landslide or avalanche area, habitat area as defined by CBJ 49.70.310, or watersheds, either existing at the proposed subdivision site or shown on the overlay maps, adopted pursuant to this title, to exist at the proposed subdivision site, must be depicted on the preliminary plat
- ☒ The boundaries of any wetland areas must be depicted on the preliminary plat. Boundaries must be determined by a person qualified to perform wetland delineations

Soils report:

- ☒ A soils report prepared by an engineer licensed by the State of Alaska shall be required if the proposed subdivision is located farther from the existing public sewer system than specified in CBJ 49.35, and the applicant chooses to provide on-lot waste disposal rather than to connect to the public system. A soils report shall include the following:
 - ☐ Certification that the proposed lots are large enough and have soil of sufficient permeability to permit the construction of approved waste treatment systems for on-lot waste disposal
 - ☐ The location and size of drain fields for each lot
 - ☐ The locations and logs of test borings, percolation test results, and a hydrological evaluation of on-site sewage disposal
 - ☐ If the soils report indicates that the soils found on the site are not of sufficient permeability or the lots are not large enough to permit the construction of systems for on-lot waste disposal, the size of the proposed lots must be increased or alternate methods for waste disposal proposed
 - ☐ The soils report shall describe the nature of the subsurface soils and any soil conditions that would affect the design of the proposed development. The soils report shall state whether the proposed subdivision plan is feasible and provide general solutions for all known geotechnical conditions or problems

Drainage report:

- ☒ A preliminary report specifying the method by which the applicant proposes to manage surface and subsurface drainage for the subdivision and the effect of such method on adjacent areas. Unlike the drainage plan required by CBJ 49.35.510, the preliminary drainage report does not need to be prepared by a licensed engineer. The report must address the following:
 - ☒ A calculation of the increase in stormwater runoff resulting from the proposed development as well as the runoff from all drainage areas associated with the site. Runoff calculations shall be based on a fully-developed subdivision and a 25-year storm event
 - ☒ How drainage from the proposed subdivision will join an established drainage channel or channels, unless the director of engineering and public works approves use of an alternative drainage way
 - ☒ An evaluation of existing drainage ways and structures located between the subdivision and the receiving water body, and verification that the existing drainage ways can accommodate the increased runoff. If the increased runoff cannot be handled, the plan must propose solutions to the problem
 - ☒ All required improvements, on or off site, that are shown on the construction plans in accordance with CBJ 49.35, Article V, and that will be constructed as part of the subdivision

Water:

- ☒ For subdivisions of five or more lots, including major subdivisions, the following shall be included, where applicable, in accordance with CBJ 49.15.412:
 - ☐ If a proposed subdivision is located at greater distance from the existing public water system than specified in CBJ 49.35, Article III, and the applicant chooses not to connect to the public system, a statement that the applicant will provide a community water system or that individual wells will be used

Preliminary Plat Checklist
Updated 1/2018
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- ☒ A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, Article III
- ☐ A copy of the State application for a permit to appropriate water in the quantity required to meet the subdivisions demands
- ☐ This does not apply to remote subdivisions unless: the subdivider of the remote subdivision chooses to provide potable water, a public water system is available and the subdivision falls within the criteria outlined in CBJ 49.35.310(a), or the subdivision has four or fewer lots.
- ☐ The director for minor subdivisions, and the planning commission for major subdivisions, may, for good cause, temporarily waive the requirement to provide a water report and proof of water, and condition the approval of the preliminary plat upon the provision of both documents as part of the final plat application and approval process.

Erosion control:

- ☒ A report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.

Traffic study:

- ☒ A traffic impact analysis may be required with the preliminary plat in accordance with CBJ 49.40.300.

Shadow plats:

- ☒ For subdivisions of five or more lots in transition areas, a shadow plat shall be submitted according to CBJ 49.70.710. The shadow plat shall consist of a sketch superimposed on the proposed subdivision layout. This sketch shall reflect any future resubdivision of the parcels into smaller lots consistent with the higher density and the lot size allowed under the transition zoning.



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK. 99801

Richland Manor Proposed Subdivision – UPDATED REPORT

Case Number: **PAC2018 0054**

Applicant: **William Heumann**

Property Owner: **Richland Corporation**

Property Address: **4506, 4508, 4510 Hillcrest Avenue**

Parcel Code Number: **7B1001160010**

Site Size: **30.67 acres**

Zoning: **D-15, Multi-family, 15 du/acre**

Comprehensive Plan Land Use Designation: **MDR (Medium Density Residential, 5 – 20 du/acre)**

Existing Land Use: **Vacant**

RECEIVED
SEP 19 2019
PERMIT CENTER/CDD

Conference Date: **August 29, 2018 (Follow up meeting with Gen. Eng., Fire, and Planning – Nov. 14, 2018)**

Report Issued: September 13, 2018 (Updated Report Issued: November 20, 2018)

List of attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Autumn Sapp	Eng. & Public Works Business Manager	Autumn.Sapp@juneau.org
Laura Boyce	Senior Planner, CDD	Laura.boyce@juneau.org
Sven Pearson	Deputy Fire Marshall	Sven.pearson@juneau.org
Laurel Bruggeman	Planner, CDD	Laura.bruggeman@juneau.org
Dan Jager	Fire Marshall	Dan.jager@juneau.org

Conference Summary

Pre-Application Conference Final Report

Questions/issues/agreements identified at the conference that were not already identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Planning Division:

A major subdivision application is required for the proposed subdivision. A major subdivision is a two-step process – the preliminary plat and the final plat. Both steps require a public hearing and approval by the Planning Commission. Due to the overall potential number of dwelling units on the parcel and the trips generated, a Traffic Impact Analysis will be needed and is required with submittal of the preliminary plat. Additionally, due to the slopes shown on the property, a Hillside Endorsement Development application may also be needed for proposed development in these areas. The slope map is attached to this report.

Requirements for the preliminary plat are listed at CBJ 49.25.411 and final plat requirements are at CBJ 49.25.412. Because this project is projected to be part of a major subdivision development, pursuant to CBJ 49.15.401(a) (1) (A), a major subdivision must be applied for.

Because the property is zoned D-15, uses would need to be consistent with the Table of Permissible Uses, CBJ 49.25.300. If single-family development is proposed, as the applicant indicates that some of the development would be adjacent to Mountainside Estates, then lots would need to be consistent with the Table of Dimensional Standards, CBJ 49.25.400. Minimum lot size in the D-15 zone district is 5,000 square feet with lots meeting the minimum lot width and depth of 50 feet and 80 feet, respectively. Common wall lot sizes in D-15 are a minimum of 3,500 square feet and can be a minimum of 30 feet in width and 80 feet in depth.

1. **Zoning** – D-15, a multi-family zone district
2. **Maximum Density** – 460 dwelling units (30.67 acres X 15 du/ac)
3. **Setbacks** – Front – 20 feet, Rear - 15 feet, Side – 5 feet. The property abuts some D-5 zoned lands in Mountainside. When two differing zone districts abut one another, the greater setback of the districts applies. The front and side yards are the same in D-5 and D-15; however, the rear yard is greater in the D-5 zone district, requiring a minimum of a 20 foot setback.
4. **Height** – Maximum height of structures in the D-15 zone district is 35 feet for permissible uses and 25 feet for accessory uses.

Access – Access to the property is via Hillcrest Avenue, Mountainside Drive, Robbie Lane, and Hooter Lane which is an undeveloped right-of-way. The Planning Commission at its 12/8/1998 meeting stated that any permit for further development must include plans for access/egress as it relates to Mountainside Subdivision, Hooter Lane, and for drainage. Connection to Hooter Lane from development in Mountainside Estates will be required. Platting the right-of-way to it will be required for the first phase of development; however, construction of the ROW will not be required until triggered by Fire Code requirements. CBJ 49.15.400(a)(3), CBJ 49.35.120(a), and CBJ 49.35.210 require a connected street system and connectivity to adjoining unsubdivided lands. Additionally, previous subdivision approvals for Mountainside Estates required future

Pre-Application Conference Final Report

second access for the subdivision.

Roadway Construction Standards may be waived by the director or Planning Commission as stated in CBJ 49.35.240(i)(4) if the request is for a street reconstruction or new street construction located in a right-of-way platted before 1987 and the waiver request meets the criteria of said chapter. Requests for such waivers shall be in writing.

Privately maintained access in the right-of-way is not allowed as the criteria set forth in CBJ 49.35.273(b) have not been met because the property is located within the Urban Service Area.

The Comprehensive Plan's Land Use Map H shows a future road (alignment not specific) from Tract B to the property to the north. Connection will not be required until that portion of the tract is proposed for development.

6. **Parking** – Parking for multifamily is generally two parking spaces per unit
7. **Lot Coverage** – The maximum lot coverage in the D-15 zone district is 50%.
8. **Vegetative Coverage** – The minimum vegetative cover is 30% in the D-15 zone district.
9. **Lighting** – N/A
10. **Noise** – Noise during construction must not exceed CBJ Code requirements.
11. **Flood** – Flood Zone X, Not in a Floodway
12. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – Some portions of the site appear to exceed 18% slope. A Hillside Endorsement may be needed for development in these areas. See attached map.
13. **Wetlands** – According to the applicant, portions of the site contain wetlands. Initial development plans would be on the areas that do not contain wetlands.
14. **Habitat** – The applicant will need to check with Federal Authorities if any eagle nests appear to be on the site. No anadromous streams are located on the property.
15. **Plat or Covenant Restrictions** – The Planning Commission at its 12/8/1998 meeting stated that any permit for further development must include plans for access/egress as it relates to Mountainside Subdivision, Hooter Lane, and for drainage. An overall Tract B master plan will be required.

Building Division:

16. **Building** – N/a
17. **Outstanding Permits** – n/a

General Engineering/Public Works:

18. **Engineering** –
 - a. At the time of preliminary plat submittal, submit an erosion control report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.

Pre-Application Conference Final Report

- b. Construction plans to be submitted after the approval of the preliminary plat and before final plat submission. Construction plans must adhere to 49.35.140 and must be signed and stamped by Alaskan licensed engineers for each discipline. Construction plans for this layout of development does not need to include all phases of full buildout of development. For specific requirements, please refer to CBJ code by visiting: <http://www.juneau.org/cddftp/ordinances.php> and referencing chapter 49.35 – Public and Private Improvements.
- c. Prior to final plat, an Engineer's estimate for the installation of public improvements must be submitted. Once this is received, a performance bond amount will be determined and must be paid/posted prior to recording of the final plat. Further discussion regarding the bond can take place once the project phasing is determined. For all options regarding the financial guarantee please refer to 49.55 – Financial Responsibility.
- d. Dependent on the construction plan and schedule an inspection deposit will be required and a private inspector may be hired.
- e. Street lighting is required and shall not exceed 250' between poles.

19. Drainage –

- a. Drainage report with the submittal of the preliminary plat does not need to be engineered. At time of construction plan submittals a drainage plan must be submitted and must be signed and stamped by an Alaskan licensed engineer.
- b. Preliminary plat requirements do need to be followed see 49.15.411 - Preliminary plat requirements for full listing. Please do note that topographic information shall be shown as outlined under 48.15.411, (6) – Topographic information.

20. Utilities – (water, power, sewer, etc.) –

- a. At time of preliminary plat, a draft plan for the proposed water and sewer lines shall be submitted showing existing installed utilities including line sizing and connection points with elevations.
- b. A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, article III. Specifically for your project, it may require additional upgrades to the existing water system. It is recommended that a point of contact would be the original designer, Jim Dorn, of the water pump station located on Hillcrest Avenue near the intersection of Craig Street.
- c. A copy of the state application for a permit to appropriate water in the quantity required to meet the subdivisions demands will need to be obtained and must be submitted prior construction plan approval.

Fire Marshal:

- 21. **Fire Items/Access** – Because there is only one access to all of Mountainside Estates, each dwelling will need to be sprinkled. There are approximately 157 lots within Mountainside Estates with only one access road into the subdivision.

Pre-Application Conference Final Report

Other Applicable Agency Review:

22. The applicant will need to check with Alaska Department of Transportation to see if they have any requirements for this development.

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. Major Subdivision Application, include Preliminary Plat Checklist
2. Hillside Development Permit
3. Conditional Use permit is required for development of nine or more dwelling units.

Additional submittal requirements:

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.
2. A preliminary plat checklist for the preliminary plat.
3. Traffic Impact Analysis.
4. A final plat checklist will be needed at the final plat stage.

Exceptions to submittal requirements:

Submittal requirements staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

1. N/A

Fee estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Major Subdivision Application (for subdivisions of 14 or more lots) - \$110 per resulting lot
 - a. Preliminary Plat - \$110 for each resulting lot; Public Notice Sign Fee - \$150
 - b. Final Plat - \$70 for each resulting lot; Public Notice Sign Fee (may be required) - \$150
2. Hillside Development Endorsement - \$60 gross hourly rate for professional review and inspection
3. Prior to plat recording, if the improvements are not in place, a financial guarantee that meets the requirements of CBJ 49.55, Financial Responsibility will be required.

Pre-Application Conference Final Report

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/cdd.

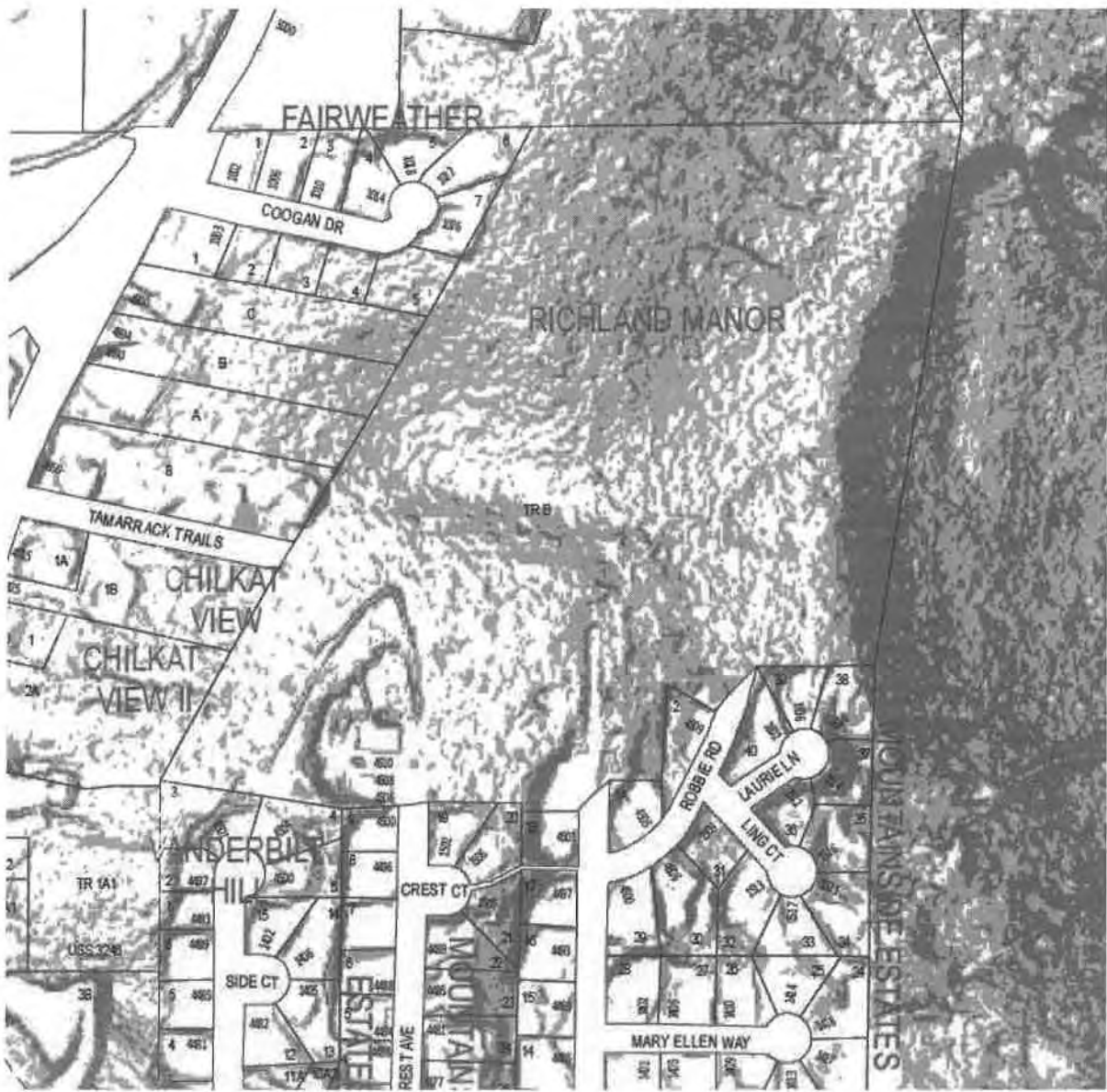
Submit your completed application

You must submit your application(s) in person with payment to:

City/Borough of Juneau
Permit Center
230 S. Franklin Street,
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Fax: (907) 586-4529
Web: www.juneau.org/cdd

Pre-Application Conference Final Report



Slopes

- 18% - 37%
- >37%



RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY



proHNS LLC

CERTIFICATE OF AUTHORIZATION
#100662

1945 ALEX HOLDEN WAY #101
JUNEAU, AK 99801

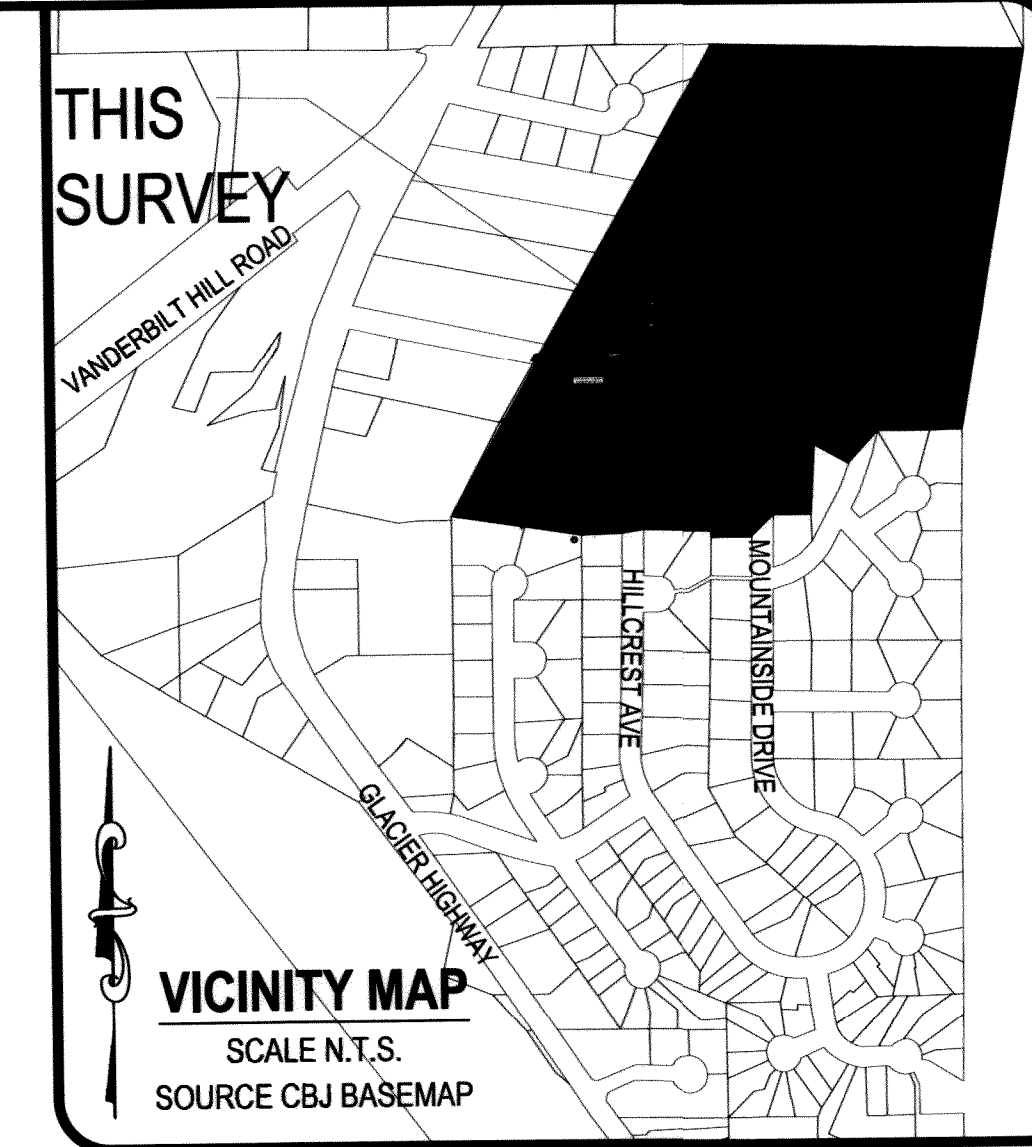
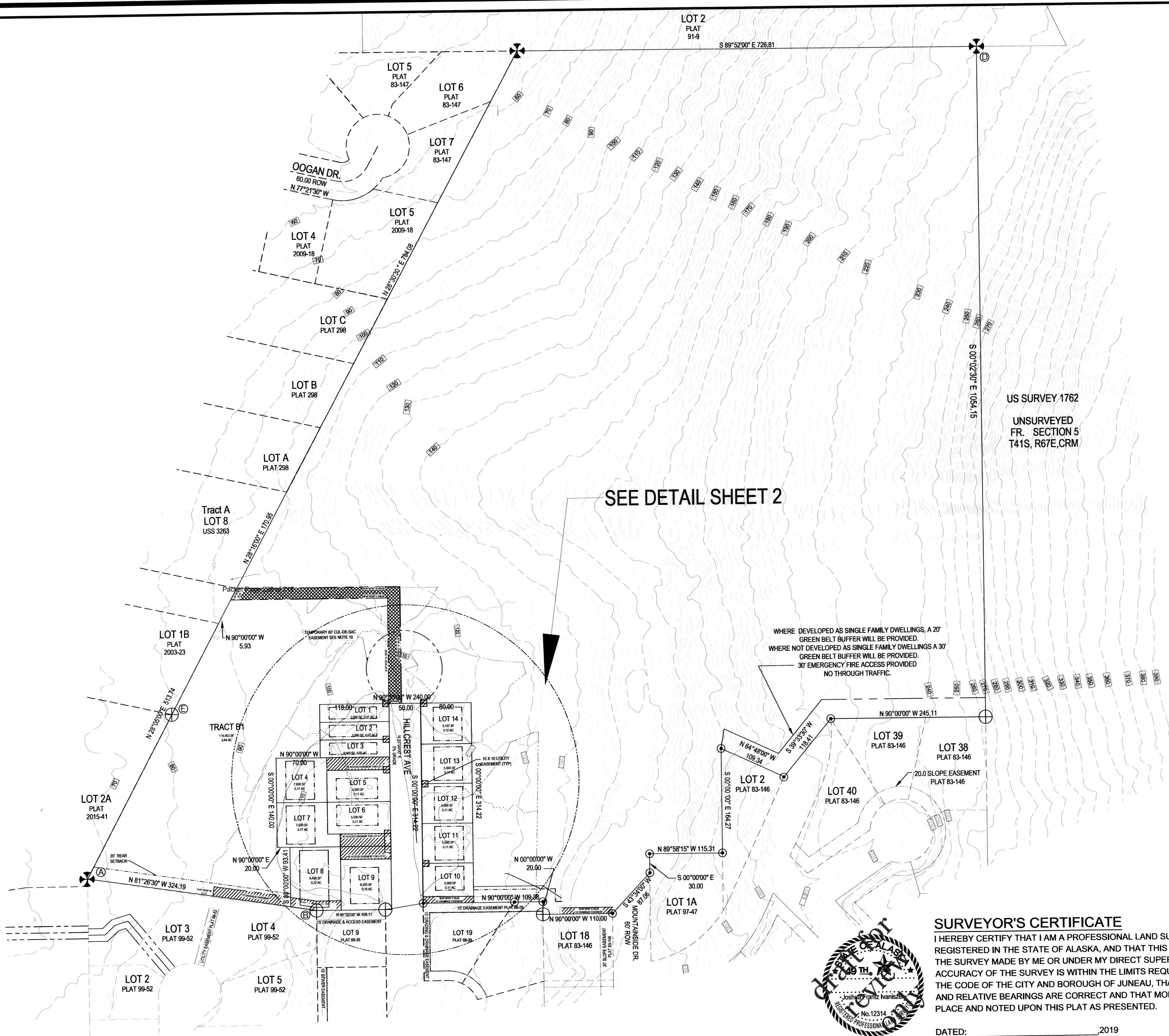
solutions@proHNS.com
www.proHNS.com

Attachment A - Application

RICHLAND MANOR
SUBDIVISION

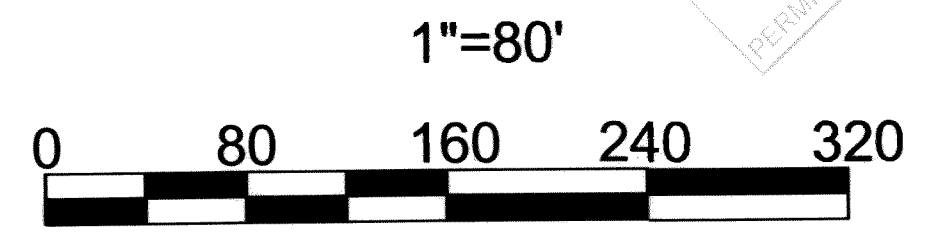
WILLIAM & MICHAEL HUMEAN

SHEET NUMBER	
1	OF
1	



LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- 1410-S SECONDARY MONUMENT RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
- UNSURVEYED LINES
- WETLANDS BOUNDARY
- DRAINAGE
- EASEMENT BOUNDARY
- SETBACK LINES
- (N 45°11' W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S00°06'33" W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- EASEMENT CREATED THIS PLAT
- SEWER AND DRAINAGE EASEMENT CREATED THIS PLAT



PLAT OF
CHILKAT VISTAS
A SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

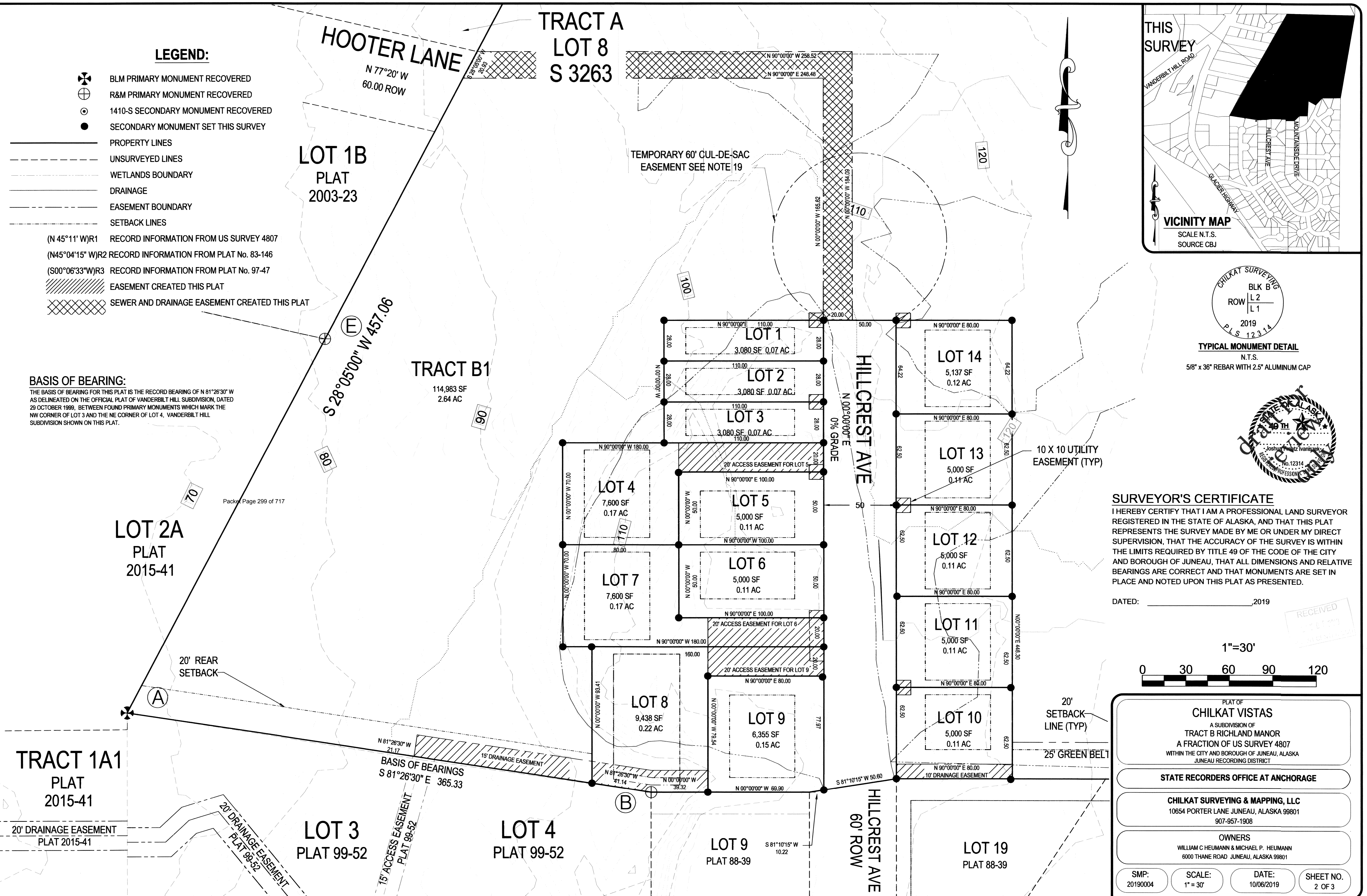
SMP: 20190004 SCALE: 1" = 80' DATE: 10/06/2019 SHEET NO. 1 OF 3

SURVEYOR'S CERTIFICATE

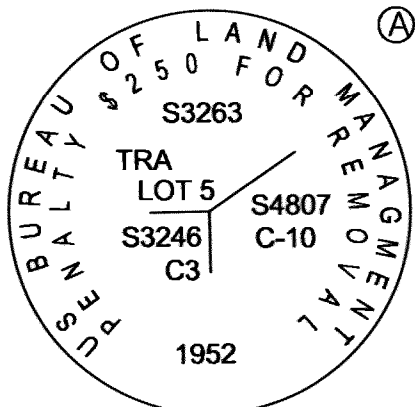
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: _____, 2019

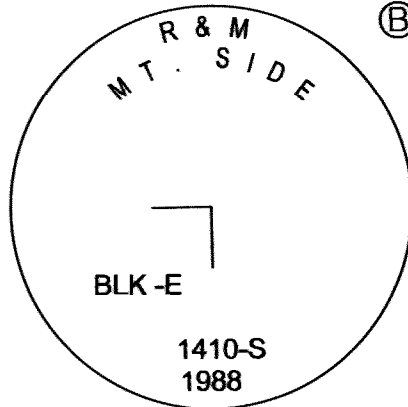




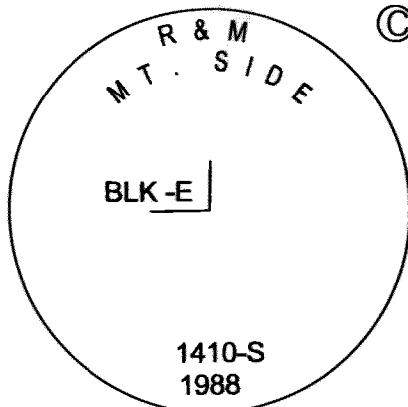
FOUND MONUMENT DESCRIPTIONS:



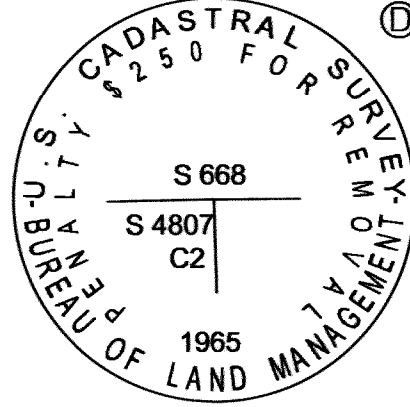
2.5" BRASS CAP MONUMENT



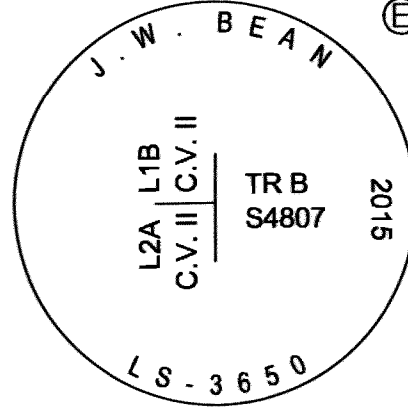
3.25" ALUMINUM CAP MONUMENT



3.25" ALUMINUM CAP MONUMENT



2.5" BRASS CAP MONUMENT



3.25" ALUMINUM CAP MONUMENT

NOTES:

1) THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.

2) ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET.

3) RECORD INFORMATION DERIVED FROM THE OFFICIAL PLAT OF US SURVEY 3263; US SURVEY 4807, PLAT OF SUBDIVISION OF LOTS 9 AND 10 US SURVEY 3263 TRACT A PLAT NO. 298 RECORDED 9 AUGUST 1961; MOUNTAINSIDE SUBDIVISION PLAT NO. 83-146 RECORDED 23 SEPTEMBER 1983; FAIRWEATHER SUBDIVISION PLAT NO. 83-147 RECORDED 23 SEPTEMBER 1983; DESERET SUBDIVISION PLAT NO. 91-9 RECORDED 28 FEBRUARY 1991; MOUNTAINSIDE SUBDIVISION II PLAT NO. 88-39 RECORDED 28 DECEMBER 1988; RICHLAND MANOR SUBDIVISION PLAT NO. 97-47 RECORDED 24 JULY 1997; VANDERBILT HILL SUBDIVISION PLAT NO. 99-52 RECORDED 29 OCTOBER 1999; A PLAT OF RESUBDIVISION OF LOT 1 CHILKAT VIEW SUBDIVISION PLAT NO. 2003-23; RECORDED 9 SEPTEMBER 2003; CHILKAT VIEW SUBDIVISION II PLAT NO. 2005-20 RECORDED 20 APRIL 2005; A PLAT OF FALLING TREE SUBDIVISION PLAT NO. 2009-18 RECORDED 7 JULY 2008; PLAT OF LOT 2A, CHILKAT VIEW SUBDIVISION II AND TRACT 1A1, US SURVEY 3246 PLAT NO. 2015-41 RECORDED 6 OCTOBER 2015 ON FILE WITH IN THE JUNEAU RECORDING DISTRICT.

4) WHERE DIFFERENT FROM RECORD OR CALCULATED, RECORD DIMENSIONS ARE SHOWN IN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).

5) DOMESTIC WATER & SANITARY SEWER PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.

6) SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

7) THE STORMWATER RUNOFF IS ACCEPTABLE PER CHILKAT VISTAS SUBDIVISION DRAINAGE PLAN IN APPROVED CONSTRUCTION PLAN SET. ALL REQUIRED CHILKAT VISTAS SUBDIVISION PUBLIC IMPROVEMENTS INCLUDING SURFACE DRAINAGE, DRIVEWAYS AND ROADSIDE DRAINAGE SHALL BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE FOR MAINTENANCE BY CBJ PUBLIC WORKS. MODIFICATIONS TO THE APPROVED PLANS WILL NOT BE ALLOWED UNLESS PERMITTED BY CBJ ENGINEERING PURSUANT TO CBJ 19.12.120 BEST MANAGEMENT PRACTICES.

8) LOTS 1, 2, AND 3 ARE BUNGALOW LOTS. AT THE TIME OF PLAT RECORDING, STRUCTURES ON LOTS 1 & 2 & 3 BLOCK B WERE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

9) LOTS 4, 5, 6, 7, 8, AND 9 BLOCK B ARE PANHANDLE LOTS. AT THE TIME OF PLAT RECORDING, FURTHER SUBDIVISION OF LOTS 4, 5, 6, 7, 8, AND 9 BLOCK B IS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

10) WETLANDS MAY EXIST ON PARTS OF THIS SUBDIVISION. SPECIAL REGULATIONS MAY APPLY. WETLANDS DELINEATED BY KOREN BOSWORTH NOVEMBER 2018

11) HOOTER LANE WILL BE DEVELOPED AS A PUBLIC TWO-WAY STREET, AS SET OUT IN THE ALTERNATIVE PLAT, SUBJECT TO CBJ PUBLIC IMPROVEMENT STANDARDS, IN CBJ 49.35.

12) HOOTER LANE FROM GLACIER HIGHWAY TO HILLCREST AVENUE, AND HILLCREST AVENUE AND MOUNTAINSIDE DRIVE SHALL BE DEVELOPED WITH A A SIDEWALK ON ONE SIDE. THE NUMBER OF SIDEWALKS IN THE REMAINDER OF RICHLAND MANOR WILL BE DETERMINED AT THE TIME OF FUTURE DEVELOPMENT APPLICATIONS.

13) DENSITY: IT IS AGREED THAT THE LOOP ROAD OF HILLCREST AVE. AND MOUNTAINSIDE DRIVE WILL BE DEVELOPED AS SINGLE FAMILY HOMES, AS DEPICTED ON THE ATTACHED ALTERNATIVE PLAT.

14) ROBBIE ROAD DEVELOPMENT THAT IS CONNECTED TO MOUNTAINSIDE ESTATES SHALL BE LIMITED TO NOT MORE THAN 7 SINGLE FAMILY HOMES, 3 OF WHICH MAY HAVE ACCESSORY APARTMENTS.

15) ROBBIE ROAD SHALL TERMINATE AND SHALL NOT BE A POINT OF ACCESS TO RICHLAND MANOR, UNLESS REQUIRED, AND GATED, FOR FIRE/EMERGENCY SERVICE ACCESS ONLY.

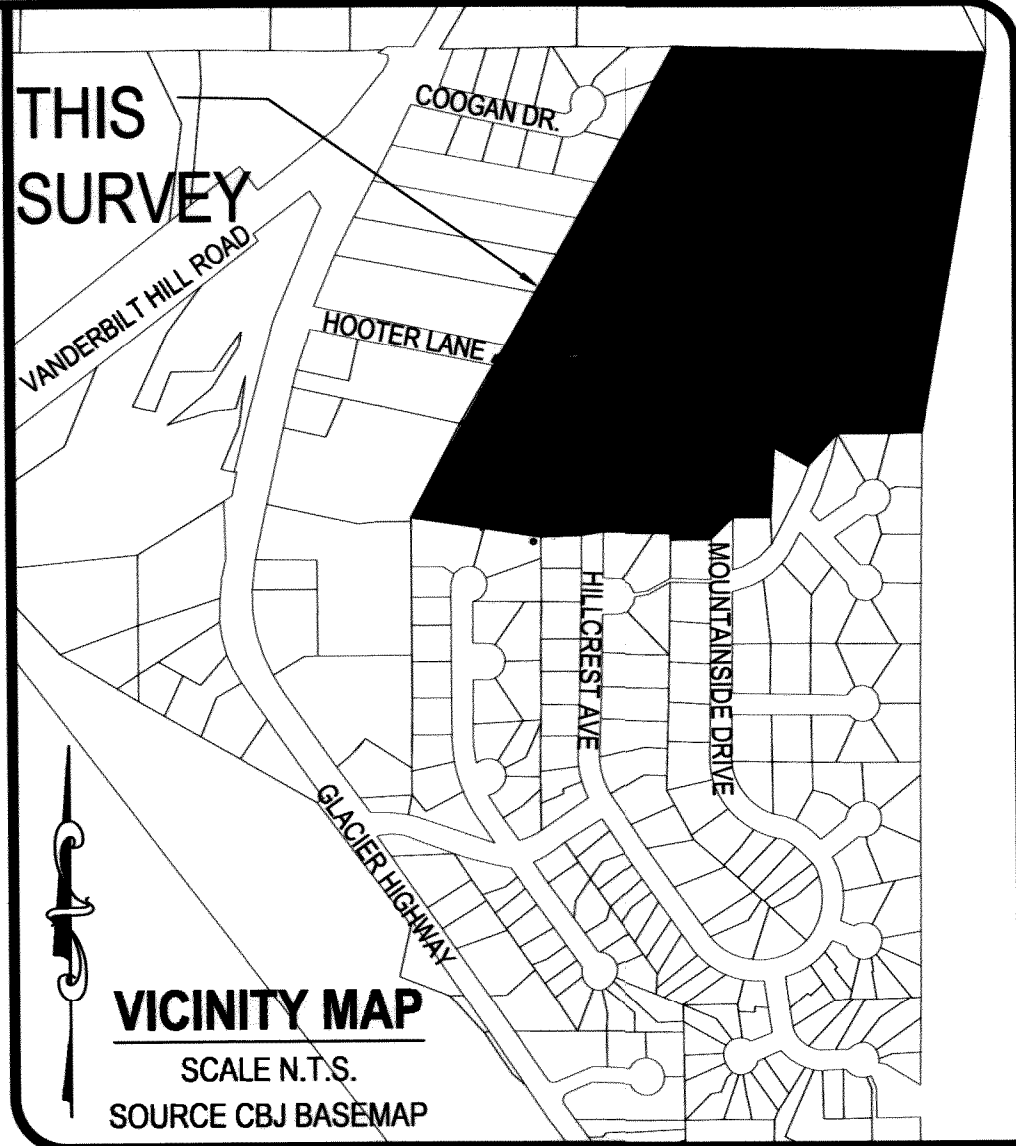
16) HILLCREST AVENUE SHALL TERMINATE AT HOOTER LANE. HILLCREST AVENUE MAY CONNECT TO HOOTER LANE WEST OF THE EXISTING HILLCREST ALIGNMENT AS SHOWN IN THE ALTERNATIVE PLAT (EXHIBIT C). ALTERNATIVELY ROAD ACCESS TO THE NORTHEAST PORTION OF TRACT B-1 MAY CONNECT TO THE EAST/WEST PORTION OF MOUNTAINSIDE DRIVE ACROSS FROM THE ENTRANCE TO THE "POCKET" BETWEEN HILLCREST AND MOUNTAINSIDE.

17) GREENBELT BUFFERS WILL BE IMPLEMENTED AND PRIVATELY MAINTAINED BY LOT OWNERS AS DELINEATED ON THE ALTERNATIVE PLAT, EXHIBIT B (AND AS MORE CLEARLY DRAWN FOR ILLUSTRATIVE PURPOSES IN EXHIBIT C) TO SEPARATE SINGLE FAMILY HOMES FROM MULTI-FAMILY DEVELOPMENT. EXCAVATION FOR PURPOSES OF SLOPE STABILIZATION MAY TAKE PLACE IN THE GREENBELT BUFFERS PROVIDED THEY ARE ALLOWED TO REVEGETATE FOLLOWING CONSTRUCTION. IN THE EVENT THIS BECOMES NECESSARY HEUMANN WILL CONSULT WITH ADJACENT HOMEOWNERS ABOUT THE IMPACTS.

18) OTHER THAN SHOWN, THERE IS AN IMPLIED PRIVATE DAINAGE EASEMENT ALONG ALL SIDE PROPERTY LINES WITHIN THE SUBDIVISION BEING 10 FEET IN WIDTH CENTERED ON EACH ADJOINING PROPERTY LINE.

19) TEMPORARY CUL-DE-SAC EASEMENT SHALL BE VACATED UPON EXTENSION OF HILLCREST AVENUE UNLESS THE DIRECTOR DETERMINES ALL OR A PORTION OF THE CUL-DE-SAC MAY REMAIN.

20) ACCESS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. ACCESS TO PANHANDLE LOTS CREATED THIS SUBDIVISION SHALL BE RESTRICTED TO A SINGLE DRIVEWAY APRON IN THE RIGHT OF WAY UNLESS A SECOND DRIVEWAY TO IS APPROVED BY CBJ. USE OF THE ACCESS EASEMENT DELINEATED ON THIS PLAT IS SUBJECT TO THE REQUIREMENTS SET FORTH IN THE COMMON DRIVEWAY ACCESS, JOINT USE AND HOLD HARMLESS AGREEMENT RECORDED WITH THIS SUBDIVISION.



SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: _____, 2019

OWNERSHIP CERTIFICATE:

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH OUR FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE: _____, 2019 DATE: _____, 2019

WILLIAM C. HEUMANN

MICHAEL P. HEUMANN

NOTARY ACKNOWLEDGEMENT:

UNITED STATES OF AMERICA)
STATE OF ALASKA)

THIS IS TO CERTIFY THAT ON THIS ____ DAY OF _____, 2019, BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED WILLIAM C. HEUMANN AND MICHAEL P. HEUMANN TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARY FOR THE USES AND PURPOSES THEREIN MENTIONED AUTHORIZED TO DO SO.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION PLAT APPROVAL

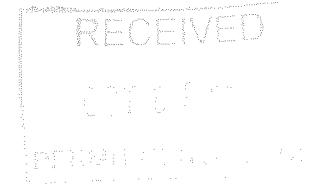
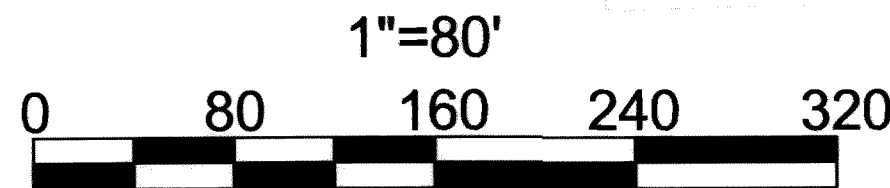
I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. _____, DATED _____, 2019, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT RECORDING OFFICE, ANCHORAGE, ALASKA.

_____, DATED _____, 2019

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

ATTEST:

MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU



PLAT OF
CHILKAT VISTAS

A SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

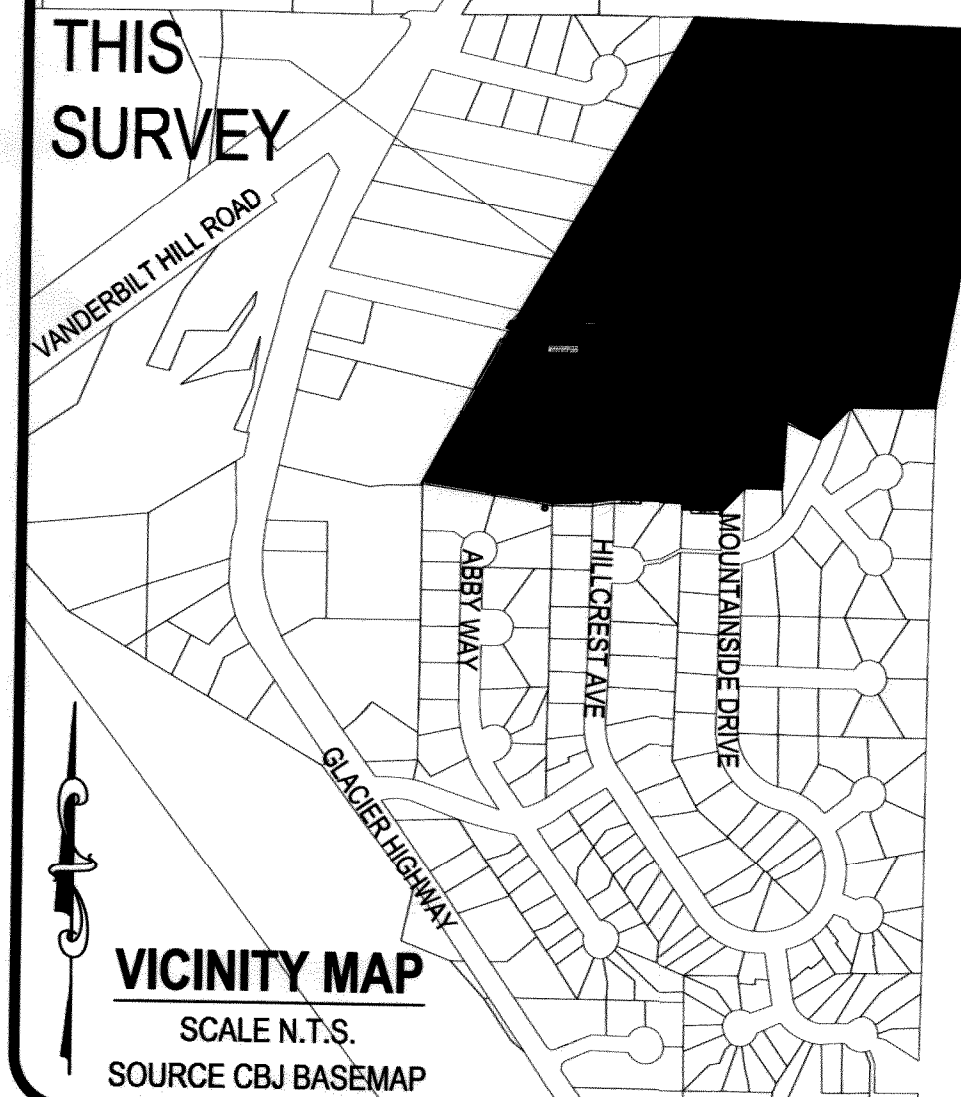
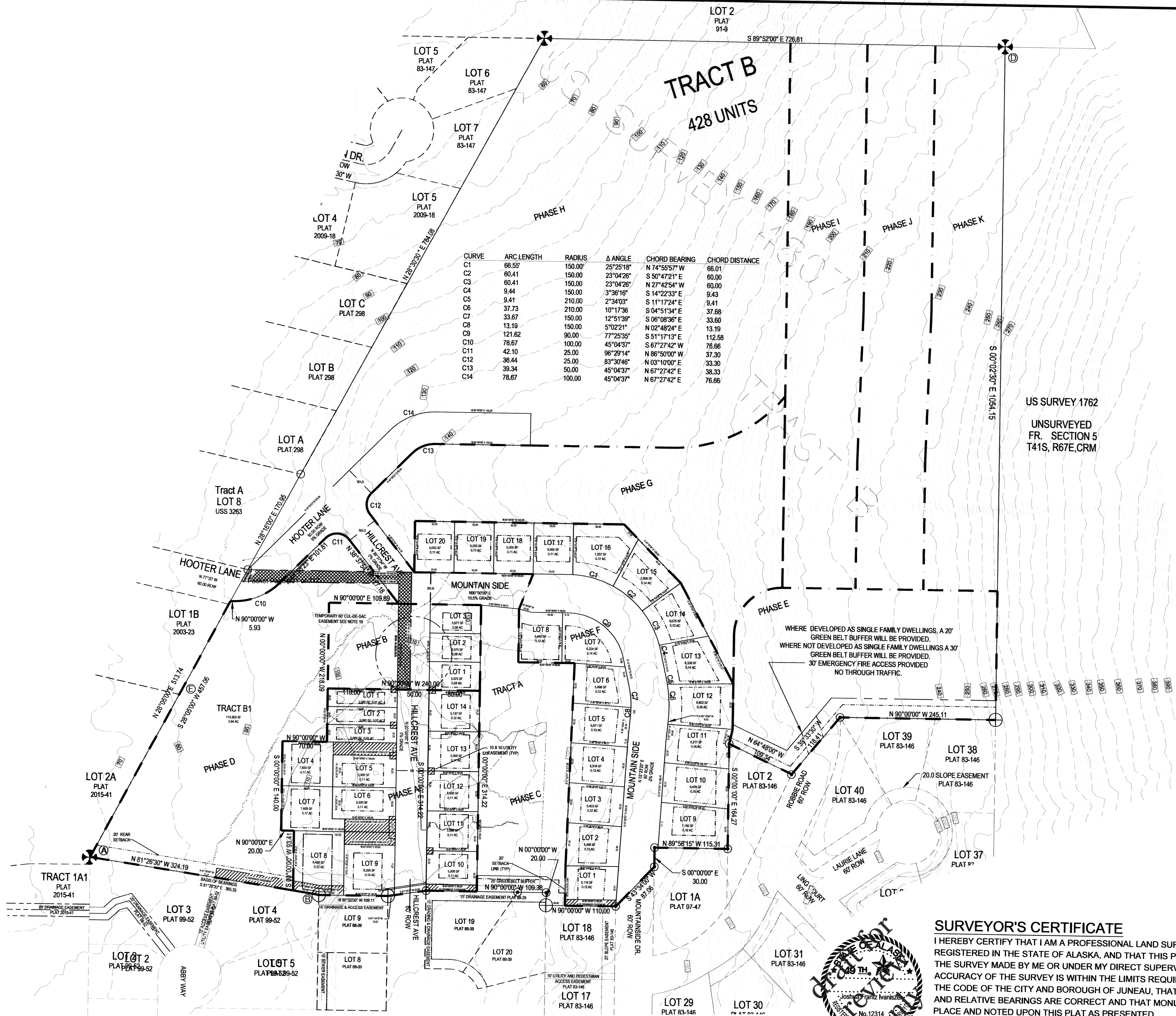
OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP:
20190004

SCALE:
1" = 80'

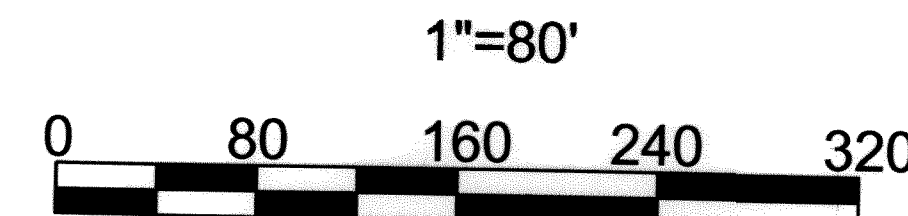
DATE:
10/06/2019

SHEET NO.
3 OF 3



LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- 1410-S SECONDARY MONUMENT RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
- UNSURVEYED LINES
- WETLANDS BOUNDARY
- DRAINAGE
- EASEMENT BOUNDARY
- SETBACK LINES
- (N 45°11' W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S00°06'33" W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- EASEMENT CREATED THIS PLAT
- SEWER AND DRAINAGE EASEMENT CREATED THIS PLAT

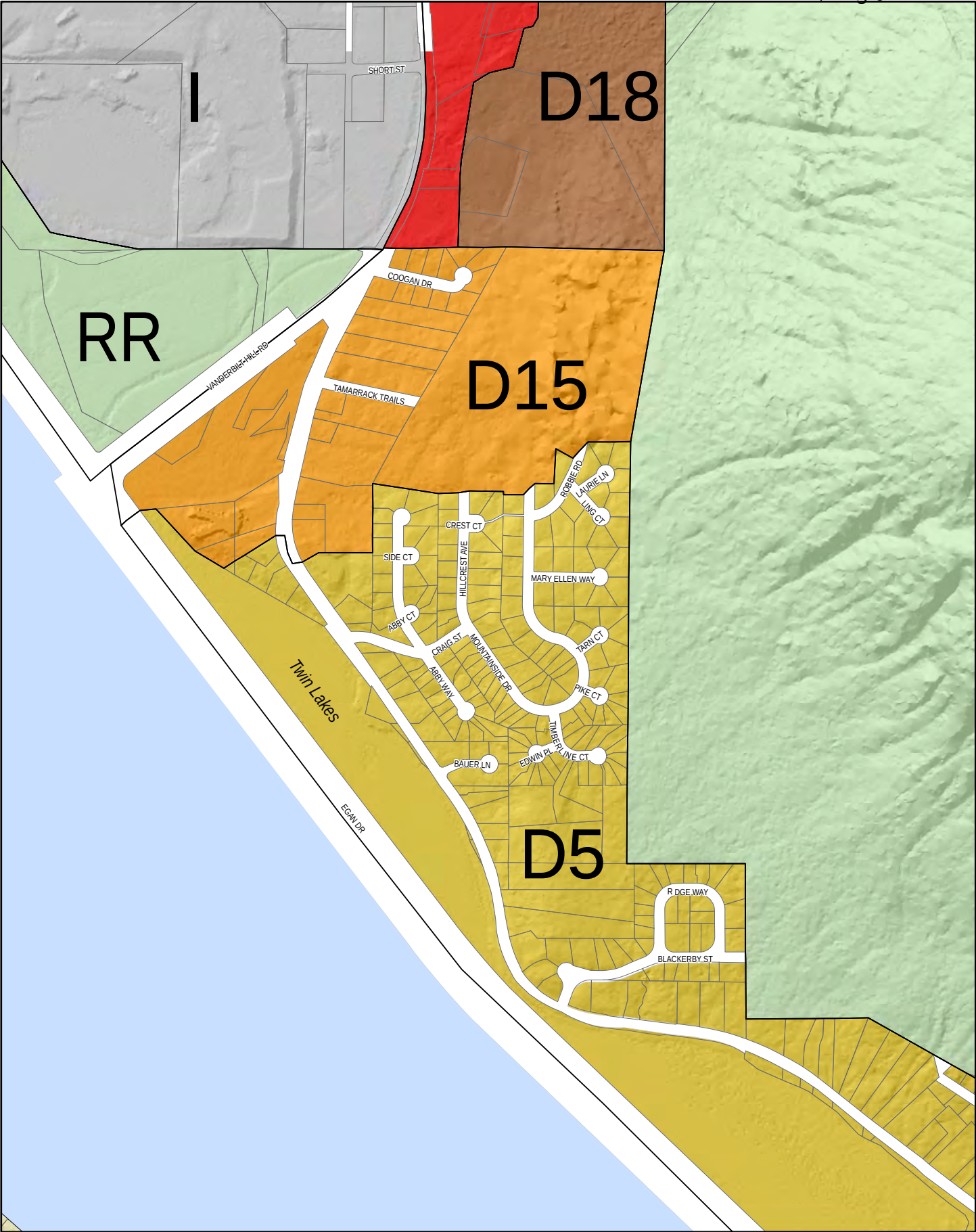


SURVEYOR'S CERTIFICATE

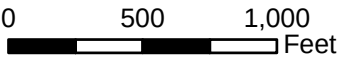
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: _____, 2019

SKETCH PLAT OF CHILKAT VISTAS A FUTURE SUBDIVISION OF TRACT B RICHLAND MANOR A FRACTION OF US SURVEY 4807 WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA JUNEAU RECORDING DISTRICT	
STATE RECORDERS OFFICE AT ANCHORAGE	
CHILKAT SURVEYING & MAPPING, LLC 10654 PORTER LANE JUNEAU, ALASKA 99801 907-957-1908	
OWNERS WILLIAM C HEUMANN & MICHAEL P. HEUMANN 6000 THANE ROAD JUNEAU, ALASKA 99801	
SMP: 20190004	SCALE: 1" = 80'
DATE: 10/06/2019	SHEET NO. 1 OF 1



ZONING





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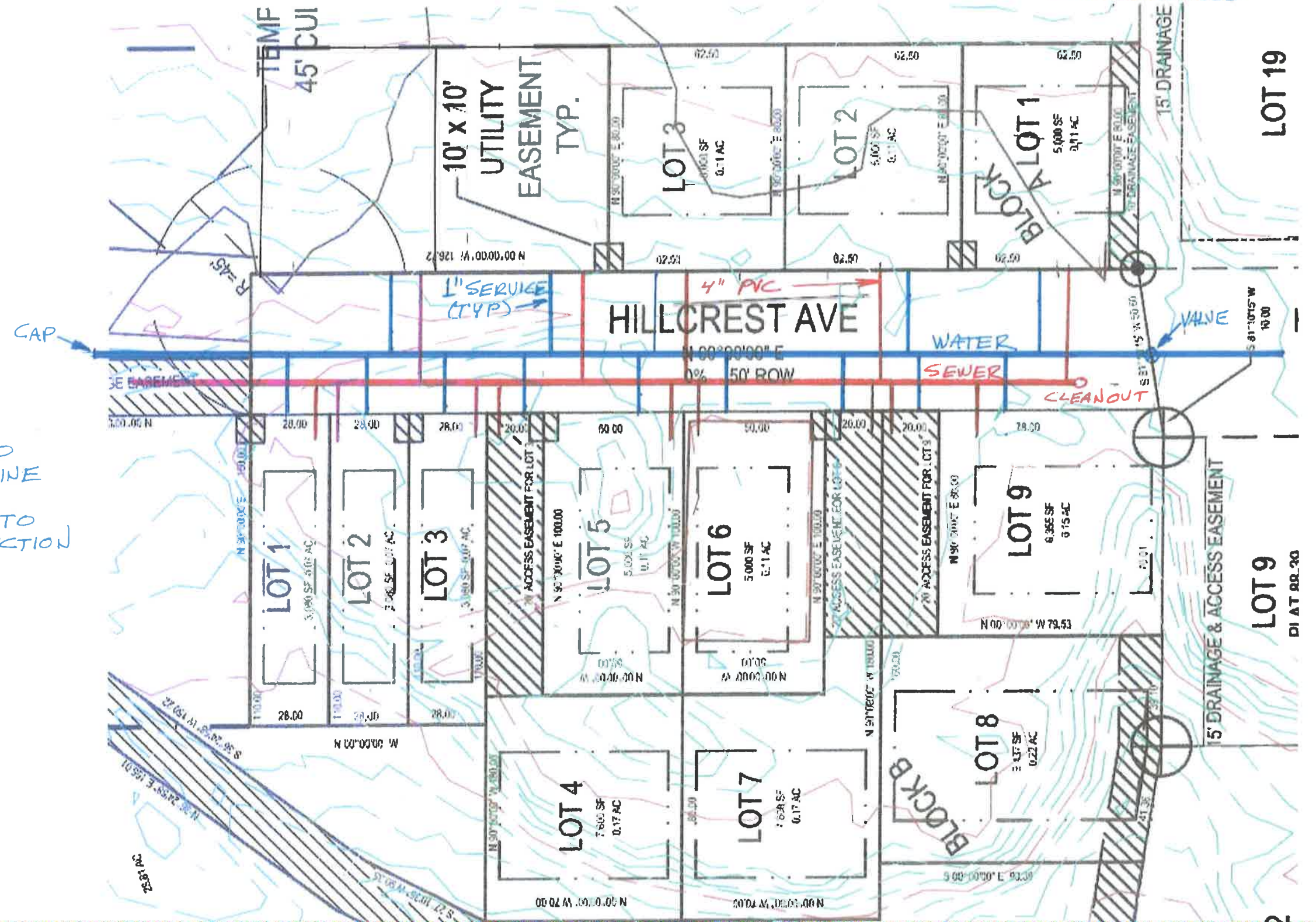
SEP 19 2019

PERMIT CENTER/CDD

RECEIVED

PERMIT CENTER/CDD

WATER AND SEWER LATERAL LAYOUT



NOTE:
NEW 8" WATER LINE TO
EXISTING 8" WATER LINE

NEW 8" SEWER LINE TO
HOOTER LANE CONNECTION

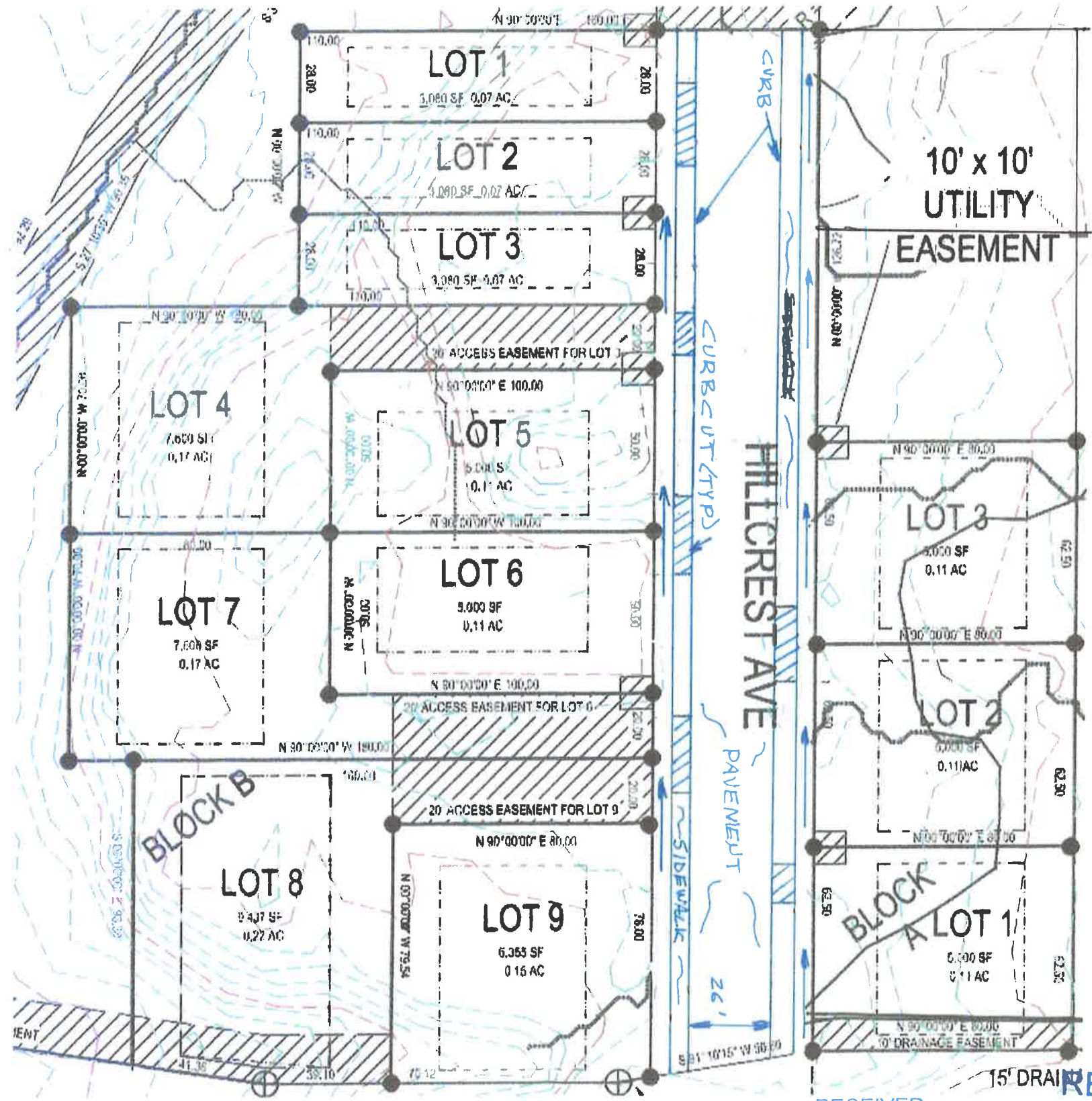
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12/26/18

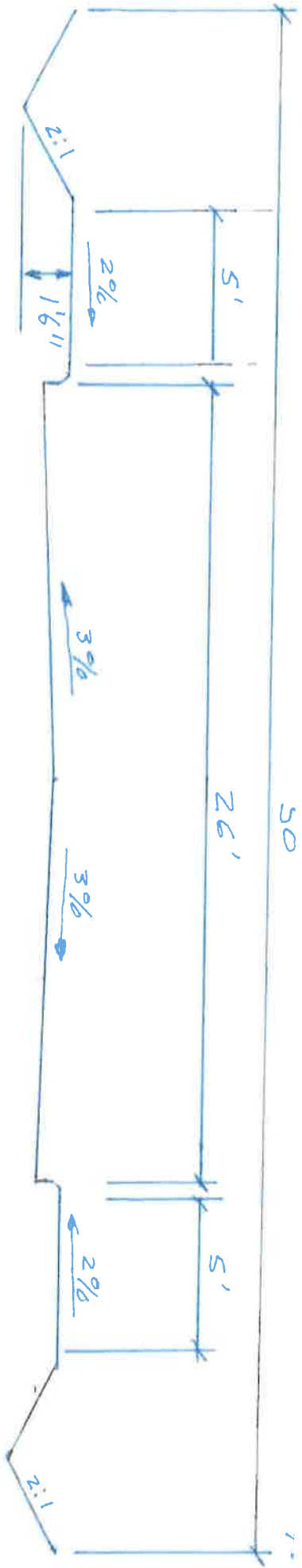
WCH

1"=40'
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12/27/18

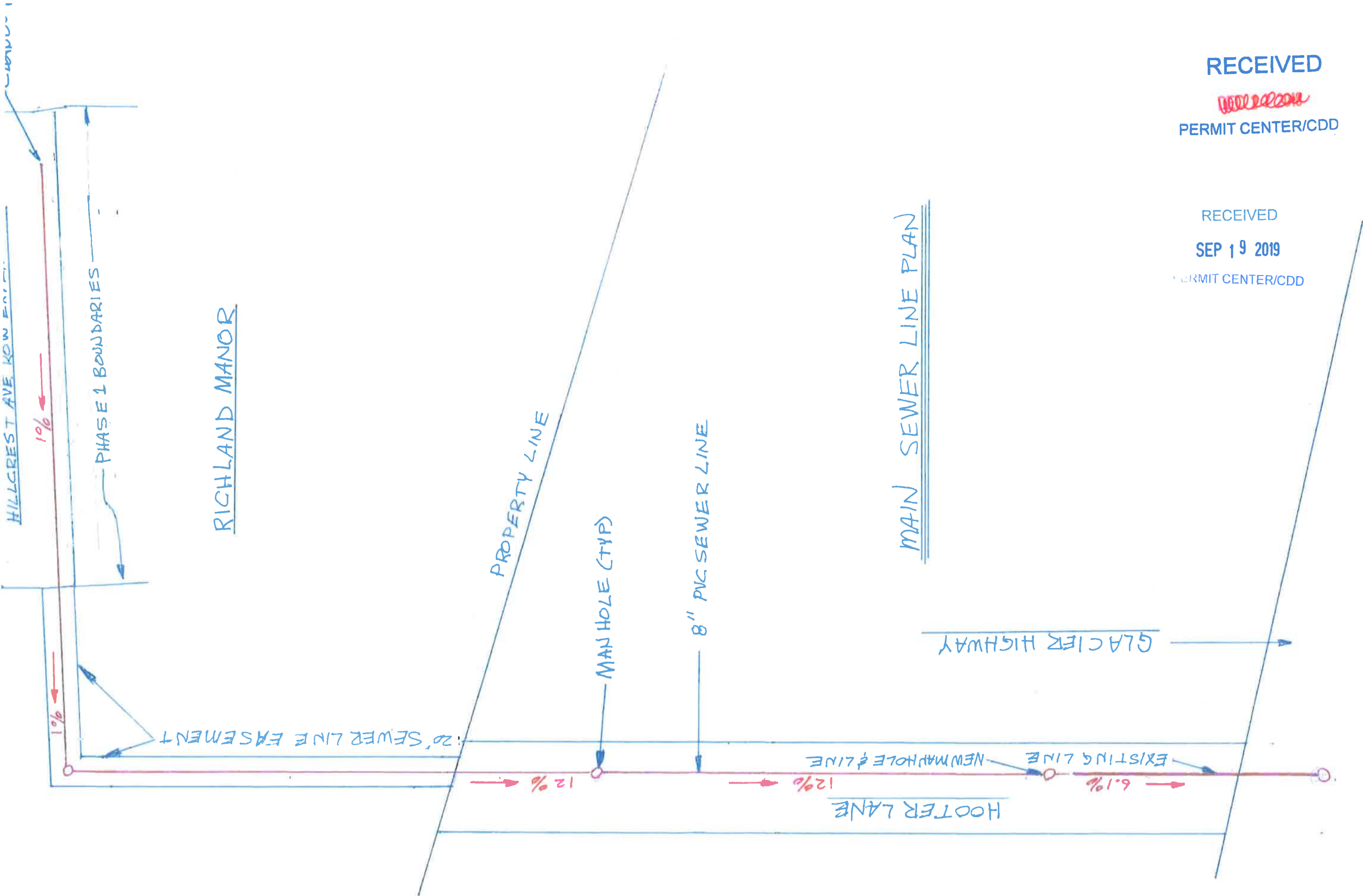
ROADWAY LOCATION IN HILLCREST ROW.



ROADWAY SECTION



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SEP 19 2019
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[Signature]
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RECEIVED
SEP 19 2019
PERMIT CENTER/CDD



18

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NOTER LANE
PERMIT CENTER/CDD
WATER AND SEWER AS-BUILT

RECEIVED
SEP 19 2019
PERMIT CENTER/CDD



DATE: September 27, 2019

TO: Laurel Christian, CDD

FROM: Autumn Sapp, Engineering & Public Works Department
John Bohan, Engineering & Public Works Department

RE: SMP20190004 – Chilkat Vistas Subdivision (formerly known as Richland Manor 2 Subdivision), Major Subdivision Engineering & Public Works Department Review

Engineering and Public Works Department has completed a preliminary review of the proposed Chilkat Vistas Subdivision to create a total of 15 lots. The following has been determined as required by CBJ code 49.15.402(c)(4)(e):

1. The preliminary drainage plan is incomplete. It appears feasible; however, it does not delineate all the runoff conveyed into the Hooter Lane drainage system by the construction of Phase A.
 - a. The plan does not account for the additional runoff from the areas uphill of the development when determining the capacity of the 24" culvert crossing Glacier Highway at Hooter Lane.
 - b. Revise and resubmit the drainage plan upon full delineation of all runoff conveyed by the Hooter Lane drainage, including a determination of the proper culvert sizing necessary at the Hooter Lane - Glacier Highway culvert crossing prior to approval of the construction plans.
2. The Chilkat Vistas Subdivision proposed street and sidewalk plan is acceptable. The following request are also acceptable as noted:
 - a. Reduced right-of-way width of 50'. Remaining phases shall also be constructed at a width of 50' unless further engineering indicate this is not feasible.
3. The proposed improvements conform to the requirements of this title and can be feasibly constructed in accordance with Title 49.

Other concerns-

4. As outlined in a memo dated 12/11/2018 by Carson Dorn, Inc., an additional 80 residential units could be constructed in the Mountainside Estates water zone that fed by the existing pump station. Additionally, capacity would still be preserved for fire flows. For more detailed information please review the memo which is attached for your reference.

Laurel Christian

From: John Bohan
Sent: Tuesday, October 15, 2019 5:28 PM
To: Laurel Christian
Cc: Autumn Sapp; Alexandra Pierce; Jill Maclean; Mike Vigue
Subject: RE: SMP20190004 Preliminary Plat Approval - Agency Review

Hi Laurel

After reviewing the sketch plat for Chilkat Vistas Subivision, I concur with the applicant's request to install sidewalks on one side of the street. This request is consistent with the other recent local subdivision determinations of similar size developments and is also consistent with the infrastructure within the Mountainside Subdivision, with sidewalk only constructed on one side of the two main access roads, Mountainside Drive and Craig Street (and no sidewalks on the side streets). The previously platted Hooter Lane ROW, which will provide pedestrian connection from the development to Glacier Highway, is only required to have one sidewalk, making the requirement of two sidewalks within the new development an unnecessary redundancy.

Future development plans should be evaluated to determine the need for sidewalks on one or both sides, based on the density and type of development planned.

Thanks
John Bohan,
Acting Director Engineering and Public Works

From: Laurel Christian <Laurel.Christian@juneau.org>
Sent: Monday, October 14, 2019 10:35 AM
To: John Bohan <John.Bohan@juneau.org>
Cc: Autumn Sapp <Autumn.Sapp@juneau.org>; Alexandra Pierce <Alexandra.Pierce@juneau.org>; Jill Maclean <Jill.Maclean@juneau.org>
Subject: FW: SMP20190004 Preliminary Plat Approval - Agency Review

Hi John,

The applicant has requested to place sidewalks on one side of the street for this development, rather than two. Based on the ADTs generated by the development as a whole (upon reviewing the sketch plat), and according to CBJ 49.35.240 Table of Roadway Construction Standards, a 26' travel way width is required with sidewalks on both sides of the street.

Per CBJ 49.35.130(b) The director of engineering and public works may prescribe different or additional standards if unusual or unforeseen conditions exist in a particular development, and the alternative meets or exceeds the intent of the original standard.

Can you verify the “unusual or unforeseen” conditions which exist for the development, and verify that Engineering & Public Works approves this change as required by 49.35.130(b)?

Thanks for your help on this,

Laurel Christian | Planner

Community Development Department | City & Borough of Juneau, AK

Location: 230 S. Franklin Street, 4th Floor Marine View Building

Office: 907.586.0761

Please note name change (Bruggeman to Christian) and new email: Laurel.christian@juneau.org



From: Laurel Christian <Laurel.Christian@juneau.org>

Sent: Tuesday, October 8, 2019 12:51 PM

To: Dan Jager <Dan.Jager@juneau.org>; Sven Pearson <Sven.Pearson@juneau.org>; General Engineering <General_Engineering@juneau.org>; Mary Grant <Mary.Grant@juneau.org>; Charlie Ford <Charlie.Ford@juneau.org>; George Schaaf <George.Schaaf@juneau.org>; Ed Foster <Ed.Foster@juneau.org>; John Bohan <John.Bohan@juneau.org>; Greg Chaney <Greg.Chaney@juneau.org>; Dan Bleidorn <Dan.Bleidorn@juneau.org>; 'Skagerberg, Verne R (DOT)' <verne.skagerberg@alaska.gov>; 'kate.kanouse@alaska.gov' <kate.kanouse@alaska.gov>; 'Dubour, Adam J (DFG)' <adam.dubour@alaska.gov>; 'randal.p.vigil@usace.army.mil' <randal.p.vigil@usace.army.mil>; 'Darrell Wetherall' <Darrell.Wetherall@aelp.com>; Quinn Tracy <Quinn.Tracy@juneau.org>

Subject: SMP20190004 Preliminary Plat Approval - Agency Review

Good afternoon,

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by **October 22, 2019**.

Please note that the plat notes on page 3 of the preliminary plat are subject to change and some plat notes are not subject to CBJ enforcement.

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

Thank you,

Laurel Christian | Planner

Community Development Department | City & Borough of Juneau, AK

Location: 230 S. Franklin Street, 4th Floor Marine View Building

Office: 907.586.0761

Please note name change (Bruggeman to Christian) and new email: Laurel.christian@juneau.org



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Alaska Department of Fish and Game
STAFF PERSON/TITLE: Adam DuBour/Habitat Biologist
DATE: October 22, 2019
APPLICANT: Michael and William Heumann
TYPE OF APPLICATION: Major Subdivision Preliminary Plat Approval

PROJECT DESCRIPTION:

Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels).

LEGAL DESCRIPTION: Richland Manor Tract B
PARCEL NUMBER(S): 7B1001160010
PHYSICAL ADDRESS: 4506 Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by October 22, 2019.

AGENCY COMMENTS:

The Alaska Department of Fish and Game (ADF&G) has reviewed SMP20190004, the application materials submitted by Michael and William Heumann for preliminary plat approval for Phase A of a major subdivision located within Section 5, T41S, R67E, CRM, to be known as Richland Manor II. The applicant proposes to create 14 lots for single-family development and one large tract for future development. ADF&G previously reviewed and commented on a preliminary plat for Richland Manor in January of 2019 in which the applicant proposed to create 12 lots for single-family development and one large tract for future development.

During the above mentioned review, ADF&G indicated that there were not any objections to the plat as proposed. However, we would like to reiterate our previous recommendations. In January 2019, ADF&G Habitat Biologists performed a site visit to document fish habitat on the subject parcel (report attached). While the subject parcel does not contain fish habitat, drainages on the property flow into Twin Lakes and Vanderbilt Creek. Vanderbilt Creek is cataloged within ADF&G's Anadromous Waters Catalog (AWC #111-40-10125) as providing habitat for Dolly Varden and chum, coho and pink salmon. Twin Lakes support resident Dolly Varden.

Best practices should be employed to prevent sediments and contamination from construction activities from entering the waters of Vanderbilt Creek and drainages that flow into Twin Lakes. Existing hydrology and drainage patterns on site should be maintained to reduce the impact on downstream fish habitat.

AGENCY COMMENTS (CONTINUED):

The currently proposed plat eliminates a drainage easement that was included on the previous plat (SMP20180002) west of the proposed lots. The easement incorporated a highly altered stream channel that flowed into Twin Lakes. The elimination of this easement is consistent with our previous recommendations.

The subject property is adjacent to large portions of undeveloped land and black bears are common in the area. During construction activities, care should be taken in securing all potential wildlife attractants, including petroleum products. Any wildlife conflicts should be reported to ADF&G Division of Wildlife Conservation.

The applicants have previously been in contact with ADF&G Habitat Biologists regarding this project and we request that they maintain this contact. For more information on best practices for protecting fish habitat during design and construction of this development, please contact ADF&G Habitat Biologist Greg Albrecht, 907-465-6384, greg.albrecht@alaska.gov.

Thank you for the opportunity to review and comment on this preliminary plat.

Adam DuBour
Access Defense Program
Alaska Department of Fish and Game
Division of Wildlife Conservation
333 Raspberry Road
Anchorage, Alaska 99518
(907)267-2292
adam.dubour@alaska.gov



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Alaska Department of Fish and Game
STAFF PERSON/TITLE: Greg Albrecht, ADF&G Habitat Biologist
DATE: October 11, 2019
APPLICANT: Michael and William Heumann
TYPE OF APPLICATION: Major Subdivision Preliminary Plat Approval

PROJECT DESCRIPTION:

Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels).

LEGAL DESCRIPTION: Richland Manor Tract B
PARCEL NUMBER(S): 7B1001160010
PHYSICAL ADDRESS: 4506 Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by October 22, 2019.

AGENCY COMMENTS:

Hello Laurel,

This site provides habitat for bear, deer, coyote, and other wildlife. As with most development in Juneau, it is important the owner/developers manage and store waste in garages or bear proof containers so as not to create an attractant. I have attached documentation focused on fish resources in the area, originally submitted to CBJ through the Department of Natural Resources in 2018.

Thank you for the opportunity to comment.

Greg Albrecht
ADF&G Habitat Biologist
802 3rd St
Douglas, AK 99824
465-6384

MEMORANDUM

State of Alaska

Department of Fish and Game
Division of Habitat

TO:	Adam DuBour Habitat Biologist Division of Wildlife Conservation	DATE:	January 9, 2019
THRU:	Kate Kanouse Acting Regional Supervisor	SUBJECT:	Richland Manor II Development Comments
FROM:	Greg Albrecht  Habitat Biologist	PHONE NO:	(907) 465-6384

I reviewed Michael and William Heumann's application to the City and Borough of Juneau (CBJ) for the proposed 30-acre Richland Manor II residential development and completed stream surveys with a backpack electrofisher on October 8, 2018^a and January 4, 2019 (Table 1; Figure 1). The main drainage on the south end of the property feeds into the north end of Twin Lakes and does not support fish; the 8% gradient culvert under Glacier Highway prevents upstream fish passage, as does a 100 ft long perched culvert on private property 110 ft upstream of Glacier Highway. Within the proposed development, the stream appears to have been rerouted and is shallow, straight, and void of overwintering fish habitat and fish habitat complexity (Figures 2, 3). Potential resident fish habitat is present downstream of the proposed development area (Figures 4, 5), though overwintering habitat remains limited.

Drainages on the north side of the property reporting to Vanderbilt Creek^b and one of its tributaries^c would be too steep to provide fish habitat, based on topography.

^a Greg Albrecht, Habitat biologist, ADF&G Division of Habitat, to Jackie Timothy, Southeast Regional Supervisor, ADF&G Division of Habitat. Memorandum: Twin Lakes Culvert Slip Line Investigations Trip Report; dated 10/9/2018.

^b Stream No. 111-40-10125; provides habitat for chum, coho and pink salmon and Dolly Varden char.

^c Stream No. 111-40-10125-2010; provides habitat for coho salmon and is a cite of recent fish habitat enhancement. Greg Albrecht, Habitat Biologist, ADF&G Division of Habitat, to Jackie Timothy, Southeast Regional Supervisor, ADF&G Division of Habitat. Memorandum: Baumgartner Pond Dredging Trip Report; dated 8/22/2017.

Table 1.–Field survey data.

Waypoint	Latitude	Longitude	Notes	Sample Effort	Sample Results
127	58.3455	-134.4951	Culvert outlet at alder grove bordering north Twin Lakes wetland. 1 Dolly Varden char captured here. Culvert is about 8% gradient. Moving upstream electrofishing continuously.	Electrofishing	1 Dolly Varden char
128	58.3454	-134.4943	Straight channel, with steep eroded banks, knotweed, no overwintering habitat, 9% gradient.	Electrofishing	
129	58.3452	-134.4940	Culvert outlet perched 3 ft, relief culvert perched at 4 ft.	Electrofishing	
130	58.3451	-134.4938	Knotweed forest at culvert inlets. Tributary enters river left about 10 ft upstream.	Electrofishing	
131	58.3450	-134.4935	8% gradient up to here, 2 step pools present, river right bank is fill slope, river left is second growth forest.	Electrofishing	
132	58.3449	-134.4930	Forested strip on river right about 75 ft to the clearing. Gradient is 9% looking upstream. Dolly Varden char spawning habitat is present, minimal overwintering, no fish. Stream is unstable and banks absent, looks flashy.	Electrofishing	
133	58.3450	-134.4926	Iron stained tributary enters river left, no fish habitat. 7% gradient to here in main channel.	Electrofishing	
134	58.3450	-134.4922	Gradient increases to 14% here and river left bank is fill from 20-30 year old homes.	Electrofishing	
135	58.3451	-134.4917	Fork here with divided flow, river left wraps around homes and forks again about 10 ft upstream, minimal Dolly Varden char habitat, not investigating due to private property, 10-16% gradient. River right channel steps up a few feet, then 3% through alder grove, from	Electrofishing	
136	58.3457	-134.4911	The channel appears to have been moved to the toe of the clearing. It is straight at	Electrofishing	
137	58.3462	-134.4902	Ending here, No fish, stream is at toe of slope, minimal habitat, originates from hill seeps.	Electrofishing	

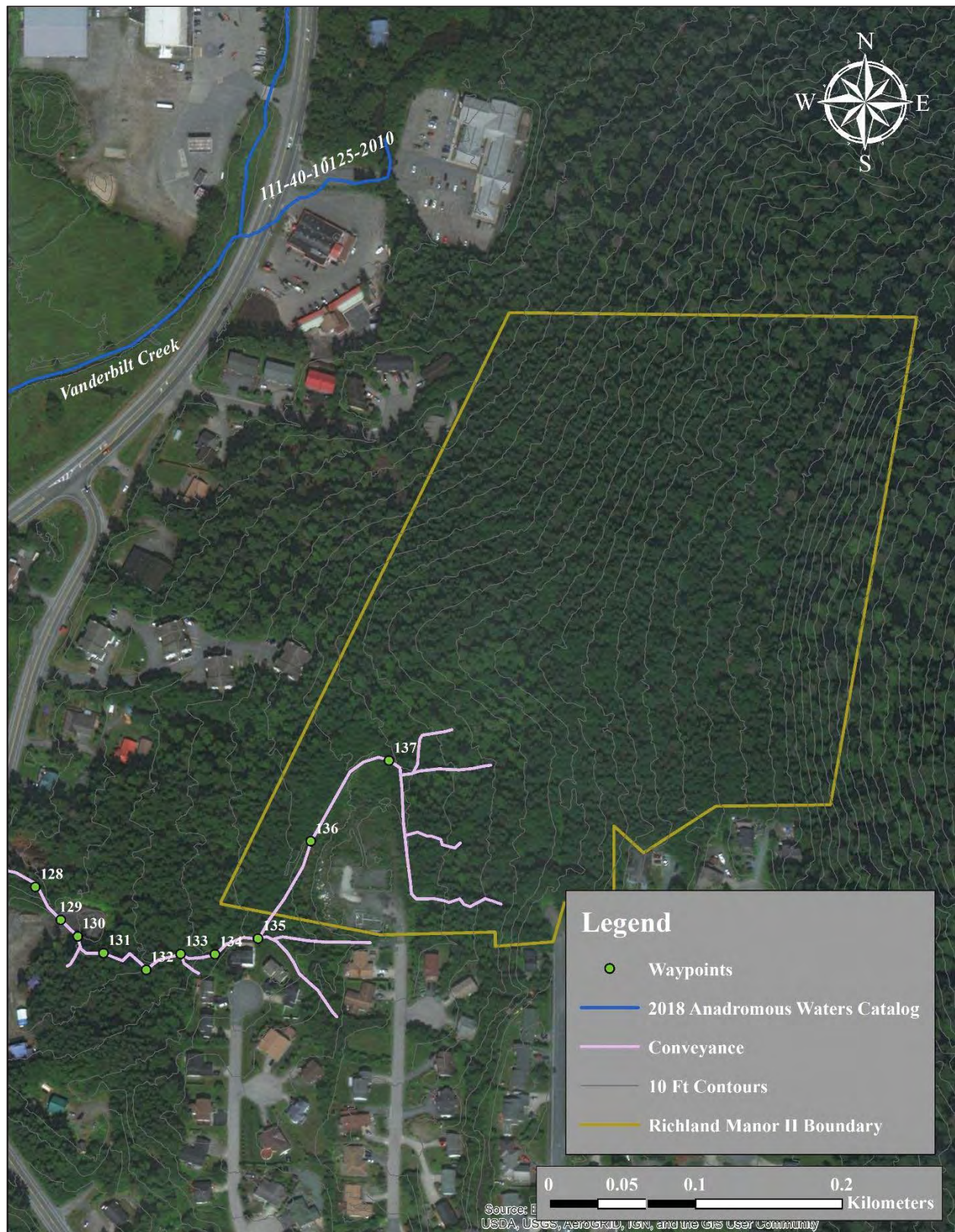


Figure 1.—Survey map.



Figure 2.—Channel at toe of fill.



Figure3.—Straightened channel.

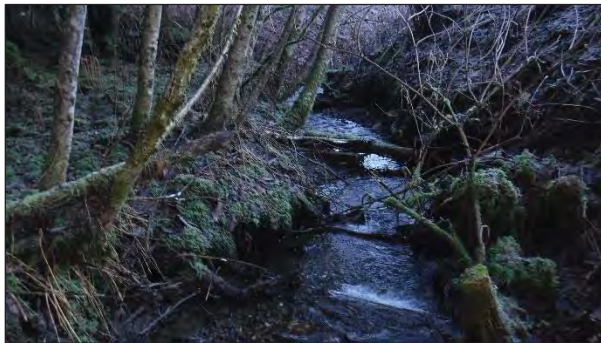


Figure 4.—Step-pool reach downstream of property.



Figure 3.—Downstream of property.

Recommendations

I recommend the CBJ consider measures to maintain existing hydrology and drainage patterns, especially for water bodies reporting to Vanderbilt Creek and its tributary.

Email cc:

Al Ott, ADF&G Habitat, Fairbanks
ADF&G Habitat Staff, Douglas
Dan Teske, ADF&G SF, Douglas
Dave Harris, ADF&G CF, Douglas
Roy Churchwell, ADF&G WC, Douglas
Neil Stichert, USFWS, Juneau
Cindy Hartmann Moore, NMFS, Juneau



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COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: AEL&P
STAFF PERSON/TITLE: Darrell Wetherall/Asst. T&D Engineer
DATE: 10/8/2019
APPLICANT: Michael and William Heumann
TYPE OF APPLICATION: Major Subdivision Preliminary Plat Approval

PROJECT DESCRIPTION:

Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels).

LEGAL DESCRIPTION: Richland Manor Tract B
PARCEL NUMBER(S): 7B1001160010
PHYSICAL ADDRESS: 4506 Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by October 22, 2019.

AGENCY COMMENTS:

We don't have any issues with the proposed plat.



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Assessor

STAFF PERSON/TITLE:

DATE: 10/17/2019

APPLICANT: Michael and William Heumann

TYPE OF APPLICATION: Major Subdivision Preliminary Plat Approval

PROJECT DESCRIPTION:

Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels).

LEGAL DESCRIPTION: Richland Manor Tract B

PARCEL NUMBER(S): 7B1001160010

PHYSICAL ADDRESS: 4506 Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by October 22, 2019.

AGENCY COMMENTS:

The proposed subdivision is not likely to have a negative impact on the value of neighboring properties.



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CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Capital City Fire Rescue
STAFF PERSON/TITLE: Dan Jager, Fire Marshal
DATE: 10/22/2019
APPLICANT: Michael and William Heumann
TYPE OF APPLICATION: Major Subdivision Preliminary Plat Approval

PROJECT DESCRIPTION:

Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels).

LEGAL DESCRIPTION: Richland Manor Tract B
PARCEL NUMBER(S): 7B1001160010
PHYSICAL ADDRESS: 4506 Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by October 22, 2019.

AGENCY COMMENTS:

All fire code comments and requirements were already made apart of pre-app meetings and conversations with the applicants.

Laurel Christian

From: Dan Jager
Sent: Tuesday, October 22, 2019 11:08 AM
To: Laurel Christian; Sven Pearson
Subject: RE: SMP20190004 Preliminary Plat Approval - Agency Review

Yes, that is all correct Laurel. Thanks!
Dan

From: Laurel Christian
Sent: Tuesday, October 22, 2019 10:54 AM
To: Dan Jager <Dan.Jager@juneau.org>; Sven Pearson <Sven.Pearson@juneau.org>
Subject: RE: SMP20190004 Preliminary Plat Approval - Agency Review

Thanks Dan, just to be clear (for my staff report) – sprinklers are required for all homes constructed with this phase of development and a secondary access to the entire neighborhood is triggered at 200 Dwelling units (being accessed through Craig street)? This 200 dwelling units includes existing homes that use Craig Street for access to Glacier Highway AND the homes constructed through the proposed subdivision?

Thanks!

Laurel Christian | Planner

Community Development Department | City & Borough of Juneau, AK

Location: 230 S. Franklin Street, 4th Floor Marine View Building

Office: 907.586.0761

Please note name change (Bruggeman to Christian) and new email: Laurel.christian@juneau.org



From: Dan Jager <Dan.Jager@juneau.org>
Sent: Tuesday, October 22, 2019 9:15 AM
To: Laurel Christian <Laurel.Christian@juneau.org>; Sven Pearson <Sven.Pearson@juneau.org>
Subject: RE: SMP20190004 Preliminary Plat Approval - Agency Review

Hi Laurel, here is the comments form. Thanks.
Dan

From: Laurel Christian
Sent: Tuesday, October 22, 2019 8:43 AM
To: Dan Jager <Dan.Jager@juneau.org>; Sven Pearson <Sven.Pearson@juneau.org>
Subject: FW: SMP20190004 Preliminary Plat Approval - Agency Review

Hello Dan and Sven,



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: DOT&PF, Southcoast Region
STAFF PERSON/TITLE: Joanne Schmidt, Planner
DATE: October 22, 2019
APPLICANT: Michael and William Heumann
TYPE OF APPLICATION: Major Subdivision Preliminary Plat Approval

PROJECT DESCRIPTION:

Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels).

LEGAL DESCRIPTION: Richland Manor Tract B
PARCEL NUMBER(S): 7B1001160010
PHYSICAL ADDRESS: 4506 Hillcrest Avenue

SPECIFIC QUESTIONS FROM PLANNER:

We have received an application for preliminary plat approval for a phased major subdivision. SMP20190004 will address Phase A, which will create 14 lots for single-family development and one large tract for further development (15 lots total). Please review the attached preliminary plat and associated application materials and return your comments to me by October 22, 2019.

AGENCY COMMENTS:

DOT does not have any comments or concerns at this time. However, if the development as currently proposed has in fact scaled back the scope from 450 apartments/condos to just 15 SF homes, then there is no need for a TIA at this time. However, there is potential for a TIA requirement to be triggered in the future should the developer move forward with plans to construct up to 400+ units at the proposed project location.

Ms. Christian,

I am a Tamarack Trails Condominium owner, writing this email to submit my concerns regarding the proposed development of the Hooter Lane ROW that is part of the Tamarack Trails entrance driveway. Here are my concerns.

If Hooter Lane is developed as a roadway to the proposed major subdivision (7B1001160010), the road would be in extremely close proximity to the Tamarack Trails buildings A and C. This will substantially effect the lifestyle, safety, security and overall sense of well-being of all of the 32 families residing at Tamarack Trails. It will result in the loss of property use and parking, an increase of traffic, noise, and dust, and loss of the tree buffer surrounding the property.

Tamarack Trails Condominiums will be the most impacted community of homeowners of the Richland Manor subdivision project if Hooter Lane is allowed to be developed as a new roadway to that project. The development will drastically alter the quality of life and sense of community that now exists at Tamarack Trails, not for the better.

Please do NOT approve a Hooter Lane as a new roadway to the Richland Manor Subdivision.

Respectfully,
Joan Shorey
(907) 321-5823

Paul H. Grant

Counselor at Law

313 Coleman Street, Juneau, Alaska 99801
(907)586-2701 (v) (907) 586-2722 (fax)
paul@paulgrantjuneau.com

October 25, 2019

Juneau Planning Commission
155 S. Seward Street
Juneau, Alaska 99801

Re: Mountainside Estates,
Appeal No. SMP2018-0002

I represent the Mountainside Estates Neighborhood Association (MENA) and individual appellants who appealed the Planning Commission's approval of a preliminary plat for the development of the Richland Manor subdivision. Following lengthy negotiations between appellants and the developers, William and Michael Heumann, a settlement agreement was reached. The settlement consists of a "Stipulated Settlement Agreement", dated September 23, 2019, as well as plat drawings, Exhibits A-C. All parties to the appeal have signed the Agreement. Under its terms, upon approval of the Heumann's modified plat application (and the expiration of any appeal periods) the MENA appeal will be dismissed.

The purpose of this letter is to provide MENA's support of the modified plat application. While the plat of Phase I of the project is not significantly different than the originally-approved design, there are significant modifications and improvements to future phases of the project that are set out in the Agreement and the attachments. In

particular, the subdivision access and desired separations between single and multi-family homes have been modified for future phases, as set out in the Exhibits to the Agreement. In addition, the Agreement itself contains a number of conditions that are enforceable privately between the parties in the event of non-compliance. Further, the CBJ has agreed to incorporate certain safety measures into the project, and a number of the conditions have been adopted as plat notes in the application.

Provided the terms of the Agreement and the design considerations set out in the modified alternative plats are implemented, this agreement satisfactorily resolves MENA's concerns which prompted the appeal. While not perfect, the Agreement is a good faith compromise by all parties which MENA unreservedly supports.

Cordially,

A handwritten signature in black ink, appearing to read 'PH Grant', written over a horizontal line.

Paul H. Grant

Attorney for MENA and Individual Appellants



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/cdd
155 S. Seward Street • Juneau, Alaska 99801

November 1, 2019

MEMORANDUM

To: Michael Heumann

From: Laurel Christian, CDD

Case Number: SMP20190004

Legal Description: Tract B Richland Manor

Parcel No.: 5B1401020071

RE: SMP20190004 Preliminary Plat V2 Corrections

The following is a consolidated list of review comments received regarding the preliminary plat for SMP20190004, Chilkat Vistas Subdivision Phase 1. Prior to final plat approval, the following changes should be made to the plat:

GENERAL ENGINEERING

All Sheets

1. Drainage from Lot 4 and Lot 7 will require a drainage easement across Tract B1 to an established drainage way or will need to be engineered to drain uphill.
2. For the final plat, remove contours, building setbacks, and wetland boundaries.
3. Add subdivision or USS information including tract, lot, and/or block information to all adjacent properties.

Sheet 1

4. Adjust viewport or move text of Coogan Dr.
5. Label Hooter Ln. and Abby Wy. rights-of-way and list widths.
6. List width of the existing portion of Hillcrest Ave.
7. Remove leaders without text or add text to the existing leaders.
8. Add leaders to indicate where bearings and distances along westerly property line of Tract B1 begin and end.
9. Add bearing and distance for Tract B1's property line at rear of Lots 1, 2, and 3.
10. Trim easement and lines from bearing of Tract B1 at end of Hillcrest Ave.
11. Show monument detail letter "C" for corresponding monument.

12. Remove road grade from Hillcrest ROW.

Sheet 2

13. Standardize adjacent lot labels.

14. Remove road grades from ROW labeling.

15. Submit a new closure report to all for verification that the following inconsistencies have been addressed:

a. Verify the following distances for the following bearings as they do not correlate with the closure report:

i. Northern boundary of phase I: N 90°00'00" E – 160.00, closure lists 160.12

ii. Southern lot line of Lot 7: N 90°00'00" E – 160.00, closure lists 160.12

iii. Southern lot line of Lot 8: N 81°26'30" W – 41.36, closure lists 41.47

b. Verify the acreage of Lot 14 as it does not correlate with the closure report.

c. Verify the square footage of Lot 8 as it does not correlate with the closure report.

16. Modify the line type scale of the easement boundary lines so they match the line type shown in the legend.

17. Move the labels and leaders of the 25' Greenbelt and 20' Setback Line (Typ) to allow for legibility.

PLANNING

Sketch Plat

1. Above Robbie Road, change "30' EMERGENCY FIRE ACCESS" to "30' EMERGENCY SERVICE ACCESS"

All Sheets

2. Verify the square footage and acreage of Tract B1 (large remaining tract)

Sheet 1

3. Above Robbie Road, change "30' EMERGENCY FIRE ACCESS" to "30' EMERGENCY SERVICE ACCESS"
4. Label adjacent Lot 20 Plat 88-39
5. Label the Robbie Road right-of-way

Sheet 2

6. Label the drainage and sewer easement that connects to the Hooter Lane right-of-way

Plat Notes

7. Remove block information from notes 8 and 9 and use "Lot X, Phase 1" typical language.
8. Amend note 11 to read:
HOOTER LANE WILL BE DEVELOPED AS A PUBLIC TWO-WAY STREET, AS SET OUT IN THE SKETCH PLAT SUBMITTED WITH SMP20190004, SUBJECT TO CBJ PUBLIC IMPROVEMENT STANDARDS IN CBJ 49.35.
9. In note 12 change "RICHLAND MANOR" to "CHILKAT VISTAS".
10. Amend note 13 to read:
*DENSITY: IT IS AGREED THAT THE LOOP ROAD OF HILLCREST AVENUE AND MOUNTAINSIDE DRIVE WILL BE DEVELOPED AS SINGLE-FAMILY HOMES, AS DEPICTED ON THE SKETCH PLAT SUBMITTED WITH SMP20190004.
11. Add an asterisk to note 14: "*ROBBIE ROAD"
12. In note 15, change "RICHLAND MANOR" to "CHILKAT VISTAS"
13. Amend note 16 to read:
HILLCREST AVENUE SHALL TERMINATE AT HOOTER LANE. HILLCREST AVENUE MAY CONNECT TO HOOTER LANE WEST OF THE EXISTING HILLCREST ALIGNMENT AS SHOWN IN THE SKETCH PLAT SUBMITTED WITH SMP20190004. ALTERNATIVELY ROAD ACCESS TO THE NORTHEAST PORTION OF TRACT B-1 MAY CONNECT TO THE

EAST/WEST PORTION OF MOUNTAINSIDE DRIVE ACROSS FROM THE ENTERNANCE TO THE "POCKET" BETWEEN HILLCREST AND MOUNTAINSIDE.

14. In note 16, verify lot name for Tract B-1 based on naming options outlined in the "Cartography" section of this MEMO.

15. Amend note 17 to read:

GREENBELT BUFFERS WILL BE IMPLEMENTED AND PRIVATELY MAINTAINED BY LOT OWNERS AS DELINEATED ON THE SKETCH PLAT SUBMITTED WITH SMP20190004 AND AS DELINEATED THIS PLAT, TO SEPARATE SINGLE FAMILY HOMES FROM MULTI-FAMILY DEVELOPMENT. EXCAVATION FOR PURPOSES OF SLOPE STABILIZATION MAY TAKE PLACE IN THE GREENBELT BUFFERS PROVIDED THEY ARE ALLOWED TO REVEGETATE FOLLOWING CONSTRUCTION. IN THE EVENT THIS BECOMES NECESSARY THE PROPERTY OWNER WILL CONSULT WITH ADJACENT HOMEOWNERS ABOUT THE IMPACTS.

16. Plat notes 13, 14, and 17 should be moved to their own section at the bottom of the notes section with their own heading that reads:

*NOTES BELOW REFLECT PRIVATE OBLIGATIONS ASSUMED BY THE DEVELOPER:

1. *DENITY...
2. *ROBBIE ROAD...
3. *GREENBELT...

CARTOGRAPHY

All Sheets

1. Contours, wetlands areas, and setbacks will be removed from final plat prior to recording.
2. Label previous TRACT B with dashed font.
3. Rename phases 1, 2, 3, etc. instead of A, B, C, etc. to maintain consistency with other phased subdivisions within CBJ.
4. Delete the centerline for Coogan Dr from sheet 1. It's the same line type as the unsurveyed lines. Also correct the label so it doesn't say "OOGAN".
5. Use a consistent line symbol for unsurveyed lot lines. Preferably the darker line type.
6. Label all adjacent lots with a gray or lighter font, and with a consistent font size (sheets 1 and 2). Show complete labels.
7. There's a line on the Hillcrest Ave ROW that serves an unknown purpose.
8. Remove the percent grade label and add bearing and distance annotation to the east and west sides of Hillcrest Ave ROW.

Sheet 1

9. Label HOOTER LN.
10. Move the TRACT A LOT 8 label onto the lot so it isn't covering the easement and decrease the font size.
11. Half of the line type for the easement north of LOT 39 uses a solid surveyed line type. Revise to the dashed easement line type.
12. Increase font size or remove the tiny.

Sheet 2

13. Use an annotation arrow to point to the west boundary of the 15' drainage easement, or orient the label so it aligns to the boundary line.
14. The "20' SETBACK LINE (TYP)" label is pointing to the title block. Correct as needed.
15. Move the "25' GREEN BELT" label so the "T" isn't covered by the title block.

Sheet 3

16. Remove the scale bar.
17. In note 12 on sheet 3, there is an extra "A" next to "SIDEWALK".
18. In the Planning Commission Plat Approval, there is an extra "O" in "ANCHORAGE".

Title Block

19. Title block option 1 (if we keep TRACT B1 as part of Richland Manor, it needs to be included in the title block):

**PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 1
AND
TRACT B1 RICHLAND MANOR
A SUBDIVISION OF
TRACT B RICHLAND MANOR
WITHIN CITY & BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT**

STATE RECORDER'S OFFICE AT ANCHORAGE

20. Title block option 2 (if we do away with Richland Manor altogether, rename TRACT B to TRACT A and include it as a part of Chilkat Vistas Subdivision):

**PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 1
A SUBDIVISION OF
TRACT B RICHLAND MANOR
WITHIN CITY & BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT**

STATE RECORDER'S OFFICE AT ANCHORAGE



1945 Alex Holden Way #101 | Juneau, AK 99801 | 907-780-4004 | solutions@proHNS.com
219 Main Street #13 | Haines, AK 99827 | 907-419-6070 | www.proHNS.com

September 19, 2019

Michael and William Heumann
6000 Thane Rd
Juneau, AK 99801
mpheumann@hotmail.com
(971) 261-8014

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SEP 19 2019
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RE: Richland Manor Subdivision - Drainage Plan

To Whom It May Concern,

The following Drainage Plan has been prepared for the Richland Manor Subdivision in Juneau, AK, a proposed development of single and multi-family residential units on a 30-acre site at 4506, 4508, and 4510 Hillcrest Avenue.

Attached sheets depict survey data, proposed phase A development, as-built information and rainfall data used for the proposed drainage analysis for this subdivision.

NOTE This report only accounts for the area being developed. The intent of this report is to show that the increased runoff due to development of the site can be handled by the existing drainage system on Glacier Highway. This report will be revised and updated as necessary during the design and layout of the conveyance system.

Site Runoff Calculation Method:

To calculate site runoff from the proposed development and through existing drainage structures, we have elected to use the Rational Method. Utilizing Appendix D of the "2010 CBJ Manual of Stormwater Best Management Practices" as a guide¹, the Rational Method equation employed for calculating stormwater runoff flows is as follows:

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

¹ There are no current municipal code requirements dictating adherence with the "2010 CBJ Manual of Stormwater Best Management Practices" when preparing a drainage plan that complies with 49.35.510. Regardless, we have elected to utilize portions of this Manual as a guide in the preparation of this Drainage Plan for the proposed development.



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Catchment Areas (A):

There is an existing 24" CMP culvert that crosses Glacier Highway at the location where the proposed subdivision runoff will tie into Hooter Lane's existing ditch. This report analyzes the converted areas for the proposed subdivision. A delineation of all contributing flows should be performed before sizing or constructing any conveyance devices for this project.

Runoff Coefficient (C):

Catchment Areas contain multiple land cover types within the sub-division area. The existing catchment area for the 24" CMP culvert and coefficients were determined by analyzing CBJ 2014 Lidar data, aerial photos and field investigations. The calculations in this report use developed area quantities provided by the client. We have selected runoff coefficients based on a 25-year storm event, based on both "2010 CBJ Manual of Stormwater Best Management Practices" as well as "AK DOT & PF Highway Drainage Manual".

The following formula, taken from Page D-9 of the CBJ Stormwater Manual, was used to compute composite runoff coefficients for each Catchment Area (also tabulated below):

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient
 A_t = total area (acres)

$C_{1,2}$ = runoff coefficient for each area land cover type
 $A_{1,2}$ = areas of land cover types (acres)

Composite Runoff Coefficients for Existing Subdivision Conditions					
Catchment Area	Total Basin	Forest	Lawn	Gravel	Cc
Size (Acres)	2.26	0.23	0.45	1.58	0.62
Runoff Coefficient ²	n/a	0.10	0.25	0.8	

Composite Runoff Coefficients for Developed Subdivision Conditions					
Catchment Area	Total Basin	Roof	Pavement	Lawn	Cc
Size (Acres)	2.26	0.41	0.70	1.15	0.57
Runoff Coefficient ³	n/a	0.9	0.9	0.25	

² Runoff coefficients utilized for Composite Runoff Coefficient calculations were obtain from Table D-4 for a 25-year Return Period (2010 CBJ Manual of Stormwater Best Management Practices).

³ Runoff coefficients utilized for Composite Runoff Coefficient calculations were obtain from Table D-4 for a 25-year Return Period (2010 CBJ Manual of Stormwater Best Management Practices).



SEP 19 2019

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Composite Runoff Coefficients for Existing 24" CMP Culvert					
Catchment Area	Total Basin	Forest	Lawn	Pavement/Roof	Cc
Size (Acres)	2.31	0.88	0.25	1.12	0.502
Runoff Coefficient ⁴	n/a	0.10	0.25	0.9	

Rainfall Intensity (I):

The peak rainfall intensity is determined by calculating the time of concentration from the most hydraulically distant location in the drainage basin and applying the duration to the annual exceedance probability.

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Time of Concentration Existing Sub. Conditions	
Flow Segments	T_n (min)
Gravel (nearly bare ground)	1.2
Forest	2.1
T_c	3.3

Time of Concentration Developed Sub. Conditions	
Flow Segments	T_n (min)
Lawn	1.3
Paved Area/Roof	0.4
T_c	1.7

Time of Concentration Existing 24" CMP Culvert	
Flow Segments	T_n (min)
Sheet Flow	37.5
Shallow Concentrated Flow	78.0
Open Channel	0.5
T_c	116.0

⁴ Runoff coefficients utilized for Composite Runoff Coefficient calculations were obtain from Table D-4 for a 25-year Return Period (2010 CBJ Manual of Stormwater Best Management Practices).



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Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For storm sewer feeder lines, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas.

Existing Conditions	Design Return Period
Tc Duration 10 (min)	25-year
Intensity (in/hr) =	2.03

Developed Conditions	Design Return Period
Tc Duration 10 (min)	25-year
Intensity (in/hr) =	2.03

Existing 24" CMP Culvert	Design Return Period
Tc Duration 120 (min)	25-year
Intensity (in/hr) =	0.534

Anticipated Site Runoff (Q):

Using the Rational Method equation and site data listed above, the amount of stormwater runoff per catchment area can be determined:

Catchment Area	Cc	I	A	Q (cfs)
Existing Conditions	0.62	2.03	2.26	2.84
Developed Conditions	0.57	2.03	2.26	2.61
Existing 24" CMP Culvert	0.50	0.53	2.31	0.62

Conveyance/Discharge Structure Capacities:

The following equations were used to calculate the capacity of an existing AK DOT & PF owned drainage system on Glacier Highway at the bottom of Hooter Lane and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$A = \pi \times \frac{d^2}{4}$$

A = cross sectional area in ft^2

d = diameter in ft

$$R = \frac{d}{4}$$

R = hydraulic radius

$$S = \frac{\Delta z}{L}$$

S = slope

Δz = change in elevation

L = length of pipe in ft



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$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec K = coefficient for English units (1.486) n = Manning's coefficient of roughness⁵

Existing Glacier Highway 24" CMP Cross Culvert:

Existing 24" CMP Cross Culvert; Inlet Invert = 24.33', Outlet Invert = 24', Length = 46', n = 0.028. The Manning's n value of 0.028 was determined by the pipe type (Annular Corrugated Metal Pipe: plain or fully coated), all other values obtained from the attached DOT & PF Salmon Creek to Vanderbilt Hill Storm Drain System Summary (Project No. 70469; Sheets 10, 27, and 83).

$$A_{culvert} = 3.14 \times \frac{2^2}{4} = 3.14 ft^2$$

$$R = \frac{2}{4} = 0.5 ft$$

$$S = \frac{24.33 - 24}{46} = 0.717\%$$

$$Q_{culvert} = \frac{1.486}{0.028} \times 3.14 \times 0.5^{0.67} \times 0.00717^{0.5} = 8.87 ft^3/sec$$

Summary:

Drainage Basin	Post Development Runoff Q (cfs)	Capacity Check	Flow Capacity Q (cfs)	Conveyance/Discharge Structures
Existing 24" CMP Culvert	0.62	<	8.87	Existing 24" CMP Culvert
Existing 24" CMP Culvert + Proposed Subdivision	3.23	<	8.87	To Be Determined

The results show that the development will result in a reduction in overall runoff from the developed area. This is due to replacing large portions of the existing gravel with lawn, which will absorb and slow the runoff more effectively than in the existing conditions. Current discharge from the area to be developed enters existing drainage channels not currently eased for upland drainage. As a result, runoff from the proposed development will be conveyed to developable ROW of Hooter lane and directed into the existing drainage system on Glacier Hwy. Our analysis shows that there is more than enough capacity in the existing Glacier Hwy. drainage system to handle increased flows from the proposed development.

⁵ Manning's "n" values for culverts obtained from Table 5-3, Page 5-5, of the CBJ Stormwater Manual.



Respectfully,

Lucas Chambers

Lucas Chambers, P.E.
Principal Engineer – proHNS LLC Juneau

Attachments: Drainage Overview Graphic

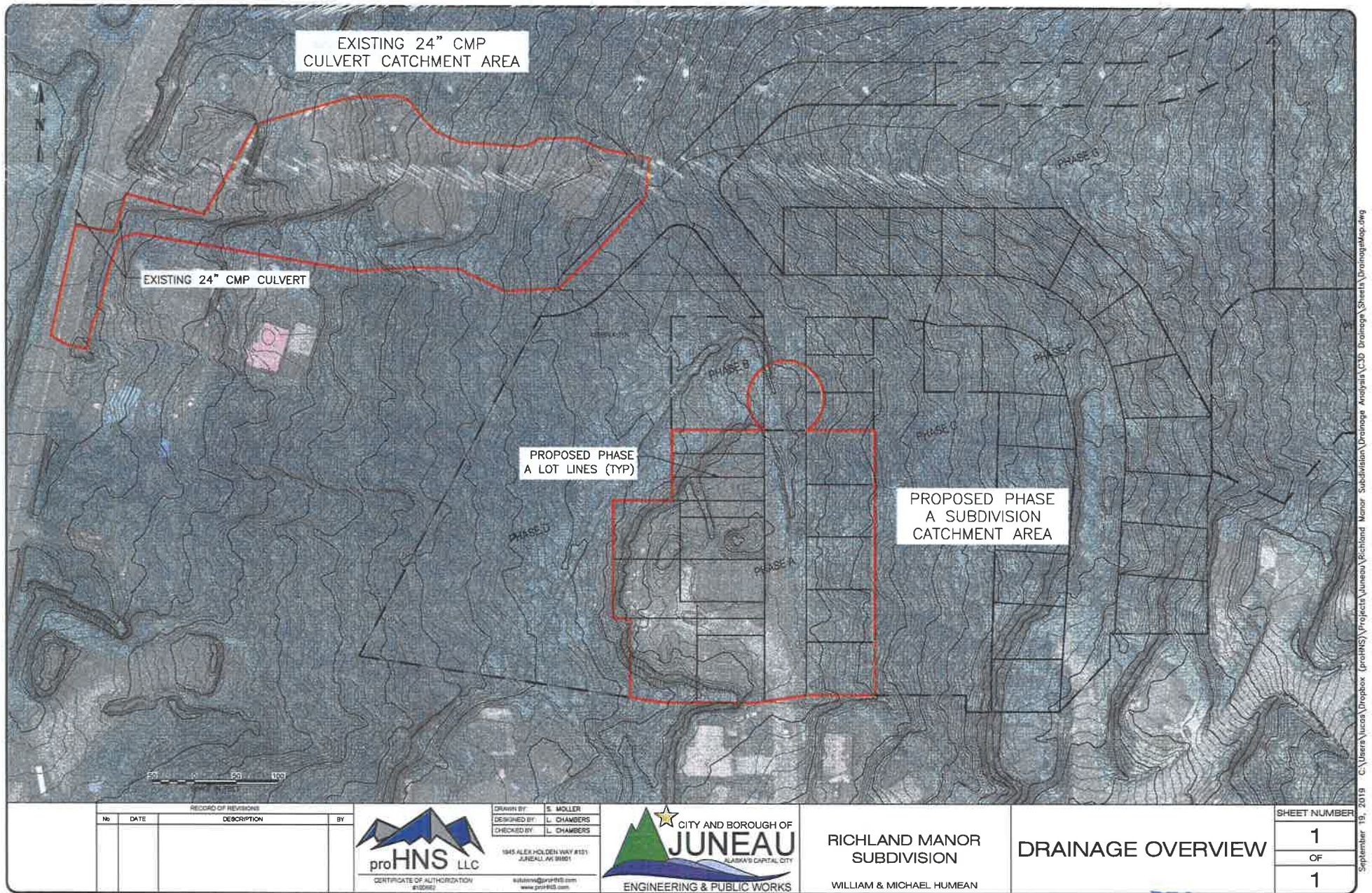
Glacier Hwy As-built Plans

NOAA Precipitation Frequency Data

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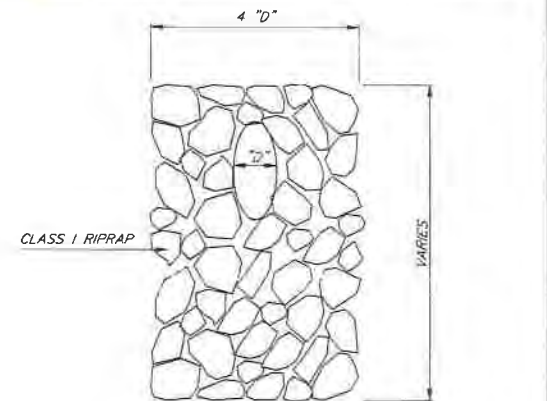
SEP 19 2019

PERMIT CENTER/CDD

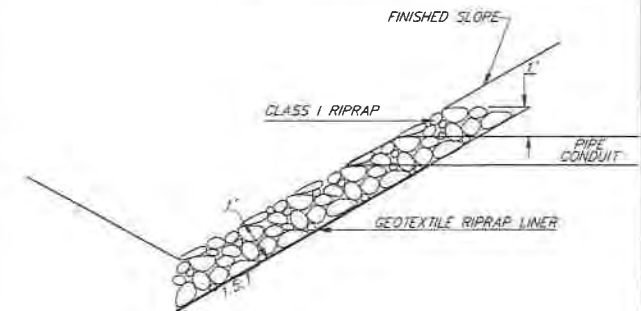
STORM DRAIN SYSTEM SUMMARY														
STRUCTURE NO.	INLET TYPE	LOCATION		TOP OF GRADE ELEVATION	INVERT ELEVATION	REMARKS	PIPE NO.	DESIGN LENGTH	PIPE SIZE	FROM		TO		REMARKS
		STATION	OFFSET							STRUCTURE NO.	INVERT ELEVATION	STRUCTURE NO.	INVERT ELEVATION	
S-1	A	140+34	RT	21.77	23.52	26.22	P-1	0+14'	18"	S-1	23.52	OUTFALL		SPILLWAY
S-2	A	142+18	LT	26.11	21.36	19.22	P-2	0+14'	24"	S-2	22.86	OUTFALL		SPILLWAY
S-3	A	144+35	LT	27.23	22.48	20.76	P-3	56'	24"	S-3	23.98	OUTFALL		
S-4	A	146+58	LT	28.66	24.41		P-4	10'	18"	S-4	25.91	OUTFALL		
S-5	A	148+38	LT	30.48	26.23	26.23	P-5	24+15'	18"	S-5	26+24.73	OUTFALL	26.73	
S-6	A	148+39	RT	30.67	25.92	25.97	P-6	0+14'	24"	S-6	27.42	OUTFALL	27.32	
S-7	A	148+72	RT	30.26	25.95		P-7	10'	24"	S-7	27.22	OUTFALL	28.25	DELETED
S-8	FIELD	"W" 10+28	LT	29.00	25.60		P-8	0+14'	24"	S-8	26.20	OUTFALL		
S-9	FIELD	"W" 11+65	LT	48.00	44.30		P-9	1+38'	18"	S-9	45.80	OUTFALL	27.42	
S-10	A	152+00	LT	30.43	26.18	26.18	P-10	2+6'	24"	S-10	26+68	OUTFALL	46.00	SPILLWAY
S-11	A	153+16	LT	29.96	25.71	25.71	P-11	0+14'	18"	S-11	26+21	OUTFALL		SPILLWAY
S-12	A	154+93	RT	29.85	25.40		P-12	20+35'	24"	S-12	26+69	OUTFALL	26.40	
S-13	A	154+93	LT	29.85	24.70	24.66	P-13	0+14'	24"	S-13	26+50	OUTFALL	26.30	SPILLWAY
S-14	A	156+42	RT	20.50	26.25	25.17	P-14	0+14'	18"	S-14	27+41	OUTFALL	27.00	
S-15	A	158+05	LT	30.86	26.61		P-15	0+14'	18"	S-15	28.11	OUTFALL	27.90	SPILLWAY
S-16	A	160+70	RT	31.08	26.83	26.24	P-16	0+14'	18"	S-16	28.33	OUTFALL	26.90	SPILLWAY
S-17	A	161+88	LT	30.46	26.21	25.24	P-17	0+14'	18"	S-17	26+71	OUTFALL	26.50	SPILLWAY
S-18	A	163+88	RT	29.96	25.21		P-18	48'	24"	S-18	26.71	OUTFALL	26.00	SPILLWAY
S-19	A	165+29	LT	29.42	25.17	24.17	P-19	0+14'	18"	S-19	28.00	OUTFALL	28.40	
S-20	A	167+02	LT	29.83	25.58	24.68	P-20	20+15'	18"	S-20	25+66	OUTFALL	26.30	SPILLWAY
S-21	A	169+48	LT	30.52	26.27	25.27	P-21	4+10'	18"	S-21	26+08	OUTFALL	26.70	
S-22	A	172+04	LT	29.70	25.45	24.97	P-22	26+9'	18"	S-22	26+77	OUTFALL	26.50	SPILLWAY
S-23	A	173+13	LT	29.70	24.60	23.60	P-23	4+9'	18"	S-23	26+95	OUTFALL	26.70	
S-24	A	173+48	RT	29.71	24.96		P-24	0+14'	24"	S-24	25+60	OUTFALL	24.70	
S-25	A	174+02	LT	29.63	25.38	24.38	P-25	38'	24"	S-25	26.46	OUTFALL	26.20	
S-26	A	175+52	RT	30.17	25.42		P-26	0+14'	18"	S-26	26.92	OUTFALL	26.60	SPILLWAY
S-27	A	175+52	LT	30.17	25.15	24.15	P-27	36'	24"	S-27	26.92	OUTFALL	26.75	SPILLWAY
S-28	A	177+98	RT	30.07	25.32	25.04	P-28	0+14'	24"	S-28	25+65	OUTFALL	26.30	
S-28A	A	"B" 10+34	RT	28.66	23.70	24.40	P-28A	0+14'	24"	S-28A	26.94	OUTFALL	26.50	SPILLWAY
S-28B	A	"B" 10+34	LT	28.49	23.60	24.50	P-28B	0+14'	24"	S-28B	25.90	OUTFALL	25.40	
S-29	A	180+85	RT	28.56	23.81	23.81	P-29	10'	24"	S-29	25+30	OUTFALL	25.66	
S-30	B	182+36	RT	29.13	22.40		P-29A	10'	24"	S-30	25.30	OUTFALL	25.25	
S-31	A	185+00	RT	30.96	26.21		P-30	0+14'	24"	S-31	25.31	OUTFALL	19.20	
S-32	A	185+88	RT	31.29	27.04	26.04	P-31	0+14'	24"	S-32	25.90	OUTFALL	24.00	SPILLWAY
S-33	A	182+22	LT	31.35	27.10	26.10	P-32	0+14'	18"	S-33	27.71	OUTFALL	26.70	SPILLWAY
S-34	A	188+58	LT	31.54	27.29	26.29	P-33	0+14'	18"	S-34	27.66	OUTFALL	27.30	SPILLWAY
S-35	A	191+00	LT	31.07	26.22	26.22	P-34	0+14'	18"	S-35	27.79	OUTFALL	27.50	SPILLWAY
S-36	A	192+72	LT	30.03	25.78	24.78	P-35	26+5'	18"	S-36	26.77	OUTFALL	26.50	
S-37	A	194+39	RT	31.11	26.16		P-36	46+40'	24"	S-37	30.00	OUTFALL	28.87	
S-38	A	194+39	LT	31.11	26.06	26.06	P-37	18'	24"	S-38	26+28	OUTFALL	26.00	SPILLWAY
S-39	A	198+00	RT	30.86	26.11		P-38	0+14'	18"	S-39	27.86	OUTFALL	27.31	
S-40	A	198+00	LT	30.86	25.61	24.81	P-39	36'	24"	S-40	26.56	OUTFALL	26.36	SPILLWAY
S-41	A	200+70	RT	29.52	24.87		P-40	0+14'	18"	S-41	26+21	OUTFALL	27.43	
S-42	A	200+70	LT	29.52	24.67	23.67	P-41	0+14'	24"	S-42	26+31	OUTFALL	26.00	
S-43	A	201+02	LT	29.60	25.14	DELETED	P-42	36'	24"	S-43	26.37	OUTFALL	26.20	
S-44	A	203+13	RT	32.93	27.88	24.88	P-43	0+14'	18"	S-44	25+17	OUTFALL	25.00	SPILLWAY
S-45	A	203+13	LT	32.93	27.88		P-44	0+14'	18"	S-45	27.00	OUTFALL	26.50	
S-44A	A	"C" 10+43	RT	33.26	29.01	1+30	P-45	36'	24"	S-46	28.68	OUTFALL	29.48	SPILLWAY
S-46A	A	"C" 10+50	LT	33.38	29.13		P-46	20'	18"	S-47	28.68	OUTFALL	28.00	SPILLWAY
S-46	A	204+18	RT	36.40	31.65		P-47A	12'	18"	S-48	29.80	OUTFALL	30.00	
S-47	A	206+50	RT	45.64	41.39		P-47B	26+5'	18"	S-49	30.43	OUTFALL	30.52	SPILLWAY
S-48	A	212+60	RT	45.60	41.35		P-48	0+14'	24"	S-50	30.76	OUTFALL	30.32	
S-49	A	216+00	RT	32.80	28.55		P-49	0+14'	24"	S-51	31.15	OUTFALL	31.65	SPILLWAY
S-50	A	217+47	LT	29.33	25.00	34.00	P-50	0+14'	18"	S-52	33.15	OUTFALL	33.65	
S-51	A	218+53	RT	27.58	22.83		P-51	10'	18"	S-53	35.15	OUTFALL	35.65	
S-52	A	220+65	RT	28.09	21.34		P-52	0+14'	18"	S-54	37.00	OUTFALL	37.50	
S-53	A	223+66	RT	24.66	21.02	24.28	P-53	0+14'	18"	S-55	38.00	OUTFALL	38.50	
S-54	A	223+26	LT	24.71	20.38	24.65	P-54	0+14'	18"	S-56	39.00	OUTFALL	39.50	
TOTALS: 54-A 1-B 2-F													TOTALS: 18'- 515' 24'- 1330'	

TOTALS: 54 - A 1 - B 2 - F

TOTALS: 18" - 634' 24" - 1.05%



SPILLWAY PLAN



SPILLWAY SECTION

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BY:	DATE:	DESCRIPTION OF CHANGE:

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

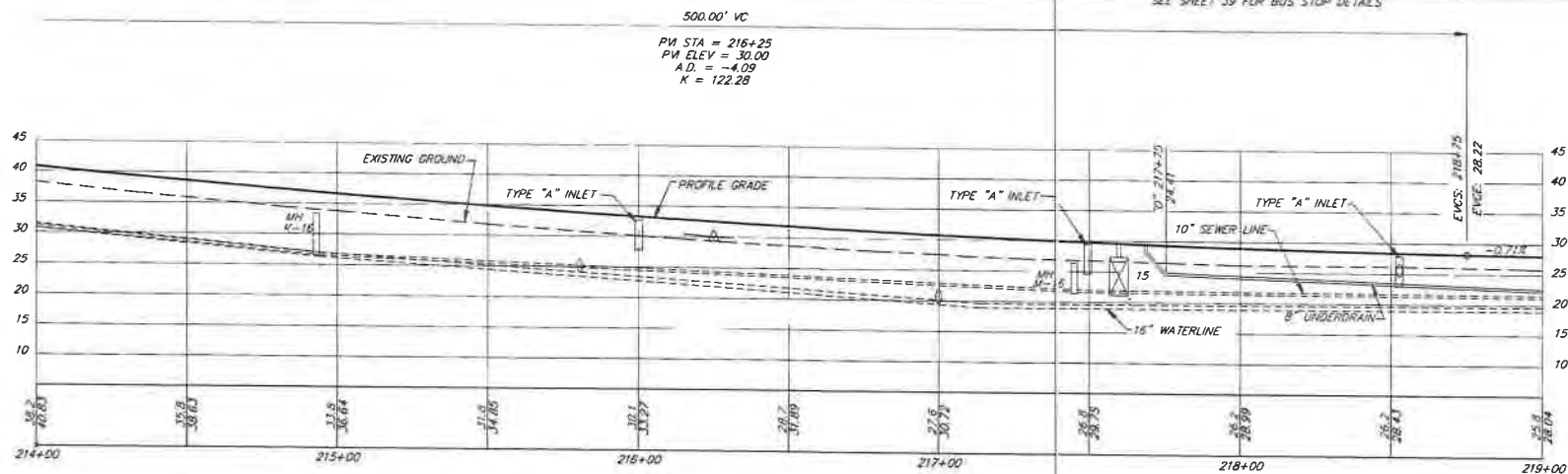
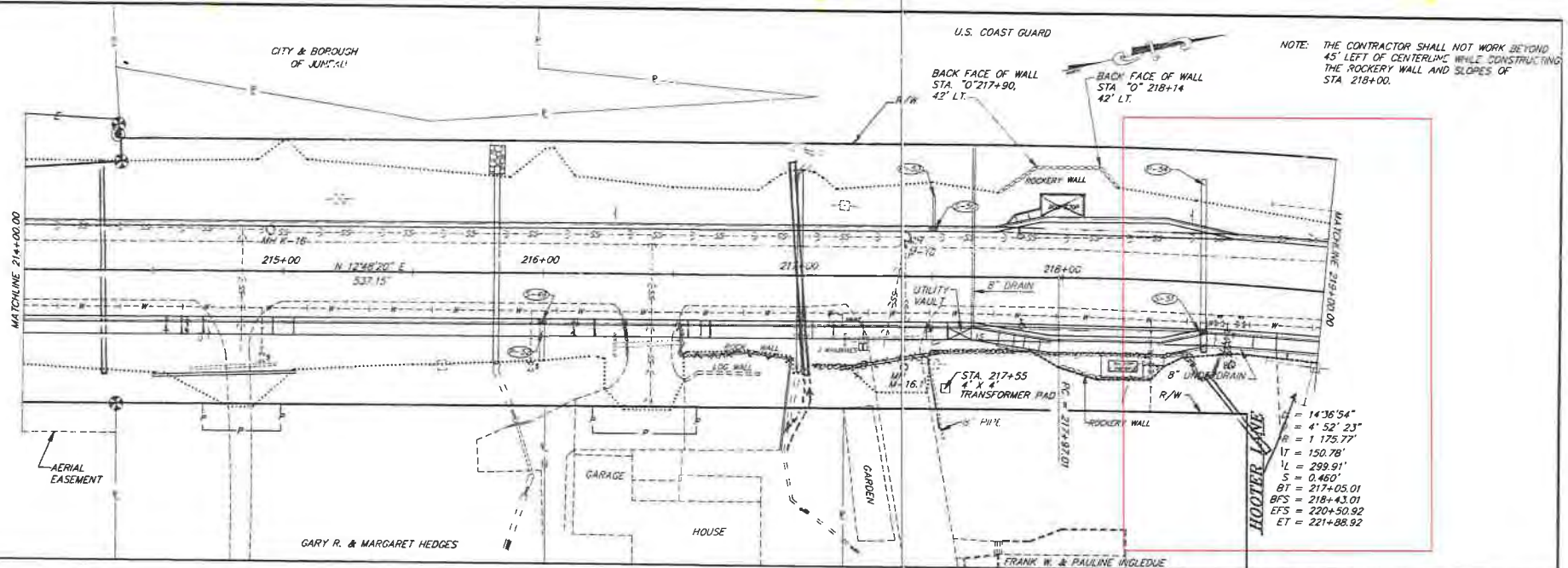
JUNEAU

SALMON CREEK TO VANDERBILT HILL
PROJECT NO. RS-M-0955(8) (70469)
STORM DRAIN SYSTEM SUMMARY

ALASKA

DESIGNED BY:	D. KROMAREK	PROJECT NO.	70469
DRAWN BY:	C. ANDERSON	DATE:	6/1993
CHECKED BY:	P. BEDNAROWICZ	SHEET	10 OF 85





DATE	DESCRIPTION OF CHANGE

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU

SALMON CREEK TO VANDERBILT HILL
PROJECT NO. RS-M-0955(8) (70469)
STA. "O" 214+00.00 TO STA. "O" 219+00.00

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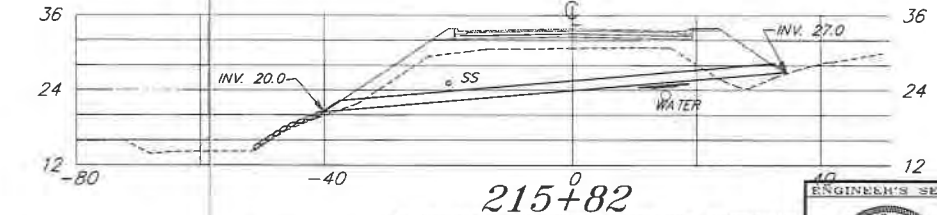
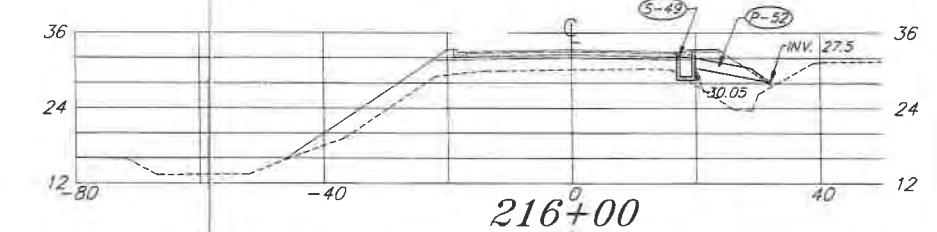
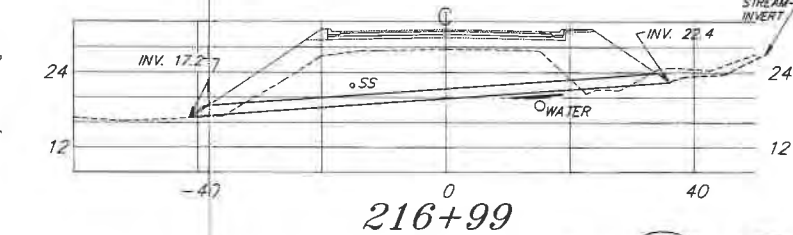
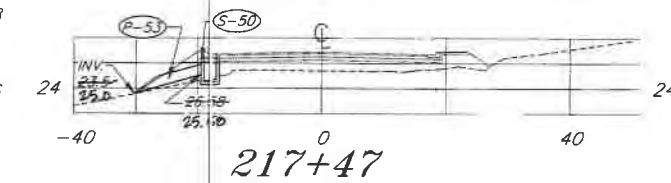
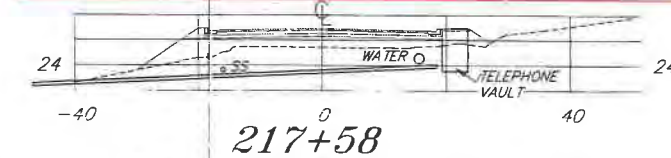
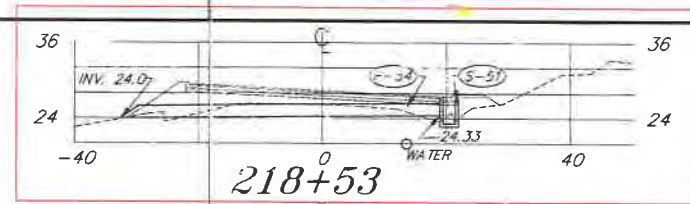
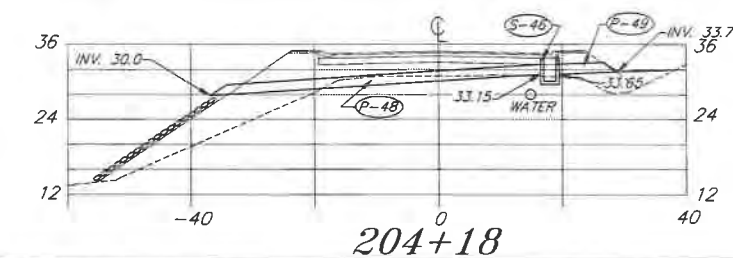
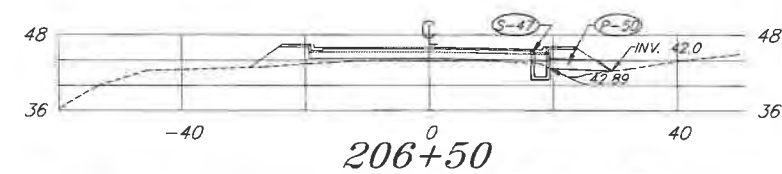
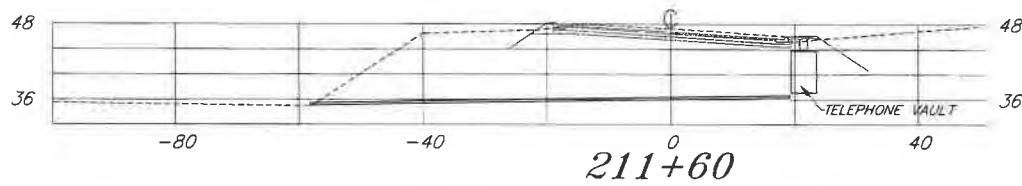
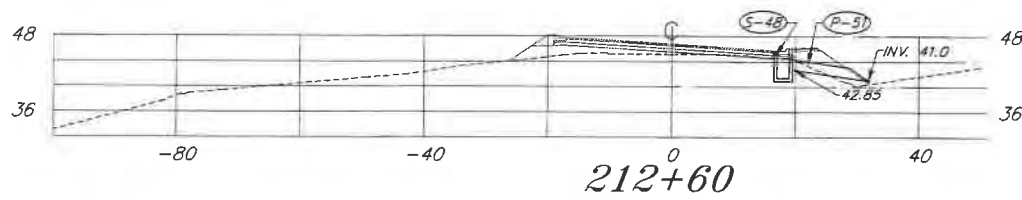
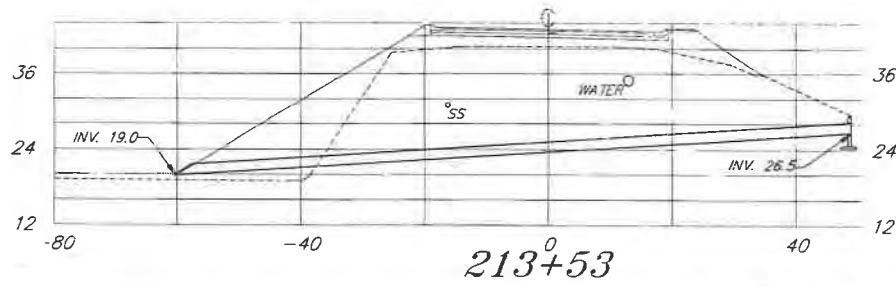
ALASKA
DESIGNED BY: D. KROMARER
DRAWN BY: C. ANDERSON
CHECKED BY: P. BEDNAROWICZ
PROJECT NO. 70469
DATE: 6/1993
SHEET 27 OF 85



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DATE	DESCRIPTION OF CHANGE

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

JUNEAU
SALMON CREEK TO VANDERBILT HILL
PROJECT NO. RS-M-0950(8) 70/69
PIPE CROSS SECTIONS-204+18 TO 218+53

ALASKA
DESIGNED BY: D. KROMAREK
DRAWN BY: C. ANDERSON
CHECKED BY: P. BECKWITH
PROJECT NO. 70469
DATE: 6/1993
SHEET 82 OF 85



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Precipitation Frequency Data Server



NOAA Atlas 14, Volume 7, Version 2
Location name: Juneau, Alaska, USA*
Latitude: 58.3454°, Longitude: -134.4905°
Elevation: 101.1 ft**
* source: ESRI Maps
** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypaluk, Dale Unruh, Michael Yekta, Erica Betts, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

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PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.57 (0.27-1.99)	1.84 (1.16-2.38)	2.24 (1.75-2.95)	2.58 (1.98-3.44)	3.04 (2.27-4.15)	3.38 (2.48-4.72)	3.74 (2.70-5.30)	4.20 (2.98-6.06)	4.80 (3.32-7.08)	5.26 (3.59-7.88)
10-min	1.06 (0.852-1.34)	1.24 (0.984-1.59)	1.51 (1.17-1.98)	1.73 (1.32-2.31)	2.03 (1.52-2.78)	2.27 (1.67-3.17)	2.51 (1.81-3.55)	2.82 (2.00-4.07)	3.22 (2.23-4.75)	3.53 (2.41-5.29)
15-min	0.824 (0.664-1.04)	0.964 (0.768-1.24)	1.17 (0.912-1.54)	1.35 (1.03-1.80)	1.59 (1.19-2.17)	1.77 (1.30-2.47)	1.96 (1.41-2.78)	2.20 (1.56-3.16)	2.52 (1.74-3.71)	2.76 (1.88-4.13)
30-min	0.546 (0.440-0.692)	0.640 (0.510-0.822)	0.778 (0.606-1.02)	0.894 (0.684-1.19)	1.05 (0.788-1.44)	1.18 (0.864-1.64)	1.30 (0.938-1.84)	1.46 (1.03-2.10)	1.67 (1.16-2.46)	1.83 (1.25-2.74)
60-min	0.374 (0.302-0.474)	0.438 (0.349-0.563)	0.533 (0.415-0.700)	0.613 (0.469-0.819)	0.722 (0.539-0.988)	0.806 (0.592-1.12)	0.890 (0.642-1.26)	0.999 (0.708-1.44)	1.14 (0.792-1.69)	1.25 (0.853-1.88)
2-hr	0.276 (0.222-0.350)	0.324 (0.258-0.416)	0.394 (0.307-0.518)	0.453 (0.348-0.606)	0.534 (0.399-0.730)	0.596 (0.438-0.830)	0.658 (0.474-0.932)	0.738 (0.523-1.06)	0.844 (0.586-1.25)	0.925 (0.630-1.39)
3-hr	0.243 (0.196-0.308)	0.284 (0.226-0.368)	0.347 (0.270-0.455)	0.398 (0.305-0.532)	0.469 (0.351-0.642)	0.523 (0.384-0.729)	0.577 (0.417-0.818)	0.648 (0.460-0.935)	0.742 (0.514-1.09)	0.813 (0.554-1.22)
6-hr	0.195 (0.158-0.248)	0.229 (0.182-0.294)	0.279 (0.217-0.366)	0.320 (0.245-0.428)	0.377 (0.282-0.516)	0.421 (0.309-0.586)	0.465 (0.335-0.659)	0.522 (0.370-0.753)	0.597 (0.414-0.881)	0.654 (0.446-0.981)
12-hr	0.146 (0.118-0.185)	0.171 (0.136-0.220)	0.208 (0.162-0.273)	0.238 (0.182-0.318)	0.280 (0.210-0.384)	0.314 (0.231-0.438)	0.349 (0.252-0.495)	0.393 (0.278-0.566)	0.450 (0.312-0.664)	0.493 (0.338-0.740)
24-hr	0.106 (0.086-0.118)	0.124 (0.111-0.141)	0.150 (0.131-0.173)	0.171 (0.147-0.201)	0.201 (0.169-0.242)	0.226 (0.186-0.277)	0.252 (0.204-0.314)	0.283 (0.225-0.359)	0.324 (0.252-0.420)	0.354 (0.272-0.467)
2-day	0.072 (0.065-0.081)	0.084 (0.075-0.095)	0.100 (0.087-0.116)	0.113 (0.097-0.133)	0.131 (0.110-0.158)	0.146 (0.120-0.179)	0.161 (0.131-0.201)	0.179 (0.143-0.227)	0.202 (0.158-0.263)	0.220 (0.169-0.290)
3-day	0.057 (0.051-0.064)	0.066 (0.059-0.074)	0.078 (0.068-0.090)	0.088 (0.075-0.103)	0.101 (0.085-0.122)	0.112 (0.092-0.137)	0.123 (0.099-0.153)	0.135 (0.108-0.171)	0.152 (0.118-0.197)	0.164 (0.126-0.216)
4-day	0.048 (0.044-0.054)	0.055 (0.049-0.063)	0.065 (0.057-0.076)	0.073 (0.063-0.086)	0.084 (0.071-0.101)	0.093 (0.076-0.114)	0.101 (0.082-0.126)	0.111 (0.089-0.141)	0.124 (0.097-0.161)	0.134 (0.103-0.177)
7-day	0.036 (0.032-0.040)	0.041 (0.036-0.046)	0.048 (0.042-0.055)	0.053 (0.046-0.063)	0.061 (0.051-0.073)	0.067 (0.055-0.082)	0.073 (0.059-0.091)	0.080 (0.064-0.101)	0.089 (0.069-0.115)	0.096 (0.074-0.127)
10-day	0.029 (0.027-0.033)	0.034 (0.030-0.038)	0.039 (0.034-0.046)	0.044 (0.038-0.052)	0.050 (0.042-0.060)	0.055 (0.045-0.067)	0.060 (0.048-0.074)	0.065 (0.052-0.083)	0.072 (0.057-0.094)	0.078 (0.060-0.103)
20-day	0.022 (0.020-0.025)	0.025 (0.022-0.029)	0.029 (0.026-0.034)	0.032 (0.028-0.038)	0.037 (0.031-0.044)	0.040 (0.033-0.049)	0.043 (0.035-0.054)	0.047 (0.037-0.059)	0.051 (0.040-0.067)	0.055 (0.042-0.073)
30-day	0.019 (0.018-0.022)	0.022 (0.020-0.025)	0.026 (0.022-0.030)	0.028 (0.024-0.033)	0.032 (0.027-0.038)	0.035 (0.028-0.042)	0.037 (0.030-0.046)	0.040 (0.032-0.051)	0.044 (0.034-0.057)	0.047 (0.036-0.061)
45-day	0.017 (0.015-0.019)	0.020 (0.017-0.022)	0.023 (0.020-0.026)	0.025 (0.021-0.029)	0.028 (0.023-0.034)	0.030 (0.025-0.037)	0.032 (0.026-0.040)	0.034 (0.027-0.044)	0.037 (0.029-0.048)	0.039 (0.030-0.052)
60-day	0.015 (0.014-0.017)	0.018 (0.016-0.020)	0.020 (0.018-0.024)	0.022 (0.019-0.026)	0.025 (0.021-0.030)	0.027 (0.022-0.033)	0.028 (0.023-0.035)	0.030 (0.024-0.038)	0.032 (0.025-0.041)	0.033 (0.026-0.044)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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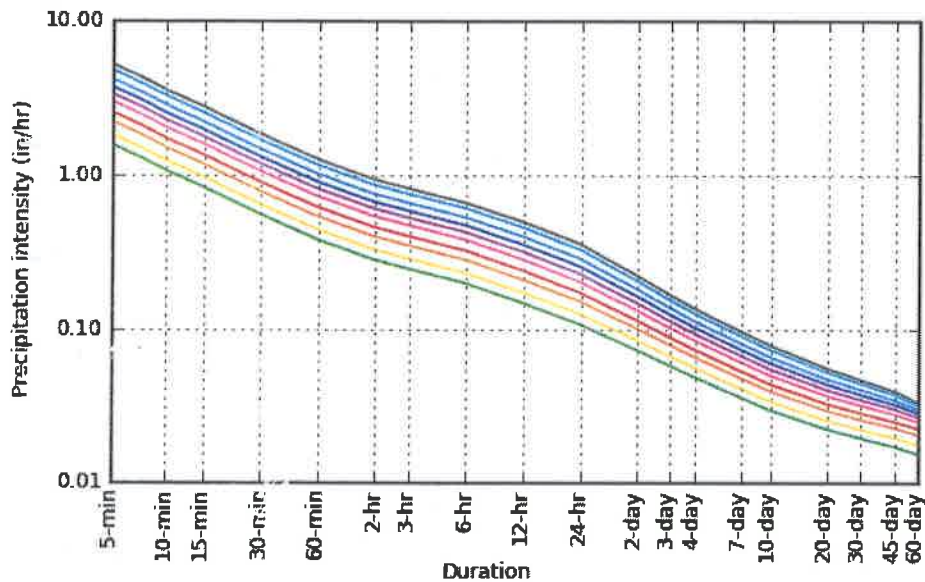
PF graphical

6/14/2019

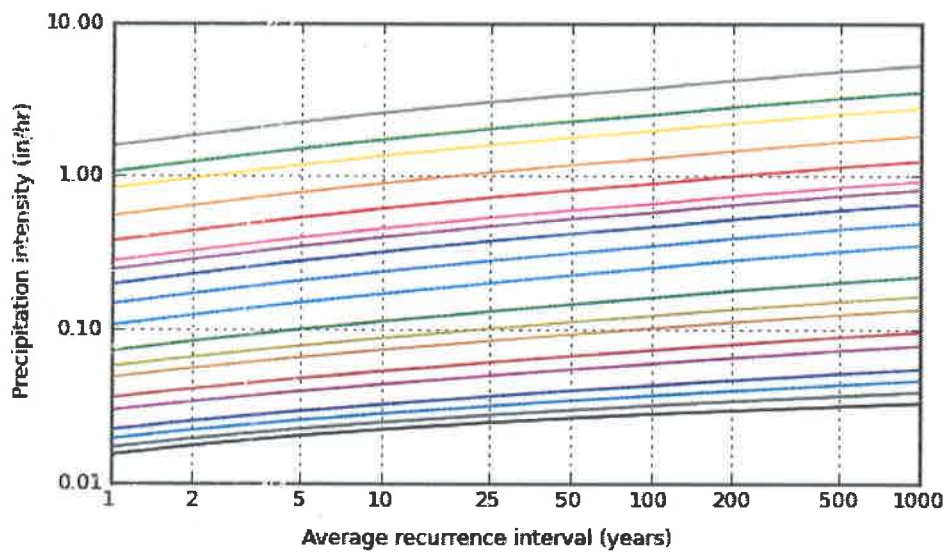
Precipitation Frequency Data Server

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PDS-based intensity-duration-frequency (IDF) curves
 Latitude: 58.3454°, Longitude: -134.4905°



Average recurrence interval (years)	
1	2
5	10
25	50
100	200
500	1000



Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

NOAA Atlas 14, Volume 7, Version 2

Created (GMT): Fri Jun 14 16:56:22 2019

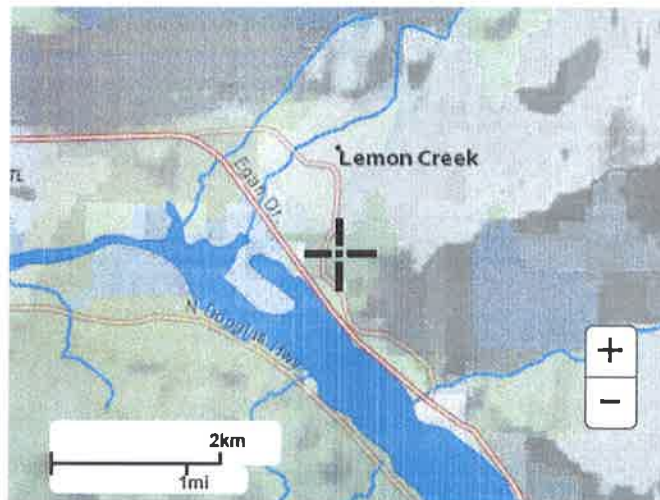
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Maps & aerals

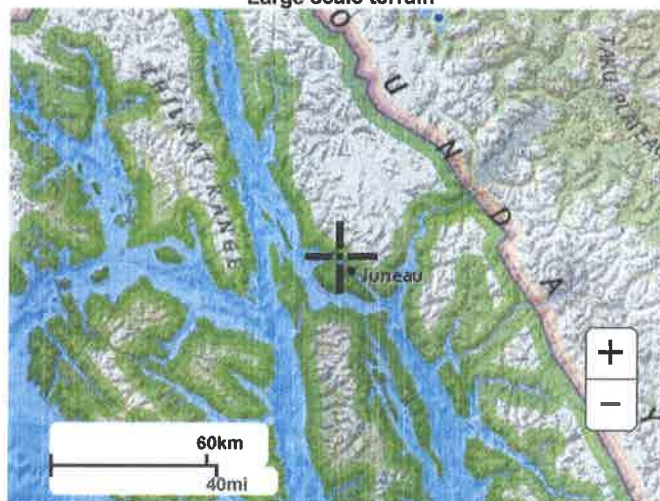
Small scale terrain

6/14/2019

Precipitation Frequency Data Server



Large scale terrain



Large scale map

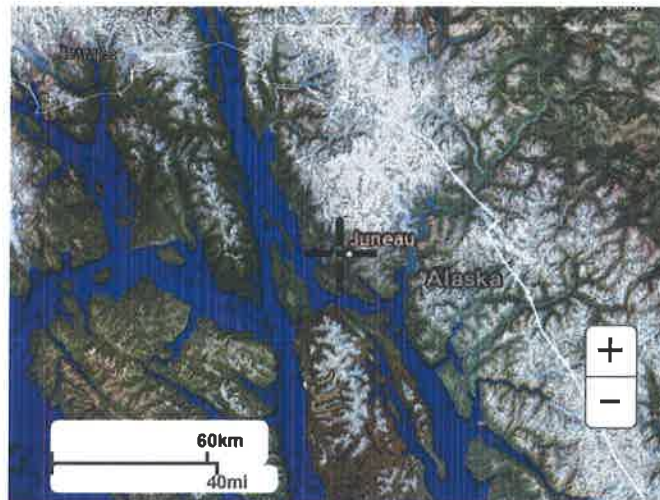


Large scale aerial

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Technical Memorandum



Carson Dorn, Inc.

Date: 12/11/2018

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Juneau, AK 99801
Tel: 907-723-4717
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To: Bill Heumann

From: Jim Dorn

Reference:

Subject: Mountainside Estates
High Elevation Water System
Evaluation

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PURPOSE OF TECH MEMO

The purpose of this technical memorandum is to evaluate the water booster pump station and water distribution system piping serving the high elevation water system in the Mountainside Estates Subdivision with regards to the possibility of constructing new residences off the end of Hillcrest Avenue, Mountainside Drive and Robbie Road.

SUMMARY OF FINDINGS AND CONCLUSIONS

- The existing Mountainside Estates water booster pump station has 3 – 10 hp pumps each of which is designed to pump 200 gpm. The total design capacity of the pump station is therefore 600 gpm.
- The original design intent for the existing Mountainside Estates water booster pump station was to have sufficient capacity to meet a peak hourly domestic water demand of 100 gpm while simultaneously providing 500 gpm for fire flows.
- 18 AAC 80.205 (a) (5) of the Alaska Department of Environmental Conservation's Drinking Water Regulations requires "...that at least 20 psi of service pressure at the highest elevation or pressure zone of a distribution main be maintained under peak design demand."
- The water pressure provided by the Mountainside Estates water booster pump station is 95 psi. The lowest elevation in the service area is at the end of Hillcrest Avenue and it has a static water pressure of about 96 psi. The highest elevation in the service area is at the upper end of Ling Court and it has the lowest static water pressure in the Mountainside Estates subdivision of about 42 psi.

- Water demand in the high elevation water system in 2018 has averaged about 16,400 gpd. This is equal to about 140 gpd per residence.
- Greatest water demand was in July. In July the daily demand was 20,423 gpd. The CBJ Water Department reviewed the historic water demand trend charts for July, 2018 and peak flows recorded during this period were consistently in the 50 to 60 gpm range.
- There are about 120 residences currently served by the Mountainside Estates Water Booster Pump Station. With current Peak Hourly Flows of 60 gpm, the average per residence Peak Hourly Flow is 0.5 gpm (60 gpm peak hourly flow/120 residential units = 0.5 gpm peak hourly flow/residential unit).
- With the pump station designed to provide peak hourly domestic water flows of 100 gpm, and 60 gpm is currently being used to meet Peak Hourly Domestic demand, there remains 40 gpm of pump station capacity available to meet peak hourly water demands from future residential development. This preserves 500 gpm of pump station capacity for fire flows.
- With average peak hourly flow per residence in Mountainside Estates of 0.5 gpm, if an additional 80 residential units are constructed it would result in a projected 40 gpm increase in the peak hourly flow (80 residential units x 0.5 gpm peak hourly flow/residential unit = 40 gpm). This uses the remaining domestic peak hourly water flow design capacity of the Mountainside Estates pump station.
- Using a computer model of the Mountainside Estates water system, water pressure in the water main at the upper end of Ling Court (the area with the lowest water system pressure) is projected to be as follows for the following conditions:
 - Static Pressure No Water Demand = 41.79 psi
 - 60 gpm Existing Peak Hourly Water Demand = 41.69 psi
 - 100 gpm Future Peak Hourly Water Demand = 41.56 psi
 - 60 gpm Existing Peak Hourly and 500 gpm Fire @ Robbie Rd. = 31.59 psi
 - 100 gpm Future Peak Hourly and 500 gpm Fire @ Robbie Rd. = 30.70 psi
- It appears that an additional 80 residential units could be constructed in the Mountainside Estates high elevation water zone without exceeding the existing pump station design capacity of 100 gpm for peak hourly domestic water demand or reducing pressures in the distribution main to below 20 psi. This also preserves additional pump station capacity of 500 gpm for fire flows without reducing water pressures in the water main to below 20 psi.

MOUNTAINSIDE ESTATES HIGH ELEVATION WATER SYSTEM BACKGROUND

The higher elevations of the Mountainside Estates Subdivision are at an elevation that is too high for it to be served by the low elevation water system which serves much of Juneau. High elevation developments in Juneau, like Mountainside Estates, are typically supplied water using water booster pumps. In some instances, these water booster pumps fill water storage reservoirs that provide higher elevation areas with adequate water pressure and flows using

water stored in the reservoirs. In other instances, the pumps are constant pressure pumps that maintain water pressure in higher elevation areas by varying pump speed to ensure a constant pressure is provided to residents under varying water demand conditions.

The Mountainside Estate Pump Station, located at the intersection of Craig Street and Hillcrest Avenue is a constant pressure pump station that was constructed in 1994. It has three 10 hp pumps each capable of producing 200 gpm. Two of the pumps are controlled by variable frequency drives (VFDs) that adjust pump speed to maintain a constant output pressure of 95 psi at the pump station. For the Mountainside Estates pump station one of the VFD controlled pumps typically operates continuously to maintain water pressure and other is a standby in case water demand exceeds the 200 gpm capacity of a single pump. The two VFD controlled pumps alternate operation each day. The third pump is a constant speed pump and it only operates when the two VFD controlled pumps are unable to maintain a pump station output pressure of 95 psi. The combined output of the three pumps is about 600 gpm. The design flow of the pump station was based on a fire flow of 500 gpm and a peak hourly domestic demand of 100 gpm. These design flows were the result of meetings and conversations between the CBJ Public Utilities, CBJ Engineering and CBJ Fire Departments in 1994.



Mountainside Estates Pump Station

The desired static water pressure (the no flow condition) in water mains within the Juneau Areawide Water System is typically a low of 40 psi and a high of 95 psi. The Mountainside Estates pump station is at elevation 108' and its output pressure is 95 psi. The lowest elevation in the Mountainside Estates high elevation water service area is at the end of Hillcrest Avenue.

Its elevation is 106' and it has a static operating pressure of about 96 psi. The highest elevation in the Mountainside Estates high elevation water service area is at the end of Ling Court. Its elevation is 231' and it has a static operating pressure of about 42 psi. Houses that are higher or lower than the water main in the road may have pressures that are higher or lower than these calculated pressures.

The water distribution system piping in the Mountainside Estates high elevation service area consists of 8" ductile iron pipe. The service area includes:

- Hillcrest Avenue
- Mountainside Drive
- Timberline Court
- Edwin Place
- Pike Court
- Tarn Court
- Mary Ellen Way
- Robbie Road
- Laurie Lane
- Ling Court

A drive through survey of the service area counted 118 residences in the service area.

MOUNTAINSIDE ESTATES DOMESTIC WATER DEMAND EVALUATION

As discussed earlier, the Mountainside Estates pump station was designed to provide 100 gpm for peak hourly domestic water demand and 500 gpm for fire flows.

There are currently about 118 residences in the service area. Water usage is recorded at the Mountainside Estates pump station a couple of times each week (see Appendix A – 2018 Mountainside Estates Pump Station Flows). From the recorded water usage, daily usage is calculated by dividing the recorded usage by the number of days between each recording. The Average Gallons per Day per Residence is calculated by dividing the calculated daily usage by the number of residences. Average Daily Flow rate is calculated by dividing the daily usage by 1,440 minutes, the number of minutes in a day.

Water demand constantly changes throughout a day. Generally, there are peak water demand periods in the morning and again in the evening. Since water demand is not constant over a day it is typical to evaluate water systems based on the Peak Hourly Flow. Peak Hourly Flows are usually estimated to be between 3 and 4 times the Average Daily Flow. Since Mountainside is a relatively small subdivision, we have used a peaking factor of 4 to calculate the estimated peak hourly flows. Table 1 is a summary of the monthly flows for the Mountainside Estates Pump Station.

Table 1
2018 Mountainside Estates Water Flow Summary

Month	Average Daily Use (GPD)	Avg. GPD Per Residence	Avg. Daily Flow (gpm)	Estimated Peak Hourly Flow (gpm) ¹
January	16,116	136.6	11.2	44.8
February	17,460	148.0	12.1	48.5
March	14,884	126.1	10.3	41.3
April	15,135	128.3	10.5	42.0
May	15,202	128.8	10.6	42.2
June	18,932	160.4	13.1	52.6
July	20,423	173.1	14.2	56.7
August	16,931	143.5	11.8	47.0
September	14,276	121.0	9.9	39.7
October	14,515	123.0	10.1	40.3
November	16,511	139.9	11.5	45.9
December				
Annual Avg.	16,399	139.0	11.4	45.6

1. Estimated Peak Hourly Flow is 4.0 times the Average Daily Flow

The CBJ Water Department was contacted to discuss the estimates of peak hourly flow and they were able to review water flow trends at the Mountainside Estates pumps station using their areawide water monitoring system. They reported that in June and July the peak water flow rates recorded by their system for the Mountainside Estates pump station were constantly varying between 50 and 60 gpm. They believe 60 gpm is a good estimate of the current peak hourly flows at Mountainside Estates.

During Peak Hourly Water Demand periods not all residences will be using water simultaneously. Some will be using water at high rates and some will not be using any water at all. To evaluate future peak hourly water demands it is helpful to consider the current average contribution to the peak hourly flow rate per residence. Since there are about 120 current residences in Mountainside and the current peak hourly flows are estimated at 60 gpm, the average peak hourly flow per residence is 0.5 gpm (60 gpm peak hourly flow/120 residential units = 0.5 gpm peak hourly flow/residential unit).

Of the 100 gpm of the pump station capacity dedicated to meeting peak hourly domestic flows, there remains 40 gpm if 60 gpm is currently being used to meet peak hourly flows. Assuming new residences have similar peak hourly water demands as the existing residences, each new residence would add about 0.5 gpm to the peak hourly water demand. On that basis the remaining 40 gpm of pump station capacity available for meeting peak hourly domestic water demand is sufficient to meet the demand from an additional 80 homes (40 gpm/0.5 gpm per residence = 80 residences).

MOUNTAINSIDE ESTATES WATER PRESSURE EVALUATION

During periods of high water demand such as during a fire, the Alaska Department of Environmental Conservation's (ADEC) Drinking Water Regulations (18 AAC 80.205 (a) (5))

requires a minimum residual pressure of 20 psi in water distribution systems after accounting for pressure losses due to flow conditions.

In a water system, highest water pressures occur at the lower elevations and the lowest pressures occur at the highest elevations. ADEC's expectation is that water system pressures will be above 20 psi under conditions of peak hourly demand plus fire flows. A computer model of the Mountainside Estates water system was developed based on as-built record drawings of the water system layout, elevations and water line sizes. A number of different water system scenarios were evaluated including combinations of existing and future peak hourly water demand and fire flows to see what the impact would be on water system operating pressures. The fire flows were modeled with a 500 gpm fire flow at the end of Robbie Road. This is the location that will result in the greatest pressure losses under conditions of fire flow because it has the fire hydrant that is the furthest away from the pump station and at the highest elevation.

An additional scenario was modelled that included a future 1,000' extension to Robbie Road at the same elevation of the existing end of Robbie Road, to see the impact on water system pressure in any future development under fire flow conditions. Table 2 is a summary of the results from the computer modelling of the system.

TABLE 2
MOUNTAINSIDE ESTATES PROJECTED WATER PRESSURES AT SELECTED LOCATIONS
FOR DIFFERENT WATER DEMAND SCENARIOS

Water Demand Scenario	End of Hillcrest Ave.	Pump Station	Timberline Court	Pike Court	Tarn Court	Mary Ellen Way	End of Mtnside Drive	Robbie Road	Laurie Lane	Ling Court
Static Pressures (No Flow) (95 psi at Pump Station)	95.95	95.09	74.29	60.42	50.89	43.96	68.22	50.89	44.39	41.79
Peak Hourly Flow 60 gpm (Existing 118 Residences)	95.95	95.09	74.23	60.36	50.82	43.87	68.12	50.79	44.29	41.69
Peak Hourly Flow 100 gpm (Total 200 Residences)	95.95	95.09	74.18	60.30	50.75	43.76	68.00	50.65	44.16	41.56
Existing Peak Hour (60 gpm) Plus 500 gpm Fire @ Robbie Road	95.95	95.09	70.99	56.30	45.74	36.35	59.17	39.73	34.19	31.59
New Peak Hour (100 gpm) Plus 500 gpm Fire @ Robbie Road	95.95	95.09	70.69	55.93	45.27	35.64	58.33	38.79	33.30	30.70
New Peak Hour (100 gpm) Plus 500 gpm Fire @ End of 1000' Extension to Robbie Road	95.95	95.09	70.69	55.93	45.27	35.64	58.33	34.78	33.30	30.70

In general, it appears that there is a very small decrease in operating system pressures during periods of either existing or future peak hourly flows when compared to the static pressure. When evaluated in combination with fire flow conditions of 500 gpm at the upper end of Robbie Road, a more notable pressure drop of up to about 12 psi is expected in the existing Robbie Road, Ling Court and Laurie Lane area. However, none of the conditions of peak hourly demand in combination with 500 gpm fire flows result in water system pressures less than the ADEC minimum of 20 psi.

APPENDIX A
MOUNTAINSIDE ESTATES PUMP STATION
2018 WATER FLOW RECORDS

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

January, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2	1040	45	95	718,752	74,500	18,625	12.9
3							
4							
5							
6							
7							
8							
9	1000	46	94	720,837	108,500	15,500	10.8
10							
11							
12	0930	48	94	721,312	47,500	15,833	11.0
13							
14							
15							
16	1000	45	95	721,987	67,500	16,875	11.7
17							
18							
19	1000	48	95	722,417	43,000	14,333	10.0
20							
21							
22							
23	1520	48	94	723,097	68,000	17,000	11.8
24							
25							
26	1100	49	94	723,512	41,500	13,833	9.6
27							
28							
29							
30	0900	51	94	724,189	67,700	16,925	11.8
31							

Averages 16,116 11.2

MOUNTAINSIDE ESTATES PUMP STATION FLOWS
February, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2	1005	50	94	724,678	48,900	16,300	11.3
3							
4							
5							
6	1040	38	92	725,428	75,000	18,750	13.0
7							
8							
9							
10							
11							
12							
13	0940	53	94	726,712	128,400	18,343	12.7
14							
15							
16	1130	49	93	727,196	48,400	16,133	11.2
17							
18							
19							
20	1033	48	94	727,907	71,100	17,775	12.3
21							
22							
23							
24							
25							
26							
27							
28							

Averages 17,460 12.1

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

March, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2	0830	49	93	729,680	177,300	14,775	10.3
3							
4							
5							
6	1150	49	94	730,365	68,500	17,125	11.9
7							
8							
9	1200	49	94	730,815	45,000	15,000	10.4
10							
11							
12							
13	0915	49	95	731,463	64,800	16,200	11.3
14							
15							
16	1115	48	95	731,905	44,200	14,733	10.2
17							
18							
19							
20	1020	47	94	732,491	58,600	14,650	10.2
21							
22							
23	1000	48	95	732,874	38,300	12,767	8.9
24							
25							
26							
27							
28	0900	48	95	733,565	69,100	13,820	9.6
29							
30							

Averages 14,884 10.3

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

April, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2							
3	1040	48	94	734,444	87,900	14,650	10.2
4							
5	1545	49	94	734,730	28,600	14,300	9.9
6							
7							
8							
9							
10	1000	48	95	735,488	75,800	15,160	10.5
11							
12	1505	49	94	735,839	35,100	17,550	12.2
13							
14							
15							
16							
17							
18							
19							
20	1110	48	94	736,992	115,300	14,413	10.0
21							
22							
23							
24	0936	46	94	737,629	62,700	15,675	10.9
25							
26							
27	1430	47	94	738,055	42,600	14,200	9.9
28							
29							
30							

Averages 15,135 10.5

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

May, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2							
3							
4	1135	46	94	739,141	108,600	15,514	10.8
5							
6							
7							
8	1000	48	93	739,783	64,200	16,050	11.1
9							
10	1310	45	94	740,092	30,900	15,450	10.7
11							
12							
13							
14							
15	1020	47	95	740,859	49,700	9,940	6.9
16							
17							
18	1445	47	95	741,337	47,800	15,933	11.1
19							
20							
21	1520	46	94	741,868	53,100	17,700	12.3
22							
23							
24							
25	1015	45	94	742,437	56,900	14,225	9.9
26							
27							
28							
29	0935	48	93	743,109	67,200	16,800	11.7
30							
31							

Averages 15,202 10.6

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

June, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1	1230	49	93	743,662	55,300	18,433	12.8
2							
3							
4							
5	1015	47	95	744,419	75,700	18,925	13.1
6							
7							
8	1320	47	94	744,896	47,700	15,900	11.0
9							
10							
11							
12	0935	48	92	745,545	64,900	16,225	11.3
13							
14							
15	1335	49	93	746,032	48,700	16,233	11.3
16							
17							
18	1315	48	95	746,524	49,200	16,400	11.4
19							
20							
21							
22	0915	47	95	747,462	93,800	23,450	16.3
23							
24							
25							
26	1000	47	93	748,651	118,900	29,725	20.6
27							
28							
29	0912	47	94	749,106	45,300	15,100	10.5
30							

Averages 18,932 13.1

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

July, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2	1020	47	93	749,642	53,600	17,867	12.4
3							
4							
5							
6	0825	50	91	750,490	84,800	21,200	14.7
7							
8							
9							
10							
11	1300	46	94	751,470	98,000	19,600	13.6
12							
13	1050	47	92	751,796	32,600	16,300	11.3
14							
15							
16							
17	1030	48	93	752,545	74,900	18,725	13.0
18							
19							
20	1135	47	94	753,065	52,000	17,333	12.0
21							
22							
23							
24	1245	47	93	754,016	95,100	23,775	16.5
25							
26							
27	1505	47	94	754,647	65,800	21,933	15.2
28							
29							
30							
31	1030	46	94	755,730	108,300	27,075	18.8

Averages 20,423 14.2

MOUNTAINSIDE ESTATES PUMP STATION FLOWS
August, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2							
3	1020	47	94	756,274	54,400	18,133	12.6
4							
5							
6							
7	1020	46	93	756,982	76,800	19,200	13.3
8							
9							
10	1010	50	94	757,435	45,300	15,100	10.5
11							
12							
13							
14	1000	45	93	758,089	65,400	16,350	11.4
15							
16							
17	1010	47	94	758,683	59,400	19,800	13.8
18							
19							
20							
21	1030	47	95	759,377	69,400	17,350	12.0
22							
23							
24	1245	48	94	759,842	46,500	15,500	10.8
25							
26							
27							
28	1340	47	93	760,497	65,500	16,375	11.4
29							
30							
31	0825	48	94	760,934	43,700	14,567	10.1

Averages 16,931 11.8

MOUNTAINSIDE ESTATES PUMP STATION FLOWS

September, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2							
3							
4	1435	42	94	761,661	72,700	18,175	12.6
5							
6							
7	0930	46	93	762,065	40,400	13,467	9.4
8							
9							
10							
11	1020	49	94	762,637	57,200	14,300	9.9
12							
13							
14	0955	45	94	763,041	40,400	13,467	9.4
15							
16							
17							
18	1055	50	93	763,656	61,500	15,375	10.7
19							
20							
21	1020	45	94	764,057	40,100	13,367	9.3
22							
23							
24							
25	1205	47	93	764,618	56,100	14,025	9.7
26							
27							
28	0930	46	94	764,979	36,100	12,033	8.4
29							
30							

Averages 14,276 9.9

MOUNTAINSIDE ESTATES PUMP STATION FLOWS
October, 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2	1000	47	93	765,571	76,551	19,138	13.3
3							
4							
5	0955	47	93	765,996	42,500	14,167	9.8
6							
7							
8							
9	1010	47	94	766,616	62,000	15,500	10.8
10							
11							
12	1400	47	93	767,005	38,900	12,967	9.0
13							
14							
15							
16	1015	46	94	767,567	56,200	14,050	9.8
17							
18							
19	0910	47	93	767,952	38,500	12,833	8.9
20							
21							
22							
23	1450	46	94	768,552	60,000	15,000	10.4
24							
25							
26	1010	47	93	768,926	37,400	12,467	8.7
27							
28							
29							
30							
31							

Averages 14,515 10.1

MOUNTAINSIDE ESTATES PUMP STATION FLOWS
November 2018

Date	Time	PSI In	PSI Out	Meter Reading	Usage (Gal.)	Daily Use (GPD)	Avg. Daily Flow (gpm)
1							
2							
3							
4							
5							
6	1030	48	93	770,616	169,200	15,382	10.7
7							
8							
9	1010	47	95	771,102	48,600	16,200	11.3
10							
11							
12							
13	1020	48	93	771,820	71,800	17,950	12.5
14							
15							
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Averages 16,511 11.5

Wetland Delineation Report for the Richland Manor, Section 1, Mountainside Estates, Juneau, AK



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Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

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Introduction

William Heumann & Associates is exploring the option of developing a 4.74-acre property at the end of Hillcrest Ave in Mountainside Estates, Old Glacier Highway, Juneau, Alaska. This wetland delineation report and maps are in support of the US Army Corps of Engineers wetland permit for development of this project.



Photo 1 – Location map for Richland Manor Project Area.

Methods

The project area was visited for delineation and mapping on November 14, 2018. The weather at that time was light rain and temperatures were in the lower 50's °F. The month before fieldwork had had slightly lower rainfall than average for October and daily high temperatures were between 45°F and 60°F. Plants were senesced but still recognizable.

Wetlands areas were mapped using the "triple parameter" method described in the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) as supplemented by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region - November 2007*. Wetlands are required to have a prevalence of wetland hydrology, hydric soils, and hydrophytic vegetation. Wetlands are determined when positive indicators of all of these three criteria are present. The "routine determination delineation" methodology was used. The wetland boundaries and classifications described herein represent best professional opinion.

Sample points were done at either side of any significant changes in vegetation, soils or hydrology. At each sample point, the wetland status of that point was determined by observing indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. Once representative sample points were done for all wetland/upland types wetland boundaries along the transects were marked with a GPS waypoint.

Sample plot vegetation was divided into three strata; tree, shrub, and forb, and each layer was classified using the dominance test (more than 50% of the dominant plant species across all strata are rated obligate, facultative wet, or facultative) and the prevalence index (a weighted-average wetland indicator status of all plant species in the sample plot). The 2012 U.S. Army Corps of Engineers *National Wetland Plant List -Alaska Region* was used to classify plants.

Hydrology was determined using two methods: (1) visually, if the water table is at or above the surface, or (2) with a soil pit. The presence of standing water, depth to free water in the soil pit, and depth to saturated soils was recorded. Other primary and secondary hydrology indicators were recorded, such as presence of watermarks, sediment deposits, drift deposits, iron deposits, hydrogen sulfide odor, geomorphic position, and drainage patterns in wetlands.

Soil pits were dug to a depth of 12-16 inches, or to bedrock or glaciomarine sediment refusal, to determine if indicators of hydric soils were present. Soil colors were determined from a moist sample with the Munsell Soil Color Chart. Sample point data sheets are included in Appendix A. The project area has young and disturbed soils and so have been treated as "problematic " soils.

The base for the delineation maps was 2013 lidar and photography imagery flown by Aerometrics, Inc. Polygon acreages and stream lengths were calculated in GIS. Final delineation maps were done in ArcMap 10.5. Modeled stream locations were checked in the field.

Project Area

The project area is 4.74 acres of fill and disturbed forest at the end of Hillcrest Ave.

The project area slope before disturbance and fill was gently sloping with a much steeper slope above and flatter below.

Streams on most of the project area have been channelized with one main perennial ditch draining the uphill edge of the fill pad (**R3UB1** – Riverine Upper-Perennial Unconsolidated-Bottom Cobble Gravel) and arching around to drain the lower edge of the fill pad. The ditch then drains into a deeply entrenched, perennial stream that flows along the southern edge of the project area and to Gastineau Channel via the Pioneer marsh. The other smaller tributaries to these streams are seasonal or ephemeral streams (**R4SB3/6** – Riverine Intermittent Streambed Cobble-gravel/Organic)

The fill pad at the end of Hillcrest Ave is two feet of well drained coarse gravel fill over mixed fill of gravel, sand, and silt. The fill pad is sparsely vegetated with red alder saplings, Sitka willow and reed canary grass. There are two house foundations on the fill pad that are 4-5 feet below the level of the fill. One of the foundations (northern) had the water table at the surface at the time of the survey and patchy wetland vegetation (**PEM1A** – Palustrine Emergent Persistent Seasonally Flooded). There is a small, seasonal, created, drainage coming out of this foundation hole. The other foundation (southern) is at the edge of the fill pad near a deep stream channel and is well-drained. The foundations are both dominated by red alder saplings and horsetail.

The area surrounding the fill pad has disturbed vegetation, soils and hydrology. The vegetation has been cleared and regrown with patchy red alder and western hemlock forest. and the native organic soil is mixed or covered with eroded fill material and the hydrology is altered by channelization (**PFO1B** – Palustrine Forested Broad-Leaved Deciduous Saturated) (**PFO4B** – Palustrine Forested Needle-Leaved Evergreen Saturated).



Photo 2 - The lower part of the perennial ditched stream that surrounds the fill pad.



Photo 3 - Seasonal streams entering the channelized stream east of the fill pad.



Photo 4 – Coarse gravel on the surface of the fill pad.



Photo 5 – Eroded fill material with silts and gravels over native organic soils at the toe of the fill pad.



Photo 6 - Saturated organic soils uphill of the fill pad.



Photo 7 - Disturbed area with red alder sapling forest.

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Photo 8 - steep slope at the south edge of the fill pad. Red alder saplings dominate.



Photo 9 - Western foundation site with the water table at the surface and vegetation dominated by horsetail and red alder saplings.

Table 0-1 - Plant Species List (Lichvar, 2014)

Scientific name	Common name	Indicator status ¹
<i>Alnus rubra</i>	red alder	FAC
<i>Alnus sinuata</i>	Sitka alder	FAC
<i>Athyrium felix-femina</i>	lady fern	FAC
<i>Calamagrostis canadensis</i>	Canada blue-joint	FAC
<i>Carex sitchensis</i>	Sitka sedge	OBL
<i>Cornus canadensis</i>	dwarf dogwood	FACU
<i>Deschampsia beringensis</i>	Bering hair-grass	FAC
<i>Dryopteris dilatata</i>	spiny wood fern	FACU
<i>Equisetum arvense</i>	horsetail	FACU
<i>Gymnocarpium dryopteris</i>	oak fern	FACU
<i>Lysichiton americanum</i>	skunk cabbage	OBL
<i>Menziesia ferruginea</i>	false azalea	FACU
<i>Oplopanax horridus</i>	devil's club	FACU
<i>Picea sitchensis</i>	Sitka spruce	FACU
<i>Rubus pedatus</i>	trailing raspberry	FAC
<i>Rubus spectabilis</i>	salmonberry	FACU
<i>Salix sitchensis</i>	Sitka willow	FAC
<i>Scirpus microcarpus</i>	Bulrush	OBL
<i>Tsuga heterophylla</i>	western hemlock	FAC
<i>Vaccinium ovalifolium</i>	early blueberry	FAC

¹ See Table 2 for abbreviation definitions

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Table 0-2 - Indicator code table (Lichvar, 2012)

Indicator Code	Type	Comment
OBL	Obligate Wetland	Almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface.
FACW	Facultative Wetland	Usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
FAC	Facultative	Occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.
FACU	Facultative Upland	Usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
UPL	Obligate Upland	Almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.
NI	No indicator	Insufficient information was available to determine an indicator status.

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Results

Table 0-1 - Sample point table

Sample point	Dominant vegetation/ Hydrology / Geomorphology	Cowardin Classification	PJD ²	Rationale for PJD
1	Fill pad set 5ft. below grade with water table at the surface, seasonal drainage to perennial stream and scattered red alder saplings and horsetail.	PEM1A	Yes	Wetland on RPW ³ that flows into TNW ⁴
2	Fill pad set 5 ft. below grade at the edge of deep stream channel - so well-drained. Patchy red alder saplings and horsetail.	upland	No	
3	Toe of fill pad slope, mixed fill and organics, red alder, creeping buttercup, bulrush and reed canary grass dominant.	PFO1B	Yes	Wetland on RPW that flows into TNW
4	Toe of fill pad slope, mixed fill and organics, red alder, saplings, creeping buttercup, lady fern, skunk cabbage, bulrush and reed canary grass dominant.	PFO1B	Yes	Wetland on RPW that flows into TNW
5	Toe of fill pad slope, mixed fill and organics, Sitka spruce and cottonwood saplings, and lady fern dominant.	PFO1B	Yes	Wetland on RPW that flows into TNW
6	Disturbed, gentle hillside with saturated organic soils mixed with uplifted silts, Western hemlock, blueberry and dwarf dogwood dominant.	PFO4B	Yes	Wetland on RPW that flows into TNW
7	Disturbed, gentle hillside with saturated organic soils mixed with uplifted beach deposits. Red alder, salmonberry and skunk cabbage dominant.	PFO1B	Yes	Wetland on RPW that flows into TNW
8	Disturbed, gentle hillside with saturated organic soils mixed with uplifted beach deposits. Western hemlock, blueberry and alse azalea dominant.	PFO4B	Yes	Wetland on RPW that flows into TNW
9	Fill pad/fill pile. Course gravel over mixed fill. Red alder saplings and creeping buttercup dominant	upland	No	

² PJD - Preliminary Jurisdictional Determination

³ TNW - Traditional Navigable Water

⁴ RPW - Relatively Permanent Water

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Conclusions

Using GIS tools and wetland information gathered in the field, the acreage of wetlands and waters of the US was determined.

There are 3.61 total acres of wetland in the project area.

- **PEM1A** - 0.08 acres
- **PFO4B** - 2.31 acres
- **PF01B** - 1.22 acres
- **Upland** - 1.13 acres

There are 2,531 linear feet of ephemeral, seasonal and perennial streams in the parcel

- **R4SB3/6** - ephemeral & seasonal (with surface water at least 2 weeks out of the growing season) - 1,316 linear feet
- **R3UB1** - perennial - 1,215 linear feet

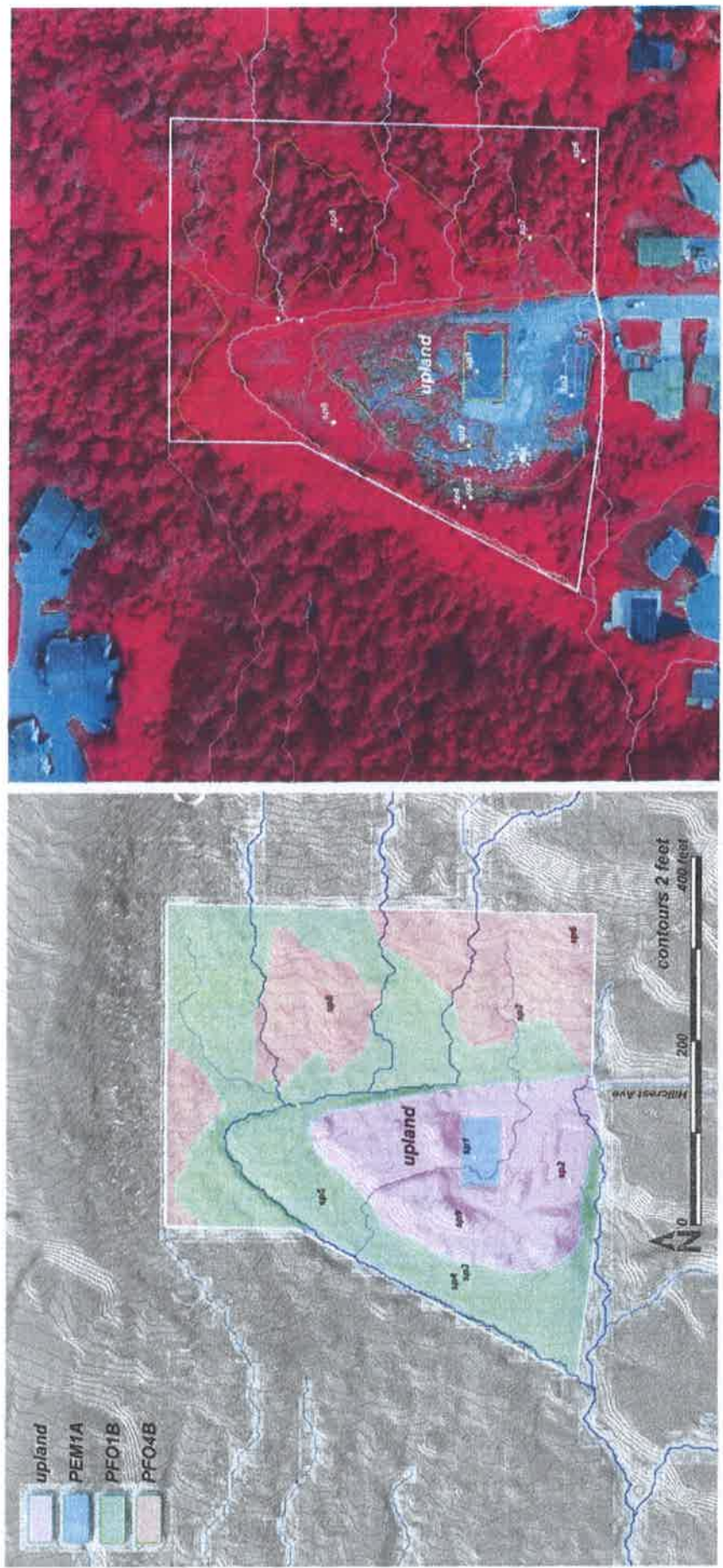


Figure 1 – Wetland Delineation map pair – 2013 CBJ LIDAR hillshade and CIR aerial photo. Sample points (yellow dots) for the project area. The blue lines are the field-checked modeled streams.

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Appendix A - Scanned Sample Site Data Sheets

SP 1



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WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CBI Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 1
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): fill
Local relief (concave, convex, none): concave Slope (%): 0
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			
Remarks: <u>Foundation area on fill pad</u>					

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____				
Total Cover: _____				
50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum				
1. <u>Alnus rubra (Alru)</u>	<u>30</u>	<u>✓</u>	<u>F</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
Total Cover: _____				
50% of total cover: _____ 20% of total cover: _____				
Herb Stratum				
1. <u>Equisetum arvense (Egar)</u>	<u>50</u>	<u>✓</u>	<u>F</u>	Hydrophytic Vegetation Indicators: <u>✓</u> Dominance Test is >50% _____ Prevalence Index is ≤3.0 _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.
2. <u>Juncus arcticus (Juar)</u>	<u>5</u>		<u>FW</u>	
3. <u>Scirpus microcarpus (Schi)</u>	<u>2</u>		<u>OB</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
Total Cover: <u>57</u>				
50% of total cover: <u>28.5</u> 20% of total cover: <u>11.4</u>				
Plot size (radius, or length x width): <u>10x10</u> % Bare Ground _____				
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____				
(Where applicable)				
Remarks:				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____

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Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (Inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	
0-16+	—	100%					coarse gravel WT

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:
☐ Histosol or Histic (A1)
☐ Histic Epipedon (A2)
☐ Hydrogen Sulfide (A4)
☐ Thick Dark Surface (A12)
☐ Alaska Gleyed (A13)
☐ Alaska Redox (A14)
☐ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils³:
☐ Alaska Color Change (TA4)⁴
☐ Alaska Alpine Swales (TA5)
☐ Alaska Redox With 2.5Y Hue

☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
☒ Other (Explain in Remarks).

³One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology,
and an appropriate landscape position must be present unless disturbed or problematic.
⁴Give details of color change In Remarks.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:
New surface!

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)	
Primary Indicators (any one indicator is sufficient)			
☒ Surface Water (A1)	☐ Inundation Visible on Aerial Imagery (B7)	☐ Water-stained Leaves (B9)	
☒ High Water Table (A2)	☐ Sparsely Vegetated Concave Surface (B8)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Oxidized Rhizospheres along Living Roots (C3)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Presence of Reduced Iron (C4)	
☐ Sediment Deposits (B2)	☐ Dry-Season Water Table (C2)	☐ Salt Deposits (C5)	
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)	☐ Stunted or Stressed Plants (D1)	
☐ Algal Mat or Crust (B4)		☐ Geomorphic Position (D2)	
☐ Iron Deposits (B5)		☐ Shallow Aquitard (D3)	
☐ Surface Soil Cracks (B6)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☒ No ☐ Depth (inches): <u>1-0</u>	Wetland Hydrology Present? Yes ☒ No ☐	
Water Table Present?	Yes ☒ No ☐ Depth (inches): <u>0-2</u>		
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐ Depth (inches): <u>0</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

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SP2



Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

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WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CBJ Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 2
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): fill pad
Local relief (concave, convex, none): concave Slope (%): —
Subregion: SE Alaska Lat: — Long: — Datum: —
Soil Map Unit Name: — NWI classification: —
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No — (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes — No X
Are Vegetation —, Soil —, or Hydrology — naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u> No <u>—</u>	Is the Sampled Area within a Wetland?	Yes <u>—</u> No <u>✓</u>
Hydric Soil Present?	Yes <u>—</u> No <u>✓</u>		
Wetland Hydrology Present?	Yes <u>—</u> No <u>✓</u>		
Remarks: <u>Next to deep stream gully → well-drained.</u>			

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (NB)
4. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Prevalence Index worksheet:
Total Cover: <u>—</u>				Total % Cover of: <u>—</u> Multiply by: <u>—</u>
50% of total cover: <u>—</u> 20% of total cover: <u>—</u>				OBL species <u>—</u> x 1 = <u>—</u>
Sapling/Shrub Stratum				FACW species <u>—</u> x 2 = <u>—</u>
1. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	FAC species <u>—</u> x 3 = <u>—</u>
2. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	FACU species <u>—</u> x 4 = <u>—</u>
3. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	UPL species <u>—</u> x 5 = <u>—</u>
4. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Column Totals: <u>—</u> (A) <u>—</u> (B)
5. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Prevalence Index = B/A = <u>—</u>
6. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Hydrophytic Vegetation Indicators:
Total Cover: <u>—</u>				<u>✓</u> Dominance Test is >50%
50% of total cover: <u>—</u> 20% of total cover: <u>—</u>				<u>—</u> Prevalence Index is ≤3.0
Herb Stratum				<u>—</u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Picea sitchensis (Pisi) seedlings</u>	<u>10</u>	<u>✓</u>	<u>FU</u>	<u>—</u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Salix sitchensis (Sosi)</u>	<u>5</u>	<u>✓</u>	<u>F</u>	¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.
3. <u>Alnus rubra (Alru)</u>	<u>5</u>	<u>✓</u>	<u>F</u>	
4. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
5. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
6. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	Hydrophytic Vegetation Present? Yes <u>✓</u> No <u>—</u>
7. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
8. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
9. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
10. <u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
Total Cover: <u>20</u>				
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
Plot size (radius, or length x width) <u>10x10</u> % Bare Ground <u>—</u>				
% Cover of Wetland Bryophytes <u>—</u> Total Cover of Bryophytes <u>—</u>				
Remarks:				

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SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-16+						course gravel	unsat.

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol or Histel (A1)	☐ Alaska Color Change (TA4) ⁴	☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
☐ Histic Epipedon (A2)	☐ Alaska Alpine Swales (TA5)	☐ Other (Explain in Remarks)
☐ Hydrogen Sulfide (A4)	☐ Alaska Redox With 2.5Y Hue	
☐ Thick Dark Surface (A12)		
☐ Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.	
☐ Alaska Redox (A14)	⁴ Give details of color change in Remarks.	
☐ Alaska Gleyed Pores (A15)		

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Inundation Visible on Aerial Imagery (B7)	☐ Water-stained Leaves (B9)
☐ High Water Table (A2)	☐ Sparsely Vegetated Concave Surface (B8)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Presence of Reduced Iron (C4)
☐ Sediment Deposits (B2)	☐ Dry-Season Water Table (C2)	☐ Salt Deposits (C5)
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)	☐ Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)		☐ Geomorphic Position (D2)
☐ Iron Deposits (B5)		☐ Shallow Aquitard (D3)
☐ Surface Soil Cracks (B6)		☐ Microtopographic Relief (D4)
		☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No ☒	Depth (inches): <u> </u>	Wetland Hydrology Present? Yes _____ No ☒
Water Table Present?	Yes _____ No ☒	Depth (inches): <u>712</u>	
Saturation Present? (Includes capillary fringe)	Yes _____ No ☒	Depth (inches): <u>712</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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SP3



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SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-16+	25Y 3/2	100%					mixed fill - silt & gravel - sat	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol or Histel (A1)	☐ Alaska Color Change (TA4) ⁴	☐ Alaska Gleyed Without Hue 5Y or Redder
☐ Histic Epipedon (A2)	☐ Alaska Alpine Swales (TA5)	☐ Underlying Layer
☐ Hydrogen Sulfide (A4)	☐ Alaska Redox With 2.5Y Hue	☐ Other (Explain in Remarks)
☐ Thick Dark Surface (A12)		
☒ Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology,	
☒ Alaska Redox (A14)	and an appropriate landscape position must be present unless disturbed or problematic.	
☐ Alaska Gleyed Pores (A15)	⁴ Give details of color change in Remarks.	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Mixed-fill

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Inundation Visible on Aerial Imagery (B7)	☐ Water-stained Leaves (B9)
☐ High Water Table (A2)	☐ Sparsely Vegetated Concave Surface (B8)	☐ Drainage Patterns (B10)
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Presence of Reduced Iron (C4)
☐ Sediment Deposits (B2)	☐ Dry-Season Water Table (C2)	☐ Salt Deposits (C5)
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)	☒ Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)		☒ Geomorphic Position (D2)
☐ Iron Deposits (B5)		☐ Shallow Aquitard (D3)
☐ Surface Soil Cracks (B6)		☐ Microtopographic Relief (D4)
		☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒	Depth (inches): _____	Wetland Hydrology Present? Yes ☒ No ☐
Water Table Present? Yes ☐ No ☒	Depth (inches): <u>712</u>	
Saturation Present? Yes ☒ No ☐	Depth (inches): <u>0</u>	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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SP4



Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

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WPH

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CBJ Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 4
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): hillside toe-of-slope
Local relief (concave, convex, none): concave Slope (%): 2
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PFO1B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks:			

VEGETATION - Use scientific names of plants. List all species in the plot.

Trees Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____				Prevalence Index worksheet:
Total Cover: _____				Total % Cover of: _____ Multiply by: _____
50% of total cover: _____ 20% of total cover: _____				OBL species _____ x 1 = _____
Sampling/Shrub Stratum				FACW species _____ x 2 = _____
1. <u>Aln</u>	<u>40</u>	<u>✓</u>	<u>F</u>	FAC species _____ x 3 = _____
2. <u>Pi</u>	<u>5</u>		<u>FU</u>	FACU species _____ x 4 = _____
3. _____				UPL species _____ x 5 = _____
4. _____				Column Totals: _____ (A) _____ (B)
5. _____				Prevalence Index = B/A = _____
6. _____				Hydrophytic Vegetation Indicators:
Total Cover: <u>45</u>				<u>✓</u> Dominance Test is >50%
50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u>				____ Prevalence Index is ≤3.0
Herb Stratum				____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Ranunculus repens (Rare)</u>	<u>10</u>	<u>✓</u>	<u>F</u>	____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Atfe</u>	<u>20</u>	<u>✓</u>	<u>F</u>	
3. <u>Scmi</u>	<u>10</u>	<u>✓</u>	<u>OB</u>	
4. <u>Phar</u>	<u>5</u>		<u>OB</u>	
5. <u>Lyam</u>	<u>10</u>	<u>✓</u>	<u>OB</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
Total Cover: <u>55</u>				
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>				
Plot size (radius, or length x width) <u>15' x 15'</u> % Bare Ground _____				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____				
(Where applicable)				
Remarks:				

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WP4

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	2.5YR 3/2	100					silt + gravel fill	Sat
7-13+	5YR 2.5/2	100					peat	WT

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☒ Histosol or Histel (A1)
- ☐ Histel Epipedon (A2)
- ☐ Hydrogen Sulfide (A4)
- ☐ Thick Dark Surface (A12)
- ☒ Alaska Gleyed (A13)
- ☐ Alaska Redox (A14)
- ☐ Alaska Gleyed Pores (A15)

Indicators for Problematic Hydric Soils³:

- ☐ Alaska Color Change (TA4)⁴
- ☐ Alaska Alpine Swales (TA5)
- ☐ Alaska Redox With 2.5Y Hue
- ☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
- ☐ Other (Explain in Remarks)

³One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

⁴Give details of color change in Remarks.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-stained Leaves (B9)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Salt Deposits (C5)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☒ No ☐ Depth (inches): 6
Saturation Present? Yes ☒ No ☐ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

stream/ditch below

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SP5



Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

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WPS

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: (B) Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 5
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): top of fill
Local relief (concave, convex, none): _____ Slope (%): 2
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PFO1B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks: <u>slash</u>			

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.					Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2.					Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
4.					
Total Cover: _____		50% of total cover: _____		20% of total cover: _____	
Shrub/Straw Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1.	<u>Populus balsamifera (Poba)</u>	<u>10</u>		<u>F</u>	Total % Cover of: _____ Multiply by: _____
2.	<u>Picea sitchensis (Pisi)</u>	<u>35</u>	<u>✓</u>	<u>FU</u>	OBL species _____ x 1 = _____
3.	<u>Ribes glandulosum (Rigl)</u>	<u>5</u>		<u>F</u>	FACW species _____ x 2 = _____
4.	<u>Rubus spectabilis</u>	<u>5</u>		<u>FU</u>	FAC species <u>65</u> x 3 = <u>195</u>
5.					FACU species <u>40</u> x 4 = <u>160</u>
6.					UPL species _____ x 5 = _____
Total Cover: <u>55</u>		50% of total cover: <u>27.5</u>		20% of total cover: <u>11</u>	Column Totals: <u>105</u> (A) <u>355</u> (B)
					Prevalence Index = B/A = <u>3.38</u>
Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1.	<u>Athyrium filix-femina (Atfe)</u>	<u>50</u>	<u>✓</u>	<u>F</u>	_____ Dominance Test is >50%
2.					_____ Prevalence Index is ≤3.0
3.					_____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.					<u>✓</u> Problematic Hydrophytic Vegetation ¹ (Explain)
5.					
6.					
7.					
8.					
9.					
10.					
Total Cover: _____		50% of total cover: _____		20% of total cover: _____	
Plot size (radius, or length x width) <u>15' x 15'</u>		% Bare Ground _____			
% Cover of Wetland Bryophytes _____		Total Cover of Bryophytes _____			
Remarks: <u>Disturbance - adopted species (Pisi, Rusp FU)</u>					

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SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-8	7.5YR 2.5/1	100				Peat w/ gravel	sat.
8-12+	10YR 2/2	100				Peat w/ sand	WT

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ² :
☒ Histosol or Histel (A1)	☐ Alaska Color Change (TA4) ⁴
☐ Histic Epipedon (A2)	☐ Alaska Alpine Swales (TA5)
☐ Hydrogen Sulfide (A4)	☐ Alaska Redox With 2.5Y Hue
☐ Thick Dark Surface (A12)	☐ Other (Explain in Remarks)
☐ Alaska Gleyed (A13)	
☐ Alaska Redox (A14)	
☐ Alaska Gleyed Pores (A15)	

³One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
⁴Give details of color change in Remarks.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
---	--

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
☐ Surface Water (A1)	☐ Water-stained Leaves (B9)
☒ High Water Table (A2)	☐ Drainage Patterns (B10)
☒ Saturation (A3)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)
☐ Sediment Deposits (B2)	☐ Salt Deposits (C5)
☐ Drift Deposits (B3)	☐ Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)	☐ Geomorphic Position (D2)
☐ Iron Deposits (B5)	☐ Shallow Aquitard (D3)
☐ Surface Soil Cracks (B6)	☐ Microtopographic Relief (D4)
	☐ FAC-Neutral Test (D5)

Field Observations:	
Surface Water Present? Yes ☐ No ☒ Depth (inches): <u> </u>	Wetland Hydrology Present? Yes ☒ No ☐
Water Table Present? Yes ☒ No ☐ Depth (inches): <u>6-7</u>	
Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): <u>12</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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SP6



Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

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WP10

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CBI Sampling Date: 11/14/18
Applicant/Owner: William Haumann Sampling Point: 6
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): hillside-terrace
Local relief (concave, convex, none): convex Slope (%): 390
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PFO4B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u> No _____
Hydric Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks: <u>2nd growth w/ lots of slash + stumps</u>			

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Tsuga heterophylla (Tshe)</u>	<u>60</u>	<u>✓</u>	<u>F</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u>Picea</u>	<u>15</u>		<u>FU</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. <u>Picea</u>	<u>5</u>		<u>F</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. _____				Prevalence Index worksheet:
Total Cover: <u>80</u>				Total % Cover of: _____ Multiply by:
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				OBL species _____ x 1 = _____
Sapling/Shrub Stratum				FACW species _____ x 2 = _____
1. <u>Vaccinium ovalifolium (VooV)</u>	<u>10</u>	<u>✓</u>	<u>F</u>	FAC species _____ x 3 = _____
2. _____				FACU species _____ x 4 = _____
3. _____				UPL species _____ x 5 = _____
4. _____				Column Totals: _____ (A) _____ (B)
5. _____				Prevalence Index = B/A = _____
6. _____				Hydrophytic Vegetation Indicators:
Total Cover: _____				<u>✓</u> Dominance Test is >50%
50% of total cover: _____ 20% of total cover: _____				Prevalence Index is ≤3.0
Herb Stratum				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Cornus canadensis (Coca)</u>	<u>10</u>	<u>✓</u>	<u>FU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Tierella trifoliata (Titr)</u>	<u>3</u>	<u>✓</u>	<u>F</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
Total Cover: <u>13</u>				
50% of total cover: <u>6.5</u> 20% of total cover: <u>2.6</u>				
Plot size (radius, or length x width) <u>15' x 15'</u> % Bare Ground _____				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____				
Remarks:				

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SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-2	10YR 2/2	100%					peat + roots	sat.
2-4	2.5Y 3/1	100%					sand w/ peat	sat
4-12	2.5Y 3/1	100%					sand w/ silt + gravel + OM	sat. + w.t.
12-15	2.5Y 3/1	90%	5YR 3/4	10%			sand	w.t.
15+	10YR 2/2	100%					Peat	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☒ Histosol or Histel (A1)	☐ Alaska Color Change (TA4) ⁴	☐ Alaska Gleyed Without Hue 5Y or Redder
☐ Histic Epipedon (A2)	☐ Alaska Alpine Swales (TA5)	☐ Underlying Layer
☐ Hydrogen Sulfide (A4)	☐ Alaska Redox With 2.5Y Hue	☐ Other (Explain in Remarks)
☐ Thick Dark Surface (A12)		
☐ Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.	
☐ Alaska Redox (A14)	⁴ Give details of color change in Remarks.	
☐ Alaska Gleyed Pores (A15)		

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: mixed peat & fill sediment washed down.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

☐ Surface Water (A1)	☐ Inundation Visible on Aerial Imagery (B7)
☒ High Water Table (A2)	☐ Sparsely Vegetated Concave Surface (B8)
☒ Saturation (A3)	☐ Marl Deposits (B15)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)
☐ Algal Mat or Crust (B4)	
☐ Iron Deposits (B5)	
☐ Surface Soil Cracks (B6)	

Secondary Indicators (2 or more required)

☐ Water-stained Leaves (B9)
☐ Drainage Patterns (B10)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Salt Deposits (C5)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ Microtopographic Relief (D4)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches): -
Water Table Present?	Yes ☒ No ☐	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐	Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

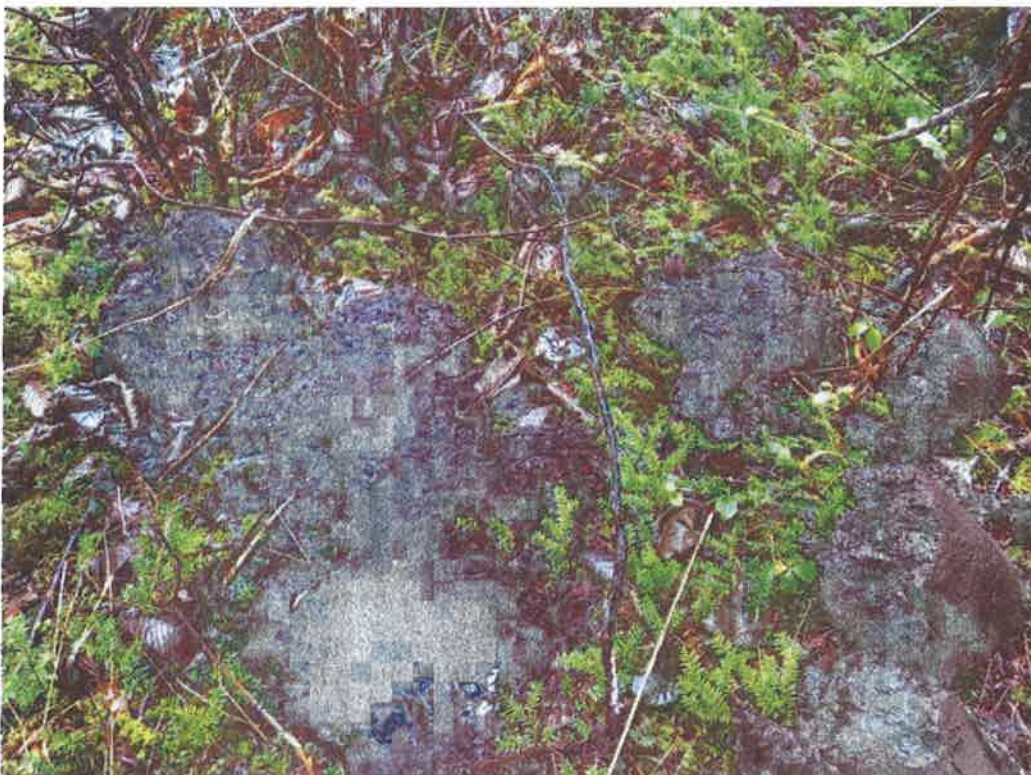
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

SP7



Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

WP11

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CBI Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 7
Investigator(s): Koren Bosworth Landform (hillslope, terrace, hummocks, etc.): hillslope swale
Local relief (concave, convex, none): concave Slope (%): 2
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PFO1B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓ Soil _____ or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			
Remarks:					

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Alnus</u>	<u>60</u>	<u>✓</u>	<u>F</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
Total Cover: _____ 50% of total cover: _____ 20% of total cover: _____				
Sapling/Shrub Stratum				Total % Cover of: _____ Multiply by: _____
1. <u>Moralesia fuscescens (MFE)</u>	<u>20</u>	<u>✓</u>	<u>FU</u>	OBL species _____ x 1 = _____
2. <u>Rubus spectabilis (Rusp)</u>	<u>10</u>	<u>✓</u>	<u>FU</u>	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
6. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
Total Cover: _____ 50% of total cover: _____ 20% of total cover: _____				Prevalence Index = B/A = _____
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <u>Lysichiton americanum (Lyan)</u>	<u>30</u>	<u>✓</u>	<u>OB</u>	
2. <u>Typha heterophylla (Tshe)</u>	<u>15</u>	<u>✓</u>	<u>F</u>	<u>✓</u> Dominance Test is >50%
3. <u>Cornus canadensis (Coco)</u>	<u>2</u>	_____	<u>FU</u>	Prevalence Index is ≤3.0
4. _____	_____	_____	_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	Remarks:
Total Cover: <u>47</u> 50% of total cover: <u>23.5</u> 20% of total cover: <u>9.4</u>				
Plot size (radius, or length x width) _____ % Bare Ground _____				
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____ (Where applicable)				

Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
D-1 ²	7.5HR 2.5/1	100				Peat	sat
13+	10HR 2/3	100				Peat + sand	WT

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☒ Histosol or Histel (A1)	☐ Alaska Color Change (TA4) ³	☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
☐ Histic Epipedon (A2)	☐ Alaska Alpine Swales (TA5)	☐ Other (Explain in Remarks)
☐ Hydrogen Sulfide (A4)	☐ Alaska Redox With 2.5Y Hue	
☐ Thick Dark Surface (A12)		
☐ Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.	
☐ Alaska Redox (A14)	⁴ Give details of color change in Remarks.	
☐ Alaska Gleyed Pores (A15)		

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

☐ Surface Water (A1)	☐ Inundation Visible on Aerial Imagery (B7)
☒ High Water Table (A2)	☐ Sparsely Vegetated Concave Surface (B8)
☒ Saturation (A3)	☐ Marl Deposits (B15)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)
☐ Algal Mat or Crust (B4)	
☐ Iron Deposits (B5)	
☐ Surface Soil Cracks (B6)	

Secondary Indicators (2 or more required)

☐ Water-stained Leaves (B9)
☐ Drainage Patterns (B10)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Salt Deposits (C5)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ Microtopographic Relief (D4)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches): _____
Water Table Present?	Yes ☒ No ☐	Depth (inches): <u>10</u>
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐	Depth (inches): <u>0</u>

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____

Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

SP8



WP 12

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CRJ Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 8
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): hillside terrace
Local relief (concave, convex, none): convex Slope (%): 2%
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: PF04 B
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>✓</u>	No _____
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			
Remarks:					

VEGETATION – Use scientific names of plants. List all species in the plot.

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	<i>T. she</i>	60	✓	F	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2.	<i>P. si</i>	12		FU	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
4.					Prevalence Index worksheet:	
		Total Cover: <u>72</u>				
		50% of total cover: <u>36</u>	20% of total cover: <u>14.4</u>			
Sapling/Shrub Stratum					Total % Cover of: _____ Multiply by: _____	
1.	<i>M. fo</i>	20	✓	FU	OBL species _____ x 1 = _____	
2.	<i>V. ov</i>	15	✓	F	FACW species _____ x 2 = _____	
3.	<i>Aplopappus horridus</i> (aph)	3		FU	FAC species _____ x 3 = _____	
4.					FACU species _____ x 4 = _____	
5.					UPL species _____ x 5 = _____	
6.					Column Totals: _____ (A) _____ (B)	
		Total Cover: <u>38</u>			Prevalence Index = B/A = _____	
		50% of total cover: <u>19</u>	20% of total cover: <u>7.6</u>			
Herb Stratum					Hydrophytic Vegetation Indicators:	
1.	<i>R. pedatos</i> (Rupe)	3	✓	F	☒ Dominance Test is >50%	
2.					☐ Prevalence Index is ≤3.0	
3.					☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4.					☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
5.					¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.	
6.						
7.						
8.						
9.						
10.						
		Total Cover: _____			Hydrophytic Vegetation Present? Yes ☒ No ☐	
		50% of total cover: _____	20% of total cover: _____			
Plot size (radius, or length x width) _____		% Bare Ground _____				
% Cover of Wetland Bryophytes _____		Total Cover of Bryophytes _____				
(Where applicable)						
Remarks:						

Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

SP9



Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

- WP9

WETLAND DETERMINATION DATA FORM - Alaska Region

Project/Site: Richland Manor - Section 1 Borough/City: CBI Sampling Date: 11/14/18
Applicant/Owner: William Heumann Sampling Point: 9
Investigator(s): Koren Bosworth Landform (hillside, terrace, hummocks, etc.): file file
Local relief (concave, convex, none): convex Slope (%): 2
Subregion: SE Alaska Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____, Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>✓</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>✓</u>
Hydric Soil Present?	Yes <u>✓</u>	No _____			
Wetland Hydrology Present?	Yes <u>✓</u>	No _____			
Remarks:					

VEGETATION - Use scientific names of plants. List all species in the plot.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____				Prevalence Index worksheet:
Total Cover: _____				Total % Cover of: _____ Multiply by: _____
50% of total cover: _____ 20% of total cover: _____				OBL species _____ x 1 = _____
Seeding/Shrub Stratum				FACW species _____ x 2 = _____
1. <u>Astr</u>	<u>100</u>	<u>✓</u>	<u>F</u>	FAC species _____ x 3 = _____
2. <u>Sor</u>	<u>5</u>		<u>F</u>	FACU species _____ x 4 = _____
3. _____				UPL species _____ x 5 = _____
4. _____				Column Totals: _____ (A) _____ (B)
5. _____				Prevalence Index = B/A = _____
6. _____				Hydrophytic Vegetation Indicators:
Total Cover: <u>105</u>				<u>✓</u> Dominance Test is >50%
50% of total cover: <u>52.5</u> 20% of total cover: <u>21</u>				Prevalence Index is ≤3.0
Herb Stratum				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Kore</u>	<u>15</u>	<u>✓</u>	<u>F</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Phar</u>	<u>5</u>	<u>✓</u>	<u>OB</u>	
3. <u>Deschampsia beringensis (Det)</u>	<u>5</u>	<u>✓</u>	<u>F</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
Total Cover: <u>25</u>				
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
Plot size (radius, or length x width) <u>15 x 15'</u> % Bare Ground _____				Hydrophytic Vegetation Present? Yes <u>✓</u> No _____
% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____				
Remarks:				

Wetland Delineation Report - Richland Manor, Section 1, Juneau, AK

November 2018

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-16+	—						course gravel	unsat

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
☐ Histosol or Histel (A1)	☐ Alaska Color Change (TA4) ⁴
☐ Histic Ep:per:on (A2)	☐ Alaska Alpine Swales (TA5)
☐ Hydrogen Sulfide (A4)	☐ Alaska Redox With 2.5Y Hue
☐ Thick Dark Surface (A12)	☐ Alaska Gleyed Without Hue 5Y or Redder Underlying Layer
☐ Alaska Gleyed (A13)	☐ Other (Explain in Remarks)
☐ Alaska Redox (A14)	
☐ Alaska Gleyed Pores (A15)	

³One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.
⁴Give details of color change in Remarks.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No ☒
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		
☐ Surface Water (A1)	☐ Inundation Visible on Aerial Imagery (B7)	☐ Water-stained Leaves (B9)
☐ High Water Table (A2)	☐ Sparsely Vegetated Concave Surface (B8)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Presence of Reduced Iron (C4)
☐ Sediment Deposits (B2)	☐ Dry-Season Water Table (C2)	☐ Salt Deposits (C5)
☐ Drift Deposits (B3)	☐ Other (Explain in Remarks)	☐ Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)		☐ Geomorphic Position (D2)
☐ Iron Deposits (B5)		☐ Shallow Aquitard (D3)
☐ Surface Soil Cracks (B6)		☐ Microtopographic Relief (D4)
		☐ FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes _____ No ☒	Depth (inches): <u>—</u>	Wetland Hydrology Present? Yes _____ No ☒
Water Table Present? Yes _____ No ☒	Depth (inches): <u>>12</u>	
Saturation Present? (includes capillary fringe) Yes _____ No ☒	Depth (inches): <u>>12</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

BEFORE THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU

MOUNTAINSIDE ESTATES
NEIGHBORHOOD ASSOCIATION, ET AL.,

Appellant,

vs.

CBJ PLANNING COMMISSION, and
MICHAEL AND WILLIAM HEUMANN,

Appellees,

Appeal of:
Notice of Decision
CDD File No. SMP2018-0002

STIPULATED SETTLEMENT AGREEMENT

The parties to this Agreement are the Appellants, consisting of the Mountainside Estates Neighborhood Association and 17 individuals,¹ ("MENA"); the CBJ Planning Commission ("PC"), and Michael and William Heumann, ("Heumanns"). The parties are executing this Stipulated Settlement Agreement in order to resolve this appeal in its entirety, after the Assembly granted their joint motion for a 90 day stay of the appeal for such intended purpose.

Background Information:

The Heumanns applied for approval of a preliminary plat to subdivide and develop the first 12 lots of a phased major subdivision on a 30.67 acre parcel named Richland Manor, which is adjacent to the existing Mountainside Estates subdivision. During the planning process and at the February 26, 2019 hearing on the Heumanns' application, many of the appellants testified against the application, raising concerns that included and related to increased traffic, including construction traffic, pedestrian and child safety, decreased home values, crime and quality of life.

¹ In the interests of space, the individual appellants are not listed here but will sign this document at the bottom. Collectively the appellants will be designated as MENA.

On February 28, 2019 the PC issued its decision approving the preliminary plat requested by the Heumanns, with conditions. This appeal followed. The parties then entered into settlement negotiations which have resulted in the following agreements, intended to fully resolve all issues raised in MENA's appeal.

Agreements of the Parties:

The parties agree to the following terms of settlement:

1. SMP 2018 0002 is the preliminary plat approved with conditions, by the PC's February 28, 2019 Notice of Decision ("NOD"), both of which are attached as Exhibit A.
2. Within 30 days of executing this Agreement, the Heumanns will submit an application for the alternative preliminary plat depicted in Attachment B ("alternative plat"). The application will be for approval of Phase 1 of the alternative plat and conditions set out in Exhibit B. For clearer illustration, the features of the alternative plat establishing greenbelt separation on the individual lots between Richland Manor and Mountainside Estates are set out in Exhibit C, ("greenbelt buffers").
3. The parties acknowledge that the alternative preliminary plat application will include the sketch plat in Exhibit D, showing future proposed phases of the Richland Manor subdivision, as required by CBJ 49.15.410, but the application and intended PC action is limited to approval of Phase 1.
4. The following subdivision features, conditions and actions are agreed to between or accepted by the parties as a condition of the dismissal of the appeal and complete settlement of this dispute. To the extent that any of the subdivision features, conditions, or required actions may be included on the alternative plat or the associated conditions, they shall be. The appellants and Heumanns acknowledge, however, that not all features, conditions, notes or

other information appearing on the alternative plat are legally required or enforceable by the Planning Commission and/or the CBJ.

The subdivision features and conditions listed below shall be included or referenced on the plat. To the extent any features, conditions, notes or actions, including, but not limited to, density conditions, are not subject to PC authority or CBJ enforcement jurisdiction, they are indicated with an asterisk* and considered contractual obligations between the Heumanns and Appellants enforceable by direct private legal action to enforce this agreement, or any other lawful process.

- (a) Hooter Lane will be developed as a public two-way street, as set out in the alternative plat, subject to CBJ public improvement standards, in CBJ 49.35.
- (b) Hooter Lane from Glacier Highway to Hillcrest Avenue, and Hillcrest Avenue and Mountainside Drive shall be developed with a a sidewalk on one side. The number of sidewalks in the remainder of Richland Manor will be determined at the time of future development applications.
- (c) *Density: It is agreed that the loop road of Hillcrest Ave. and Mountainside Drive will be developed as single family homes, as depicted on the attached alternative plat.
- (d) *Robbie Road development that is connected to Mountainside Estates shall be limited to not more than 7 single family homes, 3 of which may have accessory apartments.
- (e) Robbie Road shall terminate and shall not be a point of access to Richland Manor, unless required, and gated, for fire/emergency service access only.
- (f) Hillcrest Avenue shall terminate at Hooter Lane. Hillcrest Avenue may connect to Hooter Lane west of the existing Hillcrest alignment as shown in the alternative plat (Exhibit C). Alternatively road access to the northeast portion of Tract B-1 may connect

to the east/west portion of Mountainside Drive across from the entrance to the “pocket” between Hillcrest and Mountainside.

- (g) *Greenbelt buffers will be implemented and privately maintained by lot owners as delineated on the alternative plat, Exhibit B (and as more clearly drawn for illustrative purposes in Exhibit C) to separate single family homes from multi-family development. Excavation for purposes of slope stabilization may take place in the greenbelt buffers provided they are allowed to revegetate following construction. In the event this becomes necessary Heumann will consult with adjacent homeowners about the impacts.

5. The following subdivision features, conditions and requirements will not be included or referenced on the plat and are also not matters for PC and/or CBJ enforcement through the platting process, but rather are created by and subject to this contractual agreement as between Heumanns and appellants, and are thus subject to private enforcement by direct private legal action or any other lawful process:

- (a) Construction traffic that will utilize roads within Mountainside Estates will be limited to the development and build out of the Hillcrest Avenue extension to Hooter Lane and any development of the seven homes allowed on Robbie Road.
- (b) Hooter Lane will be constructed “from the bottom up”, meaning that construction will start at Glacier Highway and proceed uphill.
- (c) On Tract A, the “pocket” in the loop between Hillcrest Avenue and Mountainside Avenue, there shall be no more than 16 dwelling units, which shall be contained in buildings of no more than 4 units per building, not to exceed two stories each.
- (d) Construction traffic for Richland Manor which flows through Mountainside Estates will be limited to the hours between 7:00 a.m. and 7:00 p.m. On days when children are in school in the Juneau School District there will be no construction traffic through

Mountainside Estates between the hours of 7:00 a.m. to 8:15 a.m. and 2:30 p.m. to 3:45 p.m.

- (e) Traffic calming measures will be incorporated as part of the CBJ's public right of way adoption process to address changes in traffic patterns or density that may arise from the construction of Richland Manor, subject to CBJ approval. The Heumanns will be responsible for stop signs at all appropriate locations; a 20 MPH posted speed limit; and "Children at Play" warning signs in all appropriate locations within Richland Manor Subdivision. CBJ shall be responsible for similar measures, as appropriate, on Hillcrest Avenue and Mountainside Drive to Craig Street, within Mountainside Estates.
- (f) *Water System: As soon as feasible, but in any event prior to connecting up to 80 new residential units to the existing water system and prior to the completion of Mountainside Drive, the Heumanns will connect the water supply system in a loop that encompasses Mountainside Drive and Hillcrest Street or more directly between Hillcrest Avenue and Mountainside Drive. For all units beyond 80, there will be a separate additional water supply developed. Should a unit be disconnected from the water system it may be replace with another.
- 6. The alternative plat application will be processed in the normal course of business by Community Development Department ("CDD"), followed by the PC's review at a regular PC meeting.
- 7. CDD has reviewed Attachments B and C, the sketch plat in Exhibit D, and the conditions set out above, and has determined it can conceptually support and recommend approval of the application to the PC, with the associated conditions.
- 8. Appellants will support the proposed application and agree to timely submit a statement of such support to CDD for inclusion in the packet before the PC.

9. No individual Appellant(s), member of Appellant MENA, MENA representative or Appellee will speak against, obstruct or oppose the alternative plat application or related CBJ, State of Alaska and Federal permits in writing or in public testimony.
10. The Heumanns and Appellants agree that the application is a good faith compromise to settle this appeal, and that if the application is not approved as submitted, either party may request that the stay be lifted to proceed with the appeal of SMP2018 0002. The request must be made within 10 days of the Notice of Decision.
11. The PC has not reviewed, and is not authorized to commit its support and/or approval of the application prior to reviewing it through the normal hearing process, but acknowledges that the application will not automatically supersede or replace SMP2018 0002 unless the PC issues a NOD approving the application as submitted and no appeal is filed by a third party not subject to this agreement.
12. Nothing in this Agreement shall operate or be interpreted to supersede or waive any CBJ Code provision or requirement, including technical plat requirements.
13. If the PC issues a NOD approving the application as submitted and no appeal has been filed by a 3rd party Appellants will file an executed dismissal of the appeal with prejudice, within 3 business days of the expiration of the time limit within to appeal the NOD.
14. Appellants individually and jointly expressly waive their individual and associational rights to appeal to the Assembly under CBJ 01.50, or to otherwise challenge, an NOD that approves the application as submitted. This waiver does not apply to an NOD that alters the terms of this agreement in any significant respect.
15. Should the PC issue a NOD approving the application as submitted which is not appealed by any party, all parties understand that this Agreement shall operate as a full

and final mutual release and discharge of all parties against each other on behalf of themselves, their members, officers, agents, successors, assigns, attorneys, and anyone who can claim through or on behalf of the parties from the current appeal and from any and all past, present, and future appeals or claims relating to SMP 2018 0002 and the approved application. The parties understand and acknowledge that this release and discharge is made for the purpose of settlement and that it may not be construed as an admission of liability.

16. If a third party appeals a Notice Of Decision that approves the alternative plat,, the Heumanns and MENA shall immediately meet and confer (with or without the involvement of the third party appellants) to determine whether there is a solution that is consistent with this Agreement. If an agreement cannot be reached, the Heumanns will have the right to elect to defend against the appeal of the approved alternative plat, in which case MENA will support the Heumanns to the extent necessary to preserve this Agreement, or to abandon the approved alternative plat, lift the stay and defend the original preliminary plat in this appeal brought by MENA.
17. In executing this Agreement, each member of each party fully, completely, and unconditionally acknowledges and agrees that it has had the opportunity to consult with, and have the advice of, duly licensed and competent attorneys, and that it has executed this Agreement after independent investigation, voluntarily and without fraud, duress, or undue influence. Each party expressly consents that this Agreement be given full force and effect according to each and every of its express terms and provisions.
18. Each person executing this Agreement on behalf of another person or organization represents and warrants to each member of all other parties that he or she is fully authorized to execute and deliver this Agreement on behalf of such person or

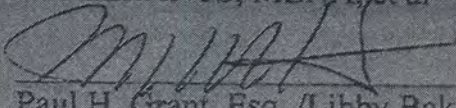
organization. Each member of each party represents and warrants to all members of all other parties that no consent of any person not a party to this Agreement is necessary in order for this Agreement to be fully and completely binding upon each member of the parties hereto.

19. The parties agree to bear their own costs and attorney fees in this appeal.

Respectfully submitted this 23 ^{Sept} day of ~~August~~ 2019.

APPELLANTS, MENA, et al

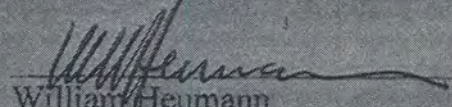
By:



Paul H. Grant, Esq. /Libby Bakalar, Esq.
Alaska Bar No. 7710124

APPELLEE WILLIAM HEUMANN

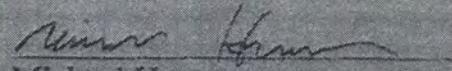
By:



William Heumann

APPELLEE MICHAEL HEUMANN

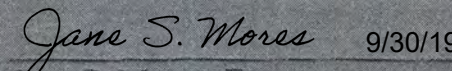
By:



Michael Heumann

APPELLEE PC

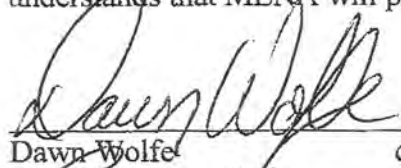
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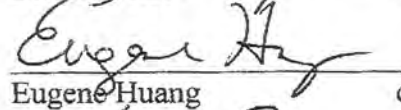
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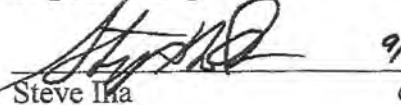
Jane S. Mores, Esq.
Alaska Bar No. 9011115

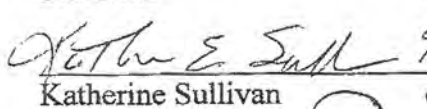
SIGNATURES OF INDIVIDUAL APPELLANTS

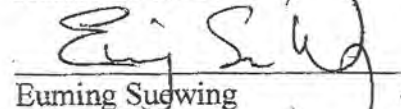
The following are the individual Appellants in the CBJ Planning Commission appeal designated as No. SMP2018-0002. By signing below each of them certifies that he or she has reviewed the Stipulated Settlement Agreement and the associated exhibits, and agrees that the appeal should be resolved as set out in the Agreement. It is understood that this is a compromise agreement, and that not every Appellant agrees with every term. However, each of the signing Appellants endorses the Settlement as his or her voluntary act, without coercion or undue influence. Each of the signing Appellants agrees that he or she will not oppose the application for approval of the modified plat before the planning commission, and each of them understands that MENA will provide a statement of support for the application.

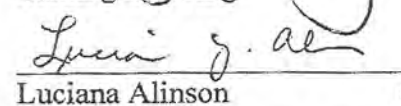
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Dawn Wolfe date

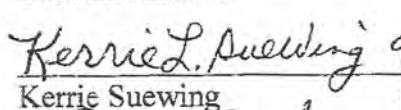
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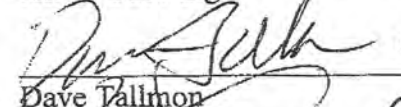
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Steve Iha date

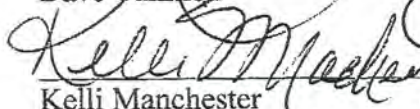
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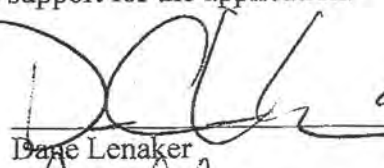
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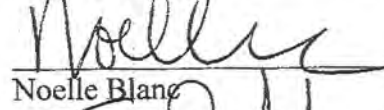
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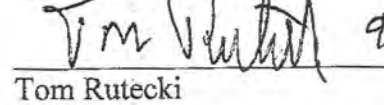
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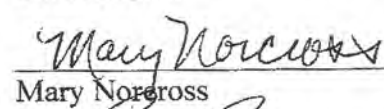
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Dave Tallmon date

 9/5/19
Kelli Manchester date

 9/9/19
Dane Lenaker date

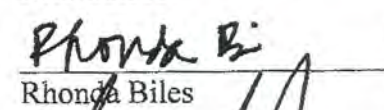
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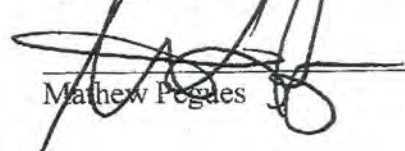
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Tom Rutecki date

 9/12/2019
Mary Norcross date

 9/6/2019
Bob Jones date

 9/5/19
Kris Coffee date

 9/5/19
Rhonda Biles date

 9/5/19
Mathew Pegues date



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: February 28, 2019
File No.: SMP2018 0002

Michael & William Heumann
6000 Thane Road
Juneau, AK 99801

Proposal: A Preliminary Plat for a phased major subdivision to include 12 single-family lots and 1 large tract (13 lots total).

Property Address: 4506, 4508, 4510 Hillcrest Avenue

Legal Description: Richland Manor Tract B

Parcel Code No.: 7B1001160010

Hearing Date: February 26, 2019

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated February 14, 2019, and approved the preliminary plat to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Prior to final plat approval, the following changes shall be made to the preliminary plat:
 - a. Complete all 22 requested plat changes listed in the MEMO dated January 31, 2019, from CBJ Engineering & Public Works.
 - b. On sheet one (1), label Laurie Lane.
 - c. On sheet two (2), label the western lot line with bearing and distances described.
 - d. On sheet one (1), show all five (5) lots on the south side of Coogan Drive, created Plat 2009-18.
 - e. Through the review process, Blocks A and B have gotten switched. Plat Notes 9 & 10 do not match the plat when referencing the bungalow lots and panhandle lots. Change the plat graphic to match the plat notes or vice versa.
 - f. Prior to final plat recording, remove setbacks, wetlands, drainage, and contours from plat graphic and legend.

Michael & William Heumann
File No.: SMP2018 0002
February 28, 2019
Page 2 of 4

- g. On all pages, use a dashed font to label the original TRACT B.
 - h. Add the following Plat Note: "Further Subdivision of Tract B-1, Richland Manor 2 Subdivision shall require City & Borough of Juneau Preliminary Platting Requirements indicating adequate access for all lots created in Phase 1, Richland Manor Subdivision 2, and all future Phases."
- 2. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
- 3. The developer shall use Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
- 4. The average daily trips (ADT) generated by Phase 1, Richland Manor 2 Subdivision, and all future phases will be included in the ADT's generated by any future development of Tract B1.
- 5. A Hillside Development Permit may be required if triggered by CBJ 49.70.210(a)(1-5).
- 6. Sidewalks on both sides of the street are required for Phase 1.
- 7. All future phases of development may require wetlands delineation.
- 8. For each pair of panhandle lots sharing a driveway, the applicant must provide a maintenance agreement that is recorded with the subdivision, on forms acceptable to the director, ensuring the required access and parking areas will be constructed and maintained by all future property owners. The applicant shall also create a plat note referencing the easements.
- 9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway shall be paved, whichever length is greater, for all panhandle lots created with this subdivision.
- 10. The applicant shall construct, or bond for, street lights at each intersection in this subdivision with spacing between lights not to exceed 250 feet.
- 11. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.
- 12. A driveway and parking plan that shows the feasibility of off-street parking shall be submitted and approved by the Director prior to recording the plat.
- 13. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue requirements in each dwelling unit within this subdivision.

Michael & William Heumann
File No.: SMP2018 0002
February 28, 2019
Page 3 of 4

14. The sketch plat shall be amended to show a future connection to Hooter Lane from Hillcrest Avenue.
15. The applicant must submit a drainage plan showing how drainage will flow from the subdivision to Glacier Highway; this drainage plan must be approved by the CBJ Engineering & Public Works Department. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
16. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to CDD for review by the Director of Engineering & Public Works for compliance with 49.35.140.
17. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to CDD and reviewed and approved by CDD and CBJ Engineering & Public Works.
18. Prior to final plat approval, the applicant must construct, and/or bond for, all required public utilities and improvements.

Attachment: February 14, 2019 memorandum from Laurel Bruggeman, Community Development, to the CBJ Planning Commission regarding SMP2018 0002.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, February 26, 2019.

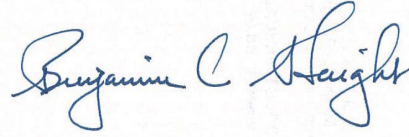
Expiration Date: The permit will expire five (5) years after the effective date, or February 26, 2024, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.

Michael & William Heumann
File No.: SMP2018 0002
February 28, 2019
Page 4 of 4

Project Planner:



Laurel Bruggeman, Planner
Community Development Department



Benjamin Haight, Chair
Planning Commission



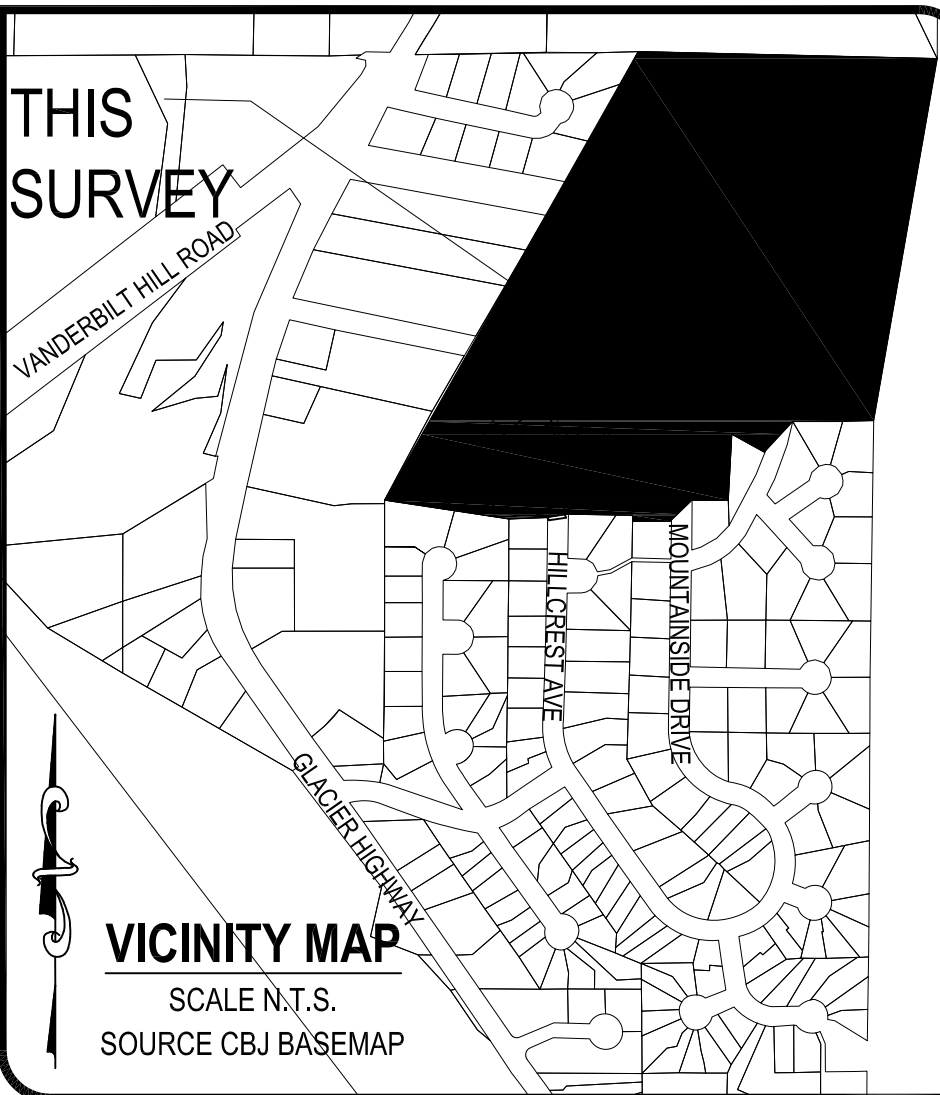
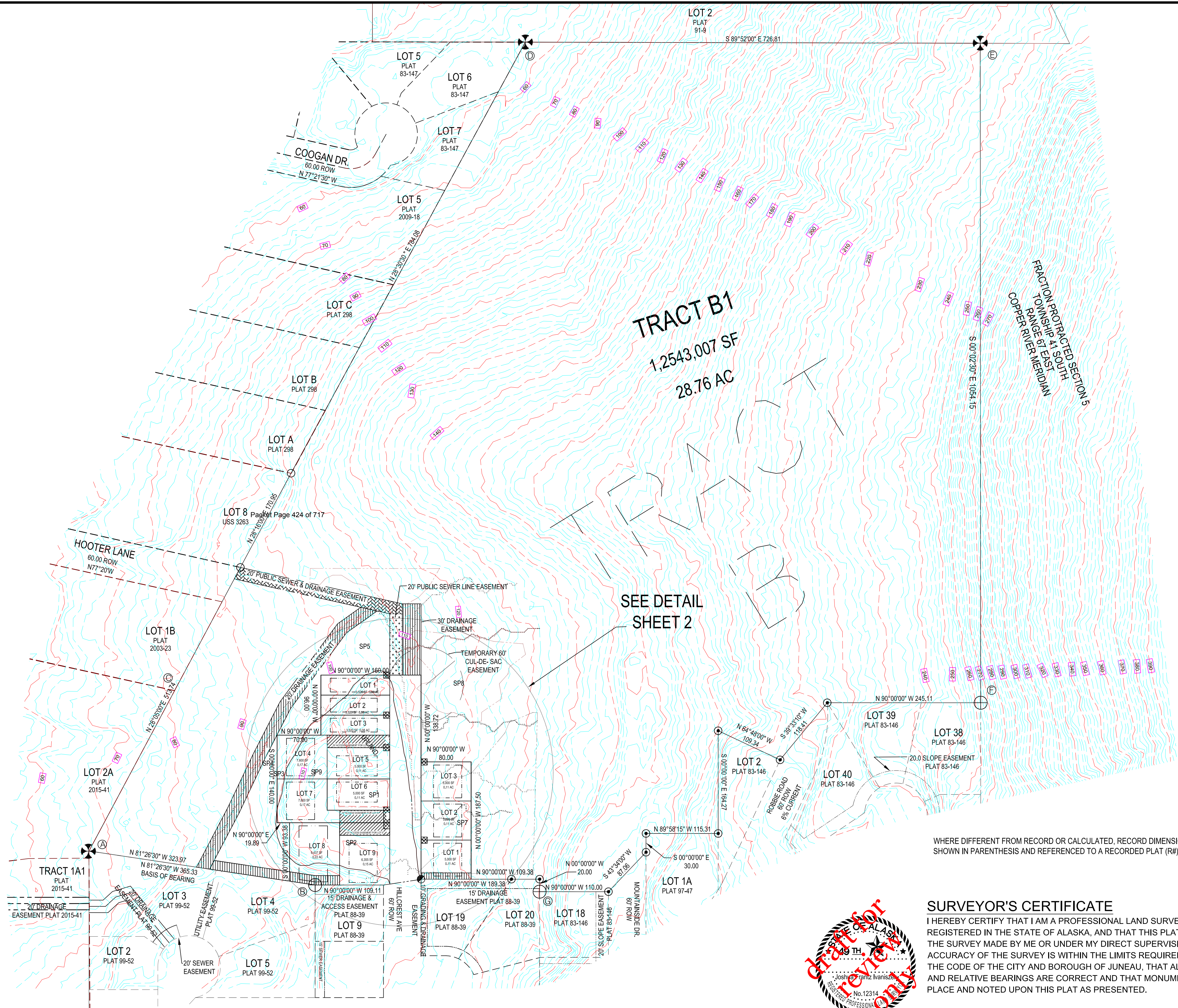
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3/5/2019

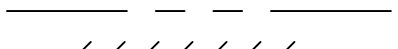
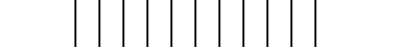
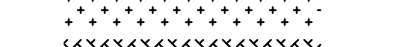
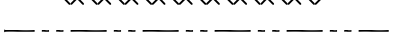
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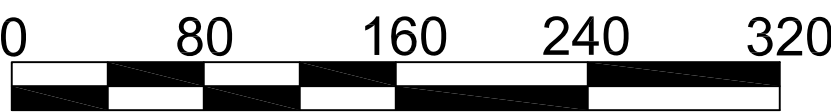
cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



LEGEND:

- | | |
|---|---|
|  | BLM PRIMARY MONUMENT RECOVERED |
|  | R&M PRIMARY MONUMENT RECOVERED |
|  | 1410-S SECONDARY MONUMENT RECOVERED |
|  | 3650-S SECONDARY MONUMENT RECOVERED |
|  | 3650-S PRIMARY MONUMENT RECOVERED |
|  | RECOVERED #5 REBAR NO CAP |
|  | SECONDARY MONUMENT SET THIS SURVEY |
|  | PROPERTY LINES |
|  | UNSURVEYED LINES |
|  | EASEMENT BOUNDARY CREATED THIS PLAT |
|  | ACCESS EASEMENT CREATED THIS PLAT |
|  | UTILITY EASEMENT CREATED THIS PLAT |
|  | DRAINAGE EASEMENT CREATED THIS PLAT |
|  | SANITARY SEWER EASEMENT CREATED THIS PLAT |
|  | DRAINAGE & SEWER EASEMENT CREATED THIS PLAT |
|  | WETLANDS BOUNDARY |
|  | DRAINAGE |
|  | SETBACK LINE |
|  | TEMPORARY CUL-DE-SAC LIMITS |
| (N 45°11' W)R1 | RECORD INFORMATION FROM US SURVEY 4807 |
| (N45°04'15" W)R2 | RECORD INFORMATION FROM PLAT No. 83-146 |
| (S00°06'33" W)R3 | RECORD INFORMATION FROM PLAT No. 97-47 |

 $1'' = 80'$ 

PLAT OF
RICHLAND MANOR 2
 A SUBDIVISION OF
TRACT B RICHLAND MANOR
FRACTION OF US SURVEY 4807
 THE CITY AND BOROUGH OF JUNEAU, ALASKA
 JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT JUNEAU

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS

WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP:
20180002

SCALE:
1" = 80'

DATE:
26 DECEMBER 2018

SHEET NO
1 OF 3

SURVEYOR'S CERTIFICATE

HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: _____, 2019



LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- 1410-S SECONDARY MONUMENT RECOVERED
- 3650-S SECONDARY MONUMENT RECOVERED
- 3650-S PRIMARY MONUMENT RECOVERED
- RECOVERED #5 REBAR NO CAP
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
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- EASEMENT BOUNDARY CREATED THIS PLAT
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- DRAINAGE & SEWER EASEMENT CREATED THIS PLAT
- WETLANDS BOUNDARY
- DRAINAGE
- SETBACK LINE
- TEMPORARY CUL-DE-SAC LIMITS
- (N 45°11' W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S00°06'33"W)R3 RECORD INFORMATION FROM PLAT No. 97-47

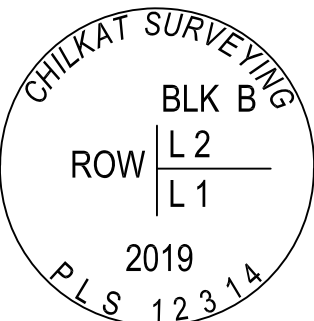
HOOTER LANE
60.00 ROW
N77°20'W

LOT 1B
PLAT
2003-23

TRACT B1
1,253,007 SF
28.76 AC

THIS
SURVEY

VICINITY MAP
SCALE N.T.S.
SOURCE CBJ BASEMAP



TYPICAL MONUMENT DETAIL
N.T.S.
5/8" x 36" REBAR WITH 2.5" ALUMINUM CAP



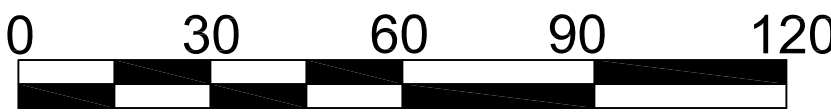
SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: _____, 2019

WHERE DIFFERENT FROM RECORD OR CALCULATED, RECORD DIMENSIONS ARE SHOWN IN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).

1"=30'



PLAT OF
RICHLAND MANOR 2

A SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT JUNEAU

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP:
20180002

SCALE:
1" = 30'

DATE:
26 DECEMBER 2018

SHEET NO.
2 OF 3

TRACT 1A1
PLAT
2015-41

LOT 3
PLAT 99-52

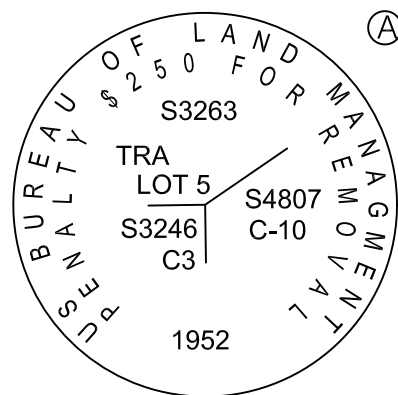
LOT 4
PLAT 99-52

LOT 9
PLAT 88-39

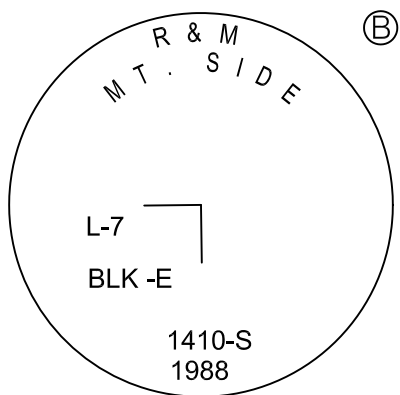
LOT 19
PLAT 88-39

Packet Page 425 of 717

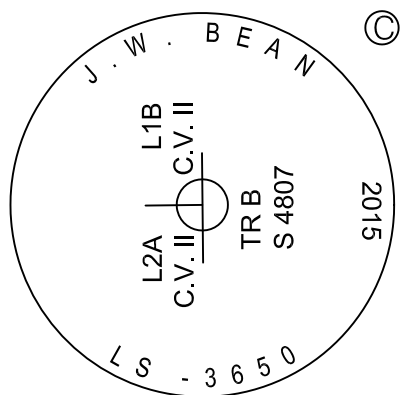
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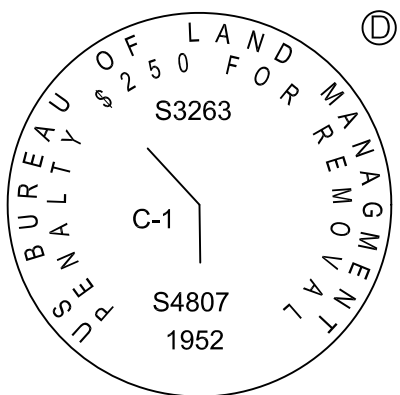
2.5" BRASS CAP MONUMENT



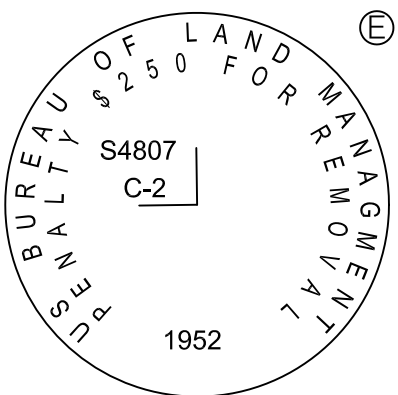
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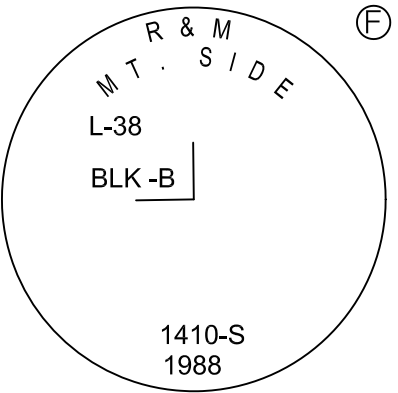
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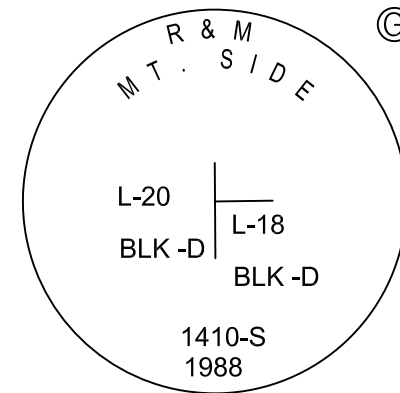
2.5" BRASS CAP MONUMENT



2.5" BRASS CAP MONUMENT



3.25" ALUMINUM CAP MONUMENT



3.25" ALUMINUM CAP MONUMENT

PLANNING COMMISSION PLAT APPROVAL

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. _____, DATED _____, 2019_____, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT RECORDING OFFICE, JUNEAU, ALASKA.

_____, DATED _____, 2019

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

Packet Page 426 of 717

ATTEST:

MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU

OWNERSHIP CERTIFICATE:

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH OUR FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE: _____, 2019

WILLIAM C. HEUMANN

MICHAEL P. HEUMANN

NOTARY ACKNOWLEDGEMENT:

UNITED STATES OF AMERICA)
)SS
STATE OF ALASKA)

THIS IS TO CERTIFY THAT ON THIS ____ DAY OF _____, 2019, BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED WILLIAM C. HEUMANN AND MICHAEL P. HEUMANN TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARY FOR THE USES AND PURPOSES THEREIN MENTIONED AUTHORIZED TO DO SO.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

NOTES:

1) THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.

2) ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET.

3) RECORD INFORMATION DERIVED FROM THE OFFICIAL PLAT OF US SURVEY 3263; US SURVEY 4807, PLAT OF SUBDIVISION OF LOTS 9 AND 10 US SURVEY 3263 TRACT A PLAT NO. 298 RECORDED 9 AUGUST 1961; MOUNTAINSIDE SUBDIVISION PLAT NO. 83-147 RECORDED 23 SEPTEMBER 1983; FAIRWEATHER SUBDIVISION PLAT NO. 83-147 RECORDED 23 SEPTEMBER 1983; DESERET SUBDIVISION PLAT NO. 91-9 RECORDED 28 FEBRUARY 1991; MOUNTAINSIDE SUBDIVISION II PLAT NO. 88-39 RECORDED 28 DECEMBER 1988; RICHLAND MANOR SUBDIVISION PLAT NO. 97-47 RECORDED 24 JULY 1997; VANDERBILT HILL SUBDIVISION PLAT NO. 99-52 RECORDED 29 OCTOBER 1999; A PLAT OF RESUBDIVISION OF LOT 1 CHILKAT VIEW SUBDIVISION PLAT NO. 2003-23; RECORDED 9 SEPTEMBER 2003; CHILKAT VIEW SUBDIVISION II PLAT NO. 2005-20 RECORDED 20 APRIL 2005; A PLAT OF FALLING TREE SUBDIVISION PLAT NO. 2009-18 RECORDED 7 JULY 2009; PLAT OF LOT 2A, CHILKAT VIEW SUBDIVISION II AND TRACT 1A1, US SURVEY 3246 PLAT NO. 2015-41 RECORDED 6 OCTOBER 2015 ON FILE WITH IN THE JUNEAU RECORDING DISTRICT.

4) WHERE DIFFERENT FROM RECORD OR CALCULATED, RECORD DIMENSIONS ARE SHOWN IN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).

5) DOMESTIC WATER & SANITARY SEWER PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.

6) SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

7) THE STORMWATER RUNOFF IS ACCEPTABLE PER RICHLAND MANOR II SUBDIVISION DRAINAGE PLAN IN APPROVED CONSTRUCTION PLAN SET AS APPROVED BY CBJ ENGINEERING. . ALL REQUIRED RICHLAND MANOR II SUBDIVISION PUBLIC IMPROVEMENTS INCLUDING SURFACE DRAINAGE, DRIVEWAYS AND ROADSIDE DRAINAGE SHALL BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE FOR MAINTENANCE BY CBJ PUBLIC WORKS. MODIFICATIONS TO THE APPROVED PLANS WILL NOT BE ALLOWED UNLESS PERMITTED BY CBJ ENGINEERING PURSUANT TO CBJ 19.12 EXCAVATION AND GRADING CODE.

8) OTHER THAN AS SHOWN, THERE IS AN IMPLIED PRIVATE DRAINAGE EASEMENT ALONG ALL SIDE PROPERTY LINES WITHIN THE SUBDIVISION BEING 10FT IN WIDTH CENTERED ON EACH ADJOINING PROPERTY LINE.

9) LOTS 1, 2, AND 3 BLOCK B ARE BUNGALOW LOTS. AT THE TIME OF PLAT RECORDING, STRUCTURES ON LOTS 1 & 2 & 3 BLOCK B ARE LIMITED TO ONE 1,000 SQUARE FOOT DETACHED SINGLE-FAMILY RESIDENCE PER LOT; OTHER DEVELOPMENT RESTRICTIONS APPLY. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

10) LOTS 4, 5, 6, 7, 8, AND 9 BLOCK B ARE PANHANDLE LOTS. AT THE TIME OF PLAT RECORDING, FURTHER SUBDIVISION OF LOTS 4, 5, 6, 7, 8, AND 9 BLOCK B IS SUBJECT TO CBJ 49.15.423 'PANHANDLE LOTS'. SEE THE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

11) WETLANDS MAY EXIST ON PARTS OF THIS SUBDIVISION. SPECIAL REGULATIONS MAY APPLY. WETLANDS DELINEATED BY KOREN BOSWORTH NOVEMBER 2018

11) TOPOGRAPHY DERIVED FROM WATERSHED SCIENCES, INC CBJ LIDAR AND IMAGERY PROJECT DATA COLLECTED MAY 2013 2" CONTOURS.

LEGEND:



BLM PRIMARY MONUMENT RECOVERED



R&M PRIMARY MONUMENT RECOVERED



1410-S SECONDARY MONUMENT RECOVERED



3650-S SECONDARY MONUMENT RECOVERED



3650-S PRIMARY MONUMENT RECOVERED



RECOVERED #5 REBAR NO CAP



SECONDARY MONUMENT SET THIS SURVEY

PROPERTY LINES

UNSURVEYED LINES

EASEMENT BOUNDARY CREATED THIS PLAT

ACCESS EASEMENT CREATED THIS PLAT

UTILITY EASEMENT CREATED THIS PLAT

DRAINAGE EASEMENT CREATED THIS PLAT

SANITARY SEWER EASEMENT CREATED THIS PLAT

DRAINAGE & SEWER EASEMENT CREATED THIS PLAT

WETLANDS BOUNDARY

DRAINAGE

SETBACK LINE

TEMPORARY CUL-DE-SAC LIMITS

(N 45°11' W)R1

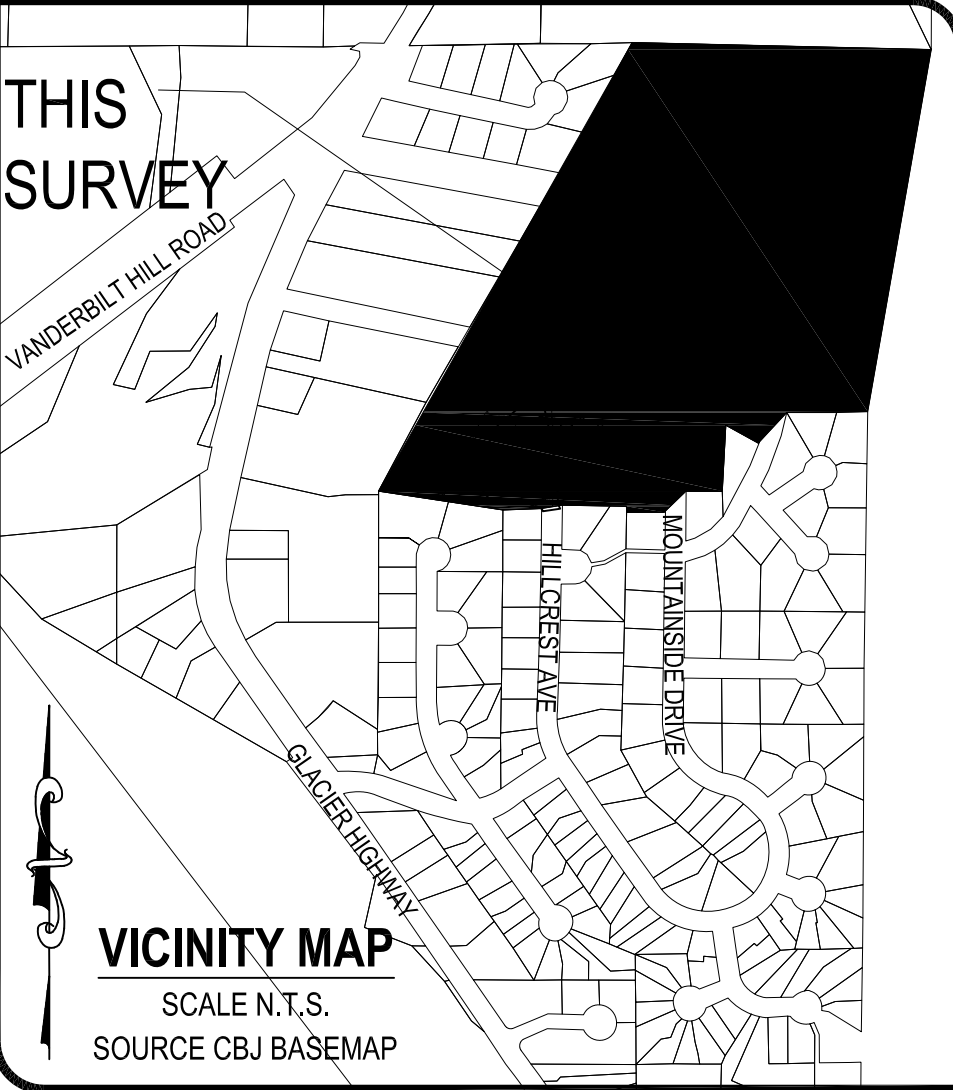
RECORD INFORMATION FROM US SURVEY 4807

(N45°04'15" W)R2

RECORD INFORMATION FROM PLAT No. 83-146

(S00°06'33"W)R3

RECORD INFORMATION FROM PLAT No. 97-47



BASIS OF BEARING:

THE BASIS OF BEARING FOR THIS PLAT IS THE RECORD BEARING OF N 81°26'30" W AS DELINEATED ON THE OFFICIAL PLAT OF VANDERBILT HILL SUBDIVISION, DATED 29 OCTOBER 1999, BETWEEN FOUND PRIMARY MONUMENTS WHICH MARK THE NW CORNER OF LOT 3 AND THE NE CORNER OF LOT 4, VANDERBILT HILL SUBDIVISION AS SHOWN ON THIS PLAT.



1"=80'

PLAT OF
RICHLAND MANOR 2

A SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT JUNEAU

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMP:
20180002

SCALE:
1" = 30'

DATE:
26 DECEMBER 2018

SHEET NO.
3 OF 3

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: _____, 2019



Date: 24 JANUARY 2019

To: CBJ COMMUNITY DEVELOPMENT DEPARTMENT
 155 SOUTH SEWARD ST.
 Juneau, Alaska 99801

Subject: Lot closure reports

Remarks: The lot closure reflects the proposed subdivision of Richland Manor II

BLOCK A
 Lot 1

Northing	Easting	Bearing	Distance
2379490.480	2527711.091	N 90°00'00" W 110.000	
2379490.480	2527601.091	N 00°00'00" W 32.000	
2379522.480	2527601.091	N 90°00'00" E 110.000	
2379522.480	2527711.091	S 00°00'00" E 32.000	
2379490.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 284.000			
Polyline Area: 3520 sq ft, 0.08 acres			

Lot 2

Northing	Easting	Bearing	Distance
2379458.480	2527711.091	N 90°00'00" W 110.000	
2379458.480	2527601.091	N 00°00'00" W 32.000	
2379490.480	2527601.091	N 90°00'00" E 110.000	
2379490.480	2527711.091	S 00°00'00" E 32.000	
2379458.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 284.000			
Polyline Area: 3520 sq ft, 0.08 acres			

Lot 3

Northing	Easting	Bearing	Distance
2379426.480	2527711.091		
		N 90°00'00" W	110.000
2379426.480	2527601.091		
		N 00°00'00" W	32.000
2379458.480	2527601.091		
		N 90°00'00" E	110.000
2379458.480	2527711.091		
		S 00°00'00" E	32.000
2379426.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 284.000			
Polyline Area: 3520 sq ft, 0.08 acres			

Lot4

Northing	Easting	Bearing	Distance
2379406.480	2527711.091		
		N 90°00'00" W	100.000
2379406.480	2527611.091		
		S 00°00'00" E	50.000
2379356.480	2527611.091		
		N 90°00'00" W	80.000
2379356.480	2527531.091		
		N 00°00'00" W	70.000
2379426.480	2527531.091		
		N 90°00'00" E	180.000
2379426.480	2527711.091		
		S 00°00'00" E	20.000
2379406.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 500.000			
Polyline Area: 7600 sq ft, 0.17 acres			

Lot 5

Northing	Easting	Bearing	Distance
2379356.480	2527611.091		
		N 00°00'00" W	50.000
2379406.480	2527611.091		
		N 90°00'00" E	100.000
2379406.480	2527711.091		
		S 00°00'00" E	50.000
2379356.480	2527711.091		
		N 90°00'00" W	100.000
2379356.480	2527611.091		
Closure Error Distance> 0.00000			
Total Distance> 300.000			
Polyline Area: 5000 sq ft, 0.11 acres			

Lot 6

Northing	Easting	Bearing	Distance
2379306.480	2527611.091	N 90°00'00" E	100.000
2379306.480	2527711.091	N 00°00'00" W	50.000
2379356.480	2527711.091	N 90°00'00" W	100.000
2379356.480	2527611.091	S 00°00'00" E	50.000
2379306.480	2527611.091		

Closure Error Distance> 0.00000
Total Distance> 300.000
Polyline Area: 5000 sq ft, 0.11 acres

Lot 7

Northing	Easting	Bearing	Distance
2379286.480	2527711.091	N 90°00'00" W	180.000
2379286.480	2527531.091	N 00°00'00" W	70.000
2379356.480	2527531.091	N 90°00'00" E	80.000
2379356.480	2527611.091	S 00°00'00" E	50.000
2379306.480	2527611.091	N 90°00'00" E	100.000
2379306.480	2527711.091	S 00°00'00" E	20.000
2379286.480	2527711.091		

Closure Error Distance> 0.00000
Total Distance> 500.000
Polyline Area: 7600 sq ft, 0.17 acres

Lot 8

Northing	Easting	Bearing	Distance
2379266.480	2527711.091	N 00°00'00" W	20.000
2379286.480	2527711.091	N 90°00'00" W	160.109
2379286.480	2527550.982	S 00°00'00" E	93.380
2379193.100	2527550.982	S 81°26'30" E	41.359
2379186.946	2527591.880	N 90°00'00" E	39.100
2379186.946	2527630.980	N 00°00'00" W	79.535
2379266.480	2527630.980	N 90°00'00" E	80.111
2379266.480	2527711.091		

Closure Error Distance> 0.00000
Total Distance> 513.594
Polyline Area: 9439 sq ft, 0 acres

Lot 9

Northing	Easting	Bearing	Distance
2379186.946	2527701.100	N 90°00'00" W	70.120
2379186.946	2527630.980	N 00°00'00" W	79.535
2379266.480	2527630.980	N 90°00'00" E	80.111
2379266.480	2527711.091	S 00°00'00" E	77.983
2379188.497	2527711.091	S 81°10'15" W	10.110
2379186.946	2527701.100		

Closure Error Distance> 0.00000
Total Distance> 317.859
Polyline Area: 6364 sq ft, 0 acres

BLOCK B

Lot 1

Northing	Easting	Bearing	Distance
2379196.264	2527761.091		
		N 00°00'00" W	62.500
2379258.764	2527761.091		
		N 90°00'00" E	80.000
2379258.764	2527841.091		
		S 00°00'00" E	62.500
2379196.264	2527841.091		
		N 90°00'00" W	80.000
2379196.264	2527761.091		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0 acres			

Lot 2

Northing	Easting	Bearing	Distance
2379258.764	2527761.091		
		N 00°00'00" W	62.500
2379321.264	2527761.091		
		N 90°00'00" E	80.000
2379321.264	2527841.091		
		S 00°00'00" E	62.500
2379258.764	2527841.091		
		N 90°00'00" W	80.000
2379258.764	2527761.091		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0 acres			

Lot 3

Northing	Easting	Bearing	Distance
2379321.264	2527761.091		
		N 00°00'00" W	62.500
2379383.764	2527761.091		
		N 90°00'00" E	80.000
2379383.764	2527841.091		
		S 00°00'00" E	62.500
2379321.264	2527841.091		
		N 90°00'00" W	80.000
2379321.264	2527761.091		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0 acres			

Tract B1 Northing	Easting	Bearing	Distance
2379193.100	2527550.982	N 81°26'30" W	323.971
2379241.313	2527230.618	N 28°05'00" E	513.740
2379694.567	2527472.464	N 28°16'00" E	170.950
2379845.132	2527553.422	N 28°30'30" E	784.080
2380534.140	2527927.653	S 89°52'00" E	726.810
2380532.449	2528654.461	S 00°02'30" E	1054.150
2379478.299	2528655.227	N 90°00'00" W	245.110
2379478.299	2528410.117	S 39°33'10" W	118.408
2379387.002	2528334.716	N 64°48'00" W	109.340
2379433.556	2528235.782	S 00°00'00" E	164.270
2379269.286	2528235.782	N 89°58'15" W	115.310
2379269.345	2528120.472	S 00°00'00" E	30.000
2379239.345	2528120.472	S 43°34'00" W	87.060
2379176.264	2528060.471	N 90°00'00" W	110.000
2379176.264	2527950.471	N 00°00'00" W	20.000
2379196.264	2527950.471	N 90°00'00" W	109.380
2379196.264	2527841.091	N 00°00'00" W	187.500
2379383.764	2527841.091	N 90°00'00" W	80.000
2379383.764	2527761.091	N 00°00'00" W	138.720
2379522.484	2527761.091	N 90°00'00" W	160.000
2379522.484	2527601.091	S 00°00'00" E	96.000
2379426.484	2527601.091	N 90°00'00" W	70.000
2379426.484	2527531.091	S 00°00'00" E	140.000
2379286.484	2527531.091	N 90°00'00" E	19.890
2379286.484	2527550.981	S 00°00'00" E	93.383
2379193.101	2527550.981		

Closure Error Distance> 0.00090 Error Bearing> S 81°26'30" E
Closure Precision> 1 in 6266245.1 Total Distance> 5668.072
Polyline Area: 1253007 sq ft, 29 acres

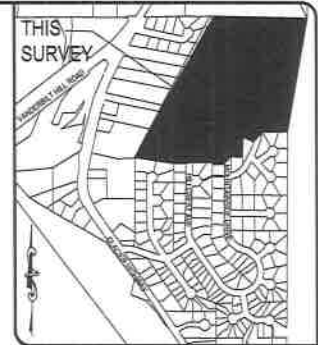
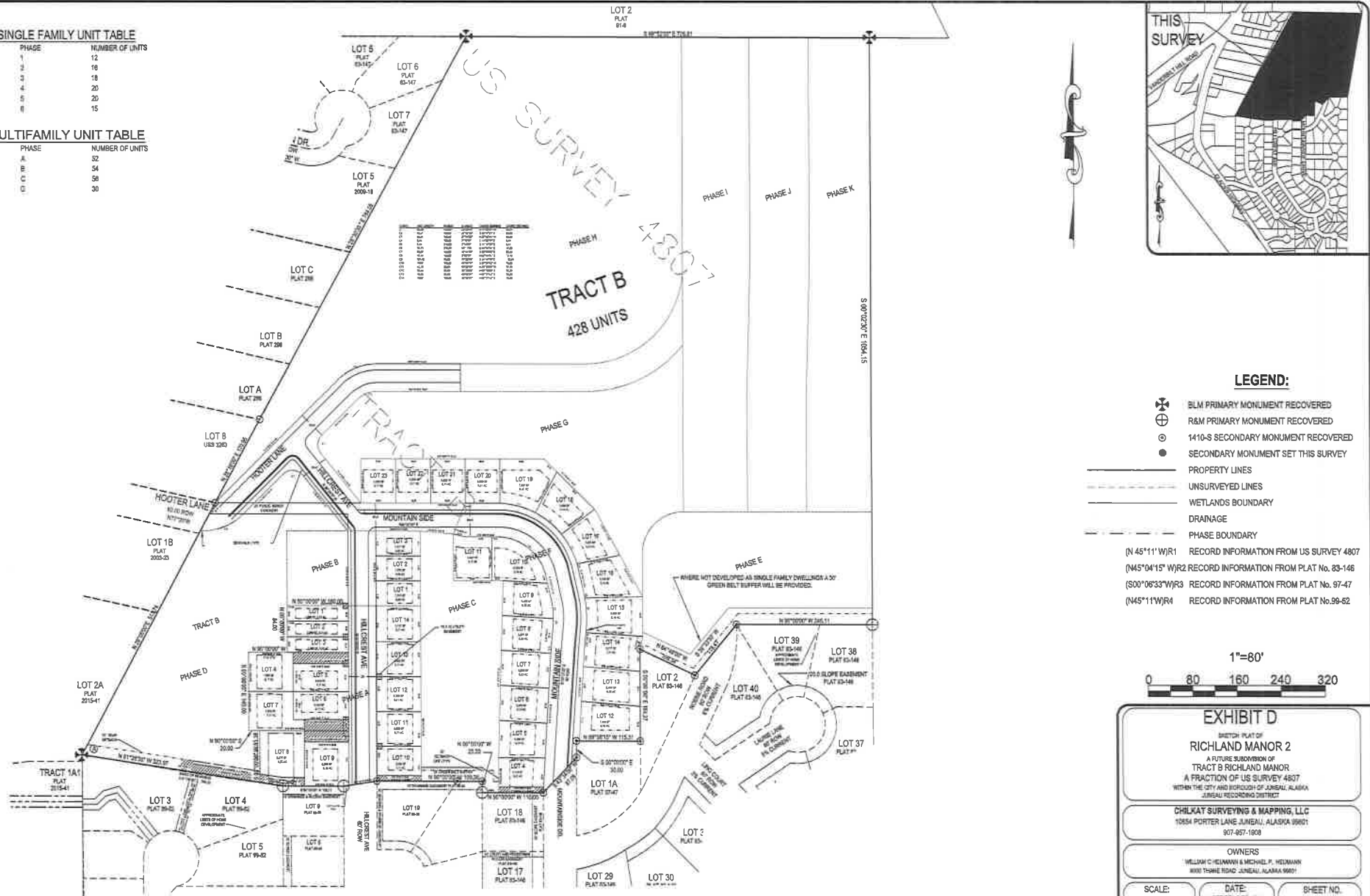


SINGLE FAMILY UNIT TABLE

PHASE	NUMBER OF UNITS
1	12
2	18
3	18
4	20
5	20
6	15

MULTIFAMILY UNIT TABLE

PHASE	NUMBER OF UNITS
A	52
B	54
C	58
D	30



LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- 1410-S SECONDARY MONUMENT RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
- UNSURVEYED LINES
- WETLANDS BOUNDARY
- DRAINAGE
- PHASE BOUNDARY
- (N 45°11'11" W) R1 RECORD INFORMATION FROM US SURVEY 4807
- (N 45°04'15" W) R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S 00°06'33" W) R3 RECORD INFORMATION FROM PLAT No. 97-47
- (N 45°11'11" W) R4 RECORD INFORMATION FROM PLAT No. 98-62

EXHIBIT D

SECTION PLAT OF
RICHLAND MANOR 2
A FURTHER SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

CHILKAT SURVEYING & MAPPING, LLC
10554 PORTER LANE JUNEAU, ALASKA 99901
907-957-1908

OWNERS
WILLIAM C. HELMANN & MICHAEL P. HELMANN
8001 TISHIE ROAD JUNEAU, ALASKA 99901

SCALE: 1"=80' **DATE:** 4 SEPTEMBER 2019 **SHEET NO.** 1 OF 1

Agenda
Planning Commission
Special Meeting
CITY AND BOROUGH OF JUNEAU
Ben Haight, Chairman
November 12, 2019

I. ROLL CALL

Ben Haight, Chairman, called the Regular Meeting of the City and Borough of Juneau (CBJ) Planning Commission (PC), held in the Assembly Chambers of the Municipal Building, to order at 7:05 p.m.

Commissioners present: Ben Haight, Chairman; Paul Voelckers, Vice Chairman; Michael LeVine, Ken Alper, Dan Hickok, Travis Arndt

Commissioners absent: Shannon Crossley, Nathaniel Dye

Staff present: Jill Maclean, CDD Director; Irene Gallion, Senior Planner; Laurel Christian, Planner; Allison Eddins, Planner

Assembly members: Greg Smith

II. REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA - None

III. APPROVAL OF MINUTES

A. October 15, 2019 DRAFT Minutes – Planning Commission Special Meeting

MOTION: *by Mr. LeVine to approve the October 15, 2019, Planning Commission Special Meeting minutes noting any staff corrections or Commissioner comments.*

The motion passed with no objection.

IV. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS - None

V. ITEMS FOR RECONSIDERATION - None

VI. CONSENT AGENDA

CSP2019 0010: A State Consistency Review for the Auke Bay Ferry Terminal site improvements
Applicant: State of Alaska Department of Transportation & Public Facilities
Location: 13445 Glacier Highway

Staff Recommendation

Staff recommends APPROVAL of this project.

MOTION: *by Mr. LeVine to adopt CSP2019 0010 and approve it with Directors analysis and findings.*

The motion passed with no objection.

VII. UNFINISHED BUSINESS

VIII. REGULAR AGENDA

SMP2019 0004: Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)
Applicant: Michael & William Heumann
Location: 4506 Hillcrest Avenue

Staff Recommendation

Staff recommends that the Planning Commission adopt the Director's analysis and findings and **APPROVE** the Preliminary Plat for Phase 1 of the Chilkat Vistas Subdivision. This approval would allow the applicant to submit for the Final Plat Application. The approval is subject to the following conditions:

1. Prior to approval of the final plat, all required plat corrections listed in the MEMO from CDD to Michael Heumann (Applicant), dated November 1, 2019 shall be completed (Attachment H).
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of Engineering and Public Works for compliance with CBJ 49.35.140.

4. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to the Community Development Department (CDD) and reviewed and approved by CDD and Engineering and Public Works.
5. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
6. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
7. The developer shall utilize Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
8. The developer shall submit a final drainage plan to be approved by Engineering and Public Works prior to final plat approval. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway, whichever length is greater, for all panhandle lots created with this subdivision.
10. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.
11. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue (CCFR) requirements in each dwelling unit constructed through Phase 1 of this subdivision.

Before beginning the hearing of this case, Mr. Haight explained the procedure of how hearing a case occurs. He stated that Staff would give a report regarding the case, the Commission would have the opportunity to ask clarifying questions, the applicant would give additional information and the Commission would be able to ask them more questions, then the public would have the chance to make comments regarding the case. After public testimony has been completed, the applicant would have a chance to add additional comments and address any comments and questions from the public and the Commission. Once this is concluded, the Commission would then go into deliberation. Mr. Haight then asked Ms. Maclean to give a brief summary of the background to case SMP2019 0004.

Ms. Maclean stated that a similar, but different, application in February of 2019 for a preliminary plat for a major subdivision in the same location, for the same parcel. That preliminary plat was approved by the Commission; however, it was then subsequently appealed by some of the abutters to the parcel. Over the following months, the appellants, the applicants, and CBJ worked to mediate what was hoped to be a settlement that everyone could agree to. That preliminary plat still stands. What was before the Commission at this meeting is a

new, separate preliminary plat application that is neither a modification nor an amendment to the previous plat. The applicants and the appellants did work together to create a settlement. While some of the settlement is within the Commission's purview, not all of the conditions are within the Commission's purview or something that CBJ would be holding to compliance. Some of the conditions are private agreements between the applicants and the appellants. Ms. Maclean wanted to remind the Commission that, as Ms. Christian goes through the application and the Commission hears the proposal and reviews the Staff Report, the purview of the Commission is still the same as it typically is for any major subdivision. It is per Title 49 and any other agreements, such as the buffers, are not within the Commission's purview. The Commission's purview is just the platting requirements per Title 49.

To clarify that everyone was on the same page procedurally, Mr. LeVine asked, since there is still a current, existing preliminary plat that covers largely the same geography, if the Commission was to approve this application, if it would fully replace the existing preliminary plat, or if there would then be two approved plats.

Ms. Maclean stated that she would have to double check the agreement, but she believed that if the Commission were to approve the preliminary plat being reviewed at this meeting, then there would be two standing plats that had been approved. Once the appeal period for the plat before the Commission at this meeting expires, if it is not appealed, then the applicants and appellants have agreed that they would withdraw the previous plat and move forward with the newest one. If the newest one is also appealed by a third party, or another party, then the applicant reserves the right to have the first preliminary plat stand until the newest one is worked through. Ms. Maclean asked if the Commission understood this procedure.

Mr. LeVine stated that this made sense and was the impression he was under when reviewing the information beforehand. He trusted that someone had made sure it would be okay for the Commission to approve two separate preliminary plats for the same area.

Ms. Maclean stated that the Commission could do so.

Staff Presentation

Ms. Christian gave a presentation regarding the application at hand, highlighting some of the primary differences of the new plat and proposals, compared to the previous plat and proposals. She noted aspects of the application that included Capital City Fire & Rescue requirements, traffic impacts, a reduction in a right-of-way width (ROW) for Phase 1 only, request for alternative roadway construction standards, drainage and grading requirements, agency and public comments, and Staff's findings. Staff recommends that the Planning Commission adopt the Director's analysis and findings and approve the preliminary plat for Phase 1 of the Chilkat Vistas Subdivision with conditions. This approval would allow the applicant to submit for the final plat application.

Questions from Commissioners

To help in terms of background and context, Mr. Voelckers asked to review what the sketch plat means and what its legal standing is in relation to the preliminary plat. A number of phases are shown for development, some showing a lot of detail and some showing none, so the Commission would like to know what that meant.

Ms. Maclean stated that typically with a major subdivision, a sketch plat would be presented and is a requirement of an application. The basis for a sketch plat is for Staff, the Commission, and other agencies to have the chance to review a subdivision for its full, build-out potential, to ensure that the public roads and infrastructure are sized appropriately and is safe. Normally, a developer would not be held to developing a sketch plat exactly so, and as they go through the phases they are allowed to change that or go in a different direction. In this case, the applicant and the appellants have agreed to a number of conditions that do pertain to the sketch plat and the sketch plat was the method that was thought would best fit in with what the Commission also reviews. Through the sketch plat, some of the items are part of the conditions under the Commission's purview, others are part of the private agreement, such as the loop of Mountainside Drive and Hillcrest Avenue and Robbie Road will all be single-family dwelling units. They have also agreed that Robbie Road will only be extending so much as to allow for seven single-family homes, three of which could have accessory apartments. Ms. Maclean noted that the Community Development Department requires that, while Robbie Road may end in a cul-de-sac for seven homes, there may be an emergency service access road only, so future development in a later phase would have connections to the other side in case of an emergency, but it will not be a public road. Other items shown on the sketch plat per the agreement are a buffer between the existing Mountainside Estates Subdivision and the proposed subdivision and sidewalks on one side of the street, among other construction agreements. They have also limited how many units can be constructed in a specific area, but that is not something the Commission can condition, as the CBJ cannot limit density.

Mr. LeVine asked if the loop drawn on the sketch plat around Mountainside Drive was a piece of the settlement agreement, or if it was something under the Commission's approval.

Ms. Maclean stated that, that area was a piece of the private agreement.

Mr. LeVine asked for clarification on all of what the Commission was looking to make a decision on at this meeting.

Ms. Maclean stated that the Commission was only looking at Phase 1, 14 lots along Hillcrest Avenue and the large tract for future development at this meeting. The rest of the information was being presented, because the sketch plat was the method being used to make a settlement between the applicants and the appellants.

Ms. Christian noted that the preliminary plat, minus the color, is what development will look like. It will only have the fourteen lots and the large, remaining tract will just be blank. The

sketch plat will not be recorded with that. It is just something for CBJ files. The preliminary plat and the information with it is what the Commission would be making a decision on at this meeting.

As Richland Manor is neighboring a D18 zone, Mr. Hickok asked if there was a possibility that the applicant could attempt to rezone their parcels in the future.

Ms. Christian stated that she did not know if that was the intent of the applicant, but it could be possible. If the parcel is larger than two acres, or an extension of an existing zoning district, one could apply for a rezone. This parcel would meet either of those rezoning requirements.

Mr. Eiler asked for clarification on CCFR's requirements for separate access after more than 200 residential units are developed in the neighborhood, and where the requirements are derived from.

Ms. Christian stated that those requirements are derived from the International Fire Code and pointed out where the sections were quoted on these requirements.

In regards to condition 9, Mr. Arndt asked if the changes that were currently being made to Title 49 would have an impact on this.

Ms. Christian noted that the changes being made were in regards to Shared Access, but this parcel is considered a panhandle, so the proposed shared access changes to Title 49 would not impact this lot.

Mr. Voelckers asked if accessory apartments counted as two residential lots or if they counted as individual residential units, when calculating the aggregate numbers for a secondary fire access.

Ms. Christian stated that the Fire Code includes accessory apartments, but Staff won't know if the houses will or will not have accessory apartments until they build them, though. Three of them would not be able to have accessory apartments, as they will be bungalow lots, but the remaining 11 lots would be able to build accessory apartments and they will count as two residential units for fire code purposes.

With these calculations in mind, Mr. Alper noted that there could be up to 25 dwelling units in the subdivision, as proposed.

In regards to the corrections required for the preliminary plat, Mr. LeVine asked if these corrections were more for the recording aspect, or if they were for the Commission to look into.

Ms. Christian stated they were for the recording aspect.

With no further questions from the Commission, Mr. Haight asked the applicant to give his presentation.

Applicant Presentation

Michael Heumann, 1925 Davis Avenue Unit D5, Juneau, AK 99801

As the applicants anticipate, they are currently looking at just over 400 units at full build-out, 47 of which are single-family and 353 are multi-family units. The applicants believe this will help to mitigate some of the housing shortage in Juneau and provide a wide range of housing options. One of the challenges that has been seen is a lot of new construction has been more expensive units and some of the bungalow lots and panhandles will provide more-affordable options for people.

Mr. Heumann thanked everyone that had participated in the settlement agreement, as it was a very intensive process. Many were involved, including the applicants, appellants, neighbors, developers, planners, lawyers, surveyors, and engineers. The sketch plat has had a lot of work put into it, and while the Commission is only making a decision on the first phase, the applicants are bound to the rest of it via the settlement agreement, as long as the preliminary plat is approved. It provides a clear future for development, which has helped alleviate some concerns from the surrounding neighbors.

There were many concerns about traffic impact and neighborhood harmony, so the applicants have worked to balance things out in a way that works for everyone. With the previous application, the Commission had express some concerns with drainage, so the applicants hired a civil engineering firm to work on the drainage and come up with a more feasible plan. Roadway traffic was brought up as well, so they had the engineers look into that and there is currently a traffic impact analysis underway. The traffic impact analysis is not required for phase one, but the applicants felt it was prudent to begin working on that for future phases. Hooter Lane was also a big concern; it will not be built during this phase, but the applicants have worked out a path forward for that, as it will be required when the multi-family dwelling units are being developed.

Mr. Voelckers thanked Mr. Heumann for the analysis on the future phases, and asked for more elaboration on the proposed development of Hooter Lane regarding the drainage and buried utilities.

Mr. Heumann stated that sewer lines would be run up to the large tract. That could be avoided by building a sewer lift station, but the applicants feel it would be best to make the investment to run the lines in the first phase in order to avoid destroying people's yards and building a lift station that ultimately won't be needed in the future.

To follow, Mr. Voelckers noted Item 3 of the applicant's narrative that described how Hooter Lane will be developed as a fire access in the near future and fully developed as a City street, as

necessary. He asked if developing as a fire access meant being used for only emergency purposes.

Mr. Heumann stated Mr. Voelckers' interpretation was correct. He noted that they would probably improve the lane in the first phase, as installing the sewer lines and doing everything properly will require a road that big trucks can drive on and get the equipment to, so it makes sense to make the fire access as well.

In regards to the negotiations with the Mountainside Neighborhood Association, and working with the people of Tamarack Trails, Mr. Alper thought there may have been some miscommunication to them. Some of the people seem to be under the impression that the future Hooter Lane was an extension of the existing road that serves the condos, whereas the actual platted road kind of runs behind them, other than the initial part that runs off the highway. Mr. Alper asked if there was some sense of clarity with the neighbors there as to where the road is actually going to go.

As the applicants have not yet decided on the exact location of the roadway, Mr. Heumann stated that the discussion with the neighbors to provide clarity has not occurred. He noted that the intent is to build a road that is centered in the ROW. The applicants are aware that some of the concern is with the parking, but the as-built shows that this should not be a problem and the applicants have no intent to eliminate any parking spaces. Some realignment of the driveway may be necessary when the roadway is built, though.

Ms. Maclean pointed out that the settlement agreement did not involve Tamarack Trails. The settlement agreement was between the applicants and some of the residents of Mountainside Estates. There were also internal conversations with CBJ Engineering regarding the future build-out of Hooter Lane. For clarity, Ms. Maclean noted that previously property owners were allowed to construct a driveway in an unconstructed, but platted, public ROW. This is no longer allowed within the Urban Service Area. Allowing that driveway in that use though, does not preclude CBJ or a developer to come in and fully develop that ROW to the extent that it can be constructed. There is also a section of Code that allows for some waivers for any roads that were platted pre-1987, so they wouldn't be required for the portion of Hooter Lane that is platted today. The portion that is platted today is not required to be 60 feet in width, and CBJ would have the ability to waive it one sidewalk to have less impact to the Tamarack Trails condos if the sidewalk is put in on the opposite side of their condos, which was discussed internally.

To clarify, Mr. Alper asked if Ms. Maclean meant the sidewalk would be where within the ROW the physical road would eventually be developed, towards the south side away from the existing condos.

Ms. Maclean stated this was correct. She noted that it is a 40-foot ROW, so there would be travel lanes and one sidewalk, with lighting, on the other side to make less of an impact to the driveway for Tamarack Trails.

Ms. Christian clarified that it is a 60-foot ROW, not 40.

In regards to a section of land referred to in the settlement agreement as “the pocket”, Mr. Alper asked about the access to this area and how the applicants planned to develop that.

Mr. Heumann stated that access to this area would be a driveway, of sorts. When the applicants were planning this, they were looking at making a test piece out of the Alternative Residential Subdivision (ARS) Code. They wanted to provide the ability to build a fourplex in this area, if they found this would be the best way to move forward, but envision something more cottage-like. Market forces will dictate what is ultimately decided.

In regards to Ms. Maclean’s comments about locating the structure within the Hooter Lane ROW, Mr. Arndt felt it may make sense to push the road over away from the Tamarack Trails condos as proposed, but it looks to be a 10% grade there and it may actually make more sense to put the sidewalk on the Tamarack Trails side to avoid having to put in a crosswalk to get the people to the sidewalk.

Ms. Maclean noted that there are ongoing preliminary discussions to make sure the proposals are possible. The main concern is the grade that the current driveway accessing Tamarack Trails enters has quite a bit of a drop, so it will depend on what the engineering looks like. Staff was trying to balance the need of putting at least one sidewalk and lighting in, but also trying to be the least impactful to the existing condominium development. Pedestrian access was discussed, as well, but there was some feelings that it may work better on the opposite side of the existing ROW.

Public Testimony

Paul Grant, attorney representing the appellants

Mr. Grant told the Commission that he could answer any questions about the legal aspects of the settlement agreement from the perspective of the appellants.

Brian Duncan – 4850 Glacier Highway, President of the Tamarack Trails Condo Association

Mr. Duncan stated that Tamarack Trails has not been a party to any agreement that was settled upon. They have been participants in the CBJ planning process, at best. The initial plat that was approved previously had Hooter Lane being used as a utility corridor and there wasn’t much discussion on it in the multiple phases and getting it developed into a road. Tamarack Trails was involved in the process, but not alarmed by the process. Certainly, there is an impact on the condos, since the proposal is to add 400-500 more residents behind the existing condos and a considerable amount of that traffic will be coming down the hillside within 20 feet of the condo development. Putting a road in will be a substantial development to the existing condos and

the development behind them. From what he has seen, it sounds like the applicants and the City are trying very hard to go through all of the processes and get the developments done right. Mr. Duncan is more in favor of the sidewalk being on the far side of the road. It looks like two or three accesses will developed from the condos onto that street, but they have not seen any drawings on what that will look like. However, they know that the development is in the first phase and it is being proposed to use the road as a utility access. You can tell by the numbers though, Hooter Lane will need to be developed. Tamarack Trails is very concerned about their driveway. Currently, 70 plus vehicles come and go through there every day, all day long, so if the driveway is torn up, the logistics for these people are seen to be very concerning. The applicants have stated that they will do their best to make it as least impactful as possible, and Tamarack Trails hopes the CBJ will also help to work on it. They know it has to happen, but they are concerned with how it will happen. It is going to be a major impact to Tamarack Trails.

In regards to Mr. Duncan's comment about two or three access points being developed from the condos to the new road, Mr. Alper asked which access points he was referring to, because he only sees the T-intersection where the existing access driveway would intersect with the future Hooter Lane.

Mr. Duncan stated that Building C has a large parking lot. He has not seen any preliminary drawings, though. Using a drawing presented by Ms. Christian, Mr. Duncan described where he imagined that new access points would have to be developed, in order to have traffic flow properly from the developments.

Matt Pegues – 1409 Mary Ellen Way

Mr. Pegues came as a representative to all the neighbors involved in the appeal and thanked everyone involved in coming to a settlement agreement. It was a tough agreement where a lot of people gave up a lot of time; no one is completely happy on either side, but they managed to come to an agreement, as long as both sides uphold their end of the agreement.

Applicant

Mr. Heumann felt that the statements made by Mr. Duncan are accurate, as there will need to be work done on Hooter Lane. That work has been started by the civil engineers to make sure that everything is developed properly. More analysis will take place. The applicants intend to do their best to work with Tamarack Trails. The applicants recognize that this will impact the people of Tamarack Trails, since the ROW will have to be next to them. In general, this is a disruptive item that is an unfortunate requirement of creating more housing, but the applicants will do their best to be a good neighbor and minimize the impacts.

Discussion

Mr. Levine asked Staff about the meaning behind Condition #5, and why it is phrased differently than the other conditions.

Ms. Christian stated that there are various improvements required for all subdivisions, including water and sewer. This subdivision will have lighting, sidewalks, and road. Engineering requires that those improvements either be constructed to standards that in Code and can be adopted by CBJ, or the applicant has provided a financial guarantee for those improvements before the final plat is recorded. Condition #5 is standard on all subdivisions, so there is no specific reason for the wording.

Regarding the housing count, Mr. Voelckers felt that it would be useful to explicitly state what triggers Hooter Lane on the preliminary plat notes. He was curious if there is a decision where it is sufficiently covered elsewhere.

Ms. Christian stated this was a note that came out of the settlement agreement, but there would be some reorganization of the plat notes, so that it is clear which ones CBJ can enforce and which ones they cannot. That specific plat note just speaks to Hooter Lane being developed at some point in the future. The Fire Code could change, which could result in a different trigger, so it would depend on what the Code is at the time of an application review. Ms. Christian would caution not to put a specific number on the plat.

Mr. Arndt asked if adding other accessory apartments, beyond the ones being proposed, would affect the other lots that access through Craig Street and their ability to add other accessory apartments.

Ms. Maclean stated that it may not prevent them from being able to develop more, but the Fire Marshalls would review them and determine whether they need to be sprinkled at that point.

With the 14 houses required to small, residential sprinkler systems, Mr. Alper asked if it would still be required to maintain those systems once the second access is developed.

Ms. Maclean stated that it might be possible for them to be removed, if the Fire Marshall accepted the other access; however, she is not sure how feasible that would be once it is constructed. She also noted that, at any point, once this plat is approved and moves forward, the developer can choose to build Hooter Lane sooner, rather than put in the sprinkler systems that they want. As long as they are meeting the Fire Code, either through sprinkling the units or providing the second fire access, they can develop in either manner.

Mr. Alper clarified that once the developer applied for a Building Permit down the road, the intent would then be known if sprinkler systems would be installed or the road would be developed earlier.

Ms. Maclean stated this was correct.

To determine what the Commission was attempting to do for this application, Mr. LeVine clarified that the Commission would be approving the sketch plat with there being some items in the notes, and other places, that come from the settlement, so they needed to make sure that plat meets the Code requirements with the conditions that are and are not required by Code.

Ms. Maclean stated that was correct.

MOTION: *by Mr. LeVine to adopt SMP2019 0004 and approve it with Directors analysis and findings, subject to the conditions listed in the Staff Report.*

The motion passed with no objection.

Paul Grant – 313 Coleman Street, Attorney for the appellants

Mr. Grant stated that the process the applicants, appellants, and everyone involved in the appeal went through for the appeal was quite laborious, but very productive. Mr. Grant commended the applicants for their willingness to compromise on a number of issues; they made some hard decisions, but those decisions will be for the betterment of the project and for the neighborhood, in general. Mr. Grant wanted to suggest to the Commission that there may be a way to institutionalize the process that one goes through for an appeal. It would involve some sort of mediation format, in which there is a period for the parties to get together with a neutral third party. In this case, the attorneys were sort of acting in that role; even though they were representing clients, they were also trying to be negotiators and mediators. Throughout the process, Mr. Grant felt that they made the project better through the process of negotiating for this deal. He believes that the CBJ would be well advised to consider developing some sort of formal process, which is specifically for a contested appeal that has a possibility to be resolved through mediation. Were there a more formal process, it might have been less time consuming and easier on all the parties involved.

Mr. Haight thanked Mr. Grant for his suggestion and felt that the City Attorney would be very interested in reviewing that. If a committee would be developed, Mr. Haight felt Mr. Grant would be helpful.

Mr. Grant stated he would volunteer for such a committee, as he believes that mediation is a very logical way to solve problems.

Ms. Wright noted that, for future reference, it would be good to reopen public testimony and close it again, when someone chooses to speak after it has been closed.

AME2019 0012: A Text Amendment to adopt Juneau’s Historic and Cultural Preservation Plan as part of the CBJ Comprehensive Plan.
Applicant: City & Borough of Juneau
Location: Borough-wide

STAFF RECOMMENDATION:

Staff recommends that the Planning Commission review and consider the draft *Historic and Cultural Preservation Plan* and recommend to the Assembly its adoption as an addendum to the Comprehensive Plan.

Staff Presentation

Ms. Eddins gave a brief overview and presentation on the draft Historic and Cultural Preservation Plan, noting some background information, why it is important for Juneau, and how it is organized.

Mr. Hickok asked about how the Plan would develop a subcommittee and how the subcommittee would do research and dictate what is historic and cultural.

Ms. Eddins stated that, if the Plan is adopted, some of the action items would be implemented. There would not be a new subcommittee formed, the Historic Resources Advisory Committee (HRAC) and Staff would continue to work together. One of the first things in mind to do is start applying for funding opportunities. Those opportunities would help to update the historic building surveys to gather an accurate representation of what is in Juneau. Once the surveys are done, HRAC and Staff would want to go out and engage with the public. There has been some discussion about how Juneau has some neighborhoods that are locally significant and there is some interest in having those neighborhoods listed on the national register of historic places. Having these neighborhoods on the national register would create more funding opportunities for preservation coming from the Federal Government. That would be a near-term action item. A long-term action item would be to take these surveys and engage with the public in conversation on becoming a nationally recognized historic neighborhood and if they would like to have design standards that go along with that. HRAC and Staff want to make sure that everything is done in a step-by-step process.

Mr. Hickok asked if certain property owners of a historical building, within a historical neighborhood, would have a say in if they want to be involved in everything, or if it would be a title given to them.

Ms. Eddins stated that they would have a say. One of the requirements for the neighborhoods to be listed on the national register is that a majority of the property owners have to sign onto it. It doesn’t have to be 100% in agreement, just a majority. Additionally, there is an option for property owners to opt-out.

Mr. Hickok asked if this would be more for neighborhoods, rather than individual buildings.

Ms. Eddins stated that there are certainly quite a few buildings that are significant and could be listed on the national register themselves. They can pursue the listing on their own, but they don't need help to do that. However, there are certain funds that only a Certified Local Government (CLG) is available for. Therefore, if the City wanted to apply for funding that would create some standards for an entire neighborhood, then HRAC and Staff would play a role in that. To clarify on the process, Mr. Arndt asked if the Commission was looking to approve the draft plan at this meeting and it would continue on to the Assembly for their review, or if this was something the Commission needed to go through completely for them to approve.

Ms. Eddins stated that the Commission was to go through it completely and make a decision.

Ms. Maclean noted that the draft plan was given to Commissioners at the last meeting, in hopes of reviewing it in depth and asking question as this meeting. Staff could continue this discussion at the following Planning Commission, as well, if more time was needed for review.

Mr. Voelckers stated that he had thoroughly read the draft plan and had some comments for Staff. He felt there was a lot of good information in the draft, but didn't feel it was quite ready to go the Assembly, yet.

Mr. Eiler felt that Staff had made a great start on the draft plan, but also wanted to spend more time on reviewing it.

Mr. Arndt asked if this information had come before the Commission at an earlier time.

Mr. Haight stated that the first time the Commission had seen the full draft plan was at the previous meeting, but there had also been some discussions previously to make the Commission aware that the draft plan was coming.

Ms. Eddins noted that the process for this plan had begun in 2016. It has taken awhile to get to this point due to grant funding, though. However, Staff came before the Commission when they applied for the grant funding, when they gave an update for Phase 1 regarding public input, and again when they applied for Phase 2 to write the plan.

In regards to how this fits into the Comprehensive Plan instructed process, Mr. LeVine asked if Staff was following the old process, or the one within in the new Comprehensive Plan, or if they were merging the processes.

Ms. Maclean stated that Staff had been discussing that. For background, she noted that the Assembly had asked the Commission and appointed an Ad Hoc Committee to look at the

Comprehensive Plan and next steps. That committee unanimously agreed that a new Comprehensive Plan was needed. One of the key items being written into the scope of the new Comprehensive Plan is that the consultants clearly address the relationship between the Comprehensive Plan and the other working plans associated with it.

Mr. LeVine thanked Ms. Maclean for the update on the new Comprehensive Plan, but restated his question regarding the process being followed for adopting the Historic and Cultural Preservation Plan.

Ms. Maclean stated that it would be following the same process as before, because the new Comprehensive Plan won't be complete for a few years.

MOTION: *by Mr. LeVine to continue discussion on AME2019 0012 to the next regularly scheduled meeting to allow Commissioners more time to review it and have conversations with Staff.*

The motion passed with no objection.

Ms. Maclean noted that they will want to open the case for public testimony again at the next hearing, as well.

IX. BOARD OF ADJUSTMENT

X. OTHER BUSINESS

XI. STAFF REPORTS

Ms. Maclean noted that she would not be present at the following Commission meeting and Ms. Pierce would be sitting in for her. She asked the Commissioners to hold December 17 for a Planning Commission, in case a hearing was needed, but nothing had been scheduled at that time. The Title 49 Committee is scheduled to meet on December 12. Staff plans to bring the Conditional Use Permit application materials required for the permit to see if the Commission wanted to discuss the standards for the application. The Wetland Review Board is scheduled to meet on December 19. The Blueprint Downtown Steering Committee did not have a quorum for their last meeting; however, the Engineering Department did present on wayfinding as an informational purpose only. The South Douglas/West Juneau Area Plan has been awarded to Corvus and a couple of their subcontractors, so that plan should be starting soon. Ms. Eddins is the main staff person assigned to manage that project. The amended Rules of Order should be ready for the December 10 Planning Commission meeting. The Auke Bay Zoning Ordinance is being submitted to the Law Department. Staff is working on Accessory Apartments, Shared Access, and Common Walls to update them and return them to the Law Department in December, so they will hopefully come before the Commission sometime in January or February. The priority is the Streamside Buffers as a major ordinance, though. The Nonconforming Ordinance is schedule for a Committee of the Whole meeting before the

Assembly on December 2, and it is believed they do not intend to take public testimony that evening.

Mr. Voelckers asked if anything was scheduled for the Auke Bay Area Plan Ad Hoc Committee as this time.

Ms. Maclean stated that the way the Committee had left it was to submit the ordinance to the Law Department and once it was returned, the Committee would meet again. She noted that she has asked Ms. Eddins to schedule the meeting to occur in the evening, in Auke Bay, without public testimony. To establish a quorum, Ms. Maclean asked if Commissioners would be able to attend a Committee of the Whole Planning Commission meeting on November 26 at 6pm, before the Regular Planning Commission meeting.

Commissioners stated they could be present for this meeting.

Regarding the amended Rules of Order, Mr. Arndt asked if it was coming before the Commission to be reviewed and voted on, or what was the Commission hoping to accomplish at the next meeting.

Mr. LeVine stated that the Rules went through the Rules Committee and they had some questions for the Law Department. Mr. LeVine has had discussions with Ms. Mores and he believes the questions have been resolved. There were some substantive changes, but they all seem to be resolved. He expects the Commission to be able to review the amendments and approve them, and there will be no public testimony on this item. The ongoing conversation between the Committee and the Law Department has centered around the conditions under which meetings may be extended past 11pm, 11:30pm, and midnight and some of the nuances about which section the rules regarding public testimony belong in. There has also been an ongoing conversation about how decorum is characterized for the Commissioners and the public.

XII. COMMITTEE REPORTS

Mr. LeVine stated he had attended a meeting held by the Juneau Commission on Sustainability since the previous meeting. They are focused on a variety of topics, including one for a proposal to the Assembly for sustainability awards. There are many questions still, but Mr. LeVine felt it is a good idea.

XIII. LIAISON REPORTS

Mr. Smith stated that a Regular Assembly meeting occurred on November 4 where they joined the remote sales tax commission, hoping to generate more revenue from online sales. They set the Assembly calendar for 2020. They have a retreat on December 7 where they will set their

Assembly goals, some of which will include improving downtown housing, evaluating next steps and benefits with the West Douglas Road and Channel Crossing, developing a downtown transportation plan, updating the Comprehensive Plan, completing the Downtown Area Plan followed by Douglas and The Valley, identifying future industrial land, revitalizing downtown based on the Blueprint Downtown Plan, and maintaining Assembly focus on deferred maintenance. There was a Finance meeting on November 6 where the recycling fee will be removed from water and wastewater utility bills. This creates a \$5,000 gap, but the Assembly is looking at ways to make that up. The Alaska Municipal Conference occurs the following week.

Mr. LeVine asked for an update on filling the coming vacancies on the Commission.

Mr. Smith stated that the Assembly is evaluating a few dates in December to appoint members for the Planning Commission and other boards. There may be a chance that the application period will be extending, but he does not know if that will happen.

In regards to the Nonconforming Ordinance being presented at the next Assembly meeting, Mr. Arndt asked if they had any initial thoughts on what direction they would go in.

Mr. Smith stated he was unsure.

Ms. Maclean stated that the Assembly may not have received the packet with that information yet for that meeting.

XIV. CONTINUATION OF PUBLIC PARTICIPATION ON NON-AGENDA ITEMS - None

XV. PLANNING COMMISSION COMMENTS AND QUESTIONS - None

XVI. EXECUTIVE SESSION

XVII. ADJOURNMENT

The meeting was adjourned at 9:01 p.m.



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: July 29, 2020
File No.: SMF2020 0001

William & Michael Heumann
6000 Thane Road
Juneau, AK 99801

Proposal: Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)

Property Address: 4506, 4508, & 4510 Hillcrest Avenue

Legal Description: Richland Manor Tract B

Parcel Code No.: 7B1001160010

Hearing Date: July 28, 2020

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated July 16, 2020 and approved the final plat to be conducted as described in the project description and project drawings submitted with the application.

Attachment: July 16, 2020 memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding SMF2020 0001.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

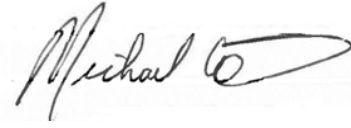
This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, on July 28, 2020.

Project Planner:



Laurel Christian, Planner II
Community Development Department



Michael LeVine, Chair
Planning Commission



Filed With Municipal Clerk

8/3/2020

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

STAFF RECOMMENDATION:

Staff recommends **APPROVAL**

ALTERNATIVE ACTIONS:

1. **Amend:** amend the approval to require conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-3 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

STANDARD OF REVIEW:

This is a quasi-judicial decision and requires five (5) affirmative votes for approval.

DATE: July 16, 2020

TO: Planning Commission

THROUGH: Jill Maclean, Director, AICP

BY: Laurel Christian, Planner II

Laurel Christian

PROPOSAL SYNOPSIS: Applicant requests a final plat review for a phased major subdivision creating 14 lots and 1 large tract for future development (15 lots total)

SUMMARY OF KEY CONSIDERATIONS:

- Preliminary plat approved November 12, 2019
- Conditions of preliminary plat approval have been met
- Developer has begun constructing improvements and provided a financial guarantee for the remaining work

GENERAL INFORMATION

Property Owner	William & Michael Heumann
Applicant	William & Michael Heumann
Property Address	4506, 4508, & 4510 Hillcrest Ave
Legal Description	Richland Manor Tract B
Parcel Number	7B1001160010
Zoning	D15
Lot Size	30.67 Acres (1,335,985 sq. ft.)
Water/Sewer	Public
Access	Hillcrest Ave
Existing Land Use	Vacant
Associated Applications	SMP2019 0004

SURROUNDING LAND USES	
North	D18 Residential
South	D5 Residential
East	RR Vacant/Forested
West	D5/D15 Residential
SITE FEATURES	
Anadromous	N/A
Flood Zone	N/A
Hazard	N/A
Hillside	N/A Phase I
Wetlands	Yes



49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska. To meet this objective, this article is intended to:*

- (1) Establish a process that facilitates the fair and predictable division of land;*
- (2) Encourage the efficient and cost-effective provision of public services;*
- (3) Address traffic and circulation to reduce congestion;*
- (4) Provide for flexibility in the division and establishment of residential and commercial lots;*
- (5) Establish procedures for subdividing land to accommodate a variety of housing types; and*
- (6) Accomplish uniform monumentation for land subdivision and facilitate accurate legal descriptions for land conveyance.*

ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Final Plat and Closure Report
Attachment C	Abutters Notice and Public Notice Sign
Attachment D	SMP2019 0004 Preliminary Plat Notice of Decision
Attachment E	Certificate of Taxes Paid
Attachment F	Approved Construction Drawings (Includes lighting and grading)
Attachment G	Engineer's Estimate
Attachment H	Reconveyance Agreement
Attachment I	Drainage Report
Attachment J	APL2019 0003 Settlement Agreement

AGENCY REVIEW

No agency review comments have been received at time of writing this staff report. CBJ Engineering and Public Works, the CBJ GIS Analyst, and Capital City Fire & Rescue have endorsed the final plat for recording.

PUBLIC COMMENTS

At time of writing this staff report, no public comments have been received.

DISCUSSION

Background Information – The below table summarizes relevant history for the subject parcel and proposed development.

Item	Summary
SMP2018 0002	Appealed – The applicants applied, and received approval, for a preliminary plat for a phased major subdivision to include 12 single family lots and 1 large tract (13 lots total) in February of 2019 for the Richland Manor subdivision.

Item	Summary
APL2019 0003 Settlement Agreement (Attachment J)	Settlement Reached – SMP2018 0002 was appealed to the CBJ Assembly. As a result of this appeal, the appellants and the applicants came to a settlement agreement, resulting in a revised preliminary plat.
SMP2019 0004 (Attachment D)	The preliminary plat was approved in November of 2019 through SMP2019 0004. This is the current approval on which the applicants are acting.

ANALYSIS

Final Plat - The final plat complies with CBJ 49.15.412, Final Plat Requirements. The proposed lots meet dimensional requirements listed in CBJ 49.25.400. Minor revisions were made to the final plat. With the revisions, the plat is still in general conformity with the preliminary plat. Minor revisions are:

- The bungalow lots (Lots 1, 2 and 3) were increased in width from 28 feet to 32 feet and decreased in length from 110 feet to 94 feet. The bungalow lots still meet minimum dimensional requirements:
 - o Minimum lot width is 25 feet
 - o Minimum lot depth is 80 feet
- Drainage easements were added to the final plat to conform to the drainage plan approved by CBJ Engineering and Public Works.
- Public Drainage & Sewer Easement that connects Hooter Lane to Hillcrest Avenue was widened.

Preliminary Plat Conditions of Approval – The below table lists the conditions of the preliminary plat approval, condition status, and a summary of how the condition is met/unmet.

Condition	Status	Summary
1. Prior to approval of the final plat, all required plat corrections listed in the MEMO from the Community Development Department (CDD) to Michael Heumann (applicant), dated November 1, 2019 shall be completed (Attachment H).	☒ Met ☐ Unmet ☐ On-going	The final plat has been revised and meets the requirements of 49.15.412 for final platting standards. The final plat can be found in Attachment B.
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.	☒ Met ☐ Unmet ☐ On-going	The taxes for 2020 have been paid. The Certificate of Taxes Paid can be found in Attachment E.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering and Public Works for compliance with CBJ 49.35.140.	☒ Met ☐ Unmet ☐ On-going	Construction drawings for the required improvements have been approved by CBJ Engineering and Public Works (Attachment F).
4. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to the	☒ Met ☐ Unmet ☐ On-going	An engineer's estimate for the cost of the improvements has been submitted and

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Condition	Status	Summary
CDD, and reviewed and approved by CDD and Engineering and Public Works.		approved by CBJ Engineering and Public Works and CDD (Attachment G).
5. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.	☒ Met ☐ Unmet ☐ On-going	The applicants and CBJ have signed a reconveyance agreement in accordance with CBJ 49.55.010(5). This will be recorded with the final plat (Attachment H). Reconveyance allows the developer to convey land to CBJ that has the same value as the cost of the improvements. Once the improvements are accepted by CBJ, the land is conveyed back to the developer.
6. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.	☐ Met ☐ Unmet ☒ On-going	This is on-going. The applicants have filed a Storm Water Pollution Prevention Plan with the State Department of Environmental Conservation.
7. The developer shall utilize Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.	☐ Met ☐ Unmet ☒ On-going	This is on-going. The applicants have filed a Storm Water Pollution Prevention Plan with the State Department of Environmental Conservation.
8. The developer shall submit a final drainage plan to be approved by Engineering and Public Works prior to final plat approval. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.	☒ Met ☐ Unmet ☐ On-going	The final drainage plan and report has been reviewed and accepted by CBJ Engineering and Public Works (Attachment I).
9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway, whichever length is greater, for all panhandle lots created with this subdivision.	☒ Met ☐ Unmet ☐ On-going	The cost to pave the panhandle driveways is included in the engineer's estimate for all of the subdivision improvements. This work is covered under the reconveyance agreement.
10. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.	☒ Met ☐ Unmet ☐ On-going	Lighting is included in approved construction drawings (Attachment F).
11. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue requirements in each dwelling unit constructed through Phase 1 of this subdivision.	☐ Met ☐ Unmet ☒ On-going	This is on-going. Residential sprinklers will be installed with each individual dwelling. This will be reviewed through the building permit process.

FINDINGS

Final plat approval criteria - Per CBJ 49.15.402(f)(3) the Director makes the following findings:

- 1. *Has the applicant complied with any conditions or plat notes as required in the notice of decision approving the preliminary plat?***

Analysis: The above table demonstrates that all conditions of approval are met or on-going.

Finding: **Yes.** All conditions of preliminary plat approval have been met or are on-going.

- 2. *Has the applicant constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010?***

Analysis: The applicant and CBJ have signed a reconveyance agreement which provides land as a financial guarantee for the cost of the required improvements. The reconveyance agreement will be recorded with the final plat.

Finding: **Yes.** The applicant has provided a financial guarantee.

- 3. *Does the final plat meet the standards set forth in CBJ 49.15.412 for final plats?***

Analysis: Minor modifications were made to the final plat. These modifications meet the standards set forth in 49.15.412.

Finding: **Yes.** The final plat complies with CBJ 49.15.415 Final Plat Standards.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested final plat. The final plat approval allows for the Chilkat Vistas Subdivision Phase I – a phased major subdivision – creating 14 lots and 1 large tract for future development (15 lots total). This approval allows the applicant to record the final plat with the State Recorder's Office.



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address 4506 Hillcrest Ave. Juneau		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) Richland Manor Tract B		
	Parcel Number(s) 781001160010		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner William & Michael Heumann	Contact Person Mike Heumann	
	Mailing Address 6000 Thane Rd.	Phone Number(s) 971-261-8014	
	E-mail Address mphekmann@hotmail.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X	 Landowner/Lessee Signature	5/12/20 Date	
X	 Landowner/Lessee Signature	5/12/20 Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME"			
Applicant Same	Contact Person		
Mailing Address	Phone Number(s)		
E-mail Address			
X	 Applicant's Signature	Date of Application	

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials LEC	
Case Number SMF20-001	Date Received 5/12/20



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

Number of Existing Parcels 1 Total Land Area _____ Number of Resulting Parcels 15

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☒ NO

☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
☒ Final Plat (MIF)
☐ Panhandle Subdivision
☐ Accretion Survey
☐ Boundary Adjustment
☐ Lot Consolidation (SLC)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

- ☐ Preliminary Plat (SMP)
☒ Final Plat (SMF)
☐ Preliminary Development Plan – PUD (PDP)
☐ Final Development Plan – PUD (PDF) Preliminary
☐ Development Plan – ARS (ARP) Final
☐ Development Plan – ARS (ARF)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

- ☒ Pre-application conference notes
☒ Narrative including:
☒ Legal description(s) of property to be subdivided
☒ Existing structures on the land
☒ Zoning district
☒ Density
☒ Access
☒ Current and proposed use of any structures
☒ Utilities available
☒ Unique characteristics of the land or structure(s)

– ☐ Preliminary Plat checklist

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ _____			
Admin. of Guarantee	\$ _____			
Adjustment	\$ _____			
Total Fee	\$ _____			

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number	Date Received
SMF20-001	5/12/20 LEC

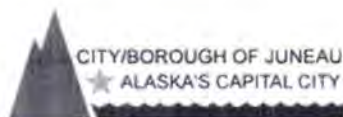
Chilkat Vistas Project Narrative



Status of Preliminary Plat Conditions

1. Attachment H corrections have been made to the plat
2. Certification of property taxes being paid have been requested by the CBJ Treasurer
3. A complete Set of Construction Drawings have been submitted for review by the Director of Engineering and Public Works
4. An engineer's estimate for installation of public utilities and improvements has been prepared and submitted
5. Discussions related to drafting a reconveyance agreement to serve as financial guarantee have begun, but an agreement has not yet been made
6. We will utilize best management practices to treat or reduce any harmful particulates that may arise from development
7. A SWPPP has been created by ProHNS engineers for managing storm water runoff during the project
8. A final engineered drainage plan has been submitted and approved
9. The driveway paving requirements shall be included in the guarantee of the subdivision improvements
10. Lighting has been accounted for in the submitted electrical engineering design

Attachment A - Application Pack (ATTACHMENT A) Page 264 of 717



FINAL PLAT CHECK LIST

Name of Proposed Subdivision: _____

The following items must be included with the initial submittal of a Final Plat:

- ☒ Application, filled out completely
- ☒ Application fee (see fee schedule)
- ☒ Preliminary Plat Notice of Decision
- Three (3) – 24" by 36" Copies
- ☒ Project Narrative explaining compliance with Notice of Decision preliminary plat conditions
- ☒ Lot Closure Report if any change to lots
- Draft improvement guarantee, if applicable
- ☐ Proof of construction plan approval
- ☐ Certificates of approval for water and sanitary systems
- ☒ Final Plat Checklist: I have reviewed the checklist and all submittals for completeness and accuracy.

William Heumann

Signature

William Heumann

Print Name

5/11/20

Date

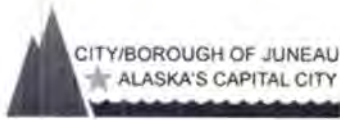
GENERAL REQUIREMENTS

- ☒ The final plat shall be prepared by a professional land surveyor, registered in the State of Alaska
- ☐ The final plat shall be submitted on 22 by 34 inch sheets.
- ☒ The final plat shall be drawn with black ink to a scale of one-inch to 100 feet or less, or other suitable scale approved by the director of engineering and public works
- ☒ The final plat shall be oriented with north toward the top of the sheet.
- ☒ A vicinity map shall be located in the upper right-hand corner of the sheet
- ☒ The vicinity map shall be oriented in the same direction as the plat
- ☒ A suitable north arrow shall be shown for the plat and vicinity map
- ☒ All line work and lettering must be of professional quality, and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion

GRAPHIC REQUIREMENTS - A final plat shall contain the following information:

Title block - An enclosed title block in the lower right-hand corner containing the following information:

- ☒ The proposed name of the subdivision
- ☒ The legal description of the parcel to be subdivided including U.S. Survey, U.S. Mineral Survey, A.T.S. number or section, township, and range number, as applicable
- ☒ "City and Borough of Juneau, Alaska"
- ☒ "State Recorder's Office at Juneau"
- ☒ The date the plat was prepared and revised
- ☒ The horizontal scale
- ☒ The name and address of the owner of record
- ☒ The name, address, and telephone number of the surveyor preparing the plat



FINAL PLAT CHECK LIST

Lot, block, and street information:

- ☒ The area of each lot
- ☒ The dimensions in feet and hundredths of a foot
- ☒ An identifying number and letter for lots and blocks
- ☒ Lots numbered consecutively, commencing with the number "1," with no omissions or duplications
- ☒ If the remainder of an original parcel being subdivided is relatively large, it shall be designated as a "tract" with an identifying number
- ☒ All parcels of land intended to be dedicated for public use or reserved for the use of all of the property owners in the proposed subdivision shall be shown as lots, and consecutively numbered. The purpose and any conditions or limitations on the use of the parcel shall be noted on the plat
- ☒ Abutting properties shall be shown with dashed lines, numbers, and/or letters
- ☒ For resubdivisions or public way vacations, the lines and legal description of the previous lots shall be shown with light dashed lines, numbers, and/or letters, or by a separate plat on the same sheet showing the previous lot lines
- ☒ The minimum data shown for each curve shall be as follows:
 - Length
 - Central angle
 - Radius
 - Bearing and distance of long chord

Boundary lines:

- ☒ All boundary lines of the subdivision with bearings and distances described
- ☒ All retraced boundary lines shall show record and measured bearings and distances where they differ. Record dimension information shall be shown within parentheses and include a record source identification
- ☒ The exterior boundary lines of the subdivision shall be a solid black opaque line that is of a width that distinguishes it from all other property lines shown on the plat
- ☒ If phasing is proposed, then the boundaries and number of each phase, sequential lot numbering, and a subdivision name consistent with previous phases shall be shown

Monumentation:

- ☒ The monuments used to establish the basis of bearing
- ☒ Each monument found or set shall be identified on the plat by a symbol
- ☒ A complete description of the monument, including type and all information printed on the cap. A typical drawing shall be shown for each type of monument cap set
- ☒ A legend showing the symbols for all the types of monuments
- ☒ The identification, description location, elevation, and datum of the benchmark used to establish vertical control

Site access, circulation, and utilities:

- ☒ The widths and names of existing rights-of-way within the subdivision and within 100 feet of the subdivision boundary
- ☒ Proposed rights-of-way, including their widths and proposed names
- ☒ The width, ownership, use, and record reference of all proposed and existing easements within the subdivision and within 100 feet of the subdivision boundary
- ☒ The width, ownership, and use of all proposed easements
- ☒ All proposed and existing easements shall have sufficient dimensions shown to determine their location on the ground
- ☒ Existing trails or pathways within the subdivision and within 100 feet of the subdivision boundary, including the width of any associated rights-of way or easements

Attachment A - Application Packet

- ✓ If the plat submitted covers only a part of the tract under the control of the applicant, a sketch plat of the prospective street system of the unplatted part shall be submitted
- ✓ The location of any existing or proposed driveways/curb cuts that access or are proposed to access any existing or proposed street

Multisheet plats:

When a plat requires more than one sheet, exclusive of a certificate sheet, an index sheet shall be included. When a plat requires more than three sheets, a cover sheet shall also be included, showing the subdivision title, a key map, and all certificates. Each additional sheet shall include the following data:

- ✓ North arrow
- ✓ Legend
- ✓ Surveyor's seal and signature
- ✓ Title block
- ✓ Sheet _____ of _____
- ✓ Scale
- ✓ All plat notes
- ✓ Vicinity map

ADDITIONAL MAPPING OR REPORTS- If required, the following additional mapping or reports shall be submitted:

Shadow plats:

- ✓ For subdivisions of five or more lots in transition areas, a shadow plat shall be submitted according to CBJ 49.70.710. The shadow plat shall consist of a sketch superimposed on the proposed subdivision layout. This sketch shall reflect any future resubdivision of the parcels into smaller lots consistent with the higher density and the lot size allowed under the transition zoning.

- | | |
|---|--|
|  | BULL PRIMARY MONUMENT RECOVERED |
|  | R&M PRIMARY MONUMENT RECOVERED |
|  | JW BEAN 365AS PRIMARY MONUMENT RECOVERED |
|  | CHILCAT SURVEYING PRIMARY MONUMENT ESTABLISHED |
|  | 141AS SECONDARY MONUMENT RECOVERED |
|  | 627AS SECONDARY MONUMENT RECOVERED |
|  | 365AS MONUMENT RECOVERED |
|  | #5 REDBAR RECOVERED |
|  | SECONDARY MONUMENT SET THIS SURVEY |
|  | PROPERTY LINES |
|  | UNSURVEYED LINES |
|  | EASEMENT BOUNDARY |
|  | (N 45°11' W) R1 RECORD INFORMATION FROM US SURVEY 4807 |
|  | (N 45°04'15" W) R2 RECORD INFORMATION FROM PLAT No. 63-146 |
|  | (S 00° 06'33" W) R3 RECORD INFORMATION FROM PLAT No. 97-47 |
|  | DRAINAGE EASEMENT ESTABLISHED THIS SURVEY |
|  | ACCESS EASEMENT ESTABLISHED THIS SURVEY |
|  | DRAINAGE & SEWER EASEMENT ESTABLISHED THIS SURVEY |
|  | ELECTRICAL EASEMENT ESTABLISHED THIS SURVEY |

LOT 1B
PLAT
2003-23

HOOTER LANE
60.0 ROW

LOT 1
PLAT
2019-3

LOT 3
PLAT 99-52

LOT 4
PLAT 99-52

LOT 9
PLAT 88-39

HILLCREST
AVE.
60' ROW

HILLCREST AVE
N 00°00'00" E
50,0 ROW

LOT 19
PLAT 88-39

SURVEYOR'S CERTIFICATE

I, JOSHUA FRANTZ IVANISZEV, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT, AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED:

1"=30'

1"=30'

PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 1
SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801

OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SMF: 20200001 SCALE: 1" = 30' DATE: 1 JUNE 2020 SHEET NO. 2 OF 3

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, AK 99801
907 957-1908 chilkat.surveying@gmail.com

Date: 1 June 2020

To: CBJ COMMUNITY DEVELOPMENT DEPARTMENT
155 SOUTH SEWARD ST.
Juneau, Alaska 99801

Subject: Lot closure reports Chilkat Vista Subdivision

Remarks: The lot closure reflects the proposed Chilkat Vistas Phase 1 subdivision.

Tract A			
Northing	Easting	Bearing	Distance
2379182.774	2527571.022		
		N 81°21'16" W	323.550
2379231.410	2527251.149		
		N 28°21'14" E	1468.760
2380523.964	2527948.687		
		S 89°52'00" E	726.810
2380522.273	2528675.495		
		S 00°00'13" E	1054.550
2379467.723	2528675.561		
		N 89°59'32" W	245.080
2379467.756	2528430.481		
		S 39°40'42" W	118.350
2379376.669	2528354.918		
		N 64°45'24" W	109.360
2379423.307	2528256.001		
		S 00°02'36" W	164.300
2379259.007	2528255.877		
		N 89°55'40" W	115.180
2379259.153	2528140.697		
		S 00°06'22" W	29.900
2379229.253	2528140.642		
		S 43°40'22" W	86.780
2379166.485	2528080.717		
		S 89°42'06" W	110.310
2379165.911	2527970.408		
		N 01°00'49" E	20.020
2379185.928	2527970.762		
		S 89°59'39" W	109.840
2379185.916	2527860.922		
		N 00°00'00" W	314.220
2379500.136	2527860.922		
		N 90°00'00" W	80.000
2379500.136	2527780.922		
		N 00°00'00" W	12.000
2379512.136	2527780.922		
		N 90°00'00" W	50.000
2379512.136	2527730.922		
		N 90°00'00" W	94.000
2379512.136	2527636.922		
		S 00°00'00" E	96.000
2379416.136	2527636.922		
		N 90°00'00" W	86.000

CHILKAT SURVEYING & MAPPING, LLC
 10654 PORTER LANE JUNEAU, AK 99801
 907 957-1908 chilkat.surveying@gmail.com

2379416.136	2527550.922	
		S 00°00'00" E 140.000
2379276.136	2527550.922	
		N 90°00'00" E 20.100
2379276.136	2527571.022	
		S 00°00'00" E 93.363
2379182.774	2527571.022	

Closure Error Distance> 0.00000
 Total Distance> 5668.472
 Polyline Area: 1242513 sq ft, 28.52 acres

Lot 1

Northing	Easting	Bearing	Distance
2379480.140	2527730.909		
		N 00°00'00" W 32.000	
2379512.140	2527730.909		
		N 90°00'00" W 94.000	
2379512.140	2527636.909		
		S 00°00'00" E 32.000	
2379480.140	2527636.909		
		N 90°00'00" E 94.000	

2379480.140 2527730.909
 Closure Error Distance> 0.00000
 Total Distance> 252.000
 Polyline Area: 3008 sq ft, 0.07 acres

Lot 2

Northing	Easting	Bearing	Distance
2379448.140	2527730.909		
		N 00°00'00" W 32.000	
2379480.140	2527730.909		
		N 90°00'00" W 94.000	
2379480.140	2527636.909		
		S 00°00'00" W 32.000	
2379448.140	2527636.909		
		N 90°00'00" E 94.000	

2379448.140 2527730.909
 Closure Error Distance> 0.00000
 Total Distance> 252.000
 Polyline Area: 3008 sq ft, 0.07 acres

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, AK 99801
907 957-1908 chilkat.surveying@gmail.com

Lot 3

Northing	Easting	Bearing	Distance
2379416.140	2527730.909	N 00°00'00" W 32.000	
2379448.140	2527730.909	N 90°00'00" W 94.000	
2379448.140	2527636.909	S 00°00'00" E 32.000	
2379416.140	2527636.909	N 90°00'00" E 94.000	
2379416.140	2527730.909		
Closure Error Distance> 0.00000			
Total Distance> 252.000			
Polyline Area: 3008 sq ft, 0.07 acres			

Lot 4

Northing	Easting	Bearing	Distance
2379396.140	2527730.909	N 00°00'00" E 20.000	
2379416.140	2527730.909	N 90°00'00" W 180.000	
2379416.140	2527550.909	S 00°00'00" E 70.000	
2379346.140	2527550.909	N 90°00'00" E 80.000	
2379346.140	2527630.909	N 00°00'00" W 50.000	
2379396.140	2527630.909	N 90°00'00" E 100.000	
2379396.140	2527730.909		
Closure Error Distance> 0.00000			
Total Distance> 500.000			
Polyline Area: 7600 sq ft, 0.17 acres			

Lot 5

Northing	Easting	Bearing	Distance
2379346.140	2527730.909	N 00°00'00" W 50.000	
2379396.140	2527730.909	N 90°00'00" W 100.000	
2379396.140	2527630.909	S 00°00'00" E 50.000	
2379346.140	2527630.909	N 90°00'00" E 100.000	
2379346.140	2527730.909		
Closure Error Distance> 0.00000			
Total Distance> 300.000			
Polyline Area: 5000 sq ft, 0.11 acres			

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, AK 99801
907 957-1908 chilkat.surveying@gmail.com

Lot 6

Northing	Easting	Bearing	Distance
2379296.140	2527730.909	N 00°00'00" W 50.000	
2379346.140	2527730.909	N 90°00'00" W 100.000	
2379346.140	2527630.909	S 00°00'00" W 50.000	
2379296.140	2527630.909	N 90°00'00" E 100.000	
2379296.140	2527730.909		

Closure Error Distance> 0.00000
Total Distance> 300.000
Polyline Area: 5000 sq ft, 0.11 acres

Lot 7

Northing	Easting	Bearing	Distance
2379276.140	2527730.909	N 00°00'00" E 20.000	
2379296.140	2527730.909	N 90°00'00" W 100.000	
2379296.140	2527630.909	N 00°00'00" E 50.000	
2379346.140	2527630.909	N 90°00'00" W 80.000	
2379346.140	2527550.909	S 00°00'00" W 70.000	
2379276.140	2527550.909	N 90°00'00" E 180.000	
2379276.140	2527730.909		

Closure Error Distance> 0.00000
Total Distance> 500.000
Polyline Area: 7600 sq ft, 0.17 acres

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, AK 99801
907 957-1908 chilkat.surveying@gmail.com

Lot 8

Northing	Easting	Bearing	Distance
2379276.146	2527571.012	N 90°00'00" E	159.892
2379276.146	2527730.905	S 00°00'00" E	20.000
2379256.146	2527730.905	N 90°00'00" W	80.110
2379256.146	2527650.795	S 00°00'00" E	79.560
2379176.586	2527650.795	S 89°59'52" W	39.100
2379176.585	2527611.695	N 81°21'16" W	41.150
2379182.770	2527571.012	N 00°00'00" W	93.376
2379276.146	2527571.012		

Closure Error Distance> 0.00000
Total Distance> 513.188
Polyline Area: 9420 sq ft, 0.22 acres

Lot 9

Northing	Easting	Bearing	Distance
2379178.140	2527730.909	N 00°00'00" W	78.000
2379256.140	2527730.909	N 90°00'00" W	80.110
2379256.140	2527650.799	S 00°00'00" W	79.555
2379176.586	2527650.799	N 89°59'52" E	70.119
2379176.588	2527720.918	N 81°10'07" E	10.110
2379178.140	2527730.909		

Closure Error Distance> 0.00000
Total Distance> 317.895
Polyline Area: 6365 sq ft, 0.15 acres

Lot 10

Northing	Easting	Bearing	Distance
2379185.909	2527780.908	N 00°00'00" W	62.500
2379248.409	2527780.908	N 90°00'00" E	80.000
2379248.409	2527860.908	S 00°00'00" E	62.500
2379185.909	2527860.908	N 90°00'00" W	80.000
2379185.909	2527780.908		

Closure Error Distance> 0.00000
Total Distance> 285.000
Polyline Area: 5000 sq ft, 0.11 acres

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, AK 99801
907 957-1908 chilkat.surveying@gmail.com

Lot 11

Norththing	Easting	Bearing	Distance
2379248.409	2527780.908	N 00°00'00" E 62.500	
2379310.909	2527780.908	N 90°00'00" E 80.000	
2379310.909	2527860.908	S 00°00'00" W 62.500	
2379248.409	2527860.908	N 90°00'00" W 80.000	
2379248.409	2527780.908		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0.11 acres			

Lot 12

Norththing	Easting	Bearing	Distance
2379310.909	2527780.908	N 00°00'00" E 62.500	
2379373.409	2527780.908	N 90°00'00" E 80.000	
2379373.409	2527860.908	S 00°00'00" W 62.500	
2379310.909	2527860.908	N 90°00'00" W 80.000	
2379310.909	2527780.908		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0.11 acres			

Lot 13

Norththing	Easting	Bearing	Distance
2379373.409	2527780.908	N 00°00'00" W 62.500	
2379435.909	2527780.908	N 90°00'00" E 80.000	
2379435.909	2527860.908	S 00°00'00" E 62.500	
2379373.409	2527860.908	N 90°00'00" W 80.000	
2379373.409	2527780.908		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0.11 acres			

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, AK 99801
907 957-1908 chilkat.surveying@gmail.com

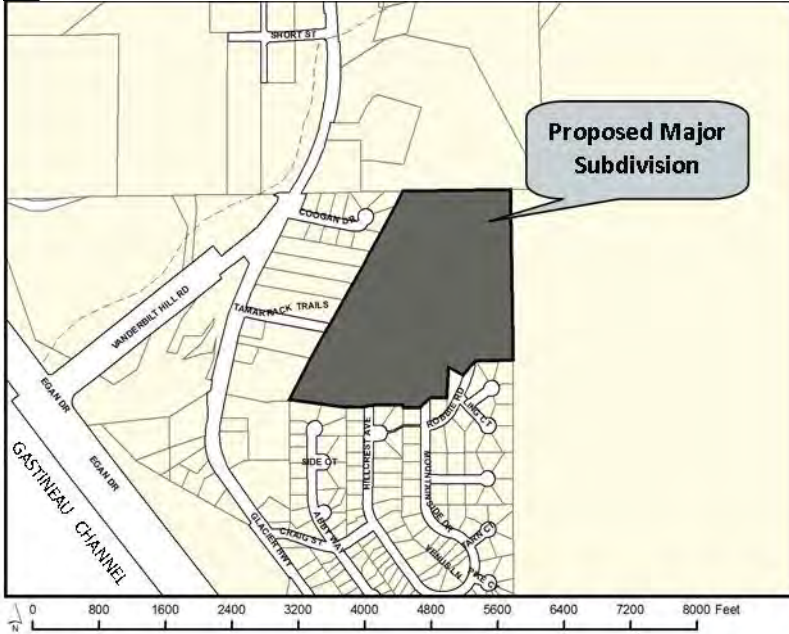
Lot 14

Northing	Easting	Bearing	Distance
2379435.906	2527780.920	N 00°00'00" W 64.217	
2379500.122	2527780.920	N 90°00'00" E 80.000	
2379500.122	2527860.920	S 00°00'00" E 64.217	
2379435.906	2527860.920	N 90°00'00" W 80.000	
2379435.906	2527780.920		

Closure Error Distance> 0.00000
Total Distance> 288.433
Polyline Area: 5137 sq ft, 0.12 acres

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for **Final Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)** located at **4506 Hillcrest Avenue** in a **D15 Zone**.

TIMELINE

Staff Report expected to be posted **Monday, July 20, 2020** at <https://beta.juneau.org/assembly/assembly-minutes-and-agendas>
Find hearing results, meeting minutes and more here as well.

Now through July 6	July 7 — noon, July 24	HEARING DATE & TIME: 7:00 pm, July 28, 2020	July 29
Comments received during this period will be sent to the Planner, Laurel Christian , to be included as an attachment in the staff report.	Comments received during this period will be sent directly to Commissioners to read over the weekend in preparation for the hearing.	This virtual meeting will be by video and telephonic participation only. To join the webinar, visit http://juneau.zoom.us/j/93574327888 . The Webinar ID is: 935 7432 7888. to join by telephone, call: +1 346 248 7799 or +1 669 900 6833 or +1 253 215 8782 or +1 312 626 6799 or +1 929 436 2866 or +1 301 715 8592 and enter the Webinar ID.	The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed June 25, 2020

Case No.: SMP2019 0004; SMF2020 0001
Parcel No.: 7B1001160010
CBJ Parcel Viewer: <http://epv.juneau.org>

Laurel Christian

From: Laurel Christian
Sent: Tuesday, July 14, 2020 8:18 AM
To: Laurel Christian
Subject: SMF20-01 sign
Attachments: IMG_7128.jpg; ATT00001.txt





Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: November 13, 2019
File No.: SMP2019 0004

William & Michael Heumann
6000 Thane Road
Juneau, AK 99801

Proposal: Preliminary Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)

Property Address: 4506, 4508, & 4510 Hillcrest Avenue

Legal Description: Richland Manor Tract B

Parcel Code No.: 7B1001160010

Hearing Date: November 12, 2019

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated November 4, 2019, and **APPROVED** the preliminary plat to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Prior to approval of the final plat, all required plat corrections listed in the MEMO from the Community Development Department (CDD) to Michael Heumann (applicant), dated November 1, 2019 shall be completed (Attachment H).
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering and Public Works for compliance with CBJ 49.35.140.

William & Michael Heumann

File No.: SMP2019 0004

November 13, 2019

Page 2 of 3

4. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to the CDD and reviewed and approved by CDD and Engineering and Public Works.
5. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
6. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
7. The developer shall utilize Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
8. The developer shall submit a final drainage plan to be approved by Engineering and Public Works prior to final plat approval. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway, whichever length is greater, for all panhandle lots created with this subdivision.
10. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.
11. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue requirements in each dwelling unit constructed through Phase 1 of this subdivision.

Attachment: November 4, 2019 memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding SMP2019 0004.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, November 12, 2019.

Expiration Date: The permit will expire five (5) years after the effective date, or November 12, 2024, if no Building Permit has been issued and substantial construction progress has not been

William & Michael Heumann

File No.: SMP2019 0004

November 13, 2019

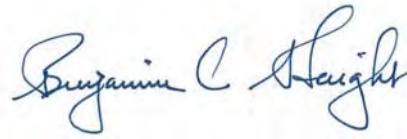
Page 3 of 3

made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.



Project Planner:

Laurel Christian, Planner
Community Development Department



Benjamin Haight, Chair
Planning Commission



Filed With Municipal Clerk

11/26/2019

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



Treasury Division
155 S. Seward Street
Juneau, AK 99801
(907) 586-0377 Phone
(907) 586-5367 Fax

CERTIFICATION OF TAXES AND ASSESSMENTS PAID

I, the undersigned, being duly appointed, qualified Treasurer for the City and Borough of Juneau, First Judicial District, State of Alaska, do hereby certify that, according to the records of the City and Borough of Juneau, the following described real property is carried on the tax records in the name of:

William C Heumann and Michael P Heumann

Current Owner

RICHLAND MANOR TR B

Legal Description

7B1001160010

Parcel Code Number

and that, all Real Property taxes and assessments levied by the City and Borough of Juneau against said Real Property have been paid in full. If approval is sought between January 1 and the date of levy, there is on deposit with the Treasury Department an amount sufficient to pay Real Property tax for the current year based on current available information; however, owner remains responsible for the balance of any taxes owed when billing occurs on July 1, 2020.


Cheryl A. Crawford

June 23, 2020

Date

This Certification of Payment of Taxes is valid through December 31, 2020

CHILKAT VISTAS SUBDIVISION, PHASE I - HILLCREST AVE EXTENSION JUNEAU, AK

PREPARED FOR:
MICHAEL & WILLIAM HEUMANN



PROJECT LOCATION MAP
NTS

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	LEGEND, ABBREVIATIONS & GENERAL NOTES
3	TYPICAL SECTION
4	GRADING PLAN
5	ROW PLAN & PROFILE
6	ROW PLAN & PROFILE
7	SP-4 PLAN & PROFILE
8	ESCP
9	STREET LIGHTING & ELECTRICAL PLAN

CBJ STANDARD DRAWINGS

CBJ STD NO.	CBJ STD NAME
103A	DRIVEWAY FOR STREETS WITHOUT CURB AND GUTTER
104A	CULVERT HEADWALL WITH HINGED TRASH RACK
104B	CULVERT HEADWALL WITHOUT HINGED TRASH RACK
105	DRIVEWAY CURB CUT
107	LOCAL ACCESS STREET CUL-DE-SAC
111A	CONCRETE SIDEWALK, TYPE I CURB & GUTTER
111B	CURB & GUTTER TYPES II & III
125	PAVEMENT RESURFACING AND TRENCH DETAIL
203	SANITARY SEWER MANHOLE TYPES I&II
205	MANHOLE HEIGHTS
206A	STANDARD MANHOLE COVER AND FRAME
209	MANHOLE CONNECTION DETAILS
213	SANITARY SEWER SERVICE LATERAL
303	STORM DRAIN MANHOLE TYPES I & II
304B	TYPE IV CATCH BASIN
308	CURB INLET FRAME, GRATE & HOOD
309	LOCAL DEPRESSION AT CATCH BASIN
310	AREA DRAIN DETAIL
403	FIRE HYDRANT
404	HYDRANT GUARD POSTS
405	HYDRANT PAD
406A	WATER SERVICE
407	MAINLINE VALVE
412	RIGID INSULATION



NO.	DATE	RECORD OF REVISIONS	DESCRIPTION	BY



DRAWN BY: C. BYLON	DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLASSO	

1545 ALEXANDER WAY #101 JUNEAU, AK 99801 solutions@ptohns.com www.ptohns.com	CBJ REVIEW APPROVED: <i>[Signature]</i> DATE: 06/01/2020
---	--

CHILKAT VISTAS
SUBDIVISION, PHASE I -
HILLCREST AVE EXTENSION
MICHAEL & WILLIAM HEUMANN

SHEET NUMBER	1	OF	9
--------------	---	----	---

COVER

LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
ASPHALT	----- EDGE OF ASPHALT		
BOLLARDS			• •
CONCRETE	=====		
CURB & GUTTER			=====
CUT			-----
DITCH CENTERLINE	--->---	--->---	--->---
EDGE GRAVEL			-----
FENCE	-----		-----
FILL			
FIRE HYDRANT			
MONUMENT			
PROPERTY EASEMENT LINE	---		---
PROPERTY LINE	---		---
SANITARY SEWER CLEANOUT	○		○
SANITARY SEWER PIPE	---		---
SANITARY SEWER MANHOLE			
SIDEWALK RAMP			
SAWCUT & MTE LIMITS			---
SIGN			
STORM DRAIN CATCH BASIN			
STORM DRAIN PIPE	---		---
STORM DRAIN MANHOLE, GRATE			
TREES			
UNDERGROUND PIPE CAP			
UTILITY POLE			
UTILITY POLE WITH LUMINAIRE			
WATER LINE PIPE	---		---
WATER VALVE BOX			

ABBREVIATIONS

AC	ASPHALT CONCRETE
AS	ASBESTOS
BOP	BEGINNING OF PROJECT
BTM	BOTTOM
BVC	BEGIN VERTICAL CURVE
CB	CATCH BASIN
CD	CATCH DRAIN
CAL	CENTERLINE OF JUNEAU
CMP	CORNER POINT
CPP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONE	CONCRETE CONE
CITE	CITATION TO EXISTING
DIA	DUCTILE IRON
DIA	DIAMETER
ELEV	ELEVATION
EOP	END OF PROJECT
EVC	END VERTICAL CURVE
GV	FINISHED GRADE
GV	GATE VALVE
HOPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LP	LOW POINT
LP	LOW POINT
MH	MANHOLE
MIN	MINIMUM
MTE	MATCH TO EXISTING
NIC	NOT IN CONTRACT
NIC	NOT IN CONTRACT
NS	NOT TO SCALE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PRC	POINT OF REVERSE CURVATURE
PSI	POUND PER SQUARE INCH
PVI	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE PIPE
RP	POINT OF VERTICAL INTERSECTION
RP	RADIUS POINT
R/W	RIGHT-OF-WAY
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TBS	TOP BACK OF CUTTER
TYP	TYPICAL

GENERAL NOTES

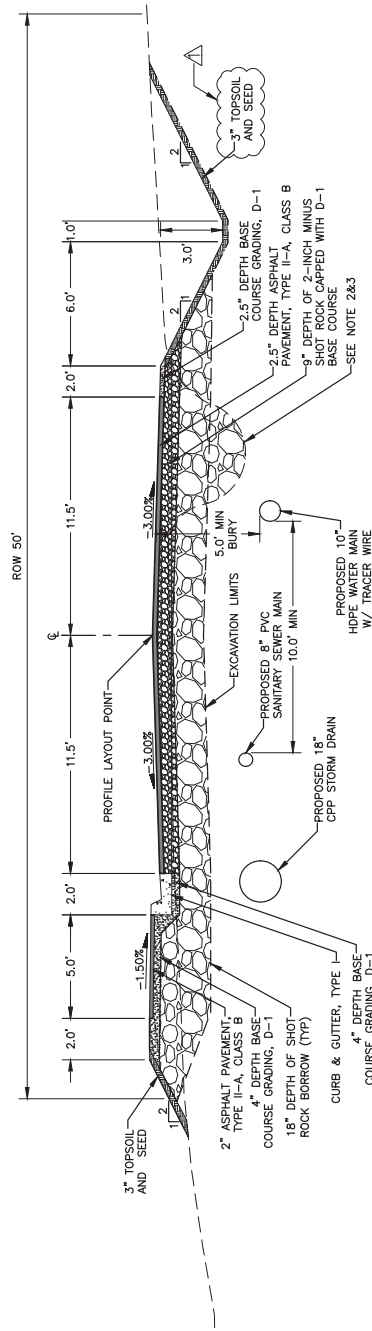
1. CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS FOURTH EDITION, 2003, IS THE STANDARD REFERENCE FOR THIS PROJECT. ANY REVISIONS TO THE STANDARD DETAILS SHALL BE MADE A PART OF THIS CONTRACT, INCLUDING ALL ERRATA (NOS. 1-16) AND CURRENT REVISIONS AS APPLICABLE.
2. CALL 586-1333 BEFORE YOU DIG FOR UNDERGROUND POWER, TELEPHONE AND CABLE. CALL 811 ALASKA DIGLINE BEFORE YOU DIG FOR UNDERGROUND GAS & GEL. LOCATIONS AND ELEVATION OF EXISTING UNDERGROUND WATER, SEWER, POWER, GAS, AND CABLE SHALL BE SHOWN FROM THE ALASKA DIGLINE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ANY DAMAGE TO THE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
3. THE ESTIMATED TOTAL AREA OF DISTURBANCE RESULTING FROM THESE IMPROVEMENTS WILL BE OVER 1.00 ACRE.
4. THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) HAS IDENTIFIED ONE "ACTIVE" CONTAMINATED SITE WITHIN 1,500 FEET OF THE PROJECT LIMITS. THE ACTIVE CONTAMINATED SITE IS AT 5165 GLACIER HWY (GAS N 60), SEE DEC.ALASKA.GOV FOR MORE INFO. THERE ARE NO SITES LISTED AS "INSTITUTIONAL CONTROL" WITHIN 1,500 OF THE PROJECT LIMITS. THERE ARE SEVERAL SITES LISTED AS "CLEANUP COMPLETE" WITHIN 1,500 FEET OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSULT DEC AND OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK.
5. FINISHED GRADE AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. LOCATION OF PROPOSED WATER, SEWER AND STORM DRAINAGE FACILITIES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
6. HORIZONTAL AND VERTICAL CONTROL IS STATE PLANE ZONE AK 1 ABOUT POINT#20 MAG [LAT: 58 20 42.17902, LON: 134 29 24.31493] [2373173.08N, 2327721.72E] (115.39' MLLW) (CONVERGENCE [DEGREES] 0.45405278) (POINT SCALE 0.99961092).
7. THE CONTRACTOR SHALL PERFORM A CLOSED LEVEL LOOP THROUGH ALL TBM'S AS LISTED HEREON TO VERIFY ELEVATIONS PRIOR TO BEGINNING ANY WORK.
8. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS, CONCRETE NAILS, CHISELED X'S) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER SURFACING IS REPLACED. EXISTING SURFACE MONUMENTS SHALL BE SET BACK 10 FEET FROM THE DRAININGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
9. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES (LONI VANKIRK AT 723-4975) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" TO CBJ WATER UTILITIES SUPERINTENDENT FOR APPROVAL AT LEAST 48 HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION SHALL BE LONGER THAN 4 HOURS AT ONE TIME. THE CONTRACTOR CANNOT SHUT OFF WATER SUPPLY TO SERVICES FOR MORE THAN 4 HOURS AT ONE TIME.
10. ALL MATERIALS PROPOSED FOR THE WATER SYSTEM THAT COME IN DIRECT CONTACT WITH THE WATER SHALL BE CERTIFIED BY AN ANSI ACCREDITED ORGANIZATION TO CONFORM WITH ANSI/NSF STANDARD 61 OR AN ANSI/NSF STANDARD WITH EQUIVALENT HEALTH REQUIREMENTS.
11. THE MATERIALS USED FOR THIS PROJECT SHALL COMPLY WITH THE NEW LEAD FREE REQUIREMENTS INCLUDING NOT MORE THAN 0.2% WHEN USED WITH RESPECT TO SOLDER AND FLUX AND NOT MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAD WHEN USED WITH RESPECT TO THE WETTED SURFACES OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS AND FIXTURES.
12. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN (NOT ARE LABELED) ON DRAWINGS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTIONS TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
13. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.

	RECORD OF REVISIONS	DATE	BY	DESCRIPTION
	DRAWN BY: C. BYLON		DESIGNED BY: L. CHAMBERS	
	CHECKED BY: G. GLASSO		1146 ALEXANDER WAY #101 JANUARY, ALASKA 99501	
CERTIFICATE OF AUTHORIZATION #100882		www.proHNS.com		
CBJ REVIEW		APPROVED:  DATE: 06/01/2020		
CHILKAT VISTAS SUBDIVISION, PHASE I - HILLOREST AVE EXTENSION		SHEET NUMBER 2 OF 9		
MICHAEL & WILLIAM HEUMANN		LEGEND ABBREVIATIONS & GENERAL NOTES		

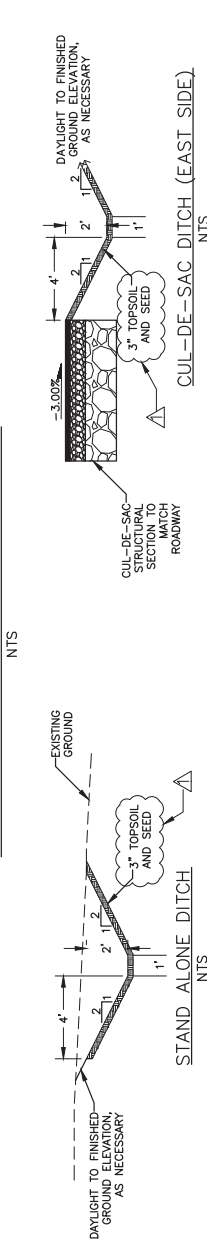
TYPICAL SECTION NOTES

- RIGHT-OF-WAY AND ROAD PRISM SHALL BE CLEARED AND GRUBBED.
- CLEAR, GRUB AND INSTALL SHOT ROCK BORROW OR USABLE EXCAVATION, AS NECESSARY, WHERE EXISTING GROUND IS BELOW EXCAVATION LIMITS.
- ADDITIONAL EXCAVATION BELOW THE NEATLINE SUBCUT LEVEL MAY BE REQUIRED IF ORGANIC OR OTHER UNSUITABLE MATERIALS ARE ENCOUNTERED. EXCAVATION AND REPLACEMENT OF UNSUITABLE MATERIALS SHALL BE APPROVED BY THE ENGINEER.
- LARGE BOULDERS, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
- ALL CUT AND FILL SLOPES NOT STABILIZED WITH SHOT ROCK SHALL BE TOP SOILED AND SEED.
- THE CONTRACTOR/ OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSTALLING/ MAINTAINING EROSION AND SEDIMENT CONTROL PER LOCAL, STATE AND FEDERAL REQUIREMENTS

Attachment F - Approved Construction Drawings

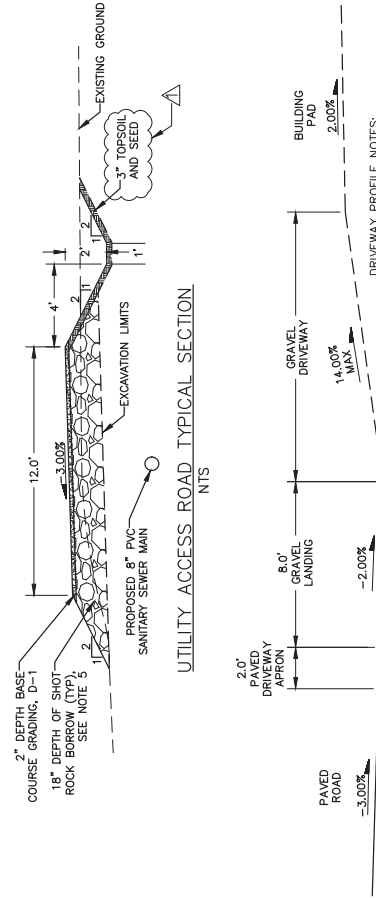


HILLCREST AVE EXTENSION TYPICAL SECTION



RESIDENTIAL WATER SERVICE SUMMARY		
LOT #	STATION AND OFFSET	SIZE (INSIDE DIA)/TYPE
LOT 1	STA: 4+73.60, OFF: 19.50 LT	1" SDR7 POLY
LOT 2	STA: 4+46.60, OFF: 19.50 LT	1" SDR7 POLY
LOT 3	STA: 4+14.62, OFF: 19.50 LT	1" SDR7 POLY
LOT 4	STA: 3+93.58, OFF: 19.50 LT	1" SDR7 POLY
LOT 5	STA: 3+87.59, OFF: 19.50 LT	1" SDR7 POLY
LOT 6	STA: 2+69.55, OFF: 19.50 LT	1" SDR7 POLY
LOT 7	STA: 2+63.59, OFF: 19.50 LT	1" SDR7 POLY
LOT 8	STA: 2+53.59, OFF: 19.50 LT	1" SDR7 POLY
LOT 9	STA: 2+47.59, OFF: 19.50 LT	1" SDR7 POLY
LOT 10	STA: 2+40.61, OFF: 26.50 RT	1" SDR7 POLY
LOT 11	STA: 2+65.11, OFF: 26.50 RT	1" SDR7 POLY
LOT 12	STA: 3+27.62, OFF: 26.50 RT	1" SDR7 POLY
LOT 13	STA: 3+90.12, OFF: 26.50 RT	1" SDR7 POLY
LOT 14	STA: 4+53.46, OFF: 26.50 RT	1" SDR7 POLY
INSTALL PER CBI STD DWG 406A W/ TRACER WIRE SPLICED TO MAIN LINE TRACER WIRE & 3' COILED IN VAVLE BOX.		

RESIDENTIAL SEWER SERVICE SUMMARY		
LOT #	STATION AND OFFSET	SIZE/TYPE
LOT 1	STA: 4+75.61, OFF: 19.50 LT	4" SDR 35 PVC
LOT 2	STA: 4+48.60, OFF: 19.50 LT	4" SDR 35 PVC
LOT 3	STA: 4+16.62, OFF: 19.50 LT	4" SDR 35 PVC
LOT 4	STA: 3+95.58, OFF: 19.50 LT	4" SDR 35 PVC
LOT 5	STA: 3+89.59, OFF: 19.50 LT	4" SDR 35 PVC
LOT 6	STA: 2+71.55, OFF: 19.50 LT	4" SDR 35 PVC
LOT 7	STA: 2+65.59, OFF: 19.50 LT	4" SDR 35 PVC
LOT 8	STA: 2+55.59, OFF: 19.50 LT	4" SDR 35 PVC
LOT 9	STA: 2+49.59, OFF: 19.50 LT	4" SDR 35 PVC
LOT 10	STA: 2+40.61, OFF: 26.50 RT	4" SDR 35 PVC
LOT 11	STA: 2+67.11, OFF: 26.50 RT	4" SDR 35 PVC
LOT 12	STA: 3+29.62, OFF: 26.50 RT	4" SDR 35 PVC
LOT 13	STA: 3+92.12, OFF: 26.50 RT	4" SDR 35 PVC
LOT 14	STA: 4+55.46, OFF: 26.50 RT	4" SDR 35 PVC
FUTURE LOT	STA: 5+15.25, OFF: 19.50 LT	4" SDR 35 PVC
FUTURE LOT	STA: 5+53.33, OFF: 19.50 LT	4" SDR 35 PVC
FUTURE LOT	STA: 5+90.71, OFF: 19.50 LT	4" SDR 35 PVC
FUTURE LOT	STA: 5+47.62, OFF: 26.50 RT	4" SDR 35 PVC
FUTURE LOT	STA: 5+90.33, OFF: 26.50 RT	4" SDR 35 PVC
INSTALL PER CBI STD DWG 313 W/ CLEANOUTS. CLEANOUTS LOCATED IN AGGREGATE BASE COURSE OR ASPHALT SHALL HAVE CLEANOUT RING & COVER INSTALLED PER CBI STD 205.		



DRIVEWAY PROFILE
(LOTS 10, 11, 12, 13 & 14)

- SEE STD 103A FOR ADDITIONAL DETAILS.
- PROVIDE A SMOOTH TRANSITION BETWEEN GRADE BREAKS.
- THE DRIVEWAY SHALL NOT EXCEED A 14% SLOPE.

pro HNS LLC
CERTIFICATE OF AUTHORIZATION
#100862

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/10/2020	CHANGED SHOT ROCK DITCH LINING TO TOPSOIL & SEED	LC

DRAWN BY: C. BYLON
CHECKED BY: L. CHAMBERS
DESIGNED BY: G. GLASSO

1146 ALEXANDER WAY #101
JANUARY 2021

sales@prohns.com
www.prohns.com

CBJ REVIEW

APPROVED:
DATE: 07/14/2020

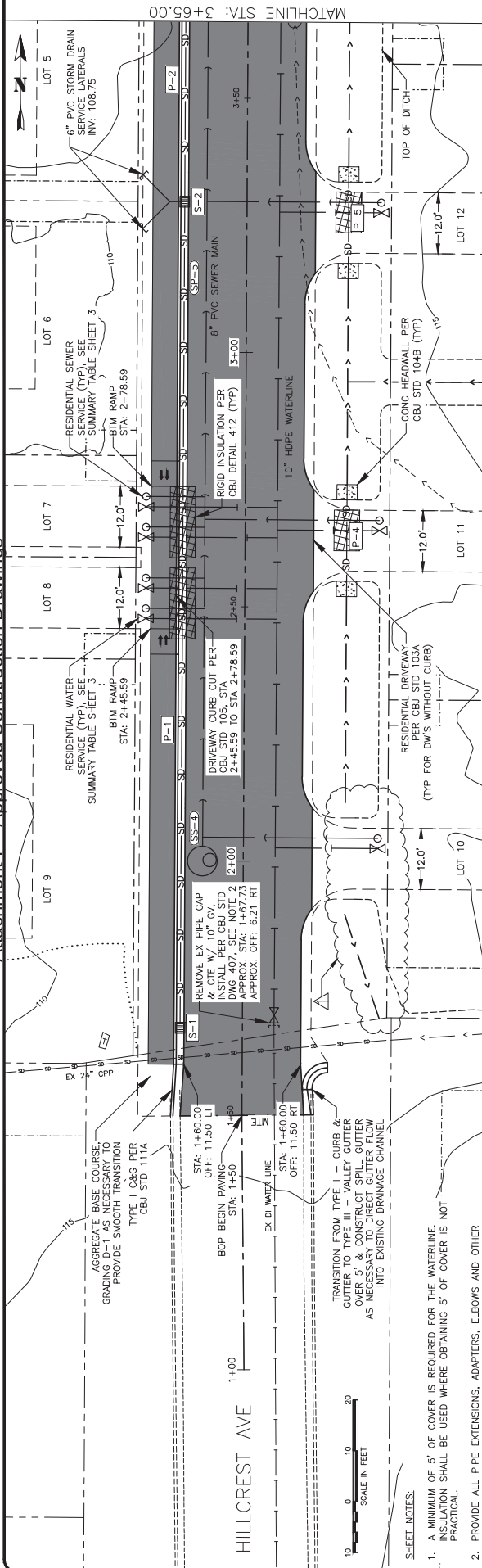
CHILKAT VISTAS
SUBDIVISION, PHASE I -
HILLCREST AVE EXTENSION

MICHAEL & WILLIAM HEUMANN

SHEET NUMBER

3
OF
9

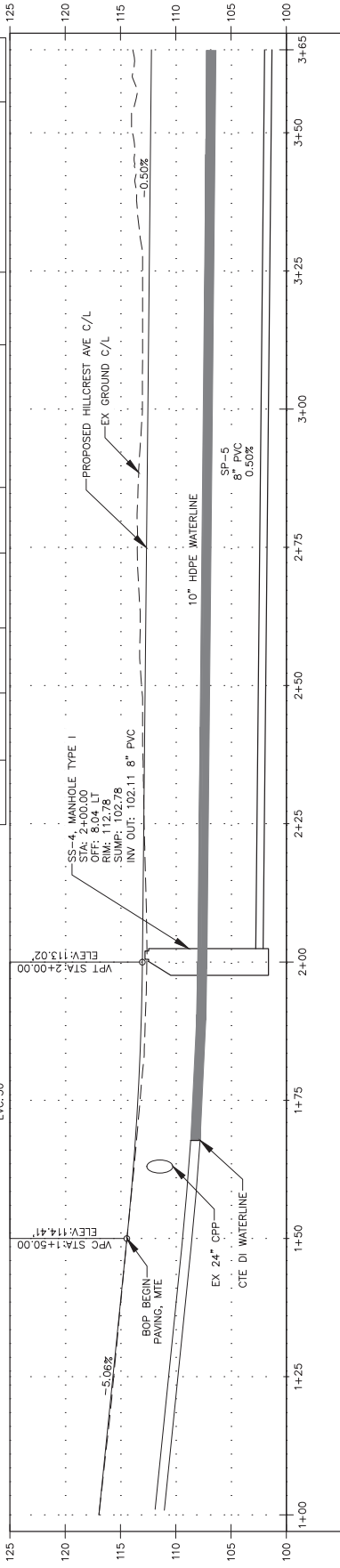
Attachment F - Approved Construction Drawings



STORM DRAIN PIPE SUMMARY									
PIPE NO.	DIA.	LENGTH	TYPE	SLOPE	START STATION/OFFSET	START INV.	END STATION/OFFSET	END INV.	
P-1	18"	161	CPP	0.77%	S-1	109.83	S-2	108.58	
P-2	18"	156	CPP	0.50%	S-2	108.48	S-3	107.70	
P-3	18"	22	CPP	0.50%	S-3	108.48	STA: 2+11.62, OFF: 20.00 RT	109.60	
P-4	18"	22	CPP	0.50%	STA: 2+52.12, OFF: 20.00 RT	109.35	STA: 2+74.12, OFF: 20.00 RT	109.24	
P-5	18"	22	CPP	0.50%	STA: 3+14.62, OFF: 20.00 RT	109.04	STA: 3+36.62, OFF: 20.00 RT	108.93	

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM	SUMP
S-1	TYPE IV CB, STD 3048	1+67.17	11.50 LT	113.33	108.43
S-2	TYPE IV CB, STD 3048	3+29.58	11.50 LT	112.03	107.08

PVI STA: 1+75.00
PVI ELEV: 113.14'
LVC: 50'



SHEET NOTES:

1. A MINIMUM OF 5' OF COVER IS REQUIRED FOR THE WATERLINE. INSULATION SHALL BE USED WHERE OBTAINING 5' OF COVER IS NOT PRACTICAL.
2. PROVIDE ALL PIPE EXTENSIONS, ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES. ALL FITTINGS & CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL CONNECTIONS TO EXISTING PIPE SHALL BE MECHANICAL JOINT (MJ). INSTALL ANODE ON EXISTING DI PIPE.
3. STATION AND OFFSET TO PIPES, MANHOLES AND VALVES ARE TO CENTER OF UTILITY. LID RIM ELEVATION IS GIVEN TO CENTER OF STRUCTURE. STORM DRAIN RIM STATION, OFFSET AND ELEVATION IS GIVEN TO FRONT CENTER OF FRAME.
4. EXISTING WATER LINE STATIC PRESSURE AT CONNECTION POINT IS APPROX. 95 PSI. NEW HOME CONSTRUCTION MAY REQUIRE PRESSURE REDUCING VALVES.



RECORD OF REVISIONS	
NO.	DATE
1	7/13/2020
DESCRIPTION	
REDIRECTED DITCH & REMOVED DRIVEWAY CULVERT	
BY	LC



DRAWN BY:	C. BYLON
DESIGNED BY:	L. CHAMBERS
CHECKED BY:	G. GLASSO
1145 ALEXANDER WAY #101 JANUARY, CA 95011	
sales@prohns.com www.prohns.com	

CBJ REVIEW	APPROVED:
DATE: 7/14/2020	

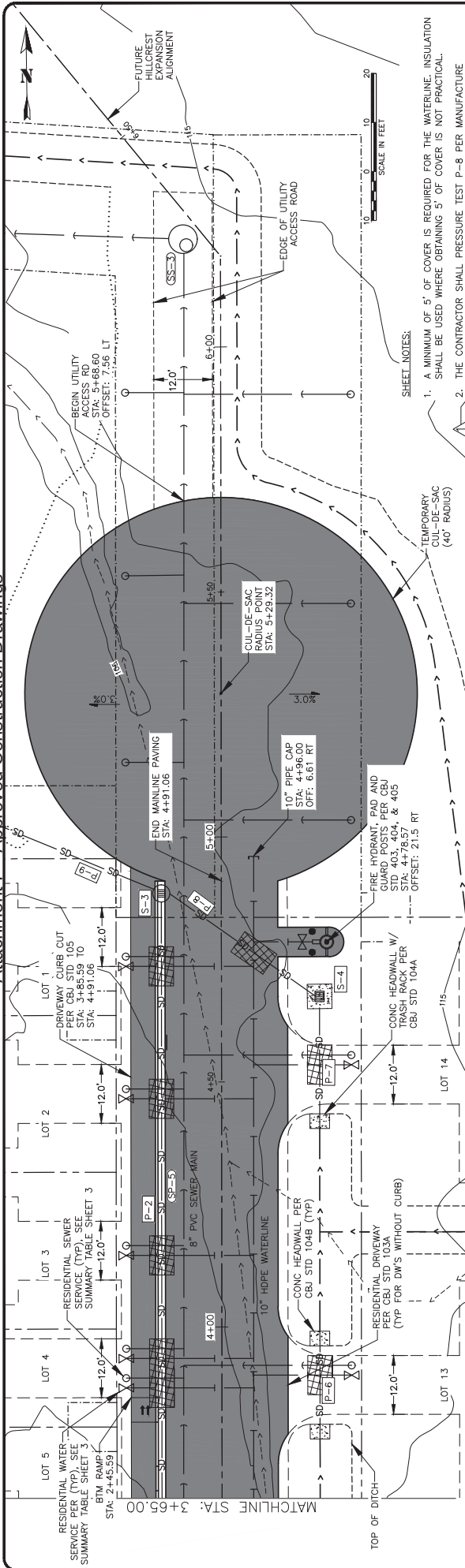
CHILKAT VISTAS
SUBDIVISION, PHASE I -
HILLCREST AVE EXTENSION

MICHAEL & WILLIAM HEUMANN

ROW PLAN & PROFILE
BOP TO 3+85

SHEET NUMBER	5
OF	9

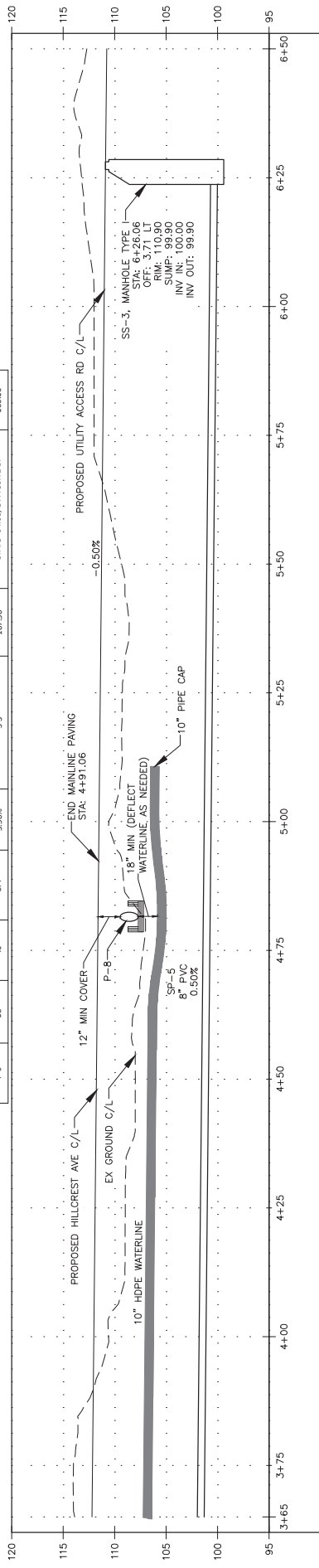
Attachment F - Approved Construction Drawings



STORM DRAIN PIPE SUMMARY									
PIPE NO.	DIA	LENGTH	TYPE	SLOPE	START STATION/OFFSET	START INV	END STATION/OFFSET	END INV	
P-2	18"	156	CPP	0.50%	S-2	108.48	S-3	107.70	
P-6	18"	22	CPP	0.50%	STA: 3+77.12, OFF: 20.00 RT	108.72	STA: 3+99.12, OFF: 20.00 RT	108.61	
P-7	18"	25	CPP	2.12%	STA: 4+40.46, OFF: 20.00 RT	108.43	S-4	107.90	
P-8	18"	32	CPP	0.63%	S-4	107.80	S-3	107.60	
P-9	18"	40	CPP	3.50%	S-3	107.50	STA: 5+04.63, OFF: 50.72 LT	106.10	

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM	SUMP
S-3	TYPE 1 SDMH WITH REDUCING SLAB	4+88.50	11.50 LT	111.23	106.30
S-4	TYPE 1 WCB WITH AREA DRAIN	4+67.43	19.00 RT	110.80	106.40

- SHEET NOTES:**
- A MINIMUM OF 5' OF COVER IS REQUIRED FOR THE WATERLINE. INSULATION SHALL BE USED WHERE OBTAINING 5' OF COVER IS NOT PRACTICAL.
 - THE CONTRACTOR SHALL PRESSURE TEST P-8 PER MANUFACTURE RECOMMENDATIONS TO ENSURE WATERTIGHTNES.
 - THE CONTRACTOR SHALL ENSURE WATER LINE JOINTS ARE AT LEAST 9' FROM SEWER LINE JOINTS.
 - STATION AND OFFSET TO PIPES, MANHOLES AND VALVES ARE TO CENTER OF UTILITY. LID RIM ELEVATION IS GIVEN TO CENTER OF STRUCTURE. STORM RIM STATION, OFFSET AND ELEVATION IS GIVEN TO FRONT CENTER OF FRAME.
 - EXISTING WATER LINE STATIC PRESSURE AT CONNECTION POINT IS APPROX. 95 PSI. NEW HOME CONSTRUCTION MAY REQUIRE PRESSURE REDUCING VALVES.





RECORD OF REVISIONS

No.	DATE	DESCRIPTION
1	6/19/2020	ADDED JOINT SEPARATION NOTE

BY: LC



pro HNS LLC
CERTIFICATE OF AUTHORIZATION
#100682

DRAWN BY: C. BYLON
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLASSO
1-848 ALEXANDER WAY #101
JANUARY, CAN 98501
sales@prohns.com
www.prohns.com

CBJ REVIEW

APPROVED: 
DATE: 7/14/2020

CHILKAT VISTAS
SUBDIVISION, PHASE I -
HILLOREST AVE EXTENSION

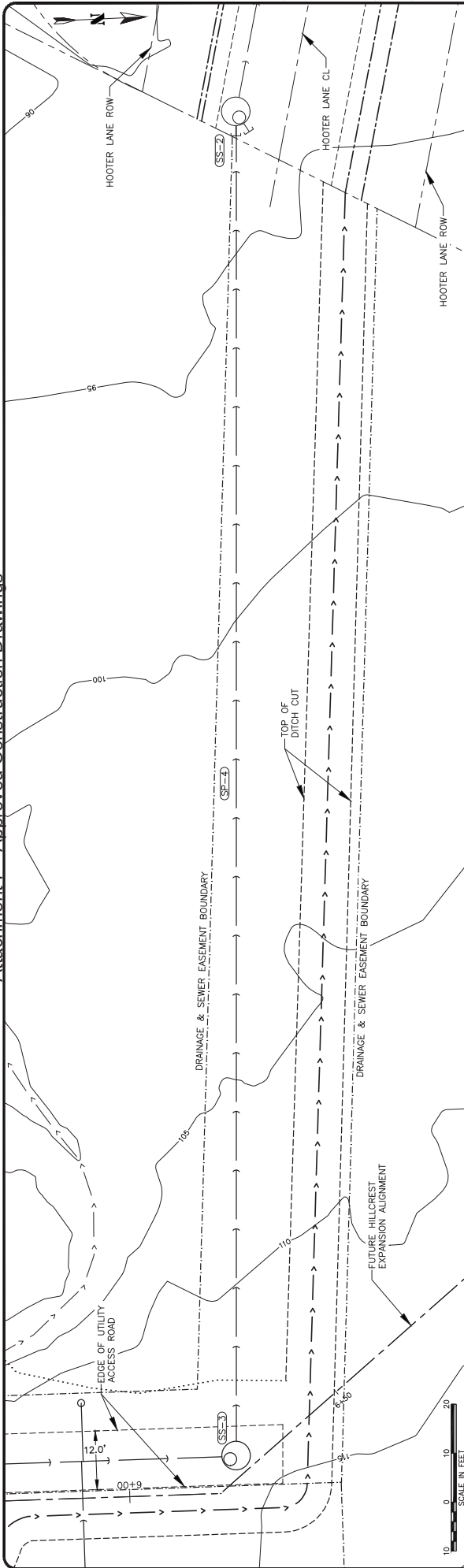
MICHAEL & WILLIAM HEUMANN

ROW PLAN & PROFILE
3+85 TO EOP

SHEET NUMBER

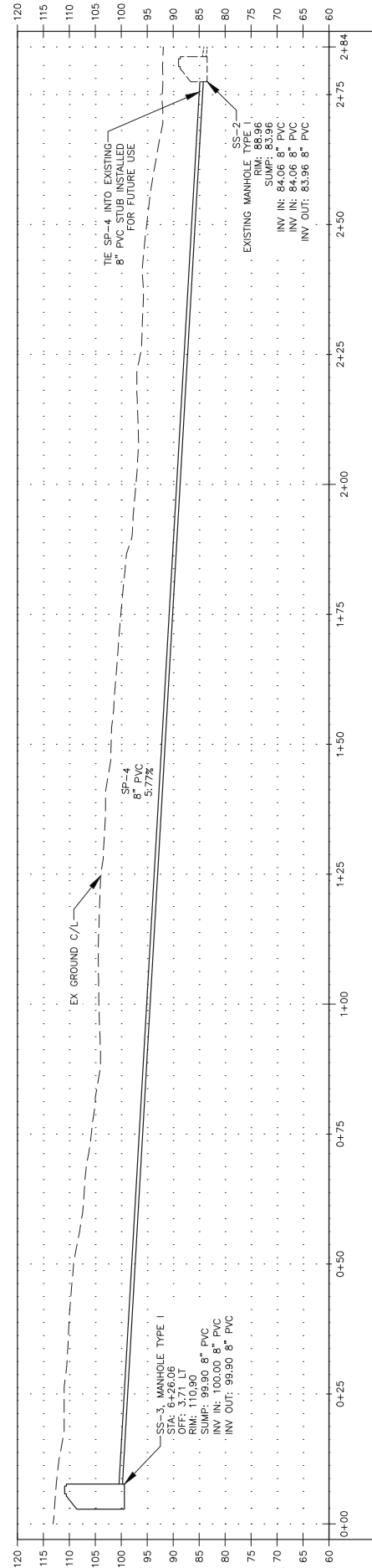
6
OF
9

Attachment F - Approved Construction Drawings



SHEET NOTES:

1. STATION AND OFFSET TO PIPES, MANHOLES AND VALVES ARE TO CENTER OF UTILITY.



NO.	DATE	RECORD OF REVISIONS	BY
1	5/19/2020	DESCRIPTION ADDED EASEMENT & TOP OF DITCH CALLOUT	LC



DRAWN BY: C. BYLON
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLADISO

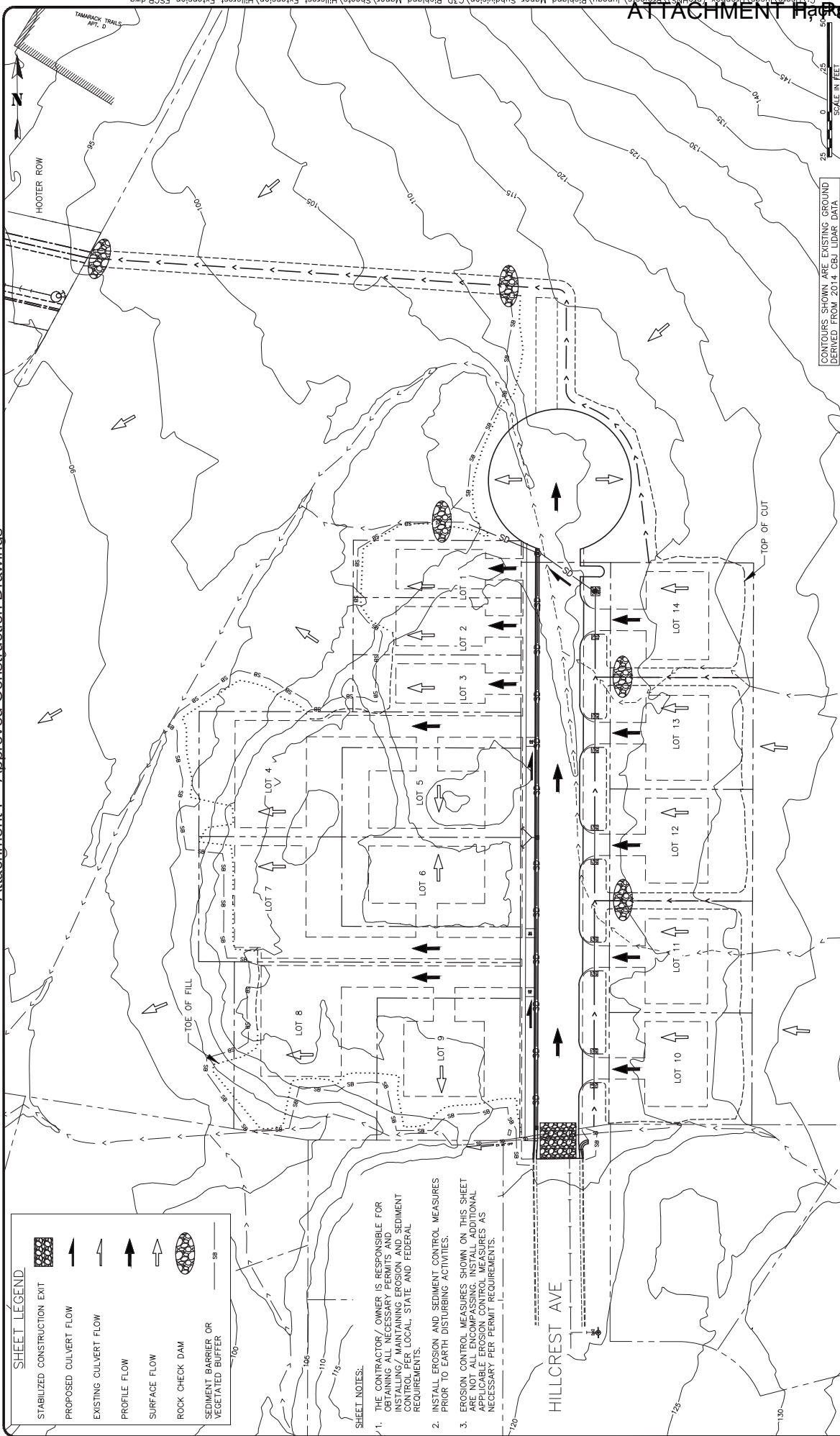
CBJ REVIEW
APPROVED: [Signature]
DATE: 06/01/2020

CHILKAT VISTAS
SUBDIVISION, PHASE I -
HILLCREST AVE EXTENSION
MICHAEL & WILLIAM HEUMANN

SP-4 PLAN & PROFILE

SHEET NUMBER
7 OF 9

Attachment F - Approved Construction Drawings



SHEET LEGEND

- STABILIZED CONSTRUCTION EXIT
- PROPOSED CULVERT FLOW
- EXISTING CULVERT FLOW
- PROFILE FLOW
- SURFACE FLOW
- ROCK CHECK DAM
- SEDIMENT BASIN OR VEGETATED BUFFER

- SHEET NOTES.**
1. THE CONTRACTOR/ OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSTALLING/ MAINTAINING EROSION AND SEDIMENT CONTROL PER LOCAL, STATE AND FEDERAL REQUIREMENTS.
 2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO EARTH DISTURBING ACTIVITIES.
 3. EROSION CONTROL MEASURES SHOWN ON THIS SHEET ARE NOT ALL ENCOMPASSING. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY PER PERMIT REQUIREMENTS.

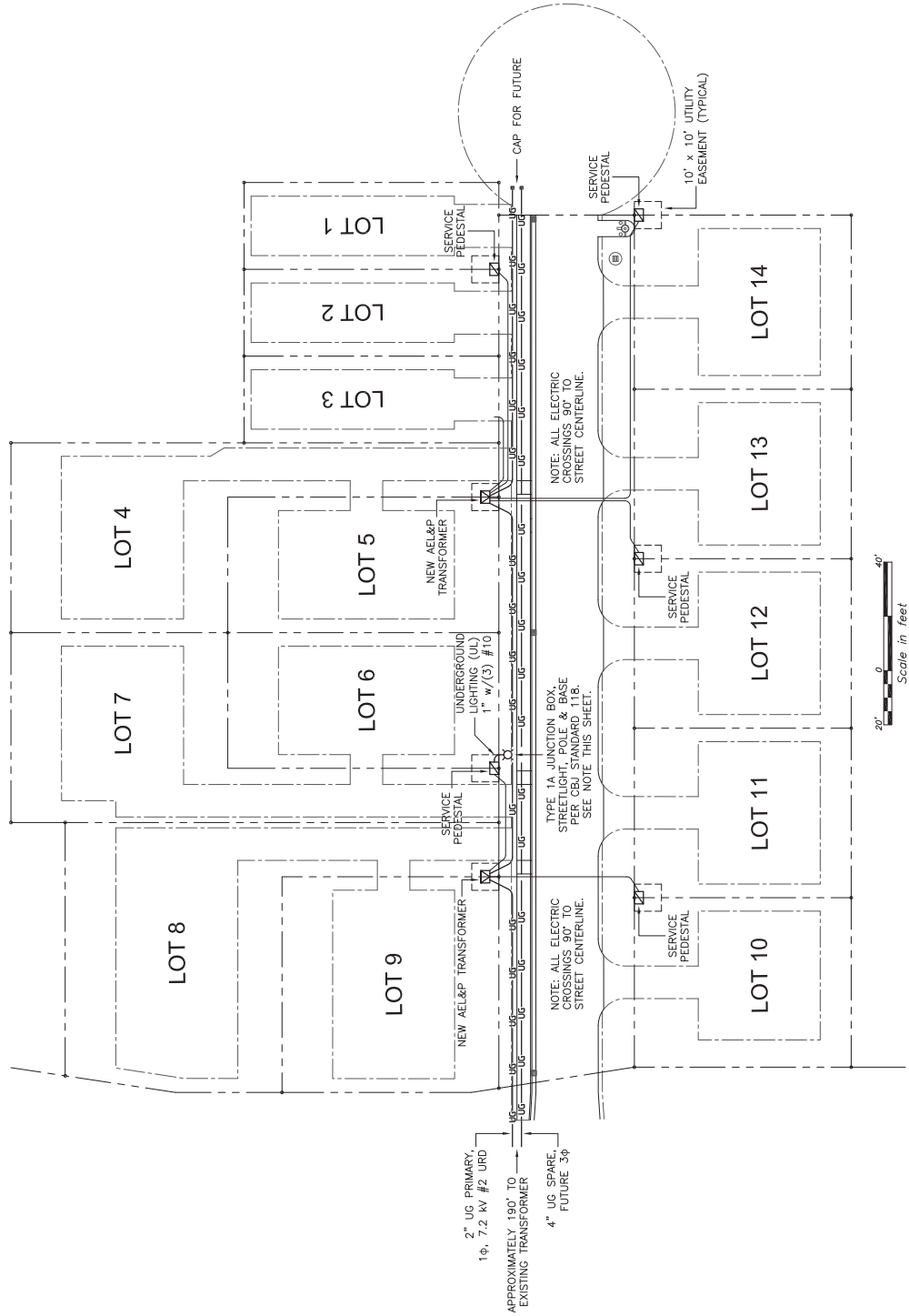
ESCP DRAWING NOT BEING USED FOR PERMITTING PURPOSES & TO BE UPDATED AS SWPPP SITE MAP		RECORD OF REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	BY					proHNS LLC CERTIFICATE OF AUTHORIZATION #100692	DESIGNED BY: C. BYLON CHECKED BY: L. CHAMBERS 1545 ALEXANDER WAY #101 JENAS, TN 37051 sales@prohns.com www.prohns.com	CBJ REVIEW APPROVED: [Signature] DATE: 06/01/2020	CHILKAT VISTAS SUBDIVISION, PHASE I - HILLCREST AVE EXTENSION MICHAEL & WILLIAM HEUMANN	EROSION SEDIMENT CONTROL PLAN	SHEET NUMBER 8 OF 9
NO.	DATE	DESCRIPTION	BY													

CONTOURS SHOWN ARE EXISTING GROUND DERIVED FROM 2014 CBJ LIDAR DATA

SCALE IN FEET
 0 25 50 75 100 125 150 175 200

— — — — —	PROPERTY LINE
— — — — —	SETBACK LINE
- - - - -	EASEMENT
—UG—UG—	UTILITY UNDERGROUND PRIMARY
—UG—UG—	UTILITY UNDERGROUND SECONDARY
—UL—	UNDERGROUND LIGHTING
	ROADWAY LUMINAIRE/STANDARD
	UTILITY TRANSFORMER
	UTILITY SERVICE PEDESTAL

LIGHTING NOTE:
FOR EACH STREET LIGHTING INSTALLATION, PROVIDE A TYPE 1A BURIED JUNCTION BOX, 36" DIAMETER BY 6' DEEP CONCRETE BASE (CBJ STANDARD 118), 25" TAPERED GALVANIZED STEEL POLE WITH 4" MAST ARM, AND A 15,000 LUMEN (MINIMUM) TYPE II CUTOFF DISTRIBUTION LUMINAIRE WITH PHOTOCELL CONTROL. EQUIP EACH INSTALLATION WITH A FUSED DISCONNECT.



APPROVED: 
DATE: 06/01/2020

[illegible]

WILLIAM C. HEUMANN
MICHAEL P. HEUMANN
6000 THANE ROAD
JUNEAU, ALASKA 99801
(971) 261-8014

HILLCREST AVENUE
EXTENSION

GORMAN
ENGINEERS
10761 HORIZON DRIVE
JUNEAU, ALASKA 99801-7626
PHONE: 463-6721 CELL: 473-8984
e-mail: pgorman@cinet.net

STREET LIGHTING &
ELECTRICAL PLAN
HILLCREST AVENUE EXTENSION

HOOTER LANE PHASE I ROW IMPROVEMENTS JUNEAU, AK

PREPARED FOR:
MICHAEL & WILLIAM HEUMANN

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	LEGEND, ABBREVIATIONS & GENERAL NOTES
3	TYPICAL SECTIONS
4	PLAN & PROFILE
5	EROSION SEDIMENT CONTROL PLAN

CITY & BOROUGH OF JUNEAU STANDARD DRAWINGS:

- 102A MINIMUM PAVED ROADWAY SECTION WITH CURB & GUTTER
- 125 PAVEMENT RESURFACING AND TRENCH DETAIL
- 203 SANITARY SEWER MANHOLE TYPES I & II
- 204 SANITARY DROP MANHOLE
- 205 MANHOLE HEIGHTS
- 206A STANDARD MANHOLE COVER & FRAME
- 209 MANHOLE CONNECTION DETAILS
- 218 COUPLING FOR DISSIMILAR SANITARY SEWER PIPES



PROJECT LOCATION MAP

SCALE 1" = 400'



NO.	DATE	RECORD OF REVISIONS	DESCRIPTION	BY



DRAWN BY: L. CHAMBERS	DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLADUSO	CHECKED BY: G. GLADUSO

CBJ REVIEW	APPROVED: <i>[Signature]</i>
DATE: 01/24/2020	

HOOTER LANE PHASE I ROW IMPROVEMENTS	MICHAEL & WILLIAM HEUMANN
--------------------------------------	---------------------------

TITLE SHEET	SHEET NUMBER
1	OF
5	

LEGEND

DESCRIPTION EXISTING PROPOSED

ASPHALT

BOLLARDS

BUILDING

CONCRETE

CURB & GUTTER

CUT SLOPE

DITCH

FENCE

FIRE HYDRANT

GRAVEL

MONUMENT

PROPERTY LINE

SANITARY SEWER CLEANOUT

SANITARY SEWER PIPE

SANITARY SEWER MANHOLE

SIGN

STORM DRAIN CATCH BASIN

STORM DRAIN PIPE

STORM DRAIN UNDERDRAIN

STORM DRAIN MANHOLE, GRATE

STORM DRAIN MANHOLE, SOLID LID

TREES

UNDERGROUND PIPE CAP

UTILITY POLE

UTILITY POLE WITH LUMINAIRE

WATER LINE PIPE

WATER VALVE BOX

ABBREVIATIONS

AC ASPHALT CONCRETE
AP ACCESSORIES
BOP BEGINNING OF PROJECT
BTM BOTTOM
BVC BEGIN VERTICAL CURVE
CB CATCH BASIN
CBJ CITY & BOROUGH OF JUNEAU
CIP CORRUGATED METAL PIPE
CPP CORRUGATED POLYETHYLENE PIPE
CONC CONCRETE
CIE CONNECT TO EXISTING
CIR CIRCULAR
DIA DIAMETER
ELEV ELEVATION
END OF PROJECT
EVC END VERTICAL CURVE
G GATE
GATE VALVE
HDPE HIGH DENSITY POLYETHYLENE
INV INVERT
LP LOW POINT
LH LIFT
MANHOLE
MIN MINIMUM
MTE MATCH TO EXISTING
NIC NOT IN CONTRACT
NO NUMBER
NS NORTH
PCC POINT OF CURVATURE
PCC POINT OF COMPOUND CURVATURE
PRC POINT OF REVERSE CURVATURE
PSI POUNDS PER SQUARE INCH
PVC POLYVINYL CHLORIDE PIPE
PVI POINT OF VERTICAL INTERSECTION
RP RADIUS POINT
RT RIGHT
RIGHT-OF-WAY
STATION
STD STANDARD
TOP BACK OF CURB
TOP BACK OF GUTTER
TOP OF PAVEMENT
TYP TYPICAL

GENERAL NOTES

1. CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS FOURTH ADDITION DATED AUGUST, 2011 AND CBJ ENGINEERING STANDARD SPECIFICATIONS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, INCLUDING ALL ERRATA (NOS. 1-16) AND CURRENT REVISIONS AS APPLICABLE.
2. CALL 586-1333 BEFORE YOU DIG FOR UNDERGROUND POWER, TELEPHONE AND CABLE. CALL 811 ALASKA DIGLINE BEFORE YOU DIG FOR UNDERGROUND ACS & GCI LOCATIONS AND ELEVATION OF EXISTING UNDERGROUND WATER, SEWER, POWER, TELEPHONE AND CABLE TELEVISION SHOWN ON THE PLANS WERE DERIVED FROM CBJ AS-BUILTS AND FIELD LOCATES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ANY DAMAGE TO THE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
3. LOCATIONS OF EXISTING DRAINAGE STRUCTURES AND UTILITIES WERE DERIVED FROM CBJ AS-BUILT DRAWINGS AND FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE EXISTING DRAINAGE STRUCTURES AND UTILITIES THROUGHOUT CONSTRUCTION OF THIS PROJECT.
4. THE ESTIMATED TOTAL AREA OF DISTURBANCE RESULTING FROM THESE IMPROVEMENTS IS APPROXIMATELY 0.5 ACRE.
5. THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) HAS IDENTIFIED A CONTAMINATED SITE WITHIN 1,500 FEET OF THE PROJECT LIMITS THAT ARE CURRENTLY IN "ACTIVE" OR "INSTITUTIONAL CONTROL" CLEANUP STATUS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSULT DEC AND OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK.
6. FINISHED GRADE AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. LOCATION OF PROPOSED SEWER AND STORM DRAINAGE FACILITIES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
7. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS, CONCRETE NAILS, CHISELED X'S) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER SURFACING IS REPLACED. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
8. CONTRACTOR SHALL ENSURE GARBAGE PICKUP, PRIVATE AND BUSINESS DELIVERIES, AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENCES AFFECTED BY THIS PROJECT.
9. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY, WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
10. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE.



No.	DATE	RECORD OF REVISIONS	DESCRIPTION	BY



DRAWN BY: DESIGNED BY:	L. CHAMBERS G. GLADSON
1-184 ALEX WOLDEN WAY #101 JUNEAU, AK 99801	

CBJ REVIEW	
APPROVED: <i>[Signature]</i>	
DATE: 01/24/2020	

HOOTER LANE PHASE I ROW IMPROVEMENTS	LEGEND ABBREVIATIONS & GENERAL NOTES

SHEET NUMBER	2
OF	5

MICHAEL & WILLIAM HEUMANN

HOOTER LANE FULL BUILD TYPICAL SECTION

*BACKSLOPE VARIES
1:1 STA: 1+50 TO 3+85
1.5:1 STA: 3+85 TO 4+80
2:1 STA: 4+80 TO 6+90

HOOTER LANE PHASE | TYPICAL SECTION

*BACKSLOPE VARIES
1:1 STA: 2+70 TO 3+85
1.5:1 STA: 3+85 TO 4+80
2:1 STA: 4+80 TO 6+90

LOCKING SECURITY GATE DETAIL
NTS

DETAIL NOTE:

1. PROVIDE GATE LATCH WITH COMBINATION LOCK OR HEAVY GAGE CHAIN AND COMBINATION LOCK.
2. INSTALL LOCKING SECURITY GATE UPON COMPLETION OF PROJECT PERPENDICULAR TO CENTER LINE AT STA: 3+50.
3. PROVIDE TEMPORARY ACCESS DETERRENT DURING NON WORKING HOURS UNTIL LOCKING SECURITY GATE HAS BEEN INSTALLED.

	No.	DATE	RECORD OF REVISIONS	BY
				
DRAWN BY: L. CHAMBERS DESIGNED BY: L. CHAMBERS CHECKED BY: G. GLADSTON		156 ALEX HOLDEN WAY #103 JUNEAU, AK 99801		
CBJ REVIEW APPROVED:  DATE: 01/24/2020				
HOOTER LANE PHASE I ROW IMPROVEMENTS MICHAEL & WILLIAM HEUMANN				
TYPICAL SECTIONS				
SHEET NUMBER: 3 OF 5				

A hand-drawn map of the study area. The map shows a winding road labeled 'GLACIER HWY' running horizontally across the middle. A north arrow is located in the upper left corner. A scale bar is located in the lower right corner, with markings for 0, 100, 200, 300, 400, 500, 600, 700, 800, 900, and 1000 feet. A study site is marked with a circle and a cross, located on the left side of the highway, approximately 400 feet from the bottom. Several other points are marked with circles and crosses along the highway and in the surrounding area.

PVI STA: 1+88.97
PVI ELEV: 30.09'
LVC: 50'



	RECORD OF REVISIONS DESCRIPTION REVIEW REVISION: SS-2 F PVC END WITH BELL & PLUG		BY LC	
	No. 1	DATE 01/22/2020		
				
DRAWN BY: L. CHAMBERS DESIGNED BY: L. CHAMBERS CHECKED BY: G. GLADISO		1945 ALEX HOLDEN WAY #101 JUNEAU, AK 99801		
CBJ REVIEW APPROVED:  DATE: 01/24/2020				
HOOTER LANE PHASE I ROW IMPROVEMENTS MICHAEL & WILLIAM HEIMANN				
BOP TO EOP PLAN & PROFILE				
SHEET NUMBER 4 OF 5				

solutions@proHNS.com
www.proHNS.com

CERTIFICATE OF AUTHORIZATION
#100662

HOOTER LANE PHASE I ROW IMPROVEMENTS

EROSION SEDIMENT CONTROL PLAN

MICHAEL & WILLIAM HEUMANN

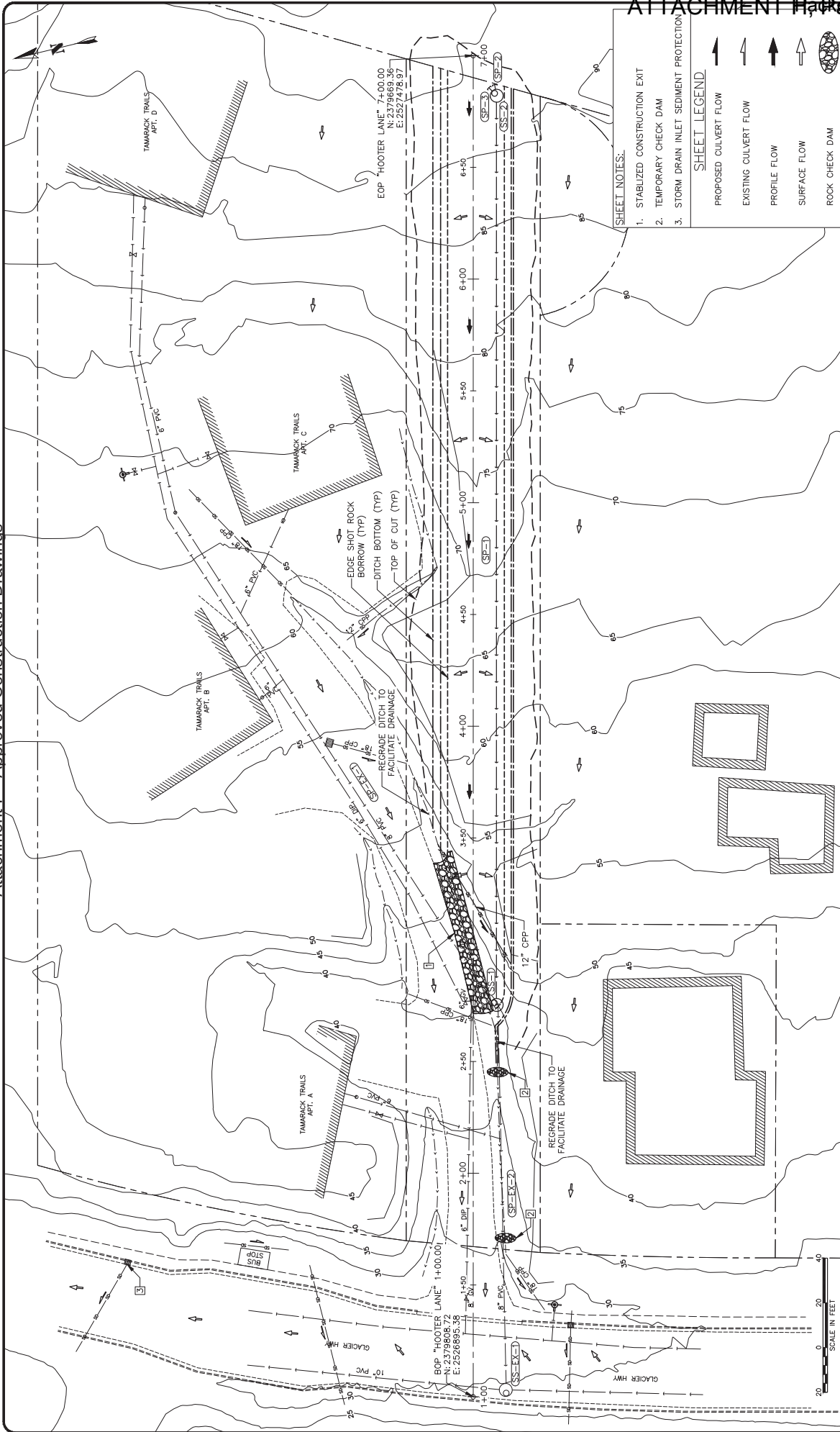
CBJ REVIEW

APPROVED:  DATE: 01/24/2020

DRAWN BY: L. CHAMBERS
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLASSO
1145 ALEXANDER WAY #101
JANUARY, IAN 9001
www.prohns.com
#100862



RECORD OF REVISIONS		BY
NO.	DATE	DESCRIPTION



SHEET NOTES:

1. STABILIZED CONSTRUCTION EXIT
2. TEMPORARY CHECK DAM
3. STORM DRAIN INLET SEDIMENT PROTECTION

SHEET LEGEND:

- PROPOSED CULVERT FLOW
- EXISTING CULVERT FLOW
- PROFILE FLOW
- SURFACE FLOW
- ROCK CHECK DAM

SHEET NUMBER	
5	OF
5	

HOOTER LANE FULL BUILD ROW IMPROVEMENTS CROSS SECTIONS JUNEAU, AK

PREPARED FOR:
MICHAEL & WILLIAM HEUMANN



PROJECT LOCATION MAP

SCALE 1" = 400'

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	CROSS SECTIONS 1+50 - 2+25
3	CROSS SECTIONS 2+50 - 3+25
4	CROSS SECTIONS 3+50 - 4+00
5	CROSS SECTIONS 4+00 - 4+80
6	CROSS SECTIONS 5+00 - 5+75
7	CROSS SECTIONS 6+00 - 6+75
8	CROSS SECTION 6+80



RECORD OF REVISIONS		BY
No.	DATE	DESCRIPTION



DRAWN BY: DESIGNED BY:	C. BYLON L. CHAMBERS
1545 ALEXANDER WAY #101 JUNEAU, AK 99801 solutions@ptohns.com www.ptohns.com	

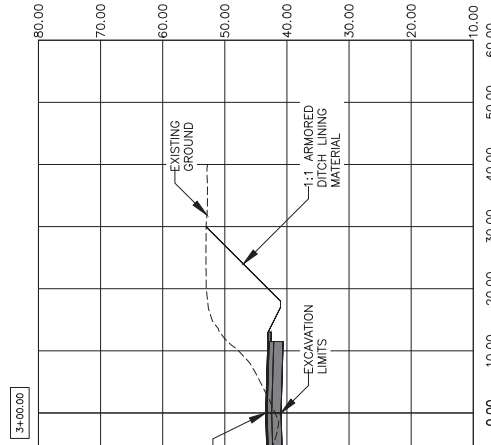
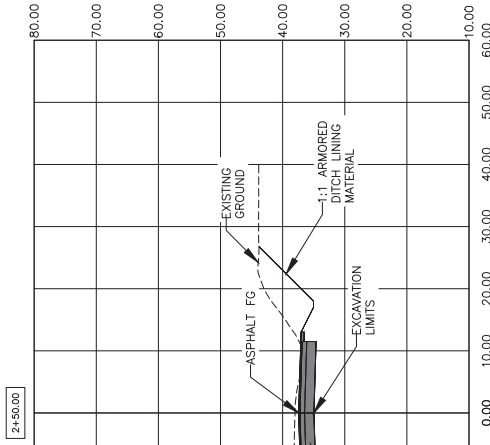
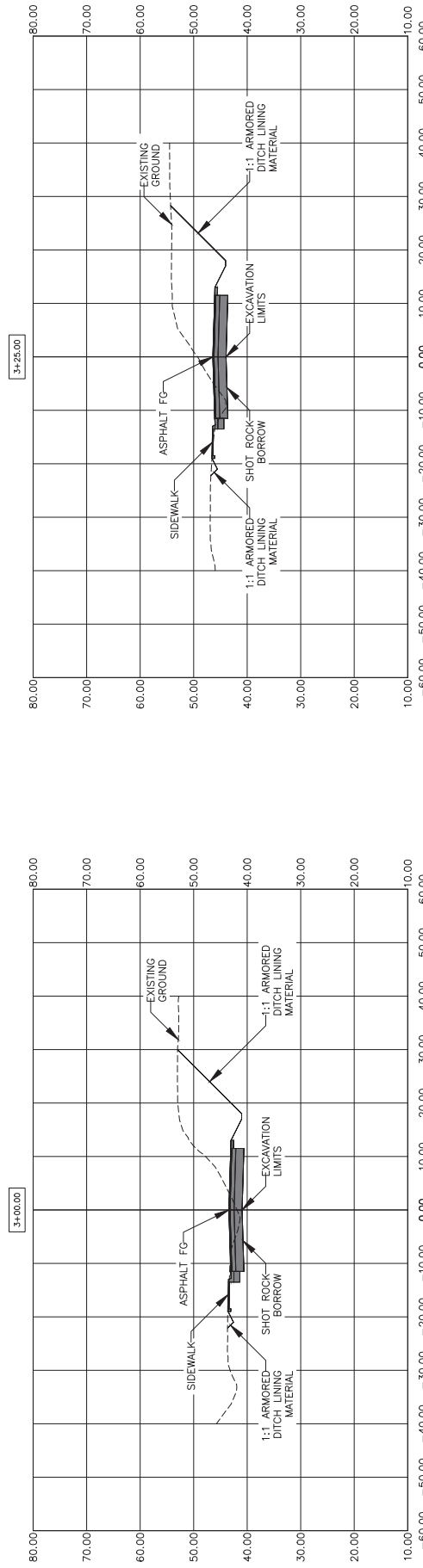
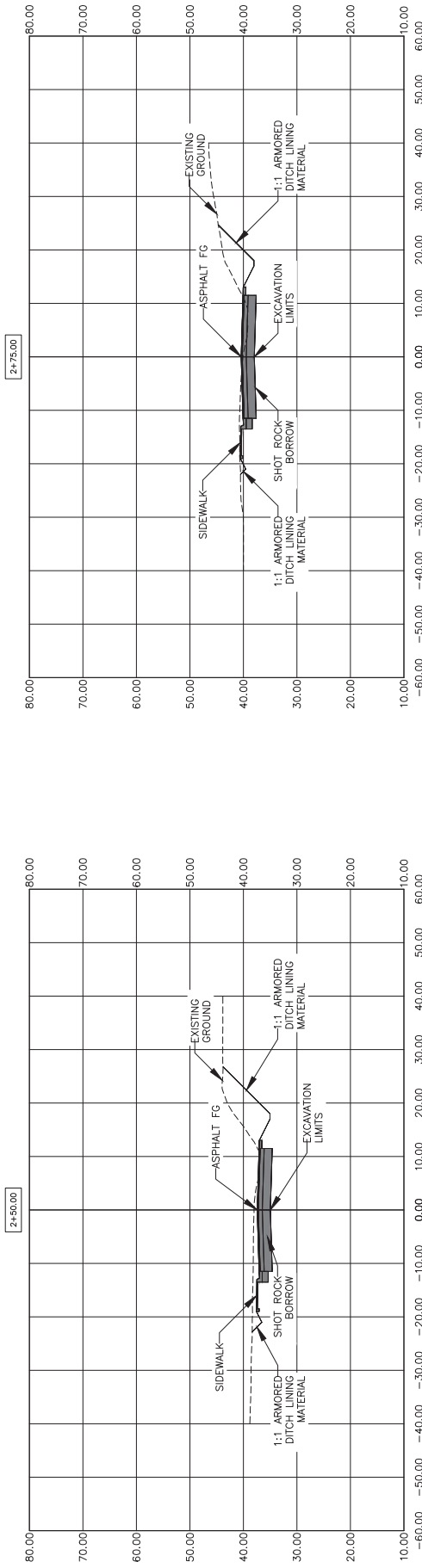
CBJ REVIEW	APPROVED: 
DATE: 01/24/2020	

HOOTER LANE FULL BUILD ROW IMPROVEMENTS	MICHAEL & WILLIAM HEUMANN
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COVER SHEET	
SHEET NUMBER	1
OF	8

SHEET NUMBER	2	OF	8
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Attachment F - Approved Construction Drawings



RECORD OF REVISIONS		BY	DATE	DESCRIPTION
No.				



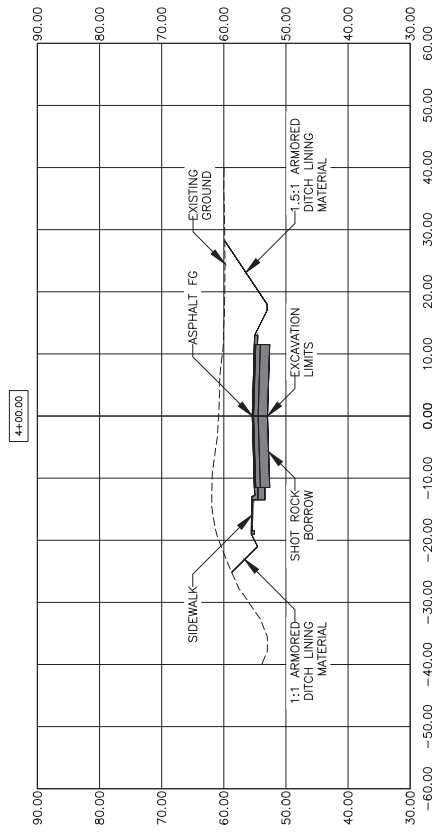
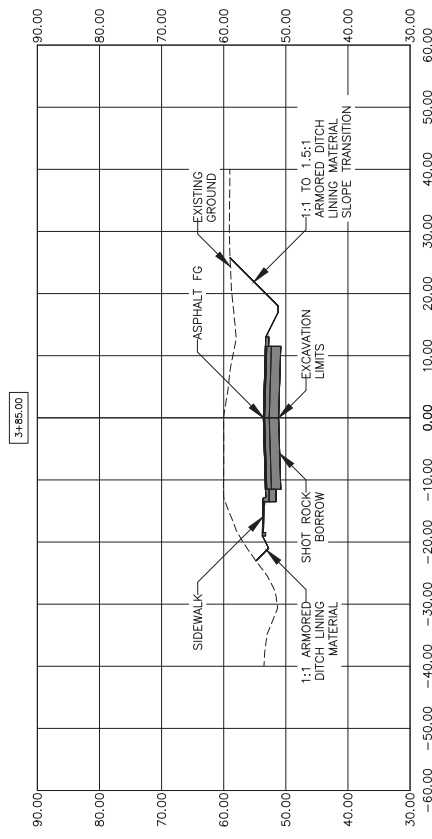
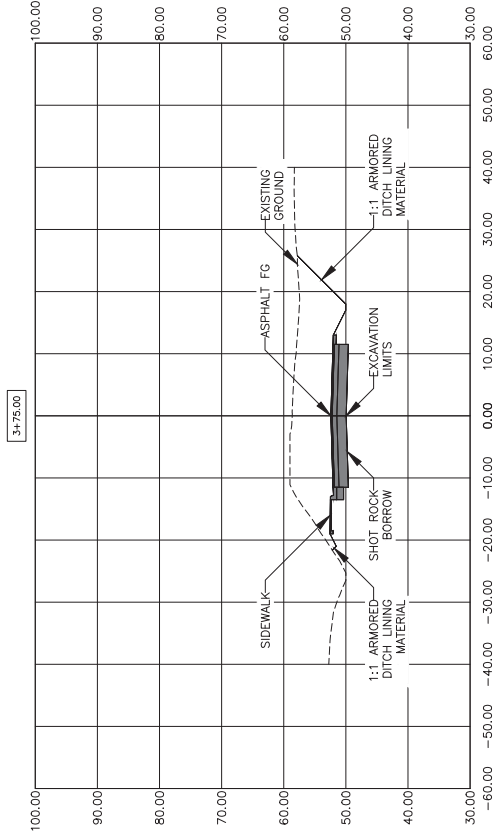
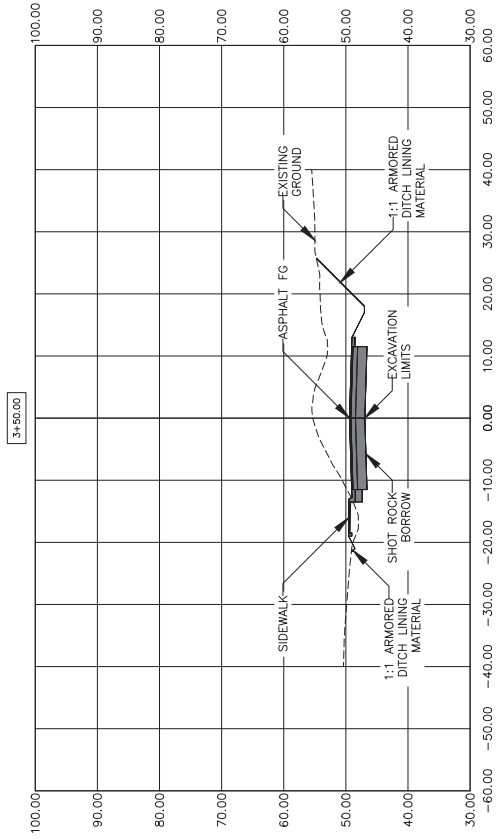
DRAWN BY: C. BYLON
DESIGNED BY: L. CHAMBERS
CHECKED BY: L. CHAMBERS
1346 ALEXANDER WAY #101
JARVIS, NY 13041
solutions@prohns.com
www.prohns.com

CBJ REVIEW
APPROVED: *[Signature]*
DATE: 01/24/2020

CROSS SECTIONS 2+50 - 3+25
HOOTER LANE FULL BUILD ROW IMPROVEMENTS
MICHAEL & WILLIAM HEUMANN

SHEET NUMBER
3
OF
8

Attachment F - Approved Construction Drawings



RIGHT SIDE ARMORED DITCH BACK SLOPE TRANSITIONS
FROM 1:1 TO 1.5:1 SLOPE AT STA: 3+85.



NO.	DATE	RECORD OF REVISIONS	DESCRIPTION	BY



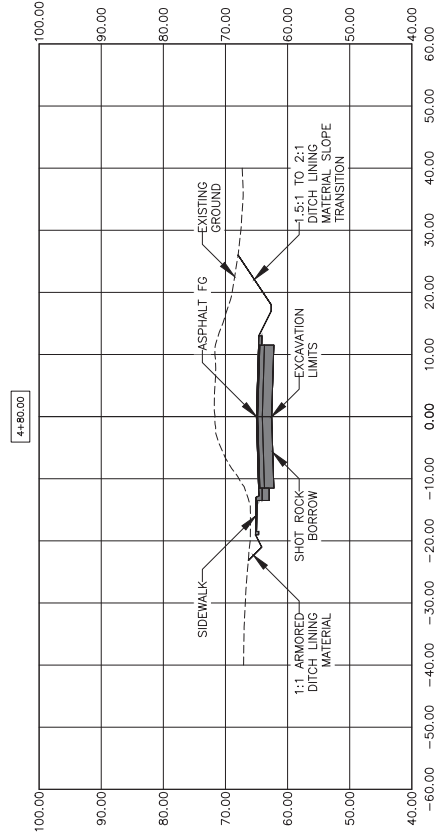
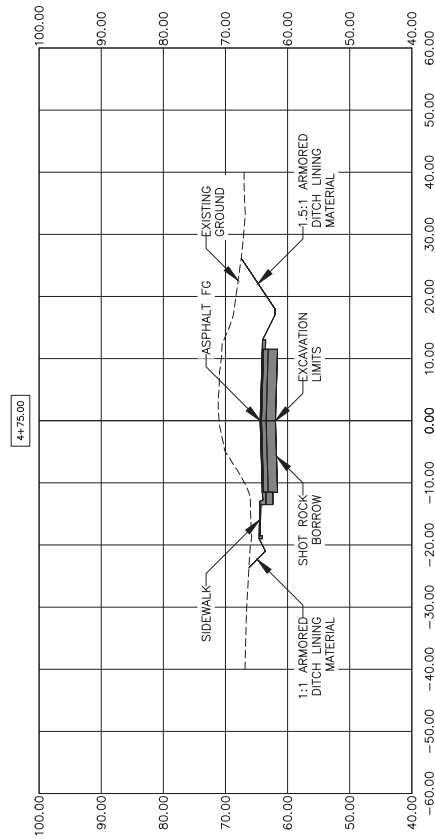
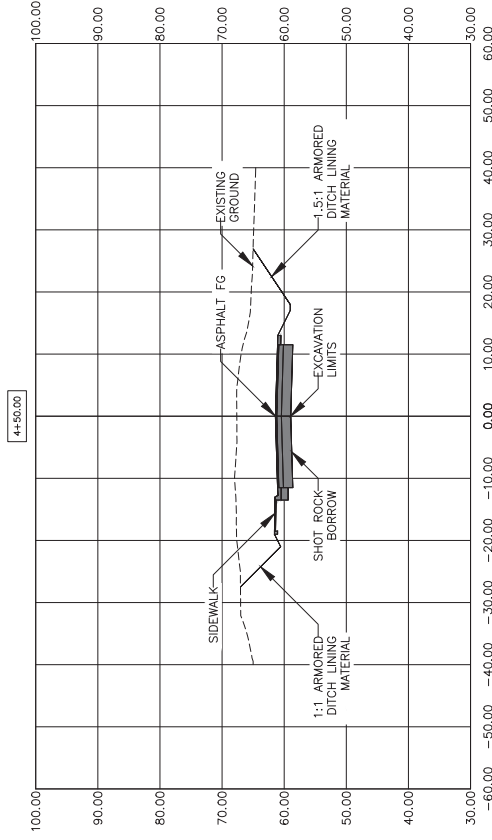
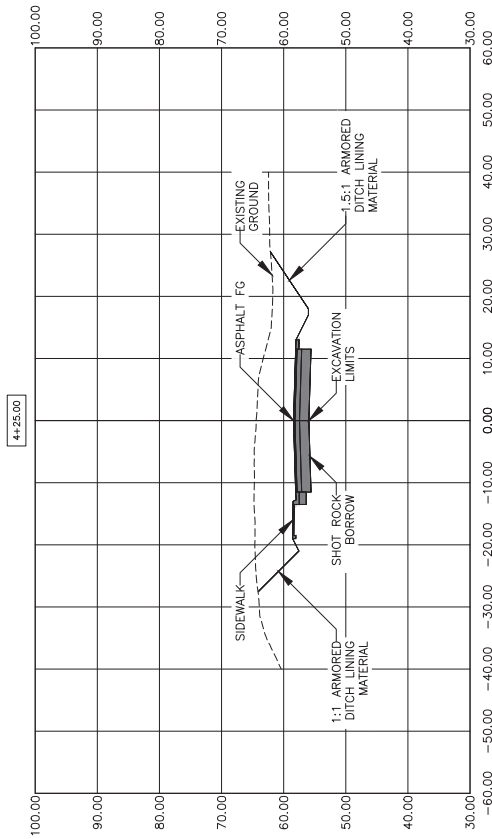
DRAWN BY:	C. BYLON
DESIGNED BY:	L. CHAMBERS
CHECKED BY:	L. CHAMBERS
11845 ALEXANDER WAY #101 JARVIS, NY 13041	
sales@prohns.com www.prohns.com	

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APPROVED: <i>[Signature]</i>
DATE: 01/24/2020

HOOTER LANE FULL BUILD ROW IMPROVEMENTS	
MICHAEL & WILLIAM HEUMANN	
CROSS SECTIONS 3+50 - 4+00	

SHEET NUMBER	4
OF	8

Attachment F - Approved Construction Drawings



RIGHT SIDE ARMORED DITCH BACK SLOPE TRANSITIONS FROM
1.5:1 TO 2:1 DITCH LINING BACK SLOPE AT STA: 4+80.



NO.	DATE	RECORD OF REVISIONS	DESCRIPTION	BY



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1345 ALEXANDER WAY #101
JANESVILLE, WI 53401
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www.prohns.com

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DATE: 01/24/2020

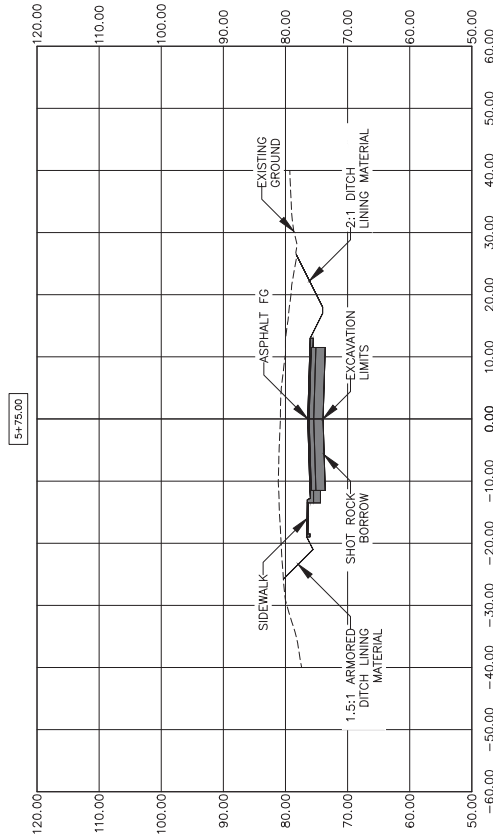
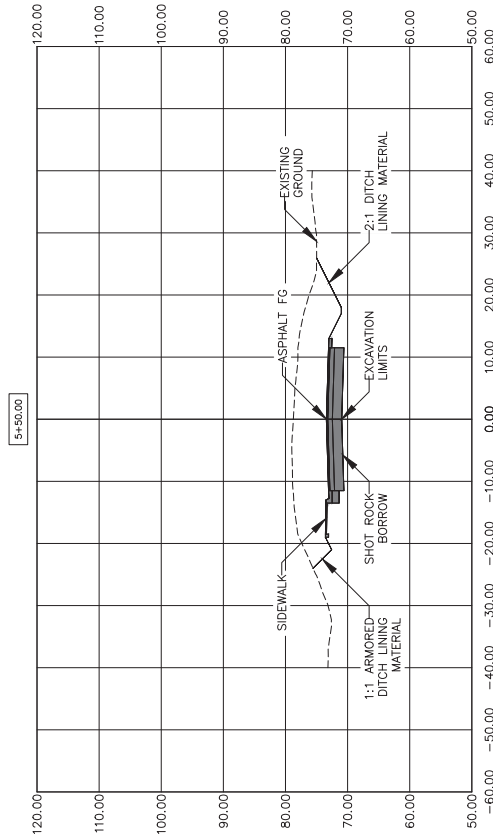
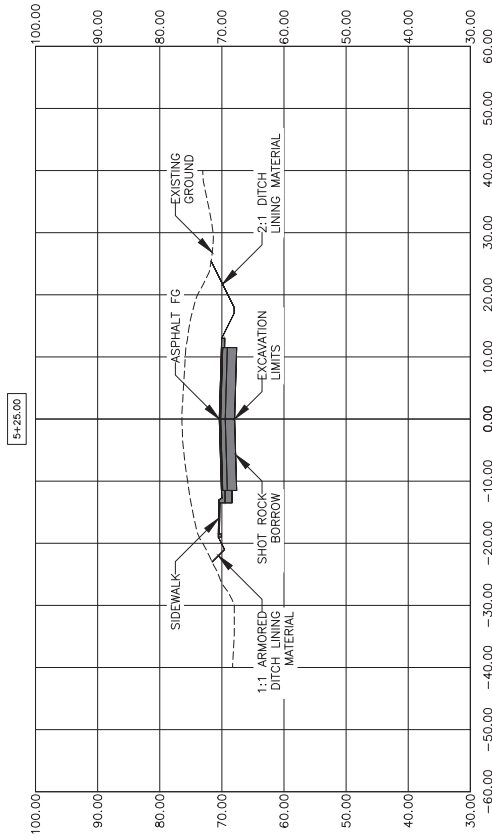
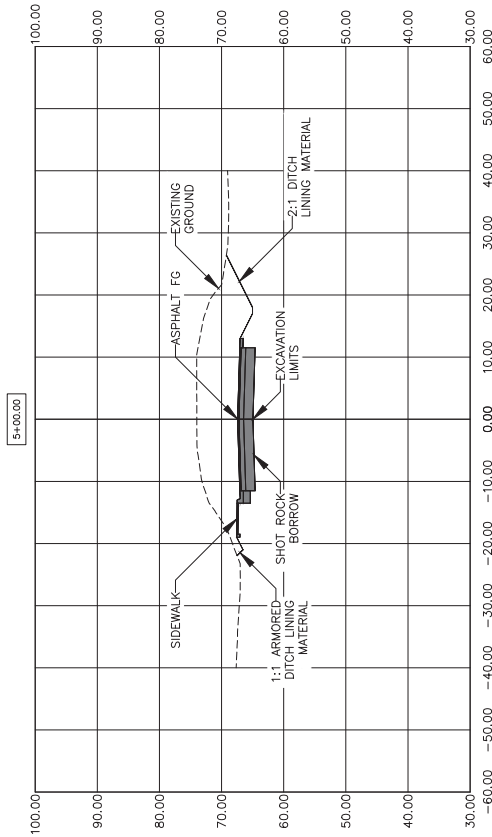
HOOTER LANE FULL BUILD
ROW IMPROVEMENTS

CROSS SECTIONS 4+25 -
4+80

MICHAEL & WILLIAM HEUMANN

SHEET NUMBER
5
OF
8

Attachment F - Approved Construction Drawings



RECORD OF REVISIONS	
NO.	DATE



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 DESIGNED BY: L. CHAMBERS
 CHECKED BY: L. CHAMBERS
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 solutions@prohns.com
 www.prohns.com

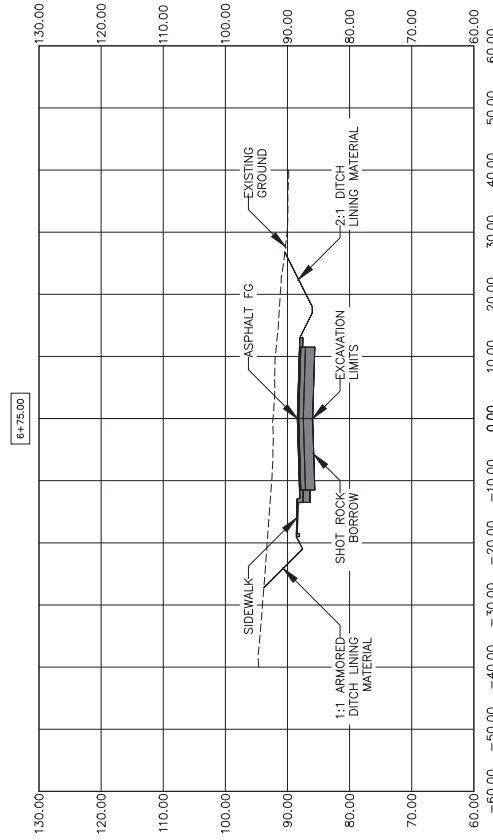
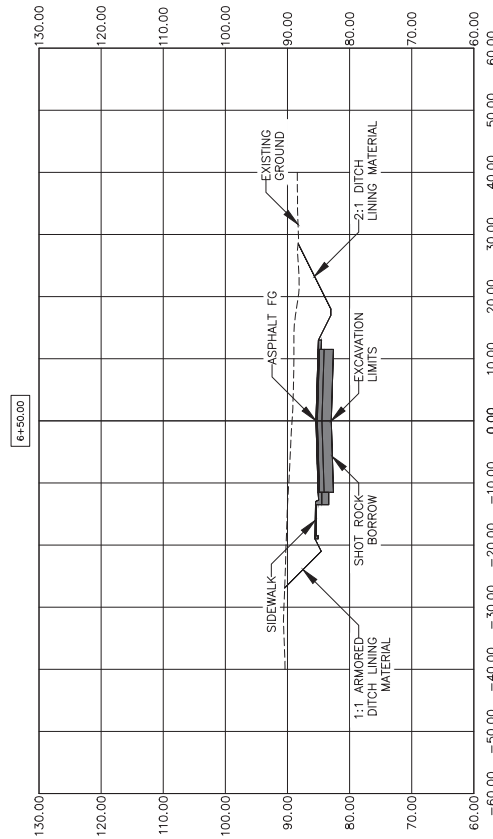
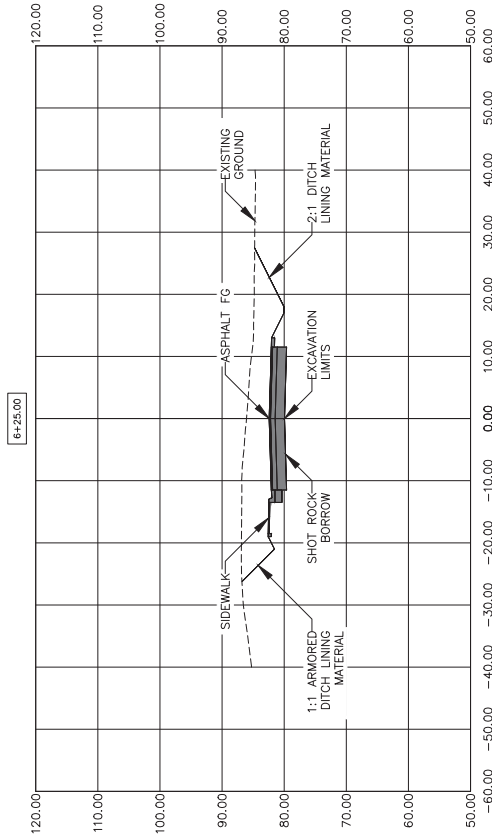
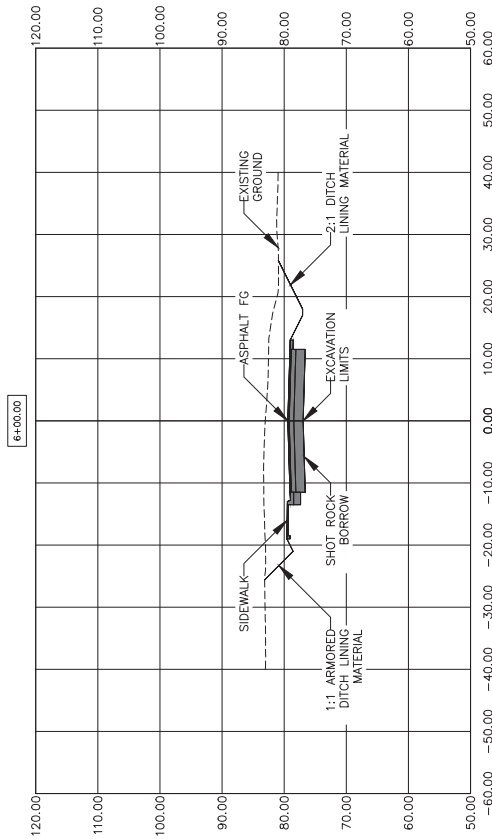
CBJ REVIEW
 APPROVED: *[Signature]*
 DATE: 01/24/2020

HOOTER LANE FULL BUILD
 ROW IMPROVEMENTS
 MICHAEL & WILLIAM HEUMANN

SHEET NUMBER
 6 OF 8

CROSS SECTIONS 5+00 -
 5+75

Attachment F - Approved Construction Drawings



RECORD OF REVISIONS		DATE	DESCRIPTION	BY
No.				



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DESIGNED BY: L. CHAMBERS
CHECKED BY: L. CHAMBERS
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www.prohns.com

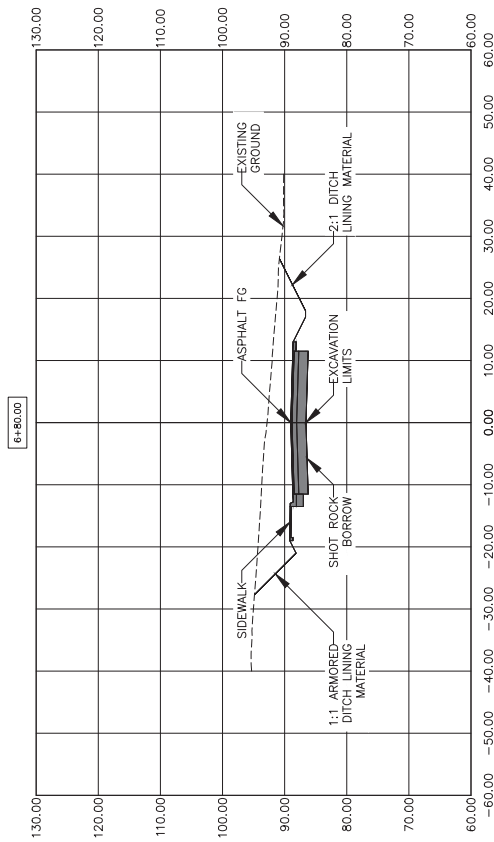
CBJ REVIEW
APPROVED: *[Signature]*
DATE: 01/24/2020

HOOTER LANE FULL BUILD
ROW IMPROVEMENTS
MICHAEL & WILLIAM HEUMANN

CROSS SECTIONS 6+00 -
6+75

SHEET NUMBER	
7	OF
8	

Attachment F - Approved Construction Drawings



NO.	DATE	RECORD OF REVISIONS	DESCRIPTION	BY



DRAWN BY:	C. BYLON
DESIGNED BY:	L. CHAMBERS
CHECKED BY:	L. CHAMBERS
1546 ALEXANDER WAY #101 JANESVILLE, WI 53401	
solutions@prohns.com www.prohns.com	

CROSS SECTION 6+80	CROSS SECTION 6+80
HOOTER LANE FULL BUILD ROW IMPROVEMENTS	HOOTER LANE FULL BUILD ROW IMPROVEMENTS
MICHAEL & WILLIAM HEUMANN	MICHAEL & WILLIAM HEUMANN
CROSS SECTION 6+80	CROSS SECTION 6+80

SHEET NUMBER	8
OF	8

CONTRACTOR'S REQUEST
FOR PAYMENT NO. 1

CONTRACTOR: Coogan Construction
PROJECT TITLE: Chillkat Vistas Subdivision, Phase I - Hillcrest Ave Extension
☒ Partial Pay Request for period: 6/4/2020 to 6/17/2020
☐ Final Pay Request

Original Contract Amount	<u>\$436,266.30</u>
Amount Added/Deleted by Change Order	<u>\$0.00</u>
Adjusted Contract Price	<u>\$436,266.30</u>
 Total Work Completed to Date	 <u>\$78,855.00</u>
Materials on Hand	<u> </u>
NET EARNED ON CONTRACT TO DATE	<u>\$78,855.00</u>
REMAINING CONTRACT AMOUNT TO BE COMPLETED:	<u>\$357,411.30</u>

Previous Payments:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Total of Previous Payment	-	<u>\$0.00</u>	
AMOUNT OF THIS PAYMENT REQUEST		<u>\$78,855.00</u>	← PAY THIS AMOUNT

The undersigned hereby certify that all items and amounts on this request for payment are correct and that the work has been performed and/or material supplied in full accordance with the contract.

_____ (Date)	_____ (Signature of Contractor's Representative)	_____ (Title)
_____ (Date)	_____ (Signature of Project Engineer/Architect)	



CONTRACTOR'S PAY ESTIMATE NO.: 1
(UNIT PRICE CONTRACT)

CONTRACT TITLE:
CONTRACTOR:

Chillkat Vistas Subdivision, Phase I - Hillcrest Ave Extension
Coogan Construction

ESTIMATE OF WORK COMPLETED ON: 6/17/2020

BASE BID							
ITEM	DESCRIPTION	Unit Of Measure	Unit Price	BID AMOUNT	QUANTITY THIS EST.	QUANTITY TO DATE	AMOUNT TO DATE
1505.1	Mobilization	All Req'd	Lump Sum	\$20,000.00	100%	100%	\$20,000.00
1570.1	Erosion and Sediment Control	All Req'd	Lump Sum	\$12,000.00	20%	20%	\$2,400.00
2201.1	Clearing & Grubbing	All Req'd	Lump Sum	\$5,000.00	100%	100%	\$5,000.00
2202.1	Excavation	877 CY	\$ 10.00	\$8,770.00	714.00	714.00	\$7,140.00
2202.1A	Excavation	179 CY	\$ 10.00	\$1,790.00	0.00	0.00	\$0.00
2204.1	2-Inch minus Shot Rock w/ Base Course	220 CY	\$ 50.00	\$11,000.00	0.00	0.00	\$0.00
2204.1A	2-Inch minus Shot Rock w/ Base Course	144 CY	\$ 50.00	\$7,200.00	0.00	0.00	\$0.00
2204.2	Base Course, Grading D-1 for Driveways & Shouldering	88 TN	\$ 30.00	\$2,640.00	0.00	0.00	\$0.00
2204.3	Shot Rock Borrow	749 CY	\$ 35.00	\$26,215.00	749.00	749.00	\$26,215.00
2204.3A	Shot Rock Borrow	287 CY	\$ 35.00	\$10,045.00	0.00	0.00	\$0.00
2204.4	6-Inch Ditch Lining	134 CY	\$ 35.00	\$4,690.00	0.00	0.00	\$0.00
2401.1	Sanitary Sewer Pipe, 8-Inch PVC	697 LF	\$ 70.00	\$48,790.00	230.00	230.00	\$16,100.00
2401.2	Sanitary Sewer Service Lateral 4-inch SDR35 PVC	20 Each	\$ 1,650.00	\$33,000.00	0.00	0.00	\$0.00
2402.1	Sanitary Sewer Manhole, Type I	2 Each	\$ 5,000.00	\$10,000.00	0.00	0.00	\$0.00
2402.2	Connect to Existing Sanitary Sewer Manhole	1 Each	\$ 750.00	\$750.00	0.00	0.00	\$0.00
2501.1	18-Inch CPP Pipe	502 LF	\$ 45.00	\$22,590.00	0.00	0.00	\$0.00
2502.1	Catch Basin, Type IV	3 Each	\$ 2,000.00	\$6,000.00	0.00	0.00	\$0.00
2502.2	Storm Drain Manhole, Type I	1 Each	\$ 4,500.00	\$4,500.00	0.00	0.00	\$0.00
2601.1	10-Inch HDPE Water Pipe	328 LF	\$ 75.00	\$24,600.00	0.00	0.00	\$0.00
2601.2	Connect to Existing Water Pipe	1 Each	\$ 1,500.00	\$1,500.00	0.00	0.00	\$0.00
2601.3	Corrosion Protection	1 Each	\$ 600.00	\$600.00	0.00	0.00	\$0.00
2602.1	10-Inch Gate Valve	1 Each	\$ 3,000.00	\$3,000.00	0.00	0.00	\$0.00
2603.1	Fire Hydrant Assembly with Access Pad	1 Each	\$ 7,000.00	\$7,000.00	0.00	0.00	\$0.00
2605.1	1-Inch Poly Water Services	14 Each	\$ 1,800.00	\$25,200.00	0.00	0.00	\$0.00
2607.1	Pipe Insulation Boards	72.0 Each	\$ 30.00	\$2,160.00	0.00	0.00	\$0.00
2702.1	Construction Surveying	All Req'd	Lump Sum	\$10,000.00	20%	20%	\$2,000.00
2709.1	Topsoil	42 CY	\$ 65.00	\$2,730.00	0.00	0.00	\$0.00
2709.2	Topsoil Finish Grading	10 MH	\$ 85.00	\$850.00	0.00	0.00	\$0.00



CONTRACTOR'S PAY ESTIMATE NO.: 1
(UNIT PRICE CONTRACT)

CONTRACT TITLE:
CONTRACTOR:

Chillkat Vistas Subdivision, Phase I - Hillcrest Ave Extension
Coogan Construction

ESTIMATE OF WORK COMPLETED ON: 6/17/2020

BASE BID							
ITEM	DESCRIPTION	Unit Of Measure	Unit Price	BID AMOUNT	QUANTITY THIS EST.	QUANTITY TO DATE	AMOUNT TO DATE
2710.1	Seeding, Hydraulic Method, Type III	1.5 Slurry Unit	\$ 1,200.00	\$1,800.00	0.00	0.00	\$0.00
2801.1	A.C. Pavement, Type II-A, Class B	137 TN	\$ 185.00	\$25,345.00	0.00	0.00	\$0.00
2801.1	A.C. Pavement, Type II-A, Class B	137 TN	\$ 185.00	\$16,465.00	0.00	0.00	\$0.00
2801.2	A.C. Pavement for Sidewalks	23 TN	\$ 210.00	\$4,830.00	0.00	0.00	\$0.00
3302.1	Concrete Headwall without Trash Rack	9 Each	\$ 600.00	\$5,400.00	0.00	0.00	\$0.00
3302.2	Concrete Area Drains	1 Each	\$ 800.00	\$800.00	0.00	0.00	\$0.00
3303.4	Curb and Gutter, Type I	358 LF	\$ 35.00	\$12,530.00	0.00	0.00	\$0.00
16000.1	Street Lighting and Utility Coordination	All Req'd	Lump Sum	\$56,476.30	0.00	0.00	\$0.00
				\$436,266.30	TOTAL BASE BID:		\$78,855.00



PO Box 3832
Juneau, AK 99803
907-780-4004
solutions@proHNS.com

Attachment G - Engineer's Estimate
PO Box 1041
Haines, AK 99827
907-419-6070
www.proHNS.com

SMP2021 0004

Attachment H - Pay Request
Request # 1
6/18/2020
B. Mitchell
Page # 1

1505.1 (Mobilization) \$20,000

When 5% of contract is complete pay for 50% of Mobilization.
When 10% of contract is complete pay for 100% of Mobilization

Since over 10% of the original contract has been earned from other items, 100% of the mobilization pay item will be paid this pay request.

\$20,000.00

1570.1 (Erosion & Sediment Control)

Assuming the project continues as scheduled there will be 5 pay periods. Each pay period will pay 1/5th or 20%, of the Erosion and Sediment Control bid item.

$$\left(\frac{100\%}{5 \text{ pay requests}} \right) = 20\% / \text{pay request}$$

$$(\$12,000)(.20) = \$2,400$$

Dates: 4/4/20 - 6/17/20



PO Box 322
Juneau, AK 99803
907-780-4004
solutions@proHNS.com

Attachment G - Engineers Estimate
Haines, AK 99827
907-419-6070
www.proHNS.com

SMP2021 0004

Page 10 of 17

Request # 1

6/18/2020

B. Mitchell

Page # 2

2202.1 (Clearing & Grubbing)

Since all of the necessary clearing and grubbing has been completed, 100% of the clearing and grubbing pay item will be paid this pay request.

\$5,000.00

Dates: 6/08/20 — 6/10/20

2202.1 (Excavation) \$10.00/yd³

Volume Excavated = 714 yd³ (for Hillcrest Ave Extension, NOT Col-De-Sac)
(Value obtained from CAD volumes dashboard)

$$(714 \text{ yd}^3) \left(\frac{\$10.00}{1 \text{ yd}^3} \right) = \$7,140.00$$

Dates: 6/08/20 — 6/17/20



PO Box 30122 Attachment G - Engineers Estimate
Juneau, AK 99803 Haines, AK 99827
907-780-4004 907-419-6070
solutions@proHNS.com www.proHNS.com

SMP2021,0004

Attachment H - Request #1 of 11

Request #1

6/18/2020

B. Mitchell

Page # 3

2204.3 (Shot Rock Borrow) $\frac{\$35.00}{1 \text{ yard}^3}$

~~2204.3~~ Hillcrest Ave Extension Roadway Area = 12,725 ft²
Access Road Area = 756 ft² (Values from AutoCAD, not including Cul-de-Sac)

Depth = 1.5 ft

Total Area = 13,481 ft²

$$\text{Volume of Rock} = (\text{Total Area})(\text{Depth}) = (13,481 \text{ ft}^2)(1.5 \text{ ft})\left(\frac{1 \text{ yard}^3}{27 \text{ ft}^3}\right) = 749 \text{ yards}^3$$

$$(749 \text{ yards}^3)\left(\frac{\$35.00}{1 \text{ yard}^3}\right) = \$26,215.00$$

Dates: 6/10/20 - 6/17/20

2401.1 (8-inch Sewer Pipe, PVC) $\$70.00/\text{ft}$

SP-4 Installation = 230 ft (Value from AutoCAD $\approx$ Onsite measurement)

$$(230 \text{ ft})\left(\frac{\$70.00}{1 \text{ ft}}\right) = \$16,100$$

Dates: 6/04/20 - 6/05/20



PO Box 3822
Juneau, AK 99803
907-780-4004
solutions@proHNS.com

Attachment G - Engineers Estimate
Haines, AK 99827
907-419-6070
www.proHNS.com

SMP2021 0004

Attachment H - Pay Request
Page 5 of 12

Request #1

6/18/2020

B. Mitchell

Page # 4

2702.1 (Construction Surveying)

Assuming the project continues as scheduled there will be 5 pay periods. Each pay period will pay 1/5th or 20% of the construction surveying bid item.

$$\left(\frac{100\%}{5 \text{ pay requests}} \right) = 20\% / \text{pay request}$$

$$(\$10,000)(.20) = \$2,000.00$$

Dates: 6/4/20 — 6/17/20

Engineer's Estimate					
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension				
Owner:	Michael & William Heumann				
Date:	6/18/2020				
Prepared By:	C. Bydlon				
Checked By:	L. Chambers				
	Base Bid (Phase I Construction)				
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
1505.1	Mobilization	Lump Sum	All Req'd	\$20,000.00	\$20,000.00
1570.1	Erosion and Sediment Control	Lump Sum	All Req'd	\$12,000.00	\$12,000.00
2201.1	Clearing and Grubbing	Lump Sum	All Req'd	\$5,000.00	\$5,000.00
2202.1	Excavation	CY	877	\$10.00	\$8,770.00
2204.1	2-Inch Minus Shot Rock w/ Base Course	CY	220	\$50.00	\$11,000.00
2204.2	Base Course, Grading D-1 for Driveways and Shouldering	TON	88	\$30.00	\$2,640.00
2204.3	Shot Rock Borrow	CY	749	\$35.00	\$26,215.00
2204.4	6" Ditch Lining	CY	134	\$35.00	\$4,690.00
2401.1	Sanitary Sewer Pipe, 8-Inch PVC	LF	697	\$70.00	\$48,790.00
2401.2	Sanitary Sewer Service Lateral, 4-Inch SDR35 PVC	EA	20	\$1,650.00	\$33,000.00
2402.1	Sanitary Sewer Manhole, Type I	EA	2	\$5,000.00	\$10,000.00
2402.2	Connect to Existing Sanitary Sewer Manhole	EA	1	\$750.00	\$750.00
2501.1	18-Inch CPP Pipe Culvert	LF	502	\$45.00	\$22,590.00
2502.1	Catch Basin, Type IV	EA	3	\$2,000.00	\$6,000.00
2502.2	Storm Drain Manhole, Type I	EA	1	\$4,500.00	\$4,500.00
2601.1	10-Inch HDPE Water Pipe	LF	328	\$75.00	\$24,600.00
2601.2	Connect to Existing Water Pipe	EA	1	\$1,500.00	\$1,500.00
2601.3	Corrosion Protection	EA	1	\$600.00	\$600.00
2602.1	10-Inch Gate Valve	EA	1	\$3,000.00	\$3,000.00
2603.1	Fire Hydrant Assembly With Access Pad	EA	1	\$7,000.00	\$7,000.00
2605.1	1-Inch Poly Water Service	EA	14	\$1,800.00	\$25,200.00
2607.1	Pipe Insulation Boards	Board	72	\$30.00	\$2,160.00
2702.1	Construction Surveying	Lump Sum	All Req'd	\$10,000.00	\$10,000.00
2709.1	Topsoil	CY	42	\$65.00	\$2,730.00
2709.2	Topsoil Finish Grading	MH	10	\$85.00	\$850.00
2710.1	Seeding, Hydraulic Method, Type III	Slurry Unit	1.5	\$1,200.00	\$1,800.00
2801.1	A.C. Pavement, Type II-A, Class B	TON	137	\$185.00	\$25,345.00
2801.2	A.C. Pavement for Sidewalks	TON	23	\$210.00	\$4,830.00
3302.1	Concrete Headwall without Trash Rack	EA	9	\$600.00	\$5,400.00
3302.2	Concrete Area Drains	EA	1	\$800.00	\$800.00
3303.1	Curb and Gutter, Type I	LF	358	\$35.00	\$12,530.00
16000.1	Street Lighting and Utility Coordiantion	Lump Sum	All Req'd	\$56,476.30	\$56,476.30
Total Construction Cost=				\$400,766.30	

Alternate A (Cul-De-Sac Construcion)					
2202.1.A	Excavation	CY	179	\$10.00	\$1,790.00
2204.1.A	2-Inch Minus Shot Rock w/ Base Course	CY	144	\$50.00	\$7,200.00
2204.3.A	Shot Rock Borrow	CY	287	\$35.00	\$10,045.00
2801.1.A	A.C. Pavement, Type II-A, Class B	TON	89	\$185.00	\$16,465.00
Total Construction Cost=					\$35,500.00

Total (Phase I + Cul-De-Sac)= \$436,266.30

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
1505.1	Mobilization		Lump Sum	All Req'd	\$20,000.00	\$20,000.00

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work items and locations taken into consideration. Unit price set at approx. 5% overall construction cost. CBJ F Street Reconstructon 2017, CBJ Blueberry Hills Road Reconstruction 2017, Front Street Douglas Reconstruction 2016.

Total Contract Price	5%	Approx. MOB, Cost
\$400,766.30	\$20,038.32	\$20,000.00

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	L. Chambers					
Checked By:	G. Gladsjo					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
1570.1	Erosion and Sediment Control		Lump Sum	All Req'd	\$12,000.00	\$12,000.00

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work items and locations taken into consideration. CBJ F Street Reconstructon 2017, CBJ Blueberry Hills Road Reconstruction 2017, Front Street Douglas Reconstruction 2016.

Total Contract Price	3%	Approx. ESC, Cost
\$400,766.30	\$12,022.99	\$13,000.00

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2201.1	Clearing & Grubbing		Lump Sum	All Req'd	\$5,000.00	\$5,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: N/A

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Kaxdigoowu Heen Deis Trail Relocation 2019, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2202.1	Excavation		CY	877	\$10.00	\$8,770.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-EXCAV

Quantity			
Location	Surface Area (SQFT)	Depth (FT)	Volume (CY)
Hillcrest Ave Extension (from CAD volumes dashboard)			714
Ditch Around Cul-De-Sac and Hooter			163
Total =			877

*Excavation required for installation of roadway and sidewalk structural section. Excavaton limit bottom of shot rock borrow rock under road and bottom of D-1 under sidewalk.

* Does not account for over excavation of unsuitable materials.

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, CBJ Kaxdigoowu Heen Dei Trail 2019, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2202.1A	Excavation		CY	179	\$10.00	\$1,790.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-EXCAV

Quantity			
Location	Surface Area (SQFT)	Depth (FT)	Volume (CY)
Cul-De-Sac (25% of Hillcrest Excavation)			179
Total =			179

*Excavation required for installation of roadway structural section. Excavation limit bottom of shot rock borrow rock under road.

* Does not account for over excavation of unsuitable materials.

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, CBJ Kaxdigoowu Heen Dei Trail 2019, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2204.1	2-Inch Minus Shot Rock Borrow w/ Base Course, Grading D-1		CY	220.00	\$50.00	\$11,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-2INCH MINUS

Quantity			
Location	Surface Area (SQFT)	Depth (FT)	Volume (CY)
Hillcrest Ave Extension Roadway	7,917	0.75	220
Total =			220

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd Reconstruction 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2204.1.A	2-Inch Minus Shot Rock Borrow w/ Base Course, Grading D-1		CY	144.00	\$50.00	\$7,200.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-2INCH MINUS

Quantity			
Location	Surface Area (SQFT)	Depth (FT)	Volume (CY)
Cul-De-Sac	5,171	0.75	144
Total =			144

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Road Reconstruction 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2204.2	Base Course, Grading D-1 for Shouldering and Sidewalk		TON	88	\$30.00	\$2,640.00

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DWG Layer: C-ESTM-D-1

Quantity			
Location	Area (SQFT)	Depth (Inch)	Volume (CY)
SIDEWALK/CURB/SHOULDER (LT)	3,083	4	38.1
RT SHOULDER (1+50-1+90)	99	2.5	0.8
RT SHOULDER (2+00-2+50)	86	2.5	0.7
RT SHOULDER (2+75-3+25)	86	2.5	0.7
RT SHOULDER (3+30-3+80)	86	2.5	0.7
RT SHOULDER (3+90-4+40)	88	2.5	0.7
RT SHOULDER (4+60-4+80)	43	2.5	0.3
Access Road	756	2	4.7

**Total = 46 CY
88 Tons**

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Road Reconstruction 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2204.3	Shot Rock Borrow		CY	749	\$35.00	\$26,215.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-Shot Rock

Quantity			
Location	Area (SQFT)	Depth (Feet)	Volume (CY)
Hillcrest Ave Extension Roadway	12,725	1.50	707
Access Road	756	1.50	42
Total =			749 CY

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Kaxdigoowu Heen Dei Trail Relocation 2019, CBJ Hospital Drive Reconstruction 2020, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2204.3.A	Shot Rock Borrow		CY	287	\$35.00	\$10,045.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-Shot Rock

Quantity			
Location	Area (SQFT)	Depth (Feet)	Volume (CY)
Cul-De-Sac	5,171	1.50	287
Total =			287 CY

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Kaxdigoowu Heen Dei Trail Relocation 2019, CBJ Hospital Drive Reconstruction 2020, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2204.4	6" Ditch Lining		CY	134	\$35.00	\$4,690.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-Ditch

Quantity			
Location	Area (SQFT)	Depth (Feet)	Volume (CY)
Bop/Lot 10	316	0.50	6
Lot 10/11	594	0.50	11
Lot 11/12	595	0.50	11
Lot 12/13	594	0.50	11
Lot 13/14	605	0.50	11
	4,529	0.50	84
Cul-De-Sac/Access Rd/Stand-Alone	Total =		134 CY

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. Calvary Fellowship Subdivision 2018, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2401.1	Sanitary Sewer Pipe, 8-Inch PVC		LF	697	\$70.00	\$48,790.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-SS-MAIN

Quantity	
Location	Length (FT)
Hillcrest Ave Extension to Hooter Ln	697
Total =	697

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Hooter Lane Phase I ROW 2020, Aspen Ave 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2401.2	Sanitary Sewer Service Lateral, 4-Inch SDR35 PVC		EA	20	\$1,650.00	\$33,000.00

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DWG Layer: C-ESTM-SS-LAT

Quantity	
Location	Each
Lot 1	1
Lot 2	1
Lot 3	1
Lot 4	1
Lot 5	1
Lot 6	1
Lot 7	1
Lot 8	1
Lot 9	1
Lot 10	1
Lot 11	1
Lot 12	1
Lot 13	1
Lot 14	1
Stub-Outs for Future Lots	6
Total =	20

Unit Price

*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Aspen Ave 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2402.1	Sanitary Sewer Manhole, Type I		EA	2	\$5,000.00	\$10,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Linework

DWG Layer: C-SS-STRC

Quantity	
Location	Each
6+49 (Utility Access Road)	1
2+00	1
Total =	2

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Hooter Lane Phase I ROW 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest					
	Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2402.2	Connect to Existing Sanitary Sewer Manhole		EA	1	\$750.00	\$750.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-SS-STRC

Quantity	
Location	Each
STA 8+30 (Hooter Ln)	1
Total =	1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Aspen Ave 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2501.1	18-Inch CPP Pipe		LF	502	\$45.00	\$22,590.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-STRM-18CPP

Quantity	
Location	Length (FT)
P-1	161
P-2	156
P-3	22
P-4	22
P-5	22
P-6	22
P-7	25
P-8	32
P-9	40
Total =	502

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Kaxdigoowu Heen Dei Train Relocation 2019, CBJ Downtown Street improvements Phase IIIA 2019, Columbia Blvd and Poplar Ave Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2502.1	Catch Basin, Type IV		EA	3	\$2,000.00	\$6,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-SS-STRC	
Quantity	
Location (STA)	EA
Sta: 1+67 (PROJECT LT)	1
Sta: 3+30 (PROJECT LT)	1
Sta: 4+67 (PROJECT RT)	1
Total =	3

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Lane Reconstruction 2019, Savikko Rd 2020

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2502.3	Storm Drain Manhole, Type I		EA	1	\$4,500.00	\$4,500.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-SS-STRC	
Quantity	
Location (STA)	EA
Sta: 4+88 (PROJECT LT)	1
Total =	1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019 Hospital Drive Reconstruction 2020, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2601.1	10-Inch HDPE Water Pipe		LF	328	\$75.00	\$24,600.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-WATR-PIPE

Quantity	
Location	Length (FT)
Hillcrest Ave Extension	328
Total =	328

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount	
2601.2	Connect to Existing Water Pipe	EA	1	\$1,500.00	\$1,500.00	

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-WATR-PIPE

Quantity	
Location	EA
BOP	1
Total =	1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2601.3	Corrosion Protection		EA	1	\$600.00	\$600.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-WATR-VALVE

Quantity	
Location	EA
BOP	1
Total =	1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Sitka Street Reconstruction, CBJ D&H Street Reconstruction, CBJ Birch Lane Pavement and Drainage Improvements, Savikko Rd 2020

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2602.1	10-Inch Gate Valve		EA	1	\$3,000.00	\$3,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-WATR-STRC

Quantity	
Location	Each
1+69	1
Total =	
	1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2603.1	Fire Hydrant Assembly with Access Pad		EA	1	\$7,000.00	\$7,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-WATR-STRC

Quantity	
Location	Each
Sta: 5+03 (Project LT)	1
Total =	1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2605.1	1-Inch Poly Water Service		EA	14	\$1,800.00	\$25,200.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-WATR-PIPE

Quantity	
Location	EA
Lot 1	1
Lot 2	1
Lot 3	1
Lot 4	1
Lot 5	1
Lot 6	1
Lot 7	1
Lot 8	1
Lot 9	1
Lot 10	1
Lot 11	1
Lot 12	1
Lot 13	1
Lot 14	1
Total =	14

Unit Price

*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest					
	Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2607.1	Pipe Insulation Boards		Board	72	\$30.00	\$2,160.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-PIPE-INS

Quantity			
Location	Plan View Area	3D Area	Boards
Lot 1	40	60	12
Lot 2	40	60	12
Lot 3	40	60	12
Lot 4	40	60	12
Lot 5	40	60	12
Lot 6/7	70	105	20
Lot 7/8	70	105	20
Lot 10	40	60	12
Lot 11	40	60	12
Lot 12	40	60	12
Lot 13	40	60	12
Lot 14	40	60	12
Road Crossing	40	60	12
Total =			72

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Assumptions: Accounts for 3 layers of 2" thick rigid insulation boards. 3D area assumes 150% of plan view area to account for vertical insulation on sides of of pipe.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount	
2702.1	Construciton Surveying	Lump Sum	All Req'd	\$10,000.00	\$10,000.00	

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Sitka Street Reconstruction, CBJ D&H Street Reconstruction, CBJ Birch Lane Pavement and Drainage Improvements, Savikko Rd 2020

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description			Pay Unit	Quantity	Unit Price
2709.1	Topsoil			CY	42	\$65.00
						\$2,730.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Savikko RD Design\C3D Savikko Road\Source Drawings\Design\CBJ Savikko RD_Estimate

DWG Layer: C-ESTM-TOPSOIL

Quantity				
Location	Linear Length	Surface Area (SQFT)	Depth (FT)	Volume (CY)
Phase I ROW (Project RT)	328	984	0.25	9.11
Phase I ROW (Project LT)	328	984	0.25	9.11
Utility Access Road (Project RT)	425	1,275	0.25	11.81
Utility Access Road (Project LT)	425	1,275	0.25	11.81
Total =				42

*Note: Estimate assumes 3 feet of disturbance along vegetated areas of project.

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2709.2	Topsoil Finish Grading		MH	10	\$85.00	\$850.00

Unit Price	
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019.	

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2710.1	Seeding, Hydraulic Method, Type III		Slurry Unit	1.5	\$1,200.00	\$1,800.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-TOPSOIL

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019.

Engineers Estimate					
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension				
Date:	6/18/2020				
Prepared By:	C. Bydlon				
Checked By:	L. Chambers				
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
2801.1	A.C. Pavement, Type II-A, Class B	TON	137.00	\$185.00	\$25,345.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-ASPHALT

Quantity						
Location	Area (SQFT)	Depth (Inch)	Volume (CF)	Estimating Factor	LBS	Ton
ROW	7,917	2.5	1,649	165	272,146.88	136.07
Total =						136.07

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate					
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension				
Date:	6/18/2020				
Prepared By:	C. Bydlon				
Checked By:	L. Chambers				
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
2801.1.A	A.C. Pavement, Type II-A, Class B	TON	89.00	\$185.00	\$16,465.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdiv\3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-ASPHALT

Quantity						
Location	Area (SQFT)	Depth (Inch)	Volume (CF)	Estimating Factor	LBS	Ton
Cul-De-Sac	5,171	2.5	1,077	165	177,753.13	88.88
Total =						88.88

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate							
Project:	Michael & William Heumann						
Date:						6/18/2020	
Prepared By:						C. Bydlon	
Checked By:						L. Chambers	
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount		
2801.2	A.C. Pavement for Sidewalks	TON	23.00	\$210.00	\$4,830.00		

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-ASPHALT

Quantity						
Location	Area (SQFT)	Depth (Inch)	Volume (CF)	Estimating Factor	LBS	Ton
Sidewalk (Project LT)	1,665	2.0	278	165	45,787.50	22.89
Total =						22.89

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
3302.1	Concrete Headwall without Hinged Trash Rack		EA	9	\$600.00	\$5,400.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Linework

DWG Layer: C-CONC	
Quantity	
Location (STA)	EA
Lot 10	2
Lot 11	2
Lot 12	2
Lot 13	2
Lot 14	1
Total =	9

Unit Price

*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ McGinnis Subdivision 2019, Calvary Fellowship 2018.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
3302.1	Concrete Area Drain (Does Not Include Storm Structure)		EA	1	\$800.00	\$800.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Linework

DWG Layer: C-CONC		
Quantity		
Location (STA)	EA	
4+67		1
Total =		1

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Savikko Rd Improvements 2020

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest Ave					
	Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
3303.1	Curb and Gutter, Type I		LF	358	\$35.00	\$12,530.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: C-ESTM-C&G-TYPE-I

Quantity	
Location	Length (FT)
Hillcrest Ave Extension (Project LT)	341
Hillcrest Ave Extension (Project RT)	17
Total =	358

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ D&H Street Reconstruction 2018, Savikko Rd 2020.

Engineers Estimate						
Project:	Chilkat Vistas Subdivision, Phase I - Hillcrest					
	Ave Extension					
Date:	6/18/2020					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
16000.1	Street Lighting and Utility Coordination		Lump Sum	All Req'd	\$56,476.30	\$56,476.30

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivis\C3D Richland Manor\Source Drawings\Design\Hillcrest Extension_Estimate

DWG Layer: N/A

Item	Unit Price
Street Light & Base	\$10,000.00
AEL&P Distribution	\$46,476.30

Total= \$56,476.30

Unit Price
*Unit price based on quote from AEL&P and Pat Gorman estimate.

Engineer's Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Owner:	Michael & William Heumann					
Date:	12/27/2019					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
1505.1	Mobilization		Lump Sum	All Req'd	\$7,000.00	\$7,000.00
1550.1	Traffic Maintenance		Lump Sum	All Req'd	\$2,000.00	\$2,000.00
1570.1	Erosion and Sediment Control		Lump Sum	All Req'd	\$4,000.00	\$4,000.00
2201.1	Clearing and Grubbing		Lump Sum	All Req'd	\$5,000.00	\$5,000.00
2202.1	Excavation		CY	4750	\$10.00	\$47,500.00
2202.2	Shot Rock Borrow		CY	578	\$35.00	\$20,230.00
2202.3	6-Inch Minus Ditch Lining		CY	154	\$35.00	\$5,390.00
2401.1	Sanitary Sewer Pipe, 10-Inch PVC		LF	417	\$80.00	\$33,360.00
2402.1	Sanitary Sewer Manhole, Type I		EA	2	\$5,000.00	\$10,000.00
2501.1	12-Inch CPP Pipe Culvert		LF	63	\$50.00	\$3,150.00
2702.1	Construction Surveying		Lump Sum	All Req'd	\$10,000.00	\$10,000.00
				Total =	\$147,630.00	

Engineers Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Date:	12/27/2019					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
1505.1	Mobilization		Lump Sum	All Req'd	\$7,000.00	\$7,000.00

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, CBJ Kaxdigoowu Heen Dei Trail 2019.

Total Contract Price	5%	Approx. MOB, Cost
\$147,630.00	\$7,381.50	\$8,000.00

Engineers Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Date:	12/27/2019					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount	
1550.1	Traffic Maintinance	Lump Sum	All Req'd	\$2,000.00	\$2,000.00	

Unit Price
*Unit price based on anticipated work required to meet the conditions of the Project.

Engineers Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Date:	12/27/2019					
Prepared By:	L. Chambers					
Checked By:	G. Gladsjo					
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount	
1570.1	Erosion and Sediment Control	Lump Sum	All Req'd	\$4,000.00	\$4,000.00	

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, CBJ Kaxdigoowu Heen Dei Trail 2019.

Total Contract Price	3%	Approx. ESC, Cost
\$147,630.00	\$4,428.90	\$5,000.00

Engineers Estimate					
Project:	Hooter Lane Phase I ROW Improvements				
Date:	12/27/2019				
Prepared By:	C. Bydlon				
Checked By:	L. Chambers				
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
2201.1	Clearing and Grubbing	Lump Sum	All Req'd	\$5,000.00	\$5,000.00

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Pederson Hill Sub Phase I 2017, CBJ Kaxdigoowu Heen Dei Trail 2019.

Engineers Estimate							
Project:	Hooter Lane Phase I ROW Improvements						
Date:	12/27/2019						
Prepared By:	C. Bydlon						
Checked By:	L. Chambers						
Pay Item	Pay Item Description			Pay Unit	Quantity	Unit Price	Amount
2202.1	Excavation			CY	4,750	\$10.00	\$47,500.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivision\C3D Richland Manor\Source Drawings\Corridor\Richland Manor_CM

Quantity derived from AutoCAD C3D volumes dashboard calculation. Calculation compares limit of excavation (datum surface) to existing ground surface from Sta: 2+70 to 6+90. Limit of excavation is Phase I bottom of Shot Rock Borrow and 6-Inch Ditch Lining. Excavation does not account for over excavation of unsuitable materials.

Total CY = 4,750

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. Calvary Fellowship Subdivision, CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019, CBJ Kaxdigoowu Heen Dei Trail 2019.

Engineers Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Date:	12/27/2019					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2202.2	Shot Rock Borrow		CY	578.00	\$35.00	\$20,230.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivision\C3D Richland Manor\Source Drawings\Corridor\Richland Manor Hooter_Linework

DWG Layer: C-ESTM-BORROW

Quantity			
Location	Surface Area (SQFT)	Depth (FT)	Volume (CY)
Hooter LN Sta 2+70 - 6+90	10,400	1.50	578
Total =			578

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019.

Engineers Estimate					
Project:	Hooter Lane Phase I ROW Improvements				
Date:	12/27/2019				
Prepared By:	C. Bydlon				
Checked By:	L. Chambers				
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
2202.3	6-Inch Minus Ditch Lining	CY	154	\$35.00	\$5,390.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivision\C3D
Richland Manor\Source Drawings\Corridor\Richland Manor Hooter Lane_Linework

DWG Layer: C-ESTM-D-1

Quantity			
Location	Area (SQFT)	Length (FT)	Volume (CY)
Hooter LN Sta: 2+70 - 6+90 RT	4.82	430	77
Hooter LN Sta: 2+70 - 6+90 LT	5.92	350	77
Total =			154

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019.

Engineers Estimate					
Project:	Hooter Lane Phase I ROW Improvements				
Date:	12/27/2019				
Prepared By:	C. Bydlon				
Checked By:	L. Chambers				
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
2401.1	Sanitary Sewer Pipe, 10-Inch PVC	LF	417	\$80.00	\$33,360.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivision\C3D Richland Manor\Source Drawings\Corridor\Richland Manor Hooter Lane_Linework

DWG Layer: C-ESTM-SS-PIPE

Quantity	
Location	Length (FT)
Hooter LN SP-1	407
Hooter LN SP-2	5
Hooter LN SP-3	5
Total =	
417	

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Peserson Hill Sub Phase I, Calavary Fellowship Subdivision

Engineers Estimate					
Project:					
					Hooter Lane Phase I ROW Improvements
Date:					12/27/2019
Prepared By:					C. Bydlon
Checked By:					L. Chambers
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount
2402.1	Sanitary Sewer Manhole, Type I	EA	2	\$5,000.00	\$10,000.00

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivision\C3D Richland Manor\Source Drawings\Corridor\Richland Manor Hooter Lane_Linework

DWG Layer: C-ESTM-SS-MH

Quantity	
Location	Each
Hooter LN SS-1	1
Hooter LN SS-2	1
Total =	2

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. Calvary Fellowship Subdivision, CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ Birch Ln Reconstruction 2019.

Engineers Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Date:	12/27/2019					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description	Pay Unit	Quantity	Unit Price	Amount	
2501.1	12-Inch CPP Pipe	LF	63	\$50.00	\$3,150.00	

Quantities from AutoCAD DWG - C:\Users\lucas\Dropbox (proHNS)\Projects\Juneau\Richland Manor Subdivision\C3D Richland Manor\Source Drawings\Corridor\Richland Manor Hooter Lane_Linework

DWG Layer: C-ESTM-STRM-12CPP

Quantity	
Location	Length (FT)
Hooter LN Sta: 2+90 - 3+50	63
Total =	63

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Columbia Blvd and Poplar Ave Reconstruction 2019, CBJ D&H Street Reconstruction 2018

Engineers Estimate						
Project:	Hooter Lane Phase I ROW Improvements					
Date:	12/27/2019					
Prepared By:	C. Bydlon					
Checked By:	L. Chambers					
Pay Item	Pay Item Description		Pay Unit	Quantity	Unit Price	Amount
2702.1	Construciton Surveying		Lump Sum	All Req'd	\$10,000.00	\$10,000.00

Unit Price
*Unit price based on similar projects bid prices. Project sizes, work item quantities and locations taken into consideration. CBJ Sitka Street Reconstruction, CBJ D&H Street Reconstruction, CBJ Birch Lane Pavement and Drainage Improvements, CBJ Columbia Blvd and Poplar Ave Reconstruction

RECONVEYANCE AGREEMENT

THIS AGREEMENT, entered into this 22 day of June, 2020 and between **WILLIAM HEUMANN AND MICHAEL HEUMANN**, of 6000 Thane Road, Juneau, Alaska 99801, ("Grantor") and the **CITY AND BOROUGH OF JUNEAU**, 155 South Seward St, Juneau, Alaska 99801 ("Grantee").

WHEREAS, the Grantor is developing a subdivision entitled Chilkat Vistas Subdivision, Phase I within Tract B, Richland Manor Subdivision, according to Plat 97-47, Juneau Recording District according and according to Community Development Department file number SMP20190004 and SMF20200001.

WHEREAS, the Grantor is required to maintain, repair, or install certain improvements consistent with City and Borough of Juneau code namely,

1. **Installation of public improvements for Chilkat Vistas Subdivision, Ph I, to include the extension of Hillcrest Drive with sidewalk on one side, storm drain, sewer, water, driveways, and street lighting.** Pursuant to CBJ Code 49.35 and in accordance with CBJ ROW Permit Number 202000023 and any conditions thereof.

WHEREAS, Pursuant to CBJ 49.55.010(5), the Grantor has elected to convey property as collateral in lieu of posting a bond to guarantee the installation of required improvements.

WHEREAS, the estimated cost of installing the required improvements is \$357,411.30.

WHEREAS, Tract A, Chilkat Vistas Subdivision Phase I according to Plat 2020-___, Juneau Recording District, first Judicial District, State of Alaska, has a preliminary assessed value of \$386,700.

WHEREAS, the Grantor has paid for and provided the Grantee with a title report naming the City and Borough of Juneau as an insured.

WHEREAS, the Grantor did convey and warrant unto Grantee by Warranty Deed the following lot ("Property"), legally described as:

Tract A, Chilkat Vistas Subdivision Phase I according to Plat
2020-____ Juneau Recording District, first Judicial District, State of
Alaska

as guarantee for the installation of the required improvements.

WHEREAS, the terms and conditions under which the Grantee shall hold title to the
Property and the manner by which the Property will be reconveyed to the Grantor must be set forth
below;

THEREFORE, IT IS HEREBY AGREED:

I. AGREEMENT

1. Conditions to be performed by Grantor:

**a. Installation of public improvements for Chilkat Vistas Subdivision, Ph I, to
include the extension of Hillcrest Drive with sidewalk on one side, storm drain,
sewer, water, driveways, and street lighting**

i. Installation Completion: The Grantor shall inform the Grantee of the
completion of the subdivision improvements within a sufficient period of
time prior to the expiration of the installation period of one year subsequent
to the filing of the subdivision plat so that the engineer for the Grantee can
review the subdivision improvements for conformance with the subdivision
construction standards and construction plans. In the event the Grantor
receives a written memorandum from the Grantee that the subdivision
improvements do not conform, Grantor shall forthwith take whatever action
is necessary to comply with the subdivision construction standards and
construction plans, and upon completion of the modifications of the
improvements, it shall again notify the engineer of the Grantee that the
subdivision improvements have been completed and are again ready for
inspection.

ii. Maintenance: Upon final acceptance of the subdivision improvements by
the Grantee, the Grantor will post a maintenance bond as required by CBJ
49.55.010. Until final acceptance, Grantor is responsible for maintenance
of all subdivision improvements.

iii. Acceptance: Upon receipt of notice of completion of the subdivision
improvements required in order to receive subdivision approval from the
Grantee, the engineer or community development director for the Grantee
will review the subdivision improvements and advise the Grantor of its

acceptance or refusal to accept the subdivision improvements as they exist. If the decision by the engineer or director for the Grantee is not to accept the subdivision improvements, the modifications required to bring the subdivision improvements up to the subdivision construction standards and construction plans shall be transmitted to the Grantor in a written memorandum. After the Grantor notifies the engineer or director for the Grantee that the subdivision improvements have been so modified the engineer or director for Grantee shall re-inspect the subdivision improvements. If and when the Grantee accepts the subdivision improvements, acceptance will be in writing to the Grantor

- b. **Reconveyance:** Simultaneous with the Grantor's posting of the maintenance bond required in CBJ 49.55.010, the Grantee shall reconvey to Grantor the remaining above-described property by quitclaim deed.
- c. **Property Taxes:** The Grantor will pay all real property taxes on the above-described property as if the conveyance to the Grantee has not occurred.
- d. **Administrative Costs:** To reimburse the Grantee for its administrative costs in utilizing reconveyance agreements, Grantor will pay an administrative fee of \$140.00 for the first lot and \$25.00 for each additional lot conveyed, substituted or reconveyed to Grantee.

2. **Conditions to be performed by Grantee:**

- a. **Encumber:** The Grantee will not pledge, encumber, transfer, or otherwise hypothecate the above-described property except in the event of default by Grantor pursuant to 49.55.010.
- b. **Forfeiture:** If all required subdivision improvements have not been installed in accordance with Grantee's standards and requirements within the installation period, pursuant to 49.55.010 the Grantee may declare the guarantee forfeited, sell the Property, and use the proceeds derived therefrom for the purpose of maintenance, repair, and construction of the required subdivision improvements. Proceeds of the sale not used for the maintenance, repair, or construction of the subdivision improvements will be returned to the Grantor after all direct and indirect costs of the sale have been deducted. An accounting of the costs incurred shall accompany the return of the excess proceeds.
- c. **Restrictions:** Grantee shall not be subject to any covenants, conditions, or restrictions applicable by private agreement to owners of property in Tract A,

Chilkat Vistas Subdivision Phase I according to Plat 2020-____, District, First Judicial District, State of Alaska. Granter shall indemnify, defend, and hold Grantee harmless against any claim for liability under any such covenants, conditions, or restrictions.

3. Severability

If a court of competent jurisdiction renders any part of this agreement invalid or unenforceable, that part will be severed and the remainder of this agreement will continue in full force and effect.

4. Binding Agreement

The parties to this agreement mutually agree that it shall be binding upon them and each of their respective heirs, executors, administrators, successors, and assigns and that this agreement and the deeds mentioned herein contain the final and entire agreement between the parties hereto and that they shall not be bound by any terms, conditions, statements, warranties, or representations oral or written, not contained herein.

5. Construction

The parties agree that this agreement shall be construed according to the laws of the State of Alaska, and that the parties have jointly participated in the negotiations and drafting of this agreement.

DATED in Juneau, Alaska, the day, month, and year hereinabove first mentioned.

GRANTOR:

WILLIAM HEUMANN AND MICHAEL HEUMANN

By:


William Heumann

By:


Michael Heumann

GRANTEE:

CITY AND BOROUGH OF JUNEAU

By: 
Duncan Rorie Watt, Manager
City and Borough of Juneau

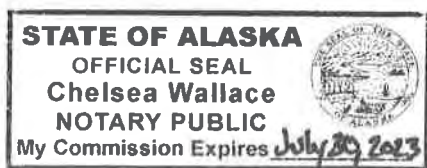
Approved as to content, CDD

By: 

STATE OF ALASKA)
 : ss
FIRST JUDICIAL DISTRICT)

On this 22 day of June, 2020, before me, the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared William Heumann and Michael Heumann represented to me to be the grantors executed the foregoing instrument, and they acknowledged the said instrument to be the free and voluntary act and deed of said individuals, for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument and that the seal affixed (if any) is the corporate seal of said corporation.

Witness my hand and official seal hereto affixed the day and year first above-written.



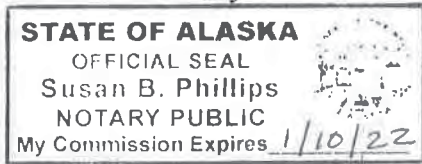

Notary Public for Alaska
My Commission Expires: July 30, 2023

STATE OF ALASKA)
 : ss
FIRST JUDICIAL DISTRICT)

On this 26th day of June, 2020, before me, the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared Duncan Rorie Watt, represented to me to be the City and Borough Manager, of the City and Borough of Juneau the municipal corporation that executed the foregoing instrument, and he acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes

therein mentioned, and on oath stated that he is authorized to execute the said instrument and that the seal affixed (if any) is the corporate seal of said corporation.

Witness my hand and official seal hereto affixed the day and year first above-written.



Susan B. Phillips
Notary Public for Alaska
My Commission Expires: 1/10/22

After recording return to:

William and Michael Heumann
6000 Thane Road
Juneau, Alaska 99801



January 23, 2020

Michael and William Heumann
6000 Thane Rd
Juneau, AK 99801
mpheumann@hotmail.com
(971) 261-8014

RE: Hooter Lane Phase I ROW Improvements - Drainage Report

To Whom It May Concern,

The following Drainage Plan has been prepared for the Richland Manor Subdivision in Juneau, AK, a proposed multi-phase major subdivision on a 30-acre site at 4506, 4508, and 4510 Hillcrest Avenue. This drainage report addresses the improvements to Hooter Lane ROW and supplements the Richland Manor Subdivision – Drainage Report dated 10/31/19, attached in Appendix G, by providing an in-depth analysis of the improvements specific to this phase of the development. Improvements include excavating over burden material, constructing a shot rock base and ditches for a future paved street and installing a sanitary sewer main. The 2010 CBJ Manual of Stormwater Best Management Practices was used to evaluate if the proposed and existing drainage features could convey runoff during the 25-year storm event.

Attached sheets depict survey data, proposed ROW improvements, as-built information, calculations and rainfall data used for the proposed drainage analysis for the Hooter Lane ROW improvements.

Site Runoff Calculation Method:

A total of five catchment areas were analyzed representing the existing and proposed drainage conveyance systems relevant to the project. The catchment areas include: the existing 18" cpp culvert draining into Glacier Highways roadside ditch, the existing Tamarack Trails Condos driveway ditch that drains into the 18" cpp, the proposed 12" cpp culvert, the proposed Hooter Lane left roadside ditch, and the proposed Hooter Lane right roadside ditch. The five catchment areas were determined using the proposed design model, Lidar data and aerial photos in AutoCAD C3D and were verified by several site visits. A delineation of the catchment areas can be found in Appendix A.

To calculate the site runoff we have elected to use the Rational Method. The Rational Method is most appropriate for evaluating drainage basins less than 10 acres. Appendix D of the "2010 CBJ Manual of



Stormwater Best Management Practices” was utilized as a guide¹. The calculations and supporting documentation can be found in Appendix B, C, D&E of this Report.

Anticipated Site Runoff (Q):

Using the Rational Method, the amount of stormwater runoff during the 25-year storm event per catchment area was determined. See Table 1.1 below for results, the calculations can be found in Appendix B.

Catchment Area	Q (cfs)
Existing 18" CPP Culvert	1.81
Existing Driveway Ditch	1.81
Proposed 12" CPP	1.04
Proposed Roadway Ditch Left	0.42
Proposed Roadway Ditch Right	0.47
Table 1.1	

Conveyance/Discharge Structure Capacities:

The capacity of the existing and proposed drainage systems was calculated using the Manning's Equation to determine if proposed 25-year storm event flows could be conveyed. See Table 1.2 below for results, the calculations can be found in Appendix F.

Catchment Area	Q (cfs)
Existing 18" CPP Culvert	16.73
Existing Driveway Ditch	10.58
Proposed 12" CPP	10.68
Proposed Roadway Ditch Left	13.61
Proposed Roadway Ditch Right	7.16
Table 1.2	

¹ There are no current municipal code requirements dictating adherence with the “2010 CBJ Manual of Stormwater Best Management Practices” when preparing a drainage plan that complies with 49.35.510. Regardless, we have elected to utilize portions of this Manual as a guide in the preparation of this Drainage Plan for the proposed development.

Summary:

Table 1.3 below compares anticipated 25-year runoff in the proposed and existing conveyance systems to their available hydraulic capacity.

Drainage Basin	Anticipated Runoff Q (cfs)	Capacity Check	Available Capacity Q (cfs)
Existing 18" CPP Culvert	1.81	<	16.73
Existing Driveway Ditch	1.81	<	10.58
Proposed 12" CPP	1.04	<	10.68
Proposed Roadway Ditch Left	0.42	<	13.61
Proposed Roadway Ditch Right	0.47	<	7.16
Table 1.3			

Our analysis shows that there is enough capacity in the existing and proposed drainage structures to handle flows from the altered drainage patterns as a result of the proposed Hooter Lane Phase I ROW improvements.

Respectfully,



Lucas Chambers, P.E.
Principal Engineer – proHNS LLC Juneau



Appendixes:

- A – Catchment Areas
- B – Rational Method
- C – Runoff Coefficient
- D – Time of Concentration
- E – Rainfall Intensity
- F – Existing & Proposed Capacity Calcs
- G – Richland Manor Subdivision – Drainage Report dated 10/31/19

Appendix A

Catchment Areas

HOOTER LANE PHASE I ROW IMPROVEMENTS DRAINAGE MAP JUNEAU, AK

PREPARED FOR:
MICHAEL & WILLIAM HEUMANN



PROJECT LOCATION MAP
NTS

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING 18" CPP CATCHMENT AREA
3	EXISTING DRIVEWAY DITCH CATCHMENT AREA
4	PROPOSED 12" CPP CATCHMENT AREA
5	PROPOSED ROADWAY DITCH LEFT CATCHMENT AREA
6	PROPOSED ROADWAY DITCH RIGHT CATCHMENT AREA



RECORD OF REVISIONS		BY	
No.	DATE		

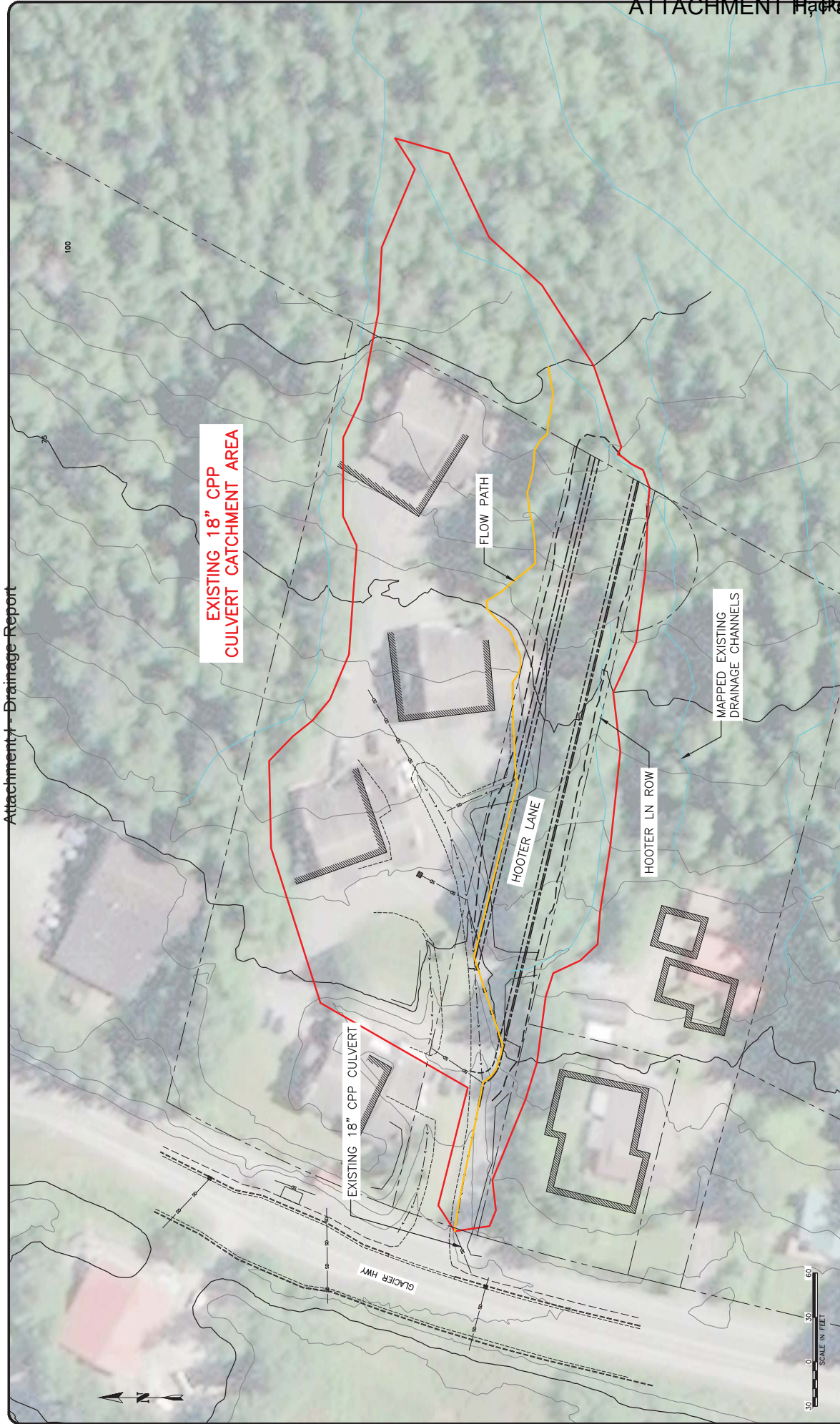


DRAWN BY:	L. CHAMBERS
DESIGNED BY:	L. CHAMBERS
CHECKED BY:	G. GLASSCO
1946 ALEXANDER WAY #101 JANUARY, AK 99801	
sales@ptohns.com www.ptohns.com	

HOOTER LANE PHASE I
ROW IMPROVEMENTS
WILLIAM & MICHAEL HEUMANN

COVER SHEET

SHEET NUMBER	1
OF	6



No.	DATE	RECORD OF REVISIONS	
		BY	DESCRIPTION



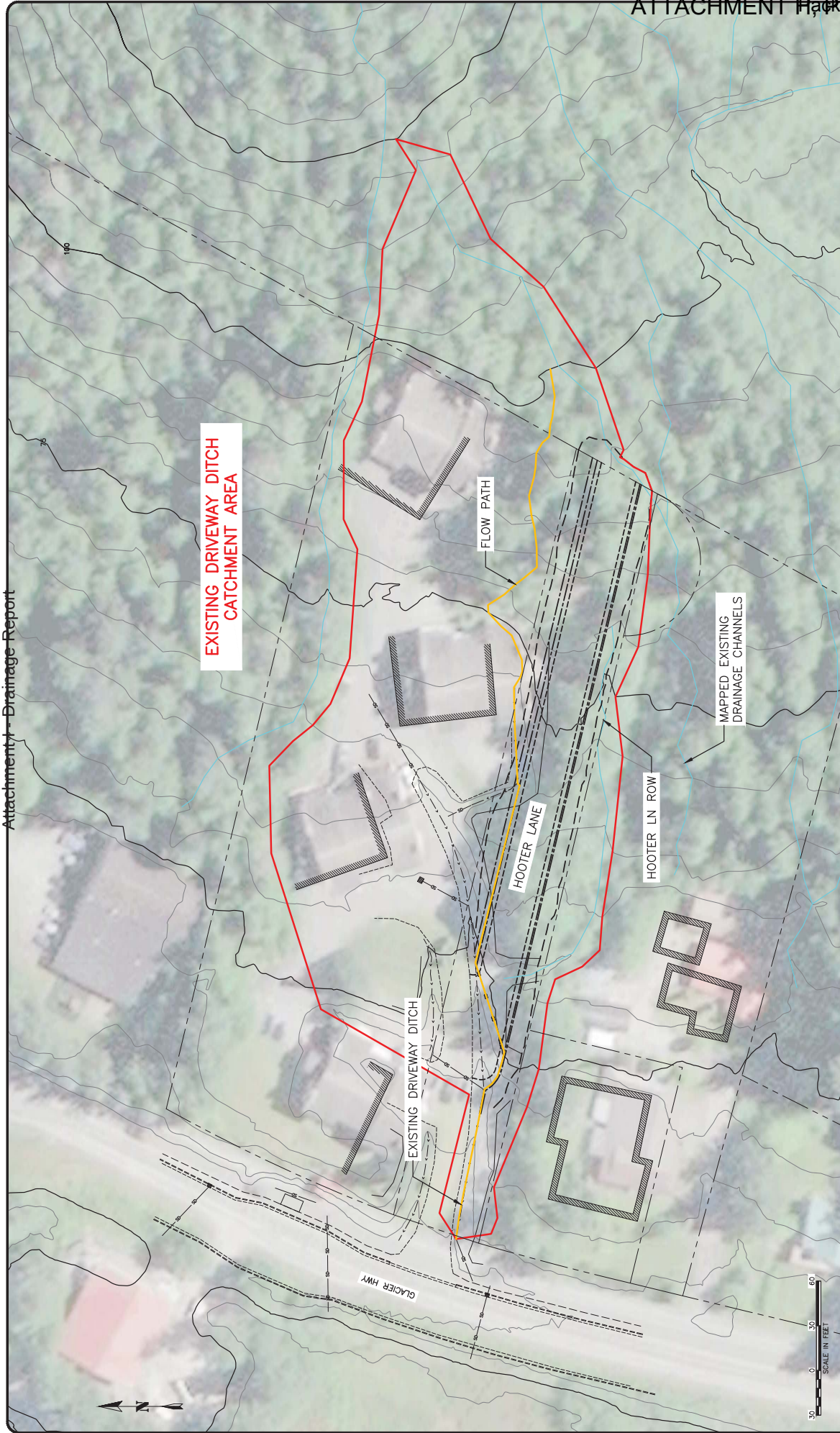
proHNS LLC
CERTIFICATE OF AUTHORIZATION
#100892

DRAWN BY: L. CHAMBERS
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLADISO
1945 ALEXANDER WAY #101
JANESVILLE, WI 53501
sales@prohns.com
www.prohns.com

HOOTER LANE PHASE I
ROW IMPROVEMENTS
WILLIAM & MICHAEL HUMEANN

EXISTING 18" CPP
CATCHMENT AREA

SHEET NUMBER	
2	OF
6	



RECORD OF REVISIONS		BY	
No.	DATE	DESCRIPTION	

 proHNS LLC CERTIFICATE OF AUTHORIZATION #100882		DRAWN BY: L. CHAMBERS DESIGNED BY: L. CHAMBERS CHECKED BY: G. GLADISO	
1945 ALEXANDER WAY #101 JANESVILLE, WI 53501 sales@prohns.com www.prohns.com		HOOTER LANE PHASE I ROW IMPROVEMENTS WILLIAM & MICHAEL HUMEANN	
		EXISTING DRIVEWAY DITCH CATCHMENT AREA	
		SHEET NUMBER 3 OF 6	

0 50 100
SCALE IN FEET



EXISTING DRIVEWAY DITCH
CATCHMENT AREA

FLOW PATH

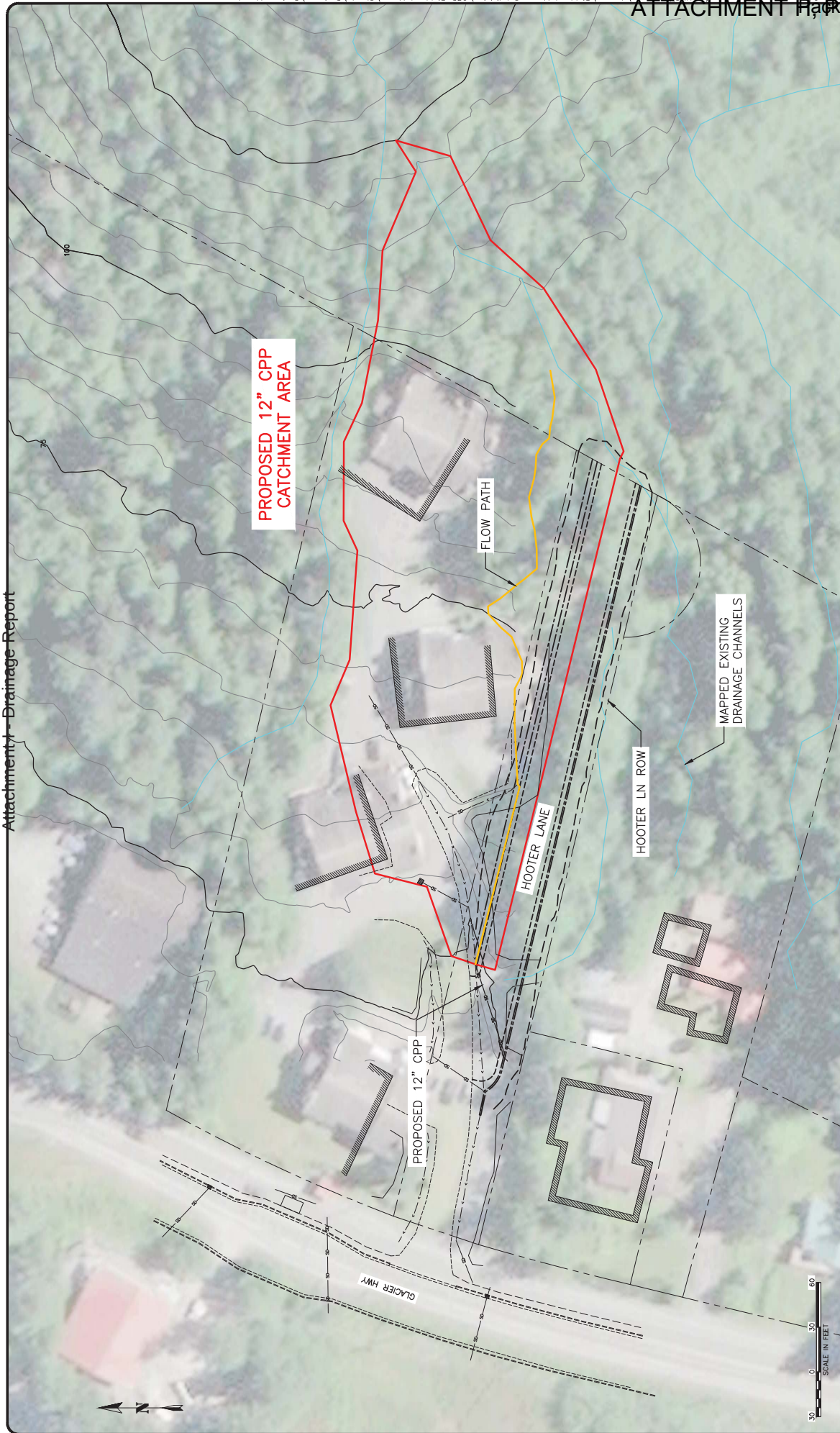
MAPPED EXISTING
DRAINAGE CHANNELS

HOOTER LANE

HOOTER LN ROW

EXISTING DRIVEWAY DITCH

GLACIER HWY



RECORD OF REVISIONS		BY	DATE	DESCRIPTION
No.				

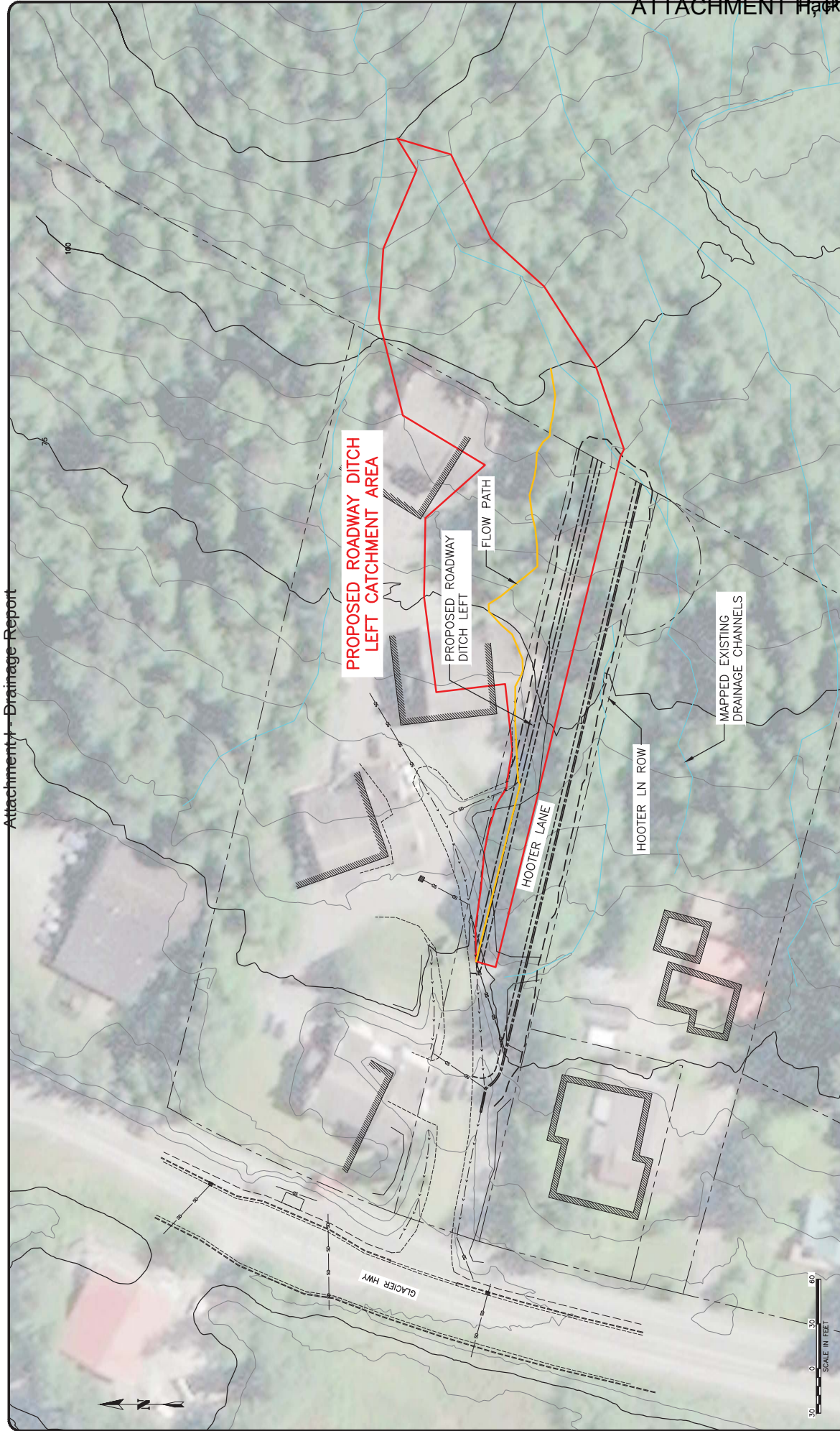


DRAWN BY: L. CHAMBERS
DESIGNED BY: L. CHAMBERS
CHECKED BY: G. GLADISO
1945 ALEXANDER WAY #101
JANESVILLE, WI 53501
sales@prohns.com
www.prohns.com

HOOTER LANE PHASE I
ROW IMPROVEMENTS
WILLIAM & MICHAEL HUMEANN

PROPOSED 12" CPP
CATCHMENT AREA

SHEET NUMBER
4 OF 6



RECORD OF REVISIONS		BY	
No.	DATE	DESCRIPTION	

proHNS LLC CERTIFICATE OF AUTHORIZATION #100892		DRAWN BY: L. CHAMBERS DESIGNED BY: L. CHAMBERS CHECKED BY: G. GLADISO	1946 ALEXANDER WAY #101 JANESVILLE, WI 53401 sales@prohns.com www.prohns.com
HOOTER LANE PHASE I ROW IMPROVEMENTS		WILLIAM & MICHAEL HUMEANN	
PROPOSED ROADWAY DITCH LT CATCHMENT AREA		SHEET NUMBER 5 OF 6	

No.	DATE	RECORD OF REVISIONS DISCUSSION	BY



pro HNS LLC

CERTIFICATE OF AUTHORIZATION
 10000 Highway 107
 Suite 100
 Houston, TX 77036
sales@hnsllc.com
www.prohns.com

DRAWN BY: L. CHAMBERS	CHECKED BY: G. GLADSTED
DESIGNED BY:	
1945 ALEX-HOLDEN WAY #101 JUNEAU, AK 99801	

SHEET NUMBER

6

OF

6

PROPOSED ROADWAY DITCH RT CATCHMENT AREA

HOOTER LANE PHASE I ROW IMPROVEMENTS

WILLIAM & MICHAEL HUMEANN

Appendix B

Rational Method

Rational Method Site Runoff Existing 18" CPP		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover types (acres)

$C_c = 0.55$, See Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 22.61$ min., See Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page. D-9, Basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 10 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 22.61(min)	25-year
Interpolated Intensity (in/hr) =	1.33

There is an existing 18" CPP culvert that drains into the existing Glacier Highway ditch system at the location where the new subdivision access will tie into the shoulder of the Highway. The area currently contributing runoff to this culvert was delineated in AutoCAD from aerial photos and 2013 Lidar Data provided by CBJ.

$$A = 107513 \text{ sqft} / 43,560 = \mathbf{2.47 \text{ acres}}$$

	Cc	I	A		
Q (cfs)=	0.55	1.33	2.47	=	1.81

Rational Method Site Runoff Existing Driveway Ditch		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover types (acres)

$C_c = 0.55$, See Appendix B for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 22.61$ min., See Appendix C for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page. D-9, Basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 10 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix D, and is summarized as follows:

	Design Return Period
Tc 22.61(min)	25-year
Interpolated Intensity (in/hr) =	1.33

There is an existing 18" CPP culvert that drains into the existing Glacier Highway ditch system at the location where the new subdivision access will tie into the shoulder of the Highway. The driveway ditch leading into the 18" CPP was evaluated at the bottom of the ditch run. The area currently contributing runoff to this culvert was delineated in AutoCAD from aerial photos and 2013 Lidar Data provided by CBJ.

$$A = 107513 \text{ sqft} / 43,560 = \mathbf{2.47 \text{ acres}}$$

	Cc	I	A		
Q (cfs)=	0.55	1.33	2.47	=	1.81

Rational Method Site Runoff Proposed 12" CPP		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover types (acres)

$C_c = 0.51$, See Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 22.31$ min., See Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page. D-9, Basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 10 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period	
	Tc 22.31(min)	25-year
Interpolated Intensity (in/hr) =		1.32

The proposed 12" CPP is being installed to maintain existing a proposed ditch flow along Tamarak Condos driveway at the beginning of the proposed Hooter Lane Phase I ROW improvements. The area currently contributing runoff to this culvert was delineated in AutoCAD from aerial photos and 2013 Lidar Data provided by CBJ.

$$A = 67066 \text{ sqft} / 43,560 = 1.54 \text{ acres}$$

	Cc	I	A		
Q (cfs)=	0.51	1.32	1.54	=	1.04

Rational Method Site Runoff Proposed Roadway Ditch Left		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover types (acres)

$C_c = 0.33$, See Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 22.31$ min., See Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page. D-9, Basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 10 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 22.31(min)	25-year
Interpolated Intensity (in/hr) =	1.32

The proposed ditch is on the left side of the proposed roadway and was evaluated at the bottom of the ditch run. The area currently contributing runoff to this ditch was delineated in AutoCAD from aerial photos and 2013 Lidar Data provided by CBJ.

$$A = 41749 \text{ sqft} / 43,560 = 0.96 \text{ acres}$$

	Cc	I	A		
Q (cfs)=	0.33	1.32	0.96	=	0.42

Rational Method Site Runoff Proposed Roadway Ditch Right		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover types (acres)

$C_c = 0.55$, See Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 5.22 \text{ min.}$, See Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page. D-9, Basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 10 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period	
	Tc 10(min)	25-year
Interpolated Intensity (in/hr) =		2.07

The proposed ditch is on the right side of the proposed roadway and was evaluated at the bottom of the ditch run. The area currently contributing runoff to this culvert was delineated in AutoCAD from aerial photos and 2013 Lidar Data provided by CBJ.

$$A = 18055 \text{ sqft} / 43,560 = 0.41 \text{ acres}$$

	Cc	I	A		
Q (cfs)=	0.55	2.07	0.41	=	0.47

Appendix C

Runoff Coefficient

Runoff Coefficient Existing 18" CPP		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Glasdsjo	

Total Basin Area(SQFT)=	107806					
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient
Pavement	Tamarack Trails Condos	24950				
			24950	0.572773186	23.14%	0.9
Building Roofs	Tamarack Trail Condos	15130				
			15130	0.347337006	14.03%	0.9
Lawns	Tamarack Trails	6690				
			6690	0.153581267	6.21%	0.25
Shot Rock Base & Ditch	Hooter Lane ROW	21355				
			21355	0.490243343	19.81%	0.8
Woods	Every where else	39681				
			39681	0.910950413	36.81%	0.1
		Total=	107806	2.474885216	100.00%	0.55

Runoff Coefficient Existing Driveway Ditch		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Glasdsjo	

Total Basin Area(SQFT)=	107806					
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient
Pavement	Tamarack Trails Condos	24950				
			24950	0.572773186	23.14%	0.9
Building Roofs	Tamarack Trail Condos	15130				
			15130	0.347337006	14.03%	0.9
Lawns	Tamarack Trails	6690				
			6690	0.153581267	6.21%	0.25
Shot Rock Base & Ditch	Hooter Lane ROW	21355				
			21355	0.490243343	19.81%	0.8
Woods	Every where else	39681				
			39681	0.910950413	36.81%	0.1
		Total=	107806	2.474885216	100.00%	0.55

Runoff Coefficient Proposed 12" CPP		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Glasdsjo	

Total Basin Area(SQFT)=	67066					
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient
Pavement	Tamarack Trails Condos	14935				
			14935	0.342860422	22.27%	0.9
Building Roofs	Tamarack Trail Condos	11730				
			11730	0.269283747	17.49%	0.9
Shot Rock Base & Ditch	Hooter Lane ROW	8585				
			8585	0.197084481	12.80%	0.8
Woods	Every where else	31816				
			31816	0.730394858	47.44%	0.1
		Total=	67066	1.539623508	100.00%	0.51

Runoff Coefficient Proposed Roadway Ditch Left		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Glasdsjo	

Total Basin Area(SQFT)=	41749					
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient
Pavement	Tamarack Trails Condos	547				
			547	0.012557392	1.31%	0.9
Building Roofs	Tamarack Trail Condos	3902				
			3902	0.089577594	9.35%	0.9
Shot Rock Base & Ditch	Hooter Lane ROW	8585				
			8585	0.197084481	20.56%	0.8
Woods	Every where else	28715				
			28715	0.659205693	68.78%	0.1
		Total=	41749	0.958425161	100.00%	0.33

Runoff Coefficient Proposed Roadway Ditch Right		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Glasdsjo	

Total Basin Area(SQFT)=	18055					
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient
Shot Rock Base & Ditch	Hooter Lane ROW	11500				
			11500	0.264003673	63.69%	0.8
Woods	Every where else	6555				
			6555	0.150482094	36.31%	0.1
		Total=	18055	0.414485767	100.00%	0.55

Appendix D

Time of Concentration

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

- Tc = Time of Concentration (hrs)
- n = Manning's Roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation

- V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
- R = Aq / Wp
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin Existing18cmp
=====

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.8	0.00	0.00
Slope (%):	87.3	0.00	0.00
2 yr, 24 hr Rainfall (in):	6.9	0.00	0.00
Velocity (ft/sec):	2.97	0.00	0.00
Computed Flow Time (minutes):	0.07	0.00	0.00
	21.21	0.00	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Flow Length (ft):	260	0.00	0.00
Slope (%):	11.9	0.00	0.00
Surface Type:	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec):	5.17	0.00	0.00
Computed Flow Time (minutes):	0.84	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.033	.01	.03
Channel Slope (%):	122	63	132
Cross Section Area (ft ²):	12	10.4	7.02
Wetted Perimeter (ft):	2	.63	3.42
Velocity (ft/sec):	5.6	2.1	6.12
Computed Flow Time (minutes):	7.87	21.53	8.93
	0.26	0.05	0.25

=====
Total TOC (minutes): 22.61
=====

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

- Tc = Time of Concentration (hrs)
- n = Manning's Roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation

- V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
- R = Aq / Wp
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin Existing18cmp
=====

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.8	0.00	0.00
Slope (%):	87.3	0.00	0.00
2 yr, 24 hr Rainfall (in):	6.9	0.00	0.00
Velocity (ft/sec):	2.97	0.00	0.00
Computed Flow Time (minutes):	0.07	0.00	0.00
	21.21	0.00	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Flow Length (ft):	260	0.00	0.00
Slope (%):	11.9	0.00	0.00
Surface Type:	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec):	5.17	0.00	0.00
Computed Flow Time (minutes):	0.84	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.033	.01	.03
Channel Slope (%):	122	63	132
Cross Section Area (ft ²):	12	10.4	7.02
Wetted Perimeter (ft):	2	.63	3.42
Velocity (ft/sec):	5.6	2.1	6.12
Computed Flow Time (minutes):	7.87	21.53	8.93
	0.26	0.05	0.25

=====
Total TOC (minutes): 22.61
=====

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where:

Tc = Time of Concentration (hrs)
n = Manning's Roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / wp
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin DitchLT
=====

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.8	0.00	0.00
Slope (%):	87.3	0.00	0.00
2 yr, 24 hr Rainfall (in):	6.9	0.00	0.00
Velocity (ft/sec):	2.97	0.00	0.00
Computed Flow Time (minutes):	0.07	0.00	0.00
	21.21	0.00	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Flow Length (ft):	260	0.00	0.00
Slope (%):	11.9	0.00	0.00
Surface Type:	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec):	5.17	0.00	0.00
Computed Flow Time (minutes):	0.84	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.033	0.00	0.00
Channel Slope (%):	122	0.00	0.00
Cross Section Area (ft ²):	12	0.00	0.00
Wetted Perimeter (ft):	2	0.00	0.00
Velocity (ft/sec):	5.6	0.00	0.00
Computed Flow Time (minutes):	7.87	0.00	0.00
	0.26	0.00	0.00

=====
Total TOC (minutes): 22.31
=====

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

- Tc = Time of Concentration (hrs)
- n = Manning's Roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation

- V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
- R = Aq / wp
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin DitchLT
=====

Sheet Flow Computations

-	Subarea A	Subarea B	Subarea C
Manning's Roughness:	.8	0.00	0.00
Flow Length (ft):	87.3	0.00	0.00
Slope (%):	6.9	0.00	0.00
2 yr, 24 hr Rainfall (in):	2.97	0.00	0.00
Velocity (ft/sec):	0.07	0.00	0.00
Computed Flow Time (minutes):	21.21	0.00	0.00

Shallow Concentrated Flow Computations

-	Subarea A	Subarea B	Subarea C
Flow Length (ft):	260	0.00	0.00
Slope (%):	11.9	0.00	0.00
Surface Type:	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec):	5.17	0.00	0.00
Computed Flow Time (minutes):	0.84	0.00	0.00

Channel Flow Computations

-	Subarea A	Subarea B	Subarea C
Manning's Roughness:	.033	0.00	0.00
Flow Length (ft):	122	0.00	0.00
Channel Slope (%):	12	0.00	0.00
Cross Section Area (ft ²):	2	0.00	0.00
Wetted Perimeter (ft):	5.6	0.00	0.00
Velocity (ft/sec):	7.87	0.00	0.00
Computed Flow Time (minutes):	0.26	0.00	0.00

=====
Total TOC (minutes): 22.31
=====

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

Tc = Time of Concentration (hrs)
n = Manning's Roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

$$\begin{aligned} V &= 16.1345 * (S_f^{0.5}) \text{ (unpaved surface)} \\ V &= 20.3282 * (S_f^{0.5}) \text{ (paved surface)} \\ V &= 15.0 * (S_f^{0.5}) \text{ (grassed waterway surface)} \\ V &= 10.0 * (S_f^{0.5}) \text{ (nearly bare \& untilled surface)} \\ V &= 9.0 * (S_f^{0.5}) \text{ (cultivated straight rows surface)} \\ V &= 7.0 * (S_f^{0.5}) \text{ (short grass pasture surface)} \\ V &= 5.0 * (S_f^{0.5}) \text{ (woodland surface)} \\ V &= 2.5 * (S_f^{0.5}) \text{ (forest w/heavy litter surface)} \\ T_c &= (L_f / V) / (3600 \text{ sec/hr}) \end{aligned}$$

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation

$$\begin{aligned} V &= (1.49 * (R^{(2/3)})) * (S_f^{0.5}) / n \\ R &= A_q / W_p \\ T_c &= (L_f / V) / (3600 \text{ sec/hr}) \end{aligned}$$

Where:

Tc = Time of Concentration (hrs)

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Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin DitchRT
=====

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.8	0.00	0.00
Slope (%):	16	0.00	0.00
2 yr, 24 hr Rainfall (in):	10	0.00	0.00
Velocity (ft/sec):	2.97	0.00	0.00
Computed Flow Time (minutes):	0.06	0.00	0.00
	4.71	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:			
Flow Length (ft):	.033	0.00	0.00
Channel Slope (%):	400	0.00	0.00
Cross Section Area (ft ²):	12	0.00	0.00
Wetted Perimeter (ft):	5.67	0.00	0.00
Velocity (ft/sec):	7.5	0.00	0.00
Computed Flow Time (minutes):	12.98	0.00	0.00
	0.51	0.00	0.00

=====
Total TOC (minutes): 5.22
=====

Appendix E

Rainfall Intensity

Attachment 1 - Drainage Report



NOAA Atlas 14, Volume 7, Version 2

Location name: Juneau, Alaska, USA

Latitude: 58.346° Longitude: -134.4904°

Elevation: 101.4 ft*

*Source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

S. J. Per... Dougl... K. ne, S. r. h. De... K. zuqu... Ma... J... Debor... h. Ma... n. S. ndr... P. vov... ish... n...
 Roy, Sve... i... n... S. ueller, Amy... T... well... C... r... i... Try... luk... D... Je... Unuh... M... i... h... el... Yek... Er... Be... s... Geoffrey...
 Bonn... n... S... r... h... He... m... L... i... n... H... ne... r... Elz... be... h... L... i... ly... J... y... shree... N... J... y... n... n... Feing... i... n... Y... n... T... n... Zh... o...
 NOAA, N... on... l... We... her... Sav... o... Silver... S... ring... May... nd...
 Unvers... y... of... Al... sk... F... r... d... nks... Wa... er... nd... Environmen... J... Rese... r... h... Cen... er...

PF bul r | PF gr h | Ma s & er ls

PF tabular

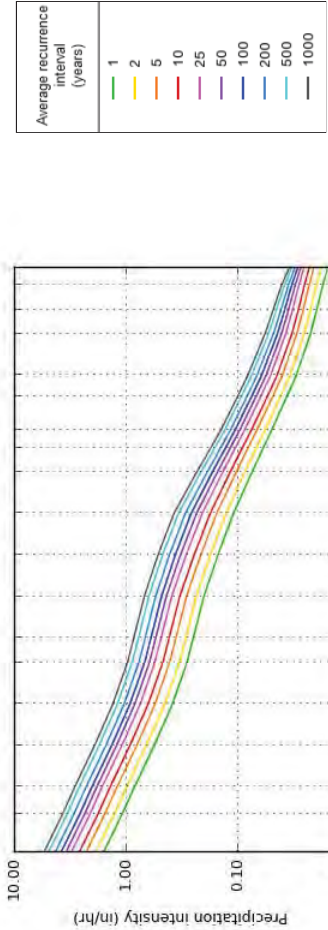
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹											
Duration	1	2	5	10	25	50	100	200	500	1000	
5-min	1.58 (1.27-2.02)	1.86 (1.48-2.40)	2.27 (1.75-3.00)	2.62 (1.99-3.52)	3.08 (2.29-4.25)	3.44 (2.51-4.82)	3.80 (2.72-5.42)	4.30 (3.02-6.23)	4.94 (3.41-7.33)	5.42 (3.67-8.17)	
10-min	1.06 (0.852-1.35)	1.25 (0.984-1.61)	1.52 (1.18-2.02)	1.75 (1.33-2.35)	2.07 (1.54-2.85)	2.31 (1.69-3.23)	2.56 (1.83-3.64)	2.89 (2.03-4.18)	3.32 (2.29-4.92)	3.64 (2.47-5.49)	
15-min	0.828 (0.664-1.06)	0.972 (0.768-1.26)	1.19 (0.920-1.57)	1.37 (1.04-1.84)	1.62 (1.20-2.22)	1.80 (1.32-2.53)	2.00 (1.59-2.76)	2.25 (1.76-3.04)	2.59 (1.93-3.49)	2.84 (2.19-3.84)	
30-min	0.550 (0.440-0.702)	0.646 (0.510-0.835)	0.788 (0.610-1.04)	0.908 (0.690-1.22)	1.07 (0.796-1.47)	1.20 (0.874-1.68)	1.32 (0.950-1.89)	1.49 (1.05-2.17)	1.72 (1.18-2.54)	1.89 (1.28-2.84)	
60-min	0.377 (0.302-0.481)	0.442 (0.349-0.571)	0.540 (0.418-0.713)	0.622 (0.473-0.836)	0.734 (0.545-1.01)	0.820 (0.598-1.15)	0.907 (0.650-1.29)	1.02 (0.721-1.48)	1.18 (0.810-1.74)	1.29 (0.875-1.95)	
2-hr	0.278 (0.223-0.356)	0.326 (0.258-0.422)	0.399 (0.308-0.527)	0.460 (0.350-0.618)	0.543 (0.403-0.747)	0.606 (0.442-0.850)	0.670 (0.480-0.954)	0.756 (0.532-1.10)	0.869 (0.646-1.44)	0.954 (0.646-1.44)	
3-hr	0.245 (0.196-0.312)	0.286 (0.226-0.370)	0.351 (0.271-0.463)	0.404 (0.307-0.543)	0.477 (0.354-0.657)	0.533 (0.389-0.746)	0.588 (0.422-0.838)	0.664 (0.488-0.962)	0.763 (0.525-1.13)	0.838 (0.568-1.26)	
6-hr	0.197 (0.158-0.251)	0.231 (0.182-0.298)	0.282 (0.216-0.372)	0.324 (0.247-0.446)	0.383 (0.284-0.527)	0.428 (0.312-0.600)	0.473 (0.339-0.675)	0.534 (0.376-0.774)	0.614 (0.423-0.910)	0.675 (0.457-1.02)	
12-hr	0.147 (0.118-0.188)	0.172 (0.136-0.223)	0.210 (0.162-0.277)	0.241 (0.183-0.323)	0.284 (0.211-0.391)	0.319 (0.233-0.447)	0.356 (0.255-0.507)	0.402 (0.283-0.582)	0.462 (0.318-0.686)	0.508 (0.344-0.767)	
24-hr	0.107 (0.096-0.119)	0.125 (0.111-0.142)	0.151 (0.132-0.175)	0.172 (0.148-0.203)	0.203 (0.171-0.245)	0.229 (0.189-0.281)	0.256 (0.208-0.320)	0.289 (0.230-0.367)	0.332 (0.259-0.431)	0.365 (0.280-0.482)	
2-day	0.073 (0.066-0.081)	0.084 (0.075-0.096)	0.101 (0.088-0.117)	0.114 (0.098-0.134)	0.133 (0.111-0.160)	0.148 (0.122-0.182)	0.164 (0.133-0.205)	0.183 (0.146-0.233)	0.209 (0.162-0.271)	0.227 (0.174-0.300)	
3-day	0.057 (0.052-0.064)	0.066 (0.059-0.075)	0.079 (0.069-0.091)	0.088 (0.076-0.104)	0.102 (0.086-0.123)	0.113 (0.094-0.139)	0.125 (0.101-0.156)	0.139 (0.110-0.176)	0.156 (0.122-0.203)	0.170 (0.130-0.224)	
4-day	0.049 (0.044-0.054)	0.056 (0.050-0.063)	0.066 (0.058-0.076)	0.074 (0.063-0.087)	0.085 (0.071-0.103)	0.094 (0.078-0.115)	0.103 (0.084-0.129)	0.114 (0.091-0.145)	0.128 (0.100-0.166)	0.139 (0.108-0.183)	
7-day	0.035 (0.032-0.040)	0.040 (0.036-0.046)	0.047 (0.041-0.055)	0.053 (0.046-0.062)	0.061 (0.051-0.073)	0.067 (0.055-0.082)	0.074 (0.060-0.092)	0.081 (0.064-0.103)	0.091 (0.071-0.118)	0.098 (0.075-0.130)	
10-day	0.029 (0.026-0.033)	0.033 (0.030-0.038)	0.039 (0.034-0.045)	0.043 (0.037-0.051)	0.049 (0.041-0.060)	0.054 (0.045-0.067)	0.060 (0.048-0.074)	0.066 (0.052-0.083)	0.073 (0.057-0.095)	0.079 (0.061-0.105)	
20-day	0.022 (0.020-0.024)	0.025 (0.022-0.028)	0.029 (0.025-0.033)	0.032 (0.027-0.038)	0.036 (0.030-0.044)	0.040 (0.033-0.048)	0.043 (0.035-0.054)	0.047 (0.037-0.059)	0.052 (0.040-0.067)	0.056 (0.043-0.073)	
30-day	0.019 (0.017-0.021)	0.022 (0.019-0.025)	0.025 (0.022-0.029)	0.028 (0.024-0.033)	0.031 (0.026-0.038)	0.034 (0.028-0.042)	0.037 (0.030-0.046)	0.040 (0.032-0.051)	0.044 (0.034-0.057)	0.047 (0.036-0.062)	
45-day	0.017 (0.015-0.019)	0.019 (0.017-0.022)	0.022 (0.019-0.026)	0.025 (0.021-0.029)	0.028 (0.023-0.033)	0.030 (0.025-0.037)	0.032 (0.026-0.040)	0.034 (0.027-0.043)	0.037 (0.029-0.048)	0.039 (0.030-0.052)	
60-day	0.015 (0.014-0.017)	0.017 (0.016-0.020)	0.020 (0.018-0.024)	0.022 (0.019-0.026)	0.025 (0.021-0.030)	0.027 (0.022-0.033)	0.028 (0.023-0.035)	0.030 (0.024-0.038)	0.032 (0.025-0.042)	0.034 (0.026-0.044)	

¹ Pre... on frequen y (PF) es maes n h's ble re b sed on frequen y n l y s of J _dur _on series (PDS).
 Numbers n _ren hess re PF es maes lower nd u _er bounds of he 90% onf den e nenv l. The rob b l y h re _on frequen yes maes (for
 given dur _on nd ver ge re urren e n env l) will be gre _er n he u _er bound (or less n he lower bound) s 5%. Es maes u _er bounds re no _
 he ked g _ns ro ble maximum re _on (PMP) es maes nd may be higher h n urren l y d PMP v lues.
 Ple se refer o NOAA A l s 14 do umen for more nforma on.

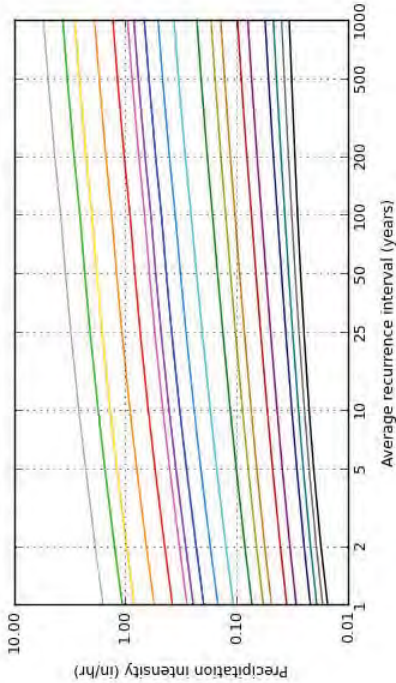
B k o To

PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 58.3460°, Longitude: -134.4904°



Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

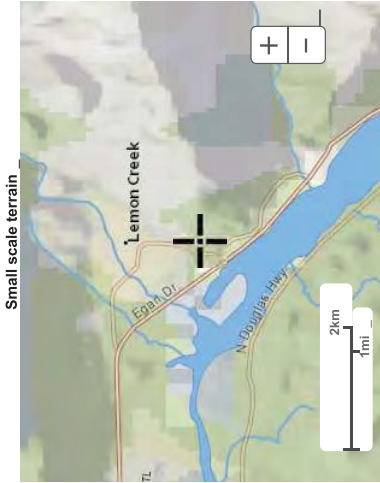


NOAA Atlas 14, Volume 7, Version 2

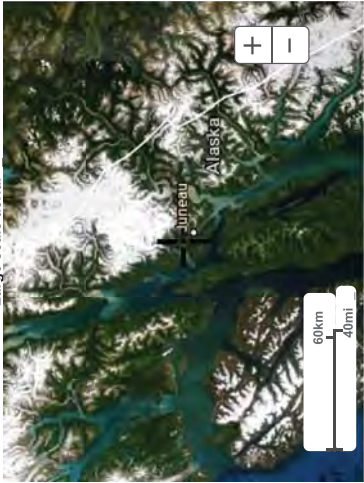
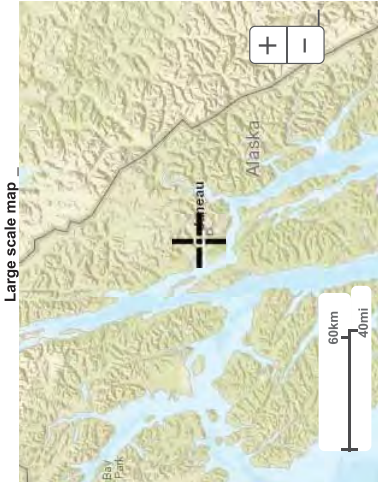
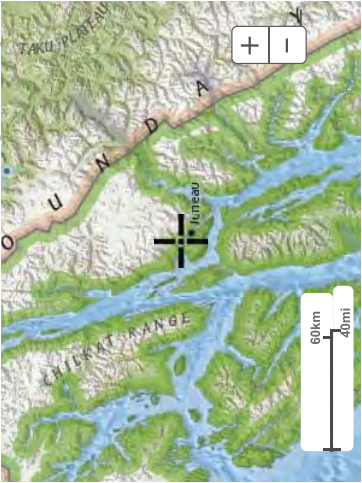
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Maps & aerials



Large scale terrain



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Silver Spring, MD 20910
Questions? HDSC.questions@noaa.gov
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Appendix F

Existing & Proposed Capacity Calcs

Existing 18" CPP Discharge Capacity		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



The following equations were used to calculate the existing 18" CPP culvert that drains into the existing Glacier Highway ditch system at the location where the new subdivision access will tie into the shoulder of the Highway and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec

K = coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table 5-3, Page 5-5, of the CBJ Stormwater Manual

A = cross sectional area in ft^2 , from survey basemap

R = hydraulic radius, from survey basemap

S = slope, from survey basemap

Existing 18" Ditch Culvert; Inlet Invert =30.0', Outlet Invert =29.0', Length =40', n = 0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

Q (cfs)	K	n	A	R	S	=	
	1.486	0.014	1.77	0.42446	0.025		16.72958

Existing Driveway Ditch Discharge Capacity		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



The following equations were used to calculate the capacity of the driveway ditch leading into the 18" CPP at the bottom of the ditch run and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec

K = coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table D-10, Page D-19, of the CBJ Stormwater Manual

A = cross sectional area in ft^2 , from survey basemap

R = hydraulic radius, from survey basemap

S = slope, from survey basemap

Existing driveway ditch; Top Elev. = 37.0', Bottom Elev. = 30.0', Length = 80', n = 0.03. The Manning's n value of 0.03 comes from Table D-10 (grass, some weeds), elevation and length data are from survey basemap.

	K	n	A	R	S		
Q (cfs)	1.486	0.03	1.55	0.319588	0.0875	=	10.57569

Proposed 12" CPP Discharge Capacity		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



The following equations were used to calculate the capacity of the proposed 12" CPP being installed to maintain existing a proposed ditch flow along Tamarak Condos driveway at the beginning of the proposed Hooter Lane Phase I ROW improvements and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec

K = coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table 5-3, Page 5-5, of the CBJ Stormwater Manual

A = cross sectional area in ft^2 , from construction plans

R = hydraulic radius, from construction plans

S = slope, from construction plans

Proposed 12" CPP; Top Invert Elev. = 46.25', Bottom Invert Elev. = 39.70', Length = 63', n = 0.014. The Manning's n value of 0.014 comes from Table 5-3 (CPP, smooth), elevation and length data are from construction plans.

Q (cfs)	K	n	A	R	S	=	
	1.486	0.014	0.79	0.25	0.104		10.68204

Proposed Roadway Ditch Left Discharge Capacity		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



The following equations were used to calculate the capacity of a proposed roadway ditch left side where it ties into the existing Tamarack Condo driveway and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec

K = coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table D-10, Page D-19, of the CBJ Stormwater Manual

A = cross sectional area in ft^2 , from construction plans

R = hydraulic radius, from construction plans

S = slope, from construction plans

Proposed Roadway Ditch; Slope matches roadway slope 12.0%, $n = 0.04$. The Manning's n value of 0.040 comes from Table D-10 (Rock lined, jagged), slope from construction plans.

Q (cfs)	K	n	A	R	S	=	
	1.486	0.04	2.06	0.36983842	0.12		13.61397

Proposed Roadway Ditch Right Discharge Capacity		
Project:	Hooter Lane ROW Improvements Phase I Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	1/20/2020	
Prepared By:	L. Chambers	
Checked By:	G. Gladsjo	



The following equations were used to calculate the capacity of a proposed roadway ditch right side where it ties into the existing Tamarack Condo driveway and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec

K = coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table D-10, Page D-19, of the CBJ Stormwater Manual

A = cross sectional area in ft^2 , from construction plans

R = hydraulic radius, from construction plans

S = slope, from construction plans

Proposed Roadway Ditch; Slope matches roadway slope 12.0%, $n = 0.04$. The Manning's n value of 0.040 comes from Table D-10 (Rock lined, jagged), slope from construction plans.

Q (cfs)	K	n	A	R	S	=	
	1.486	0.04	1.16	0.33429395	0.12		7.164296

Appendix G

Richland Manor Subdivision – Drainage Report dated 10/31/19



October 31, 2019

Michael and William Heumann
6000 Thane Rd
Juneau, AK 99801
mpheumann@hotmail.com
(971) 261-8014

RE: Richland Manor Subdivision - Drainage Report

To Whom It May Concern,

The following Drainage Plan has been prepared for the Richland Manor Subdivision in Juneau, AK, a proposed multi-phase major subdivision on a 30-acre site at 4506, 4508, and 4510 Hillcrest Avenue. This drainage report addresses the first phase of the project referred to as Phase A that includes the development of 14 Lots and the construction of a gravel access road up the Hooter Lane right-of-way. Runoff from Phase A will be directed to an existing 24" CMP that crosses Glacier Hwy at the bottom of Hooter Lane. The 2010 CBJ Manual of Stormwater Best Management Practices and the AKDOT&PF Highway Drainage Manual requires that the existing 24" CMP culvert can handle the 25-year storm event flows and will be the standard used for this analysis.

Attached sheets depict survey data, proposed Phase A development, as-built information, calculations and rainfall data used for the proposed drainage analysis for this subdivision.

NOTE The intent of this report is to show that the increased runoff due to Phase A of the development and the initial gravel access road up the Hooter Lane right-of-way of the site can be handled by the existing drainage system on Glacier Highway. This report will be revised and updated as necessary during the design and layout of the roadway and conveyance system.

Site Runoff Calculation Method:

A total of three catchment areas were analyzed as part of this report. The first was the area currently contributing to the existing 24" CMP culvert crossing glacier Hwy at the bottom of Hooter Lane. The second was the predeveloped area of the proposed Phase A of the subdivision and the last was the post developed area of the proposed Phase A of the Subdivision. The three catchment areas we determined using Lidar data and aerial photos in AutoCAD C3D and were verify by several site visits. A delineation of the catchment areas can be found in Appendix A.



To calculate the site runoff through existing drainage structure on Glacier Hwy, we have elected to use the Rational Method. The Rational Method is most appropriate for evaluating drainage basins less than 10 acres. Appendix D of the "2010 CBJ Manual of Stormwater Best Management Practices" was utilized as a guide¹. The calculations can be found in Appendix B of this Report.

To calculate site runoff for the pre and post developed area of Phase A, we have elected to use the SCS Unit Hydrograph method. The SCS Unit Hydrograph method is appropriate for evaluating drainage basins greater than 10 acres and less than 1,300 acres. Appendix D of the "2010 CBJ Manual of Stormwater Best Management Practices" was utilized as a guide. Per the Guide, "The SCS method is based on a 24-hour storm event with a 10-minute temporal distribution. The Type IA storm distribution is a "typical" time distribution that the SCS has prepared from rainfall records for the Pacific maritime climate." The Hydraflow Hydrographs Extension for Autodesk was utilized to develop the Hydrographs for determining peak discharge. The Hydrographs can be found in Appendix F of this Report.

Anticipated Site Runoff (Q):

Using the Rational Method and SCS Unit Hydrograph, the amount of stormwater runoff during the 25-year storm event per catchment area was determined:

Catchment Area	Q (cfs)
Existing 24" CMP Culvert	2.30
Phase A Predeveloped	6.31
Proposed Phase A Subdivision	8.24

Conveyance/Discharge Structure Capacities:

The capacity of the existing 24" CMP culvert was calculated to determine if proposed 25-year storm event flows could be handled without making modifications. The analysis found that the culvert can handle 8.87 cfs, the calculations can be found in Appendix G.

¹ There are no current municipal code requirements dictating adherence with the "2010 CBJ Manual of Stormwater Best Management Practices" when preparing a drainage plan that complies with 49.35.510. Regardless, we have elected to utilize portions of this Manual as a guide in the preparation of this Drainage Plan for the proposed development.

Summary:

Drainage Basin	Post Development Runoff Q (cfs)	Capacity Check	24" CMP Flow Capacity Q (cfs)
Proposed Subdivision	8.24	<	8.87

The proposed Phase A of the development will redirect a significant amount of the water currently exiting the lower southwest corner of the property and will redirect them down Hooter Lane and into the existing 24" CMP culvert crossing Glacier Hwy. Our analysis shows that there is enough capacity in the existing Glacier Hwy. drainage system to handle increased flows during the 25 year storm event from the proposed development.

Respectfully,



Lucas Chambers, P.E.

Principal Engineer – proHNS LLC Juneau

Appendixes:

A – Catchment Areas

B – Rational Method

C – SCS Hydrograph

D – Runoff Coefficient

E – Time of Concentration

F – Rainfall Intensity

G – Existing 24" CMP Culvert Capacity

H - Existing 24" CMP Culvert As-builts

Appendix A

Catchment Areas

RICHLAND MANOR SUBDIVISION PHASE A DRAINAGE MAP **JUNEAU, AK**

PREPARED FOR:
MICHAEL HUEMANN



PROJECT LOCATION MAP
NTS

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING 24 CMP CATCHMENT AREA
3	PHASE A PREDEVELOPMENT CATCHMENT AREA
4	PROPOSED PHASE A SUBDIVISION CATCHMENT AREA



RECORD OF REVISIONS		BY	
No.	DATE	DESCRIPTION	



DRAWN BY:	S. WOLTER
DESIGNED BY:	L. CHAMBERS
CHECKED BY:	L. CHAMBERS
1946 ALEXANDER WAY #101 JUNEAU, AK 99901	
seal@ptohns.com www.ptohns.com	

--	--

RICHLAND MANOR SUBDIVISION	
WILLIAM & MICHAEL HUEMANN	

COVER SHEET	
-------------	--

SHEET NUMBER	1
OF	4

EXISTING 24" CMP
CULVERT CATCHMENT AREA

MAPPED EXISTING
DRAINAGE CHANNELS

FLOW PATH

PROPOSED GRAVEL
ACCESS RD

EXISTING 24" CMP CULVERT

HOOTER LN ROW

PROPOSED PHASE
A LOT LINES (TYP)

PROPOSED PHASE
A SUBDIVISION

LOT 1

LOT 2

LOT 3

LOT 4

LOT 5

LOT 6

LOT 7

LOT 8

LOT 9

LOT 10

LOT 11

LOT 12

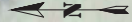
LOT 13

LOT 14

MOUNTAINSIDE DR

HILLCREST AVE

GLACIER HWY



RECORD OF REVISIONS		BY	DATE	DESCRIPTION
No.	DATE			



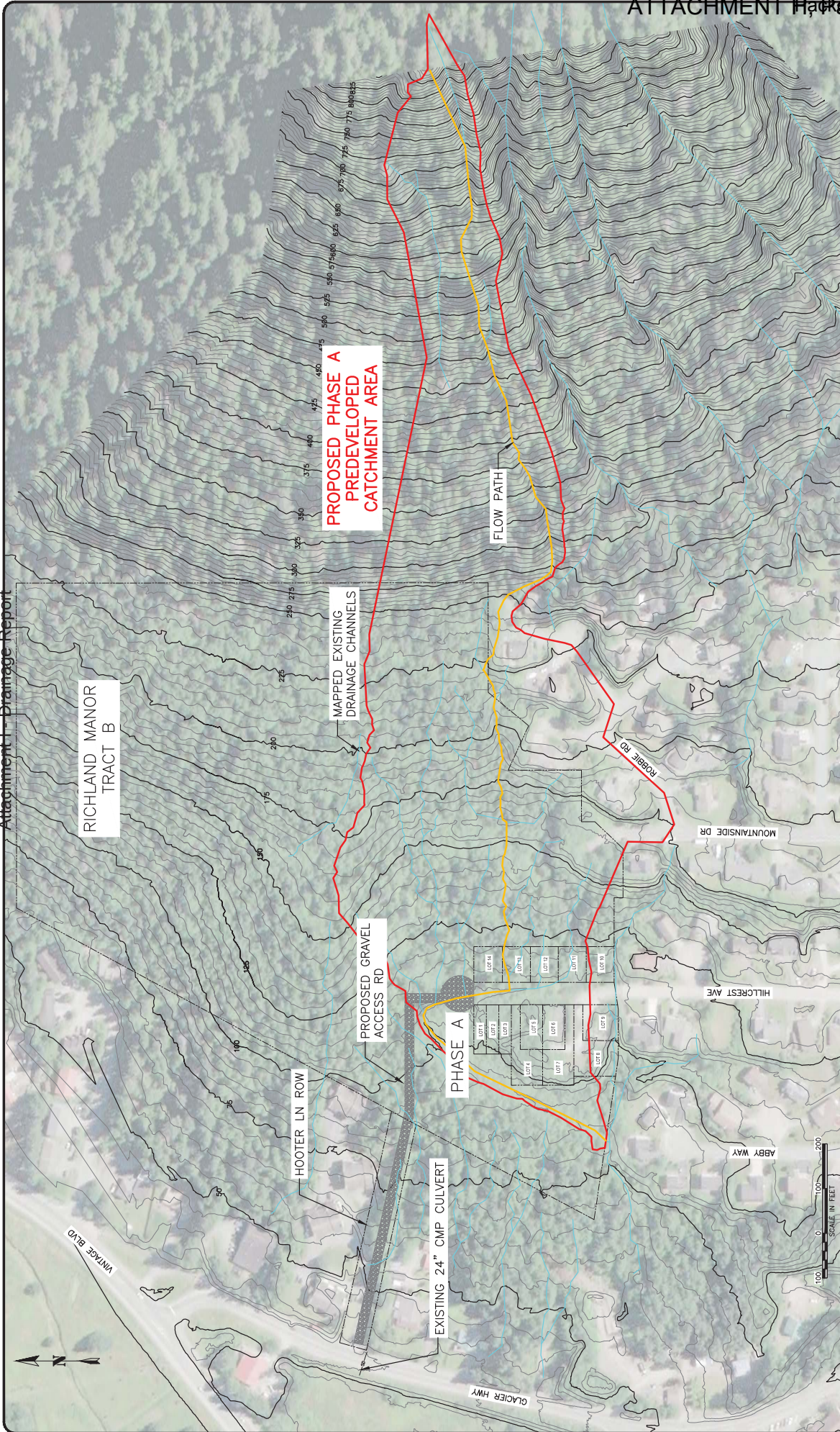
DRAWN BY: S. WOLTER
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1945 ALEXANDER WAY #101
JANESVILLE, WI 53501
sales@prohns.com
www.prohns.com
#100682

RICHLAND MANOR
SUBDIVISION
WILLIAM & MICHAEL HUMEAN

EXISTING 24" CMP
CATCHMENT AREA

SHEET NUMBER	
2	OF
4	

Attachment I - Drainage Report



SHEET NUMBER		3	
		OF	
		4	
PHASE A PREDEVELOPED CATCHMENT AREA			
RICHLAND MANOR SUBDIVISION			
WILLIAM & MICHAEL HUMEAN			
DRAWN BY: S. WOLTER			
DESIGNED BY: L. CHAMBERS			
CHECKED BY: L. CHAMBERS			
1946 ALEX HOLDEN WAY #101 JUNEAU, AK 99801			
ptHNS LLC			
www.ptHNS.com			
CERTIFICATE OF AUTHORIZATION			
#100682			
RECORD OF REVISIONS		BY	
No		DATE	

RICHLAND MANOR
TRACT B

PROPOSED PHASE A
SUBDIVISION
CATCHMENT AREA

MAPPED EXISTING
DRAINAGE CHANNELS

PROPOSED GRAVEL
ACCESS RD

HOOTER LN ROW

EXISTING 24" CMP CULVERT

PHASE A

FLOW PATH

ROBBIE RD

MOUNTAINSIDE DR

HILLCREST AVE

ABBY WAY

GLACIER HWY

VINTAGE BLVD



RECORD OF REVISIONS	
No.	DESCRIPTION



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RICHLAND MANOR
SUBDIVISION
WILLIAM & MICHAEL HUMEAN

PROPOSED PHASE A
SUBDIVISION
CATCHMENT AREA

SHEET NUMBER	4
OF	4

Appendix B

Rational Method

Rational Method Site Runoff Existing 24" CMP		
Project:	Richland Manor Subdivision Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	10/30/2019	
Prepared By:	S. Moller	
Checked By:	L. Chambers	



$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover types (acres)

$C_c = 0.45$, See Appendix D for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 8.71 \text{ min.}$, See Appendix E for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_R \text{ Sqrt}(S_0)$ = average velocity (feet/sec) across land cover

k_R = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D-5, PG. D-10)

S_0 = slope of flow path (feet/feet)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page. 5-1, design event frequencies are specified. For storm sewer feeder lines, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page. D-9, Basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix F, and is summarized as follows:

	Design Return Period
T_c 10(min)	25-year
Intensity (in/hr) =	2.07

There is an existing 24" CMP culvert that crosses Glacier Highway at the location where the new subdivision access will tie into the shoulder of the Highway. The area currently contributing runoff to this culvert was delineated in AutoCAD from aerial photos and 2013 Lidar Data provided by CBJ, see Appendix A.

$$A = 107513 \text{ sqft} / 43,560 = \mathbf{2.47 \text{ acres}}$$

	Cc	I	A		
Q (cfs)=	0.45	2.07	2.47	=	2.30

Appendix C

SCS Hydrograph

Hydrograph Report

Hyd. No. 1

Phase A Predeveloped

Hydrograph type	= SCS Runoff	Peak discharge	= 6.311 cfs
Storm frequency	= 25 yrs	Time to peak	= 8.33 hrs
Time interval	= 10 min	Hyd. volume	= 143,272 cuft
Drainage area	= 19.920 ac	Curve number	= 71*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 41.57 min
Total precip.	= 4.82 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.540 x 89) + (0.320 x 98) + (0.250 x 89) + (0.330 x 74) + (18.480 x 70)] / 19.920



Hydrograph Report

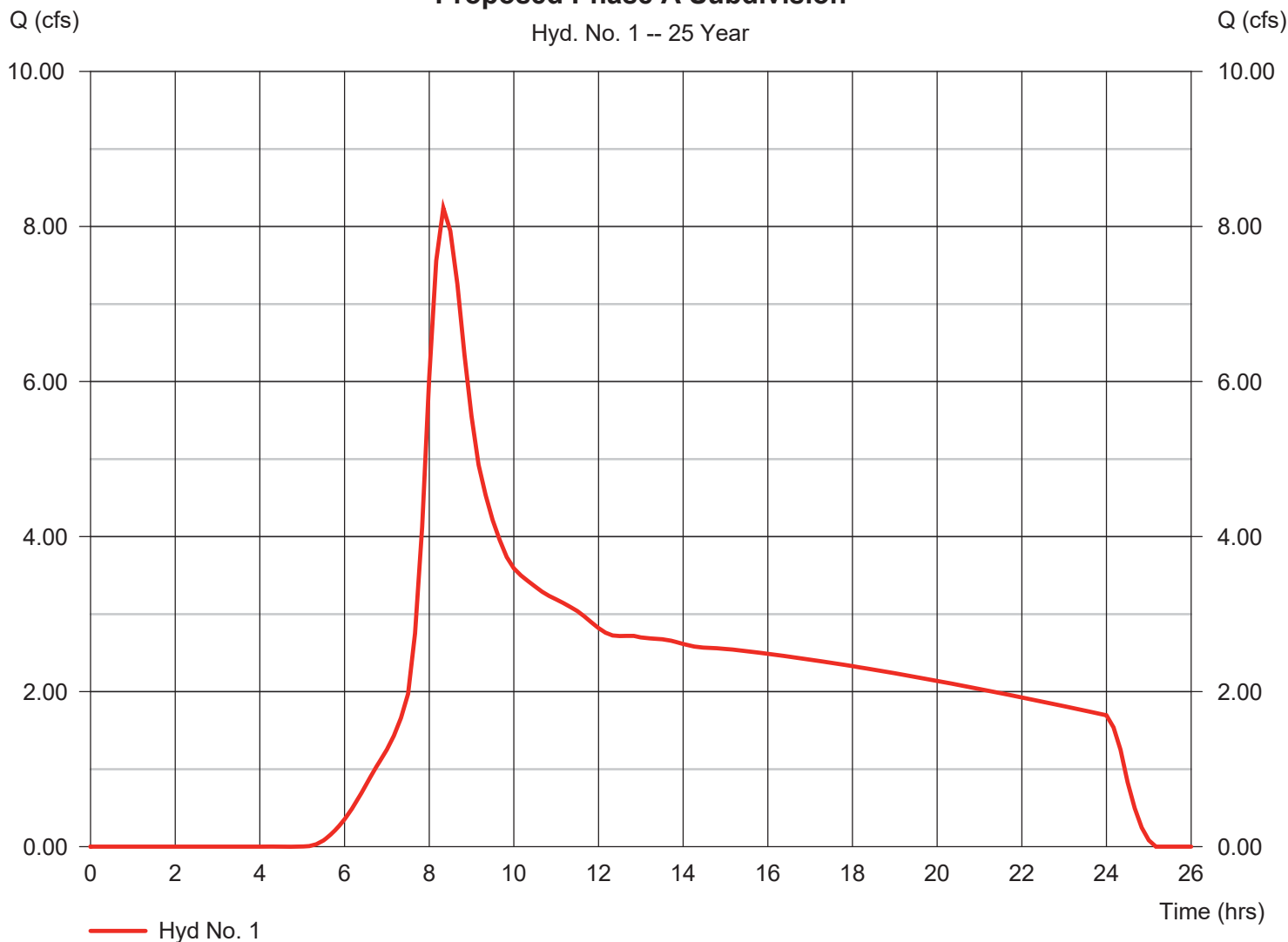
Hyd. No. 1

Proposed Phase A Subdivision

Hydrograph type	= SCS Runoff	Peak discharge	= 8.239 cfs
Storm frequency	= 25 yrs	Time to peak	= 8.33 hrs
Time interval	= 10 min	Hyd. volume	= 179,151 cuft
Drainage area	= 23.060 ac	Curve number	= 73*
Basin Slope	= 26.0 %	Hydraulic length	= 3231 ft
Tc method	= User	Time of conc. (Tc)	= 39.30 min
Total precip.	= 4.82 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.610 x 89) + (1.080 x 98) + (0.720 x 89) + (1.480 x 74) + (18.170 x 70)] / 23.060

Proposed Phase A Subdivision



Appendix D

Runoff Coefficient

Runoff Coefficient Existing 24" CMP			
Project:	Richland Manor Subdivision Drainage Analysis, PAC2018 0054		
Owner:	Michael and William Heumann		
Date:	10/25/2019		
Prepared By:	Chris Bydlon		
Checked By:	Lucas Chambers		

Total Basin Area(SQFT)=		107513				
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient
Pavement	Tamarack Trails Condos	24950				
	Glacier Hwy	5587				
			30537	0.701033058	28.40%	0.9
Building Roofs	Tamarack Trail Condos	15130				
			15130	0.347337006	14.07%	0.9
Lawns	Tamarack Trails	6690				
			6690	0.153581267	6.22%	0.25
Woods	Every where else	55156				
			55156	1.26620753	51.30%	0.1
		Total=	107513	2.468158861	100.00%	0.45

SCS Curve Number Phase A Predeveloped		
Project:	Richland Manor Subdivision Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	10/25/2019	
Prepared By:	Chris Bydlon	
Checked By:	Lucas Chambers	

Total Basin Area(SQFT)=	867827					
Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Unit Hydrograph CN*
Pavement	Mountianside/ Robbie Rd	23565				
			23565	0.540977961	2.72%	89
Building Roofs	Robbie Rd Homes	14048				
			14048	0.322497704	1.62%	98
Gravel	Existing Hillcrest Pads	10824				
			10824	0.248484848	1.25%	89
Lawns	Robbie Rd Homes	14230				
			14230	0.326675849	1.64%	74
Woods	Every where else	805160				
			805160	18.48393021	92.78%	70
		Total=	867827	19.92256657	100.00%	71.27

*Unit Hydrograph curve numbers were developed from Table D-6 & D-7 of the CBJ Manual of Stormwater BMP Manual. NRCS's online GIS database does not have data for the project location. I looked at adjacent areas with similar slopes and ground cover and the hydraulic soil group was C or D. For this analysis I am assuming the project location falls under soil group C.

SCS Curve Number Proposed Phase A Subdivision		
Project:	Richland Manor Subdivision Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	10/25/2019	
Prepared By:	Chris Bydlon	
Checked By:	Lucas Chambers	

*Unit Hydrograph curve numbers were developed from Table D-6 & D-7 of the CBJ Manual of Stormwater BMP Manual. NRCS's online GIS database does not have data for the project location. I looked at adjacent areas with similar slopes and ground cover and the hydraulic soil group was C or D. For this analysis I am assuming the project location falls under soil group C.

Appendix E

Time of Concentration

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$$

Where:

- Tc = Time of Concentration (hrs)
- n = Manning's Roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

- V = 16.1345 * (Sf^{0.5}) (unpaved surface)
- V = 20.3282 * (Sf^{0.5}) (paved surface)
- V = 15.0 * (Sf^{0.5}) (grassed waterway surface)
- V = 10.0 * (Sf^{0.5}) (nearly bare & untilled surface)
- V = 9.0 * (Sf^{0.5}) (cultivated straight rows surface)
- V = 7.0 * (Sf^{0.5}) (short grass pasture surface)
- V = 5.0 * (Sf^{0.5}) (woodland surface)
- V = 2.5 * (Sf^{0.5}) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation

- V = (1.49 * (R^{2/3}) * (Sf^{0.5})) / n
- R = Aq / wp
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin existing24cmp
=====

Shallow Concentrated Flow Computations

-	Subarea A	Subarea B	Subarea C
Flow Length (ft):	341.5	0.00	0.00
Slope (%):	12.3	0.00	0.00
Surface Type:	Forest	Unpaved	Unpaved
Velocity (ft/sec):	0.88	0.00	0.00
Computed Flow Time (minutes):	6.47	0.00	0.00

Channel Flow Computations

-	Subarea A	Subarea B	Subarea C
Manning's Roughness:	.1	0.00	0.00
Flow Length (ft):	312	0.00	0.00
Channel Slope (%):	8.33	0.00	0.00
Cross Section Area (ft ²):	1.5	0.00	0.00
Wetted Perimeter (ft):	3.8	0.00	0.00
Velocity (ft/sec):	2.31	0.00	0.00
Computed Flow Time (minutes):	2.25	0.00	0.00

=====
Total TOC (minutes): 8.71
=====

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

- Tc = Time of Concentration (hrs)
- n = Manning's Roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation

- V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
- R = Aq / Wp
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin PhaseAPreDeveIop
=====

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:	.8	0.00	0.00
Flow Length (ft):	188	0.00	0.00
Slope (%):	79.80	0.00	0.00
2 yr, 24 hr Rainfall (in):	2.97	0.00	0.00
Velocity (ft/sec):	0.21	0.00	0.00
Computed Flow Time (minutes):	14.72	0.00	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Flow Length (ft):	2046	0.00	0.00
Slope (%):	29.86	0.00	0.00
Surface Type:	Forest	Unpaved	Unpaved
Velocity (ft/sec):	1.37	0.00	0.00
Computed Flow Time (minutes):	24.89	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:	.05	0.00	0.00
Flow Length (ft):	715	0.00	0.00
Channel Slope (%):	3.48	0.00	0.00
Cross Section Area (ft ²):	13	0.00	0.00
Wetted Perimeter (ft):	11.4	0.00	0.00
Velocity (ft/sec):	6.07	0.00	0.00
Computed Flow Time (minutes):	1.96	0.00	0.00

=====
Total TOC (minutes):

41.57

SCS TR-55 Time of Concentration Computations Report
=====

Sheet Flow Equation

$$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$$

Where:

- Tc = Time of Concentration (hrs)
- n = Manning's Roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

- V = 16.1345 * (Sf^{0.5}) (unpaved surface)
- V = 20.3282 * (Sf^{0.5}) (paved surface)
- V = 15.0 * (Sf^{0.5}) (grassed waterway surface)
- V = 10.0 * (Sf^{0.5}) (nearly bare & untilled surface)
- V = 9.0 * (Sf^{0.5}) (cultivated straight rows surface)
- V = 7.0 * (Sf^{0.5}) (short grass pasture surface)
- V = 5.0 * (Sf^{0.5}) (woodland surface)
- V = 2.5 * (Sf^{0.5}) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation

- V = (1.49 * (R^{2/3}) * (Sf^{0.5})) / n
- R = Aq / wp
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hrs)

Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's Roughness

=====
Subbasin HooterLane
=====

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:	0.8	0.00	0.00
Flow Length (ft):	187.94741751	0.00	0.00
Slope (%):	79.8	0.00	0.00
2 yr, 24 hr Rainfall (in):	2.97	0.00	0.00
Velocity (ft/sec):	0.21	0.00	0.00
Computed Flow Time (minutes):	14.72	0.00	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Flow Length (ft):	1943.03879748	0.00	0.00
Slope (%):	30.8	0.00	0.00
Surface Type:	Forest	Paved	Paved
Velocity (ft/sec):	1.39	0.00	0.00
Computed Flow Time (minutes):	23.34	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
-			
Manning's Roughness:	0.040	0.00	0.00
Flow Length (ft):	1100.21245053	0.00	0.00
Channel Slope (%):	8.18	0.00	0.00
Cross Section Area (ft ²):	24	0.00	0.00
Wetted Perimeter (ft):	15.42	0.00	0.00
Velocity (ft/sec):	14.31	0.00	0.00
Computed Flow Time (minutes):	1.28	0.00	0.00

=====
Total TOC (minutes):

39.34

=====

Appendix F

Rainfall Intensity

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Pelica, Douglas Kane, Sarah Dietz, Kazungu Malania, Deborah Martin, Sandra Pavlovic, Ishani Roy, Svetlana Stueler, Amy Tidwell, Carl Trypanuk, Dale Unruh, Michael Yekta, Erica Betts, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF tabular](#) | [PF graphical](#) | [Maps & aetials](#)

PF tabular

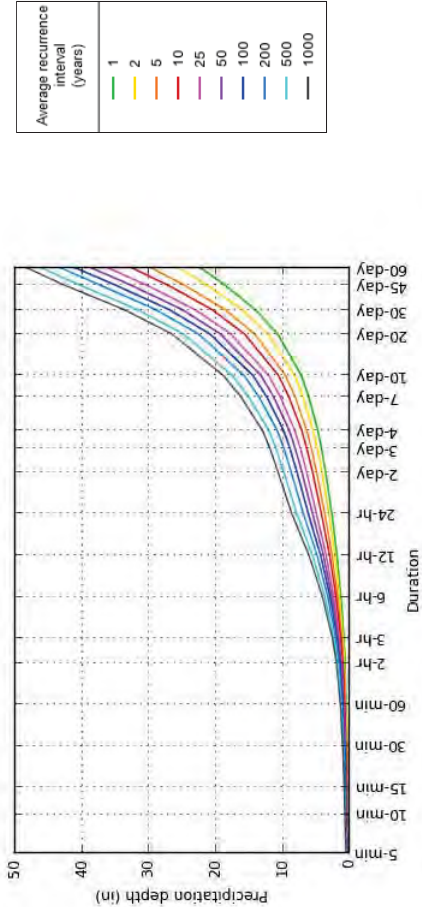
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹											
Duration	Average recurrence interval (years)										
	1	2	5	10	50	100	200	500	1000		
5-min	0.131 (0.106-0.166)	0.153 (0.122-0.197)	0.187 (0.146-0.246)	0.215 (0.165-0.287)	0.253 (0.189-0.346)	0.312 (0.225-0.442)	0.350 (0.248-0.505)	0.400 (0.277-0.590)	0.438 (0.299-0.657)		
10-min	0.176 (0.142-0.223)	0.206 (0.164-0.265)	0.251 (0.195-0.330)	0.288 (0.220-0.385)	0.339 (0.253-0.464)	0.418 (0.278-0.528)	0.470 (0.333-0.678)	0.537 (0.372-0.792)	0.588 (0.401-0.882)		
15-min	0.206 (0.166-0.261)	0.241 (0.192-0.310)	0.293 (0.228-0.385)	0.337 (0.258-0.450)	0.397 (0.297-0.543)	0.443 (0.325-0.617)	0.490 (0.359-0.684)	0.549 (0.389-0.791)	0.629 (0.470-1.03)		
30-min	0.273 (0.220-0.346)	0.320 (0.255-0.411)	0.389 (0.303-0.511)	0.447 (0.342-0.597)	0.527 (0.394-0.721)	0.588 (0.432-0.819)	0.650 (0.469-0.921)	0.729 (0.517-1.05)	0.834 (0.578-1.23)	0.914 (0.623-1.37)	
60-min	0.374 (0.302-0.474)	0.438 (0.349-0.563)	0.533 (0.415-0.700)	0.613 (0.469-0.819)	0.722 (0.539-0.988)	0.806 (0.592-1.12)	0.890 (0.642-1.26)	0.999 (0.708-1.44)	1.14 (0.792-1.69)	1.25 (0.853-1.88)	
2-hr	0.552 (0.445-0.700)	0.647 (0.515-0.832)	0.789 (0.614-1.04)	0.906 (0.693-1.21)	1.07 (0.798-1.46)	1.19 (0.875-1.66)	1.32 (0.949-1.86)	1.48 (1.05-2.13)	1.69 (1.17-2.49)	1.85 (1.26-2.77)	
3-hr	0.729 (0.588-0.925)	0.854 (0.680-1.10)	1.04 (0.811-1.37)	1.20 (0.915-1.60)	1.41 (1.05-1.93)	1.57 (1.15-2.19)	1.73 (1.25-2.46)	1.95 (1.38-2.81)	2.23 (1.54-3.29)	2.44 (1.66-3.66)	
6-hr	1.17 (0.944-1.48)	1.37 (1.09-1.76)	1.67 (1.30-2.19)	1.92 (1.47-2.56)	2.26 (1.69-3.09)	2.52 (1.85-3.51)	2.78 (2.22-4.51)	3.13 (2.48-5.27)	3.58 (2.67-5.88)	3.92 (2.87-5.94)	
12-hr	1.76 (1.42-2.23)	2.06 (1.64-2.65)	2.50 (1.95-3.29)	2.87 (2.19-3.83)	3.38 (2.53-4.62)	3.79 (2.78-5.27)	4.21 (3.04-5.96)	4.73 (3.35-6.82)	5.42 (3.76-7.99)	5.94 (4.05-8.91)	
24-hr	2.54 (2.30-2.84)	2.97 (2.65-3.37)	3.59 (3.14-4.16)	4.10 (3.52-4.83)	4.82 (4.05-5.81)	5.41 (4.46-6.64)	6.04 (4.90-7.54)	6.78 (5.41-8.61)	7.76 (6.05-10.1)	8.51 (6.52-11.2)	
2-day	3.45 (3.12-3.87)	4.01 (3.58-4.55)	4.79 (4.19-5.55)	5.42 (4.65-6.38)	6.29 (5.28-7.59)	7.00 (5.77-8.59)	7.74 (6.28-9.66)	8.59 (6.85-10.9)	9.72 (7.57-12.6)	10.6 (8.10-13.9)	
3-day	4.10 (3.70-4.58)	4.73 (4.22-5.36)	5.61 (4.90-6.49)	6.30 (5.41-7.42)	7.26 (6.09-8.75)	8.03 (6.62-9.85)	8.82 (7.15-11.0)	9.72 (7.75-12.3)	10.9 (8.51-14.2)	11.8 (9.06-15.6)	
4-day	4.63 (4.18-5.18)	5.32 (4.75-6.04)	6.28 (5.49-7.27)	7.03 (6.04-8.28)	8.07 (6.77-9.72)	8.88 (7.33-10.9)	9.73 (7.89-12.1)	10.7 (8.51-13.6)	11.9 (9.30-15.5)	12.9 (9.87-17.0)	
7-day	5.98 (5.40-6.69)	6.84 (6.10-7.75)	8.02 (7.00-9.28)	8.94 (7.68-10.5)	10.2 (8.57-12.3)	11.2 (9.25-13.8)	12.3 (9.93-15.3)	13.4 (10.7-17.0)	15.0 (11.7-19.4)	16.1 (12.4-21.3)	
10-day	7.07 (6.39-7.92)	8.07 (7.20-9.15)	9.44 (8.24-10.9)	10.5 (9.02-12.4)	12.0 (10.0-14.4)	13.1 (10.8-16.1)	14.3 (11.6-17.8)	15.6 (12.5-19.8)	17.4 (13.6-22.6)	18.7 (14.4-24.7)	
20-day	10.6 (9.59-11.9)	12.1 (10.8-13.7)	14.1 (12.3-16.3)	15.6 (13.4-18.3)	17.6 (14.8-21.2)	19.2 (15.8-23.5)	20.7 (16.8-25.9)	22.4 (17.9-28.5)	24.7 (19.3-32.1)	26.4 (20.2-34.8)	
30-day	14.0 (12.6-15.6)	15.9 (14.2-18.1)	18.5 (16.2-21.4)	20.4 (17.5-24.0)	22.9 (19.3-27.7)	24.9 (20.5-30.5)	26.8 (21.7-33.4)	28.8 (23.0-36.6)	31.5 (24.6-40.9)	33.5 (25.7-44.2)	
45-day	18.5 (16.7-20.7)	21.1 (18.8-23.9)	24.5 (21.4-28.4)	27.0 (23.2-31.8)	30.1 (25.3-36.3)	32.5 (26.8-39.8)	34.8 (28.2-43.4)	37.1 (29.5-47.1)	40.1 (31.3-52.0)	42.4 (32.5-55.9)	
60-day	22.1 (19.9-24.7)	25.4 (22.6-28.8)	29.5 (25.7-34.1)	32.3 (27.8-38.1)	35.9 (30.1-43.3)	38.4 (31.7-47.1)	40.8 (34.1-50.9)	43.0 (34.2-54.5)	45.8 (35.7-59.5)	48.0 (36.8-63.4)	

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound or less than the lower bound is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

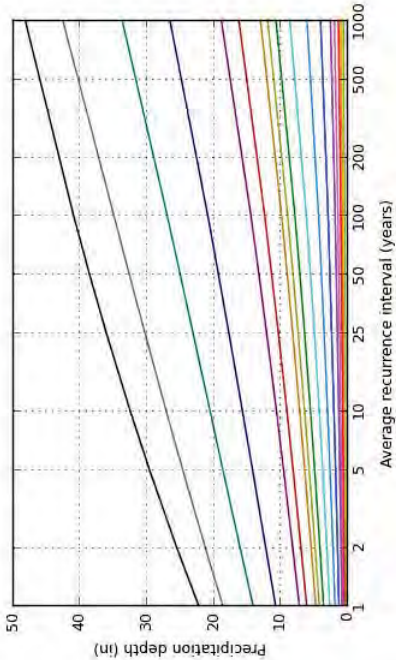
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PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 58.3454°, Longitude: -134.4896°

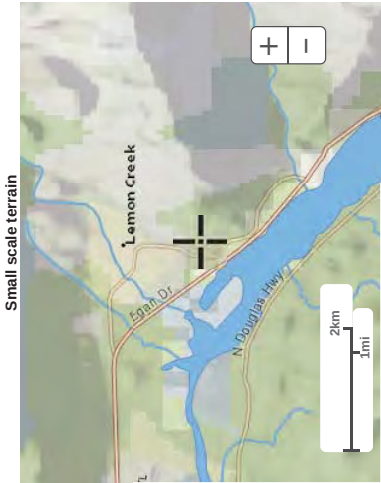


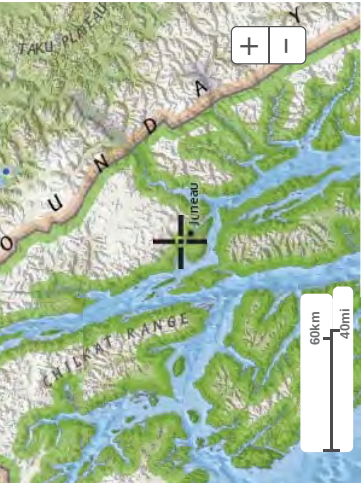
Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	



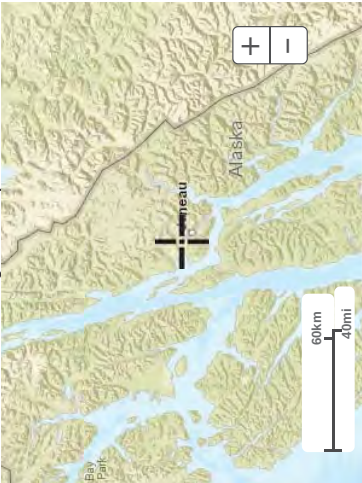
NOAA Atlas 14, Volume 7, Version 2
Created (GMT): Fri Oct 18 00:03:14 2019
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Maps & aeri

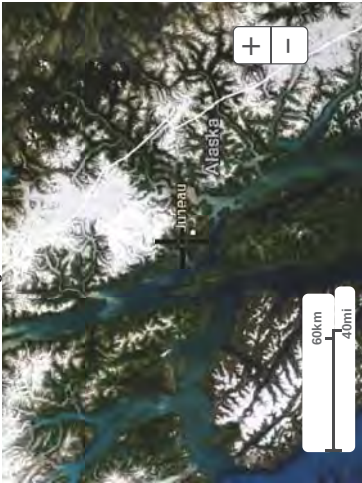




Large scale map



Large scale aerial



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1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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NOAA Atlas 14, Volume 7, Version 2

Location name: Juneau, Alaska, USA

Latitude: 58.346° Longitude: -134.4904°

Elevation: 101.4 ft*

*Source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

S. J. Per... Dougl... K. ne, S. r. h. De... K. zungu... Ma... J... Debor... h. Mar... n. S. ndr... P. vov... l. sh... n...
 Roy, Sve... l... n... S. ueller, Amy... T. dwell... C. r... i... Try... luk... D. Je... Unruh, M. i... h... el... Yek... Er... Be... s... Geoffrey...
 Bonn... n... S. r... h... He... m... L... i... n... Hner... Elz... be... h... L... i... ly... J... y... shree... N... J... y... n... n... Feing... i... n... Y... n... T... n... Zh... o...
 NOAA, N... on... l... We... her... Sav... o... Silver... S... ring... May... nd...
 Unvers... y... of Al... sk... F... r... d... nks... Wa... er... nd... Environmen... J... Rese... r... h... Cen... er...

PF bul r | PF gr h | Ma s & er ls

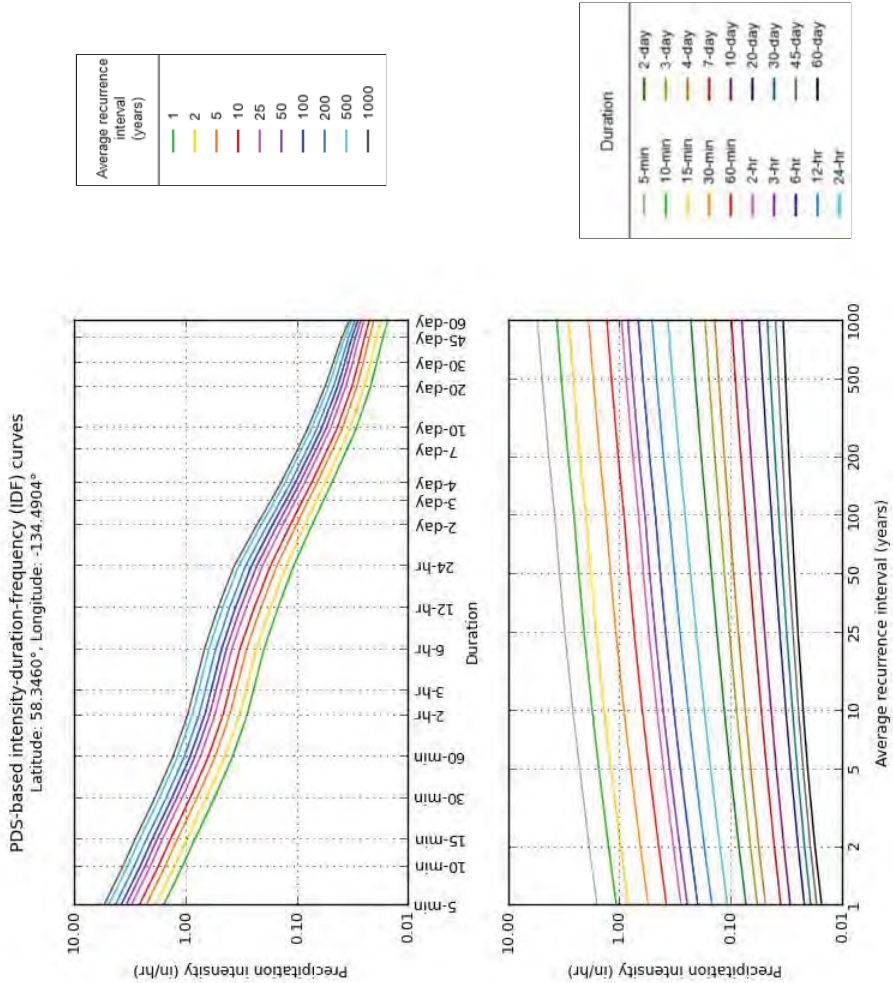
PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹											
Duration	1	2	5	10	25	50	100	200	500	1000	
5-min	1.58 (1.27-2.02)	1.86 (1.48-2.40)	2.27 (1.75-3.00)	2.62 (1.99-3.52)	3.08 (2.29-4.25)	3.44 (2.51-4.82)	3.80 (2.72-5.42)	4.30 (3.02-6.23)	4.94 (3.41-7.33)	5.42 (3.67-8.17)	
10-min	1.06 (0.852-1.35)	1.25 (0.984-1.61)	1.52 (1.18-2.02)	1.75 (1.33-2.35)	2.07 (1.54-2.85)	2.31 (1.69-3.23)	2.56 (1.83-3.64)	2.89 (2.03-4.18)	3.32 (2.29-4.92)	3.64 (2.47-5.49)	
15-min	0.828 (0.664-1.06)	0.972 (0.768-1.26)	1.19 (0.920-1.57)	1.37 (1.04-1.84)	1.62 (1.20-2.22)	1.80 (1.32-2.53)	2.00 (1.59-2.56)	2.25 (1.76-3.04)	2.59 (1.93-3.49)	2.84 (2.19-3.84)	
30-min	0.550 (0.440-0.702)	0.646 (0.510-0.835)	0.788 (0.610-1.04)	0.908 (0.690-1.22)	1.07 (0.796-1.47)	1.20 (0.874-1.68)	1.32 (0.950-1.89)	1.49 (1.05-2.17)	1.72 (1.18-2.54)	1.89 (1.28-2.84)	
60-min	0.377 (0.302-0.451)	0.442 (0.349-0.571)	0.540 (0.418-0.713)	0.622 (0.473-0.836)	0.734 (0.545-1.01)	0.820 (0.598-1.15)	0.907 (0.650-1.29)	1.02 (0.721-1.48)	1.18 (0.810-1.74)	1.29 (0.875-1.95)	
2-hr	0.278 (0.223-0.356)	0.326 (0.258-0.422)	0.399 (0.308-0.527)	0.460 (0.350-0.619)	0.543 (0.403-0.747)	0.606 (0.442-0.850)	0.670 (0.480-0.954)	0.756 (0.532-1.10)	0.869 (0.646-1.44)	0.954 (0.646-1.44)	
3-hr	0.245 (0.196-0.312)	0.286 (0.226-0.370)	0.351 (0.271-0.463)	0.404 (0.307-0.543)	0.477 (0.354-0.657)	0.533 (0.389-0.746)	0.588 (0.422-0.838)	0.664 (0.488-0.962)	0.763 (0.525-1.13)	0.838 (0.568-1.26)	
6-hr	0.197 (0.158-0.251)	0.231 (0.182-0.298)	0.282 (0.216-0.372)	0.324 (0.247-0.446)	0.383 (0.284-0.527)	0.428 (0.312-0.600)	0.473 (0.339-0.675)	0.534 (0.376-0.774)	0.614 (0.423-0.910)	0.675 (0.457-1.02)	
12-hr	0.147 (0.118-0.188)	0.172 (0.136-0.223)	0.210 (0.162-0.277)	0.241 (0.183-0.323)	0.284 (0.211-0.391)	0.319 (0.233-0.447)	0.356 (0.255-0.507)	0.402 (0.283-0.582)	0.462 (0.318-0.686)	0.508 (0.344-0.767)	
24-hr	0.107 (0.096-0.119)	0.125 (0.111-0.142)	0.151 (0.132-0.175)	0.172 (0.148-0.203)	0.203 (0.171-0.245)	0.229 (0.189-0.281)	0.256 (0.208-0.320)	0.289 (0.230-0.367)	0.332 (0.259-0.431)	0.365 (0.280-0.482)	
2-day	0.073 (0.066-0.081)	0.084 (0.075-0.096)	0.101 (0.088-0.117)	0.114 (0.098-0.134)	0.133 (0.111-0.160)	0.148 (0.122-0.182)	0.164 (0.133-0.205)	0.183 (0.146-0.233)	0.209 (0.162-0.271)	0.227 (0.174-0.300)	
3-day	0.057 (0.052-0.064)	0.066 (0.059-0.075)	0.079 (0.069-0.091)	0.088 (0.076-0.104)	0.102 (0.086-0.123)	0.113 (0.094-0.139)	0.125 (0.101-0.156)	0.139 (0.110-0.176)	0.156 (0.122-0.203)	0.170 (0.130-0.224)	
4-day	0.049 (0.044-0.054)	0.056 (0.050-0.063)	0.066 (0.056-0.076)	0.074 (0.063-0.087)	0.085 (0.071-0.103)	0.094 (0.078-0.115)	0.103 (0.084-0.129)	0.114 (0.091-0.145)	0.128 (0.100-0.166)	0.139 (0.106-0.183)	
7-day	0.035 (0.032-0.040)	0.040 (0.036-0.046)	0.047 (0.041-0.055)	0.053 (0.046-0.062)	0.061 (0.051-0.073)	0.067 (0.055-0.082)	0.074 (0.060-0.092)	0.081 (0.064-0.103)	0.091 (0.071-0.118)	0.098 (0.075-0.130)	
10-day	0.029 (0.026-0.033)	0.033 (0.030-0.038)	0.039 (0.034-0.045)	0.043 (0.037-0.051)	0.049 (0.041-0.060)	0.054 (0.045-0.067)	0.060 (0.048-0.074)	0.066 (0.052-0.083)	0.073 (0.057-0.095)	0.079 (0.061-0.105)	
20-day	0.022 (0.020-0.024)	0.025 (0.022-0.028)	0.029 (0.025-0.033)	0.032 (0.027-0.038)	0.036 (0.030-0.044)	0.040 (0.033-0.048)	0.043 (0.035-0.054)	0.047 (0.037-0.059)	0.052 (0.040-0.067)	0.056 (0.043-0.073)	
30-day	0.019 (0.017-0.021)	0.022 (0.019-0.025)	0.025 (0.022-0.029)	0.028 (0.024-0.033)	0.031 (0.026-0.038)	0.034 (0.028-0.042)	0.037 (0.030-0.046)	0.040 (0.032-0.051)	0.044 (0.034-0.057)	0.047 (0.036-0.062)	
45-day	0.017 (0.015-0.019)	0.019 (0.017-0.022)	0.022 (0.019-0.026)	0.025 (0.021-0.029)	0.028 (0.023-0.033)	0.030 (0.025-0.037)	0.032 (0.026-0.040)	0.034 (0.027-0.043)	0.037 (0.029-0.048)	0.039 (0.030-0.052)	
60-day	0.015 (0.014-0.017)	0.017 (0.016-0.020)	0.020 (0.018-0.024)	0.022 (0.019-0.026)	0.025 (0.021-0.030)	0.027 (0.022-0.033)	0.028 (0.023-0.035)	0.030 (0.024-0.038)	0.032 (0.025-0.042)	0.034 (0.026-0.044)	

¹ Pre... on frequen y (PF) es maes n h's ble re b sed on frequen y n l y s of J _l dur _on series (PDS).
 Numbers n _ren hess re PF es maes lower nd u _er bounds of he 90% onfnde n erv l. The rob b l y h re _on frequen yes maes (for
 given dur _on nd ver ge re urren e n erv l) wll be gre _er n he u _er bound (or less n he lower bound) s 5%. Es maes u _er bounds re no _
 he ked g _ns ro ble maximum re _on (PMP) es maes nd may be higher h n urren l y d PMP v lues.
 Ple se refer o NOAA A l s 14 do umen for more nforma on.

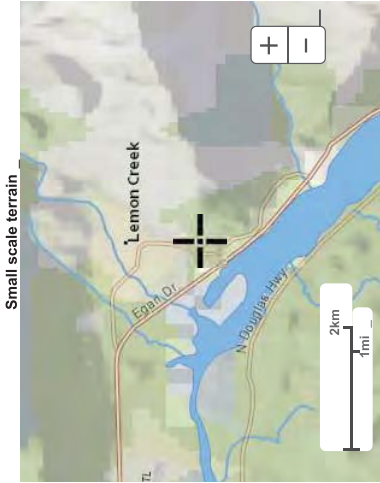
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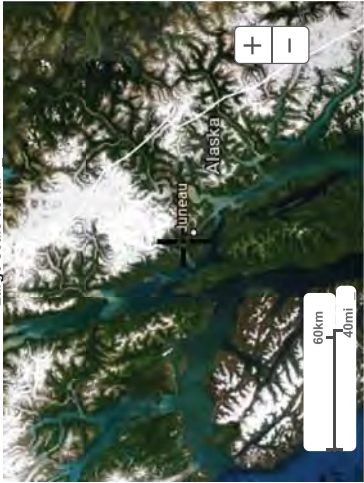
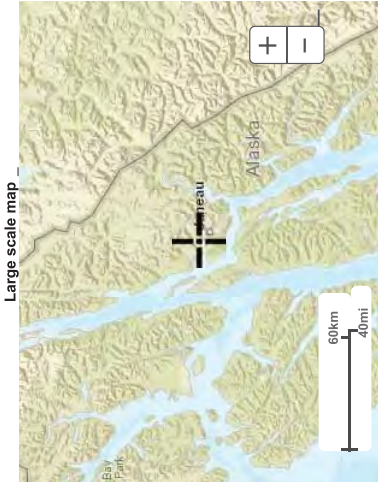
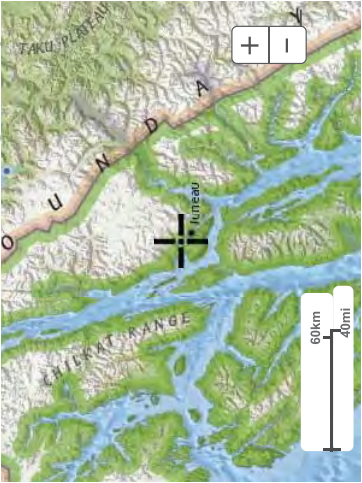
PF graphical



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Maps & aerials





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1325 E. S. West Highway
Silver Spring, MD 20910
Questions? HDSC.questions@noaa.gov
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Appendix G

Existing 24" CMP Culvert Capacity

Existing 24" CMP Discharge Capacity		
Project:	Richland Manor Subdivision Drainage Analysis, PAC2018 0054	
Owner:	Michael and William Heumann	
Date:	10/30/2019	
Prepared By:	S. Moller	
Checked By:	L. Chambers	



The following equations were used to calculate the capacity of an existing AK DOT & PF owned drainage system on Glacier Highway at the bottom of Hooter Lane and were obtained from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition".

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q = discharge rate in ft^3/sec

K = coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table 5-3, Page 5-5, of the CBJ Stormwater Manual

A = cross sectional area in ft^2

R = hydraulic radius

S = slope

Existing 24" CMP Cross Culvert; Inlet Invert = 24.33', Outlet Invert = 24', Length = 46', $n = 0.028$. The Manning's n value of 0.028 was determined by the pipe type (Annular Corrugated Metal Pipe: plain or fully coated), all other values obtained from the attached DOT & PF Salmon Creek to Vanderbilt Hill Storm Drain System Summary (Project No. 70469; Sheets 10, 27, and 83), see Appendix H Existing 24" CMP As-built Drawings.

$$A = \pi \times \frac{d^2}{4} \quad A_{culvert} = 3.14 \times \frac{2^2}{4} = 3.14 ft^2$$

d = diameter in ft

$$R = \frac{d}{4} \quad R = \frac{2}{4} = 0.5 ft$$

$$S = \frac{\Delta z}{L} \quad S = \frac{24.33 - 24}{46} = 0.717\%$$

S = slope

Δz = change in elevation

L = length of pipe in ft

$$Q_{culvert} = \frac{1.486}{0.028} \times 3.14 \times 0.5^{0.67} \times 0.00717^{0.5} = 8.87 ft^3/sec$$

Appendix H

Existing 24" CMP Culvert

As-builts



NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

DESIGNED BY: D. KROMAREK
DRAWN BY: C. ANDERSON
CHECKED BY: P. BEDNAROWICZ

PROJECT NO. 70469
DATE: 6/19/93
SHEET 10 OF 85

Attachment I - Drainage Report

STORM				DRAIN				SYSTEM				SUMMARY				REMARKS
STRUCTURE NO.	INLET TYPE	LOCATION	TOP OF GRADE ELEVATION	INVERT ELEVATION	15' SPACING REMARKS ELEV.	PIPE NO.	DESIGN LENGTH	PIPE SIZE	STRUCTURE NO.	FROM INVERT ELEVATION	TO INVERT ELEVATION	STRUCTURE NO.	TO INVERT ELEVATION	STRUCTURE NO.	TO INVERT ELEVATION	
3-1	A	140+30	23.32	23.32	15.11	P-1	4'-11"	18"	5-1	23.32	23.32	5-1	23.32	5-1	23.32	SPILLWAY
3-2	A	142+18	21.36	21.36	15.11	P-2	4'-11"	18"	5-2	21.36	21.36	5-2	21.36	5-2	21.36	SPILLWAY
3-3	A	144+15	21.23	21.23	15.11	P-3	5'-6"	24"	5-3	21.23	21.23	5-3	21.23	5-3	21.23	SPILLWAY
3-4	A	146+58	24.41	24.41	20.76	P-4	10'	18"	5-4	24.41	24.41	5-4	24.41	5-4	24.41	SPILLWAY
3-5	A	148+38	26.31	26.31	20.76	P-5	24'-11"	18"	5-5	26.31	26.31	5-5	26.31	5-5	26.31	SPILLWAY
3-6	A	148+10	26.23	26.23	20.76	P-6	4'-11"	18"	5-6	26.23	26.23	5-6	26.23	5-6	26.23	SPILLWAY
3-7	A	148+73	25.22	25.22	20.76	P-7	10'	24"	5-7	25.22	25.22	5-7	25.22	5-7	25.22	SPILLWAY
3-8	FIELD	148+10+28	23.60	23.60	20.76	P-8	4'-11"	18"	5-8	23.60	23.60	5-8	23.60	5-8	23.60	SPILLWAY
3-9	FIELD	148+11+65	24.30	24.30	20.76	P-9	4'-11"	18"	5-9	24.30	24.30	5-9	24.30	5-9	24.30	SPILLWAY
5-10	A	152+00	26.18	26.18	25.11	P-10	4'-11"	18"	5-10	26.18	26.18	5-10	26.18	5-10	26.18	SPILLWAY
5-11	A	153+16	25.21	25.21	25.11	P-11	4'-11"	18"	5-11	25.21	25.21	5-11	25.21	5-11	25.21	SPILLWAY
5-12	A	154+15	25.40	25.40	25.11	P-12	4'-11"	18"	5-12	25.40	25.40	5-12	25.40	5-12	25.40	SPILLWAY
5-13	A	154+93	25.40	25.40	25.11	P-13	4'-11"	18"	5-13	25.40	25.40	5-13	25.40	5-13	25.40	SPILLWAY
5-14	A	154+93	25.40	25.40	25.11	P-14	4'-11"	18"	5-14	25.40	25.40	5-14	25.40	5-14	25.40	SPILLWAY
5-15	A	154+93	25.40	25.40	25.11	P-15	4'-11"	18"	5-15	25.40	25.40	5-15	25.40	5-15	25.40	SPILLWAY
5-16	A	154+93	25.40	25.40	25.11	P-16	4'-11"	18"	5-16	25.40	25.40	5-16	25.40	5-16	25.40	SPILLWAY
5-17	A	161+98	26.21	26.21	25.21	P-17	4'-11"	18"	5-17	26.21	26.21	5-17	26.21	5-17	26.21	SPILLWAY
5-18	A	163+88	25.21	25.21	25.21	P-18	4'-11"	18"	5-18	25.21	25.21	5-18	25.21	5-18	25.21	SPILLWAY
5-19	A	165+29	25.17	25.17	25.17	P-19	4'-11"	18"	5-19	25.17	25.17	5-19	25.17	5-19	25.17	SPILLWAY
5-20	A	167+02	25.83	25.83	25.83	P-20	4'-11"	18"	5-20	25.83	25.83	5-20	25.83	5-20	25.83	SPILLWAY
5-21	A	169+04	26.27	26.27	26.27	P-21	4'-11"	18"	5-21	26.27	26.27	5-21	26.27	5-21	26.27	SPILLWAY
5-22	A	172+04	29.70	29.70	29.70	P-22	4'-11"	18"	5-22	29.70	29.70	5-22	29.70	5-22	29.70	SPILLWAY
5-23	A	173+33	24.60	24.60	24.60	P-23	4'-11"	18"	5-23	24.60	24.60	5-23	24.60	5-23	24.60	SPILLWAY
5-24	A	173+48	24.91	24.91	24.91	P-24	4'-11"	18"	5-24	24.91	24.91	5-24	24.91	5-24	24.91	SPILLWAY
5-25	A	174+02	25.38	25.38	25.38	P-25	4'-11"	18"	5-25	25.38	25.38	5-25	25.38	5-25	25.38	SPILLWAY
5-26	A	175+52	29.42	29.42	29.42	P-26	4'-11"	18"	5-26	29.42	29.42	5-26	29.42	5-26	29.42	SPILLWAY
5-27	A	175+52	25.15	25.15	25.15	P-27	4'-11"	18"	5-27	25.15	25.15	5-27	25.15	5-27	25.15	SPILLWAY
5-28	A	177+98	25.32	25.32	25.32	P-28	4'-11"	18"	5-28	25.32	25.32	5-28	25.32	5-28	25.32	SPILLWAY
5-29	A	180+85	28.56	28.56	28.56	P-29	4'-11"	18"	5-29	28.56	28.56	5-29	28.56	5-29	28.56	SPILLWAY
5-30	B	182+56	29.13	29.13	29.13	P-30	4'-11"	18"	5-30	29.13	29.13	5-30	29.13	5-30	29.13	SPILLWAY
5-31	A	184+00	30.96	30.96	30.96	P-31	4'-11"	18"	5-31	30.96	30.96	5-31	30.96	5-31	30.96	SPILLWAY
5-32	A	185+88	31.29	31.29	31.29	P-32	4'-11"	18"	5-32	31.29	31.29	5-32	31.29	5-32	31.29	SPILLWAY
5-33	A	187+22	31.35	31.35	31.35	P-33	4'-11"	18"	5-33	31.35	31.35	5-33	31.35	5-33	31.35	SPILLWAY
5-34	A	188+98	31.54	31.54	31.54	P-34	4'-11"	18"	5-34	31.54	31.54	5-34	31.54	5-34	31.54	SPILLWAY
5-35	A	191+00	31.07	31.07	31.07	P-35	4'-11"	18"	5-35	31.07	31.07	5-35	31.07	5-35	31.07	SPILLWAY
5-36	A	192+72	30.03	30.03	30.03	P-36	4'-11"	18"	5-36	30.03	30.03	5-36	30.03	5-36	30.03	SPILLWAY
5-37	A	194+39	31.11	31.11	31.11	P-37	4'-11"	18"	5-37	31.11	31.11	5-37	31.11	5-37	31.11	SPILLWAY
5-38	A	194+39	31.11	31.11	31.11	P-38	4'-11"	18"	5-38	31.11	31.11	5-38	31.11	5-38	31.11	SPILLWAY
5-39	A	196+00	30.66	30.66	30.66	P-39	4'-11"	18"	5-39	30.66	30.66	5-39	30.66	5-39	30.66	SPILLWAY
5-40	A	199+00	25.61	25.61	25.61	P-40	4'-11"	18"	5-40	25.61	25.61	5-40	25.61	5-40	25.61	SPILLWAY
5-41	A	200+70	29.62	29.62	29.62	P-41	4'-11"	18"	5-41	29.62	29.62	5-41	29.62	5-41	29.62	SPILLWAY
5-42	A	200+70	24.67	24.67	24.67	P-42	4'-11"	18"	5-42	24.67	24.67	5-42	24.67	5-42	24.67	SPILLWAY
5-43	A	203+13	27.98	27.98	27.98	P-43	4'-11"	18"	5-43	27.98	27.98	5-43	27.98	5-43	27.98	SPILLWAY
5-44	A	203+13	27.98	27.98	27.98	P-44	4'-11"	18"	5-44	27.98	27.98	5-44	27.98	5-44	27.98	SPILLWAY
5-45	A	203+13	27.98	27.98	27.98	P-45	4'-11"	18"	5-45	27.98	27.98	5-45	27.98	5-45	27.98	SPILLWAY
5-46	A	204+18	33.38	33.38	33.38	P-46	4'-11"	18"	5-46	33.38	33.38	5-46	33.38	5-46	33.38	SPILLWAY
5-47	A	206+50	31.65	31.65	31.65	P-47	4'-11"	18"	5-47	31.65	31.65	5-47	31.65	5-47	31.65	SPILLWAY
5-48	A	212+60	41.39	41.39	41.39	P-48	4'-11"	18"	5-48	41.39	41.39	5-48	41.39	5-48	41.39	SPILLWAY
5-49	A	216+00	32.80	32.80	32.80	P-49	4'-11"	18"	5-49	32.80	32.80	5-49	32.80	5-49	32.80	SPILLWAY
5-50	A	217+47	25.00	25.00	25.00	P-50	4'-11"	18"	5-50	25.00	25.00	5-50	25.00	5-50	25.00	SPILLWAY
5-51	A	218+53	27.58	27.58	27.58	P-51	4'-11"	18"	5-51	27.58	27.58	5-51	27.58	5-51	27.58	SPILLWAY
5-52	A	220+65	21.24	21.24	21.24	P-52	4'-11"	18"	5-52	21.24	21.24	5-52	21.24	5-52	21.24	SPILLWAY
5-53	A	223+26	21.06	21.06	21.06	P-53	4'-11"	18"	5-53	21.06	21.06	5-53	21.06	5-53	21.06	SPILLWAY
5-54	A	223+26	20.38	20.38	20.38	P-54	4'-11"	18"	5-54	20.38	20.38	5-54	20.38	5-54	20.38	SPILLWAY

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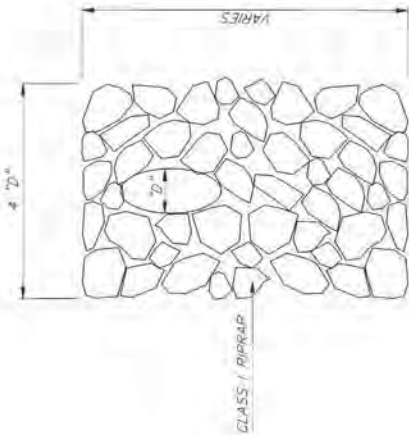
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

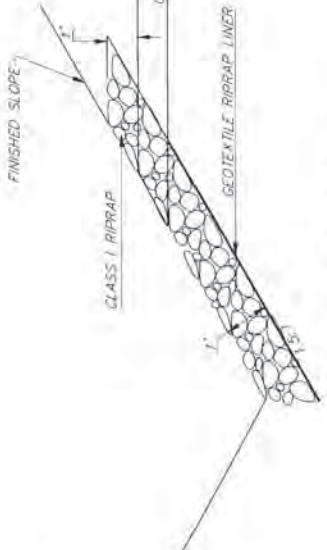
JUNEAU

SALMON CREEK TO VANDERBILT HILL
PROJECT NO. RS-M-6955(8) (70469)
STORM DRAIN SYSTEM SUMMARY

TOTALS: 54'-A 1-B 2-F



SPILLWAY PLAN



SPILLWAY SECTION



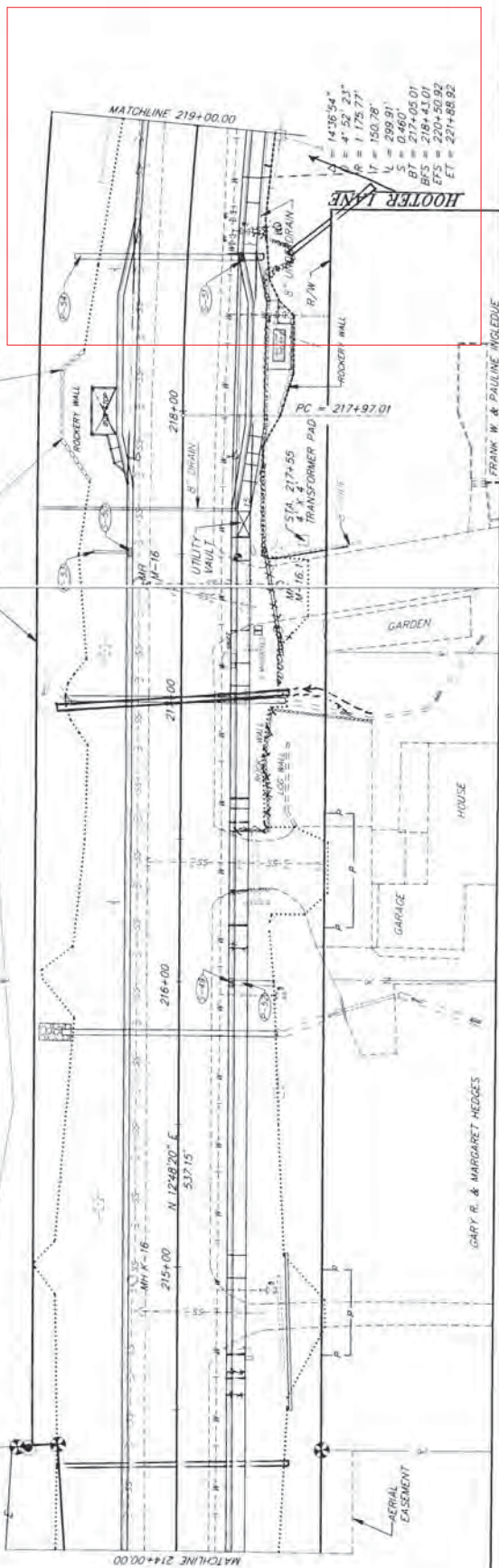
NOTE: DO NOT SCALE FROM THESE PLANS—USE DIMENSIONS
ALASKA
DESIGNED BY: D. KROMAREK
PROJECT NO. 70469
DRAWN BY: C. ANDERSON
DATE: 6/1993
CHECKED BY: P. BEDNAREK
SHEET 27 OF 85

JUNEAU
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

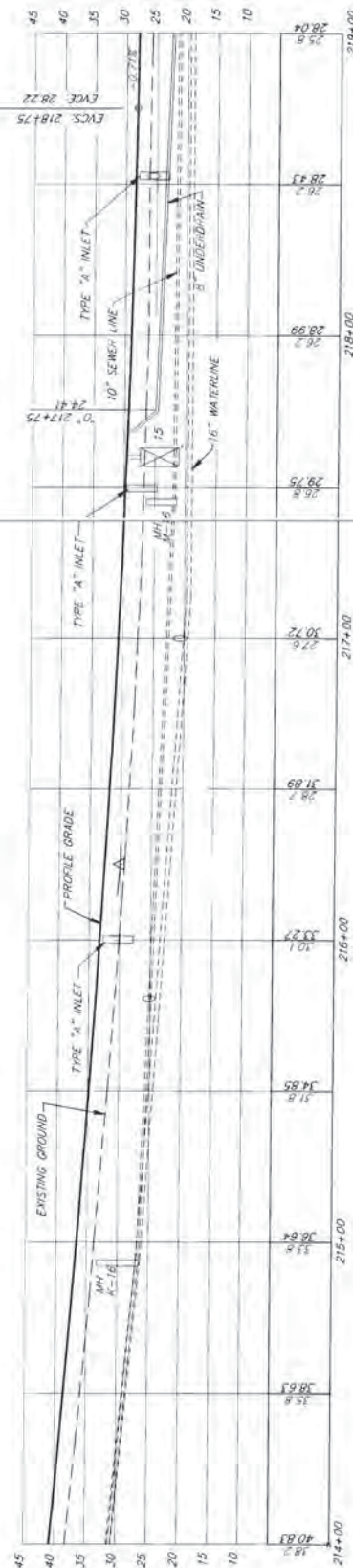
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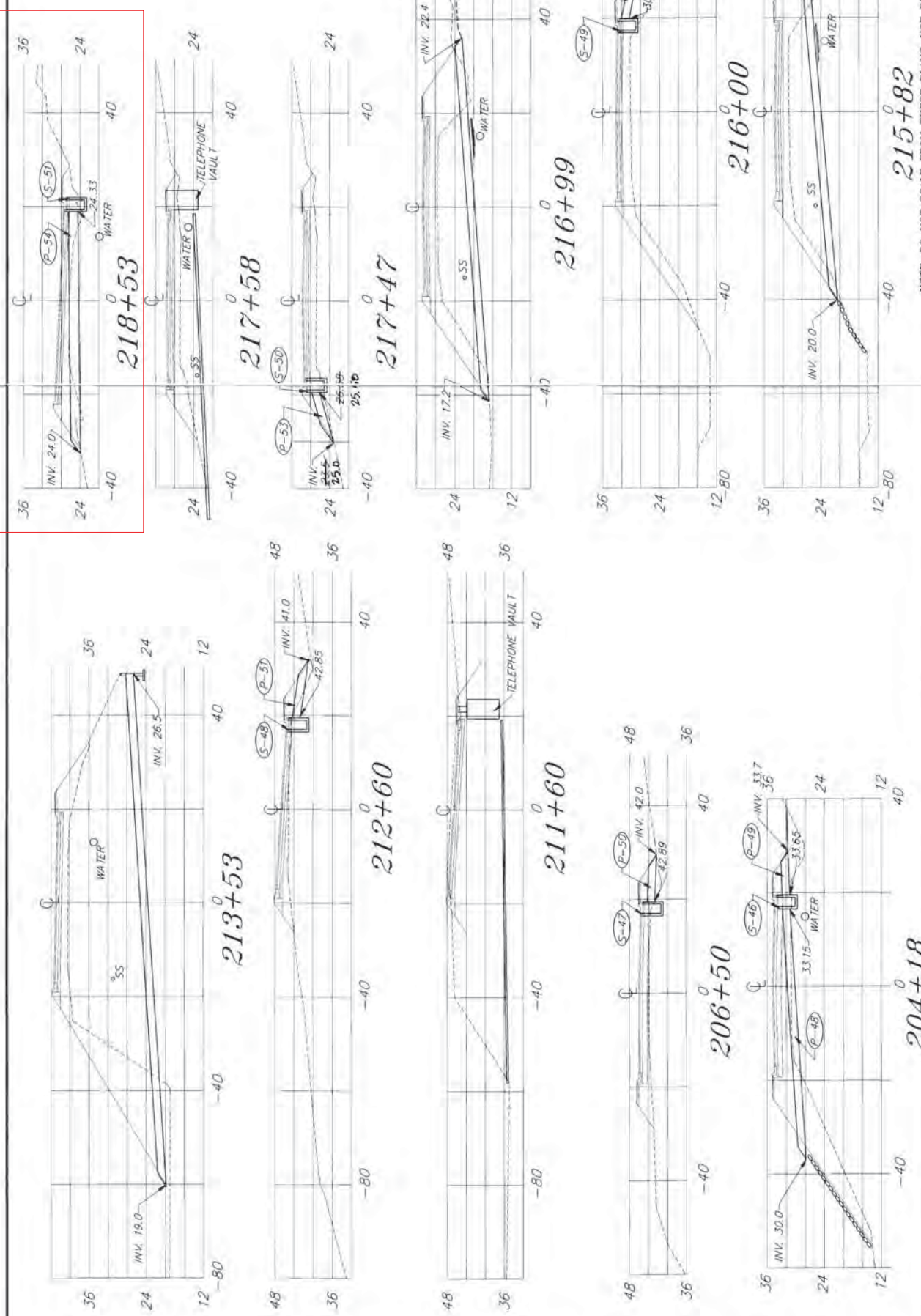
RECORD OF REVISIONS

DATE: DESCRIPTION OF CHANGE:



500.00' VC
PVI STA = 216+25
PVI ELEV = 30.00
L = 450
K = 122.28





NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

ALASKA
DESIGNED BY: D. KROMARK
PROJECT NO. 70659
DATE: 6/7/93
DRAWN BY: C. ANDERSON
CHECKED BY: P. BEDNAROWICZ
SHEET 83 OF 85

JUNEAU

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
SOUTHEAST REGION DESIGN & CONSTRUCTION

SALMON CREEK TO VANDERBILT RAIL
PROJECT NO. RS-M-0955(8) 70659

PIPE CROSS SECTIONS-204+18 TO 218+53

RECORD OF REVISIONS	
DATE	DESCRIPTION OF CHANGE

BEFORE THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU

MOUNTAINSIDE ESTATES
NEIGHBORHOOD ASSOCIATION, ET AL.,

Appellant,

vs.

CBJ PLANNING COMMISSION, and
MICHAEL AND WILLIAM HEUMANN,

Appellees,

Appeal of:
Notice of Decision
CDD File No. SMP2018-0002

STIPULATED SETTLEMENT AGREEMENT

The parties to this Agreement are the Appellants, consisting of the Mountainside Estates Neighborhood Association and 17 individuals,¹ (“MENA”); the CBJ Planning Commission (“PC”), and Michael and William Heumann, (“Heumanns”). The parties are executing this Stipulated Settlement Agreement in order to resolve this appeal in its entirety, after the Assembly granted their joint motion for a 90 day stay of the appeal for such intended purpose.

Background Information:

The Heumanns applied for approval of a preliminary plat to subdivide and develop the first 12 lots of a phased major subdivision on a 30.67 acre parcel named Richland Manor, which is adjacent to the existing Mountainside Estates subdivision. During the planning process and at the February 26, 2019 hearing on the Heumanns’ application, many of the appellants testified against the application, raising concerns that included and related to increased traffic, including construction traffic, pedestrian and child safety, decreased home values, crime and quality of life.

¹ In the interests of space, the individual appellants are not listed here but will sign this document at the bottom. Collectively the appellants will be designated as MENA.

On February 28, 2019 the PC issued its decision approving the preliminary plat requested by the Heumanns, with conditions. This appeal followed. The parties then entered into settlement negotiations which have resulted in the following agreements, intended to fully resolve all issues raised in MENA's appeal.

Agreements of the Parties:

The parties agree to the following terms of settlement:

1. SMP 2018 0002 is the preliminary plat approved with conditions, by the PC's February 28, 2019 Notice of Decision ("NOD"), both of which are attached as Exhibit A.
2. Within 30 days of executing this Agreement, the Heumanns will submit an application for the alternative preliminary plat depicted in Attachment B ("alternative plat"). The application will be for approval of Phase 1 of the alternative plat and conditions set out in Exhibit B. For clearer illustration, the features of the alternative plat establishing greenbelt separation on the individual lots between Richland Manor and Mountainside Estates are set out in Exhibit C, ("greenbelt buffers").
3. The parties acknowledge that the alternative preliminary plat application will include the sketch plat in Exhibit D, showing future proposed phases of the Richland Manor subdivision, as required by CBJ 49.15.410, but the application and intended PC action is limited to approval of Phase 1.
4. The following subdivision features, conditions and actions are agreed to between or accepted by the parties as a condition of the dismissal of the appeal and complete settlement of this dispute. To the extent that any of the subdivision features, conditions, or required actions may be included on the alternative plat or the associated conditions, they shall be. The appellants and Heumanns acknowledge, however, that not all features, conditions, notes or

other information appearing on the alternative plat are legally required or enforceable by the Planning Commission and/or the CBJ.

The subdivision features and conditions listed below shall be included or referenced on the plat. To the extent any features, conditions, notes or actions, including, but not limited to, density conditions, are not subject to PC authority or CBJ enforcement jurisdiction, they are indicated with an asterisk* and considered contractual obligations between the Heumanns and Appellants enforceable by direct private legal action to enforce this agreement, or any other lawful process.

- (a) Hooter Lane will be developed as a public two-way street, as set out in the alternative plat, subject to CBJ public improvement standards, in CBJ 49.35.
- (b) Hooter Lane from Glacier Highway to Hillcrest Avenue, and Hillcrest Avenue and Mountainside Drive shall be developed with a a sidewalk on one side. The number of sidewalks in the remainder of Richland Manor will be determined at the time of future development applications.
- (c) *Density: It is agreed that the loop road of Hillcrest Ave. and Mountainside Drive will be developed as single family homes, as depicted on the attached alternative plat.
- (d) *Robbie Road development that is connected to Mountainside Estates shall be limited to not more than 7 single family homes, 3 of which may have accessory apartments.
- (e) Robbie Road shall terminate and shall not be a point of access to Richland Manor, unless required, and gated, for fire/emergency service access only.
- (f) Hillcrest Avenue shall terminate at Hooter Lane. Hillcrest Avenue may connect to Hooter Lane west of the existing Hillcrest alignment as shown in the alternative plat (Exhibit C). Alternatively road access to the northeast portion of Tract B-1 may connect

to the east/west portion of Mountainside Drive across from the entrance to the “pocket” between Hillcrest and Mountainside.

- (g) *Greenbelt buffers will be implemented and privately maintained by lot owners as delineated on the alternative plat, Exhibit B (and as more clearly drawn for illustrative purposes in Exhibit C) to separate single family homes from multi-family development. Excavation for purposes of slope stabilization may take place in the greenbelt buffers provided they are allowed to revegetate following construction. In the event this becomes necessary Heumann will consult with adjacent homeowners about the impacts.

5. The following subdivision features, conditions and requirements will not be included or referenced on the plat and are also not matters for PC and/or CBJ enforcement through the platting process, but rather are created by and subject to this contractual agreement as between Heumanns and appellants, and are thus subject to private enforcement by direct private legal action or any other lawful process:

- (a) Construction traffic that will utilize roads within Mountainside Estates will be limited to the development and build out of the Hillcrest Avenue extension to Hooter Lane and any development of the seven homes allowed on Robbie Road.
- (b) Hooter Lane will be constructed “from the bottom up”, meaning that construction will start at Glacier Highway and proceed uphill.
- (c) On Tract A, the “pocket” in the loop between Hillcrest Avenue and Mountainside Avenue, there shall be no more than 16 dwelling units, which shall be contained in buildings of no more than 4 units per building, not to exceed two stories each.
- (d) Construction traffic for Richland Manor which flows through Mountainside Estates will be limited to the hours between 7:00 a.m. and 7:00 p.m. On days when children are in school in the Juneau School District there will be no construction traffic through

Mountainside Estates between the hours of 7:00 a.m. to 8:15 a.m. and 2:30 p.m. to 3:45 p.m.

- (e) Traffic calming measures will be incorporated as part of the CBJ's public right of way adoption process to address changes in traffic patterns or density that may arise from the construction of Richland Manor, subject to CBJ approval. The Heumanns will be responsible for stop signs at all appropriate locations; a 20 MPH posted speed limit; and "Children at Play" warning signs in all appropriate locations within Richland Manor Subdivision. CBJ shall be responsible for similar measures, as appropriate, on Hillcrest Avenue and Mountainside Drive to Craig Street, within Mountainside Estates.
 - (f) *Water System: As soon as feasible, but in any event prior to connecting up to 80 new residential units to the existing water system and prior to the completion of Mountainside Drive, the Heumanns will connect the water supply system in a loop that encompasses Mountainside Drive and Hillcrest Street or more directly between Hillcrest Avenue and Mountainside Drive. For all units beyond 80, there will be a separate additional water supply developed. Should a unit be disconnected from the water system it may be replace with another.
6. The alternative plat application will be processed in the normal course of business by Community Development Department ("CDD"), followed by the PC's review at a regular PC meeting.
 7. CDD has reviewed Attachments B and C, the sketch plat in Exhibit D, and the conditions set out above, and has determined it can conceptually support and recommend approval of the application to the PC, with the associated conditions.
 8. Appellants will support the proposed application and agree to timely submit a statement of such support to CDD for inclusion in the packet before the PC.

9. No individual Appellant(s), member of Appellant MENA, MENA representative or Appellee will speak against, obstruct or oppose the alternative plat application or related CBJ, State of Alaska and Federal permits in writing or in public testimony.
10. The Heumanns and Appellants agree that the application is a good faith compromise to settle this appeal, and that if the application is not approved as submitted, either party may request that the stay be lifted to proceed with the appeal of SMP2018 0002. The request must be made within 10 days of the Notice of Decision.
11. The PC has not reviewed, and is not authorized to commit its support and/or approval of the application prior to reviewing it through the normal hearing process, but acknowledges that the application will not automatically supersede or replace SMP2018 0002 unless the PC issues a NOD approving the application as submitted and no appeal is filed by a third party not subject to this agreement.
12. Nothing in this Agreement shall operate or be interpreted to supersede or waive any CBJ Code provision or requirement, including technical plat requirements.
13. If the PC issues a NOD approving the application as submitted and no appeal has been filed by a 3rd party Appellants will file an executed dismissal of the appeal with prejudice, within 3 business days of the expiration of the time limit within to appeal the NOD.
14. Appellants individually and jointly expressly waive their individual and associational rights to appeal to the Assembly under CBJ 01.50, or to otherwise challenge, an NOD that approves the application as submitted. This waiver does not apply to an NOD that alters the terms of this agreement in any significant respect.
15. Should the PC issue a NOD approving the application as submitted which is not appealed by any party, all parties understand that this Agreement shall operate as a full

and final mutual release and discharge of all parties against each other on behalf of themselves, their members, officers, agents, successors, assigns, attorneys, and anyone who can claim through or on behalf of the parties from the current appeal and from any and all past, present, and future appeals or claims relating to SMP 2018 0002 and the approved application. The parties understand and acknowledge that this release and discharge is made for the purpose of settlement and that it may not be construed as an admission of liability.

16. If a third party appeals a Notice Of Decision that approves the alternative plat,, the Heumanns and MENA shall immediately meet and confer (with or without the involvement of the third party appellants) to determine whether there is a solution that is consistent with this Agreement. If an agreement cannot be reached, the Heumanns will have the right to elect to defend against the appeal of the approved alternative plat, in which case MENA will support the Heumanns to the extent necessary to preserve this Agreement, or to abandon the approved alternative plat, lift the stay and defend the original preliminary plat in this appeal brought by MENA.
17. In executing this Agreement, each member of each party fully, completely, and unconditionally acknowledges and agrees that it has had the opportunity to consult with, and have the advice of, duly licensed and competent attorneys, and that it has executed this Agreement after independent investigation, voluntarily and without fraud, duress, or undue influence. Each party expressly consents that this Agreement be given full force and effect according to each and every of its express terms and provisions.
18. Each person executing this Agreement on behalf of another person or organization represents and warrants to each member of all other parties that he or she is fully authorized to execute and deliver this Agreement on behalf of such person or

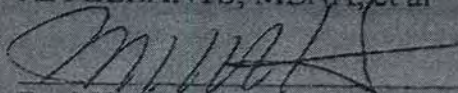
organization. Each member of each party represents and warrants to all members of all other parties that no consent of any person not a party to this Agreement is necessary in order for this Agreement to be fully and completely binding upon each member of the parties hereto.

19. The parties agree to bear their own costs and attorney fees in this appeal.

Respectfully submitted this 23 ^{Sept} day of ~~August~~ 2019.

APPELLANTS, MENA, et al

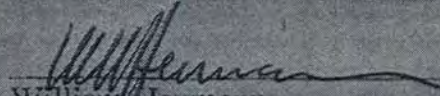
By:



Paul H. Grant, Esq. /Libby Bakalar, Esq.
Alaska Bar No. 7710124

APPELLEE WILLIAM HEUMANN

By:



William Heumann

APPELLEE MICHAEL HEUMANN

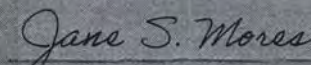
By:



Michael Heumann

APPELLEE PC

By:

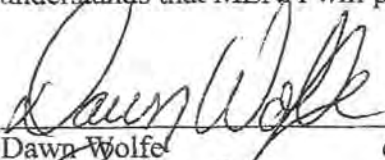


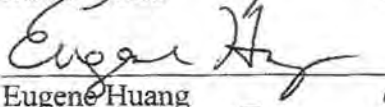
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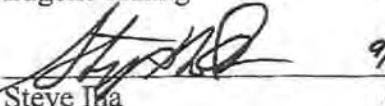
Jane S. Mores, Esq.
Alaska Bar No. 9011115

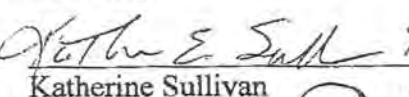
SIGNATURES OF INDIVIDUAL APPELLANTS

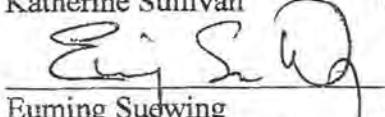
The following are the individual Appellants in the CBJ Planning Commission appeal designated as No. SMP2018-0002. By signing below each of them certifies that he or she has reviewed the Stipulated Settlement Agreement and the associated exhibits, and agrees that the appeal should be resolved as set out in the Agreement. It is understood that this is a compromise agreement, and that not every Appellant agrees with every term. However, each of the signing Appellants endorses the Settlement as his or her voluntary act, without coercion or undue influence. Each of the signing Appellants agrees that he or she will not oppose the application for approval of the modified plat before the planning commission, and each of them understands that MENA will provide a statement of support for the application.

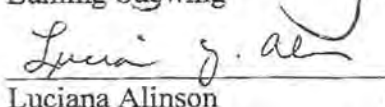
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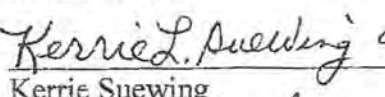
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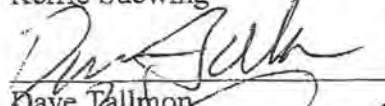
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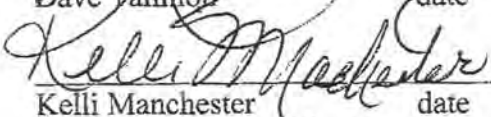
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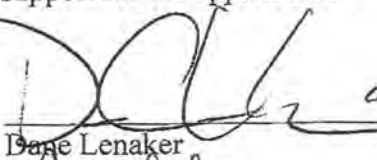
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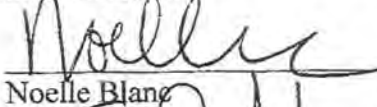
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Luciana Alinson date

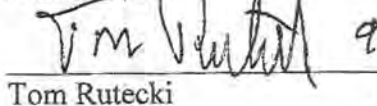
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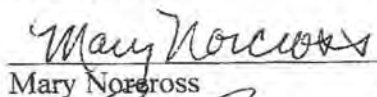
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Dave Tallmon date

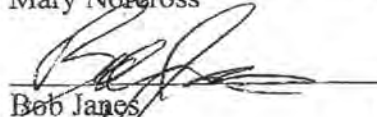
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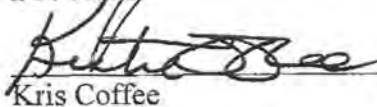
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Dane Lenaker date

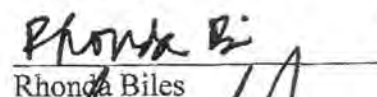
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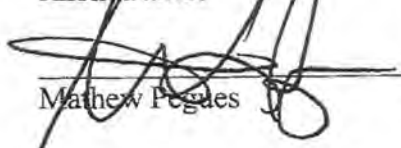
 9-5-2019
Tom Rutecki date

 9/12/2019
Mary Norcross date

 9/6/2019
Bob Jones date

 9/5/19
Kris Coffee date

 9/5/19
Rhonda Biles date

 9/5/19
Mathew Pegues date



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: February 28, 2019
File No.: SMP2018 0002

Michael & William Heumann
6000 Thane Road
Juneau, AK 99801

Proposal: A Preliminary Plat for a phased major subdivision to include 12 single-family lots and 1 large tract (13 lots total).

Property Address: 4506, 4508, 4510 Hillcrest Avenue

Legal Description: Richland Manor Tract B

Parcel Code No.: 7B1001160010

Hearing Date: February 26, 2019

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated February 14, 2019, and approved the preliminary plat to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Prior to final plat approval, the following changes shall be made to the preliminary plat:
 - a. Complete all 22 requested plat changes listed in the MEMO dated January 31, 2019, from CBJ Engineering & Public Works.
 - b. On sheet one (1), label Laurie Lane.
 - c. On sheet two (2), label the western lot line with bearing and distances described.
 - d. On sheet one (1), show all five (5) lots on the south side of Coogan Drive, created Plat 2009-18.
 - e. Through the review process, Blocks A and B have gotten switched. Plat Notes 9 & 10 do not match the plat when referencing the bungalow lots and panhandle lots. Change the plat graphic to match the plat notes or vice versa.
 - f. Prior to final plat recording, remove setbacks, wetlands, drainage, and contours from plat graphic and legend.

Michael & William Heumann
File No.: SMP2018 0002
February 28, 2019
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- g. On all pages, use a dashed font to label the original TRACT B.
 - h. Add the following Plat Note: "Further Subdivision of Tract B-1, Richland Manor 2 Subdivision shall require City & Borough of Juneau Preliminary Platting Requirements indicating adequate access for all lots created in Phase 1, Richland Manor Subdivision 2, and all future Phases."
2. The developer shall utilize Best Management Practices to treat or reduce any harmful particulates that may arise from the development.
3. The developer shall use Best Management Practices for storm water runoff to prevent sediment run-off from construction activities into neighboring waterbodies.
4. The average daily trips (ADT) generated by Phase 1, Richland Manor 2 Subdivision, and all future phases will be included in the ADT's generated by any future development of Tract B1.
5. A Hillside Development Permit may be required if triggered by CBJ 49.70.210(a)(1-5).
6. Sidewalks on both sides of the street are required for Phase 1.
7. All future phases of development may require wetlands delineation.
8. For each pair of panhandle lots sharing a driveway, the applicant must provide a maintenance agreement that is recorded with the subdivision, on forms acceptable to the director, ensuring the required access and parking areas will be constructed and maintained by all future property owners. The applicant shall also create a plat note referencing the easements.
9. The applicant shall pave, or bond for, the portion of the driveway in the right-of-way or the first 20 feet from the edge of the public roadway shall be paved, whichever length is greater, for all panhandle lots created with this subdivision.
10. The applicant shall construct, or bond for, street lights at each intersection in this subdivision with spacing between lights not to exceed 250 feet.
11. Prior to construction plan approval, the applicant shall submit a lighting plan meeting applicable CBJ standards.
12. A driveway and parking plan that shows the feasibility of off-street parking shall be submitted and approved by the Director prior to recording the plat.
13. The applicant shall install a residential sprinkler system that meets Capital City Fire & Rescue requirements in each dwelling unit within this subdivision.

Michael & William Heumann
File No.: SMP2018 0002
February 28, 2019
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14. The sketch plat shall be amended to show a future connection to Hooter Lane from Hillcrest Avenue.
15. The applicant must submit a drainage plan showing how drainage will flow from the subdivision to Glacier Highway; this drainage plan must be approved by the CBJ Engineering & Public Works Department. This drainage plan must be signed and stamped by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
16. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to CDD for review by the Director of Engineering & Public Works for compliance with 49.35.140.
17. Prior to final plat approval, an engineer's estimate for the installation of public utilities and improvements must be submitted to CDD and reviewed and approved by CDD and CBJ Engineering & Public Works.
18. Prior to final plat approval, the applicant must construct, and/or bond for, all required public utilities and improvements.

Attachment: February 14, 2019 memorandum from Laurel Bruggeman, Community Development, to the CBJ Planning Commission regarding SMP2018 0002.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, February 26, 2019.

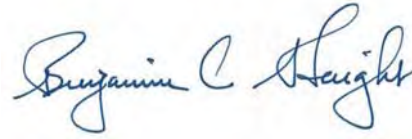
Expiration Date: The permit will expire five (5) years after the effective date, or February 26, 2024, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.

Michael & William Heumann
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February 28, 2019
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Project Planner: _____



Laurel Bruggeman, Planner
Community Development Department



Benjamin Haight, Chair
Planning Commission



Filed With Municipal Clerk

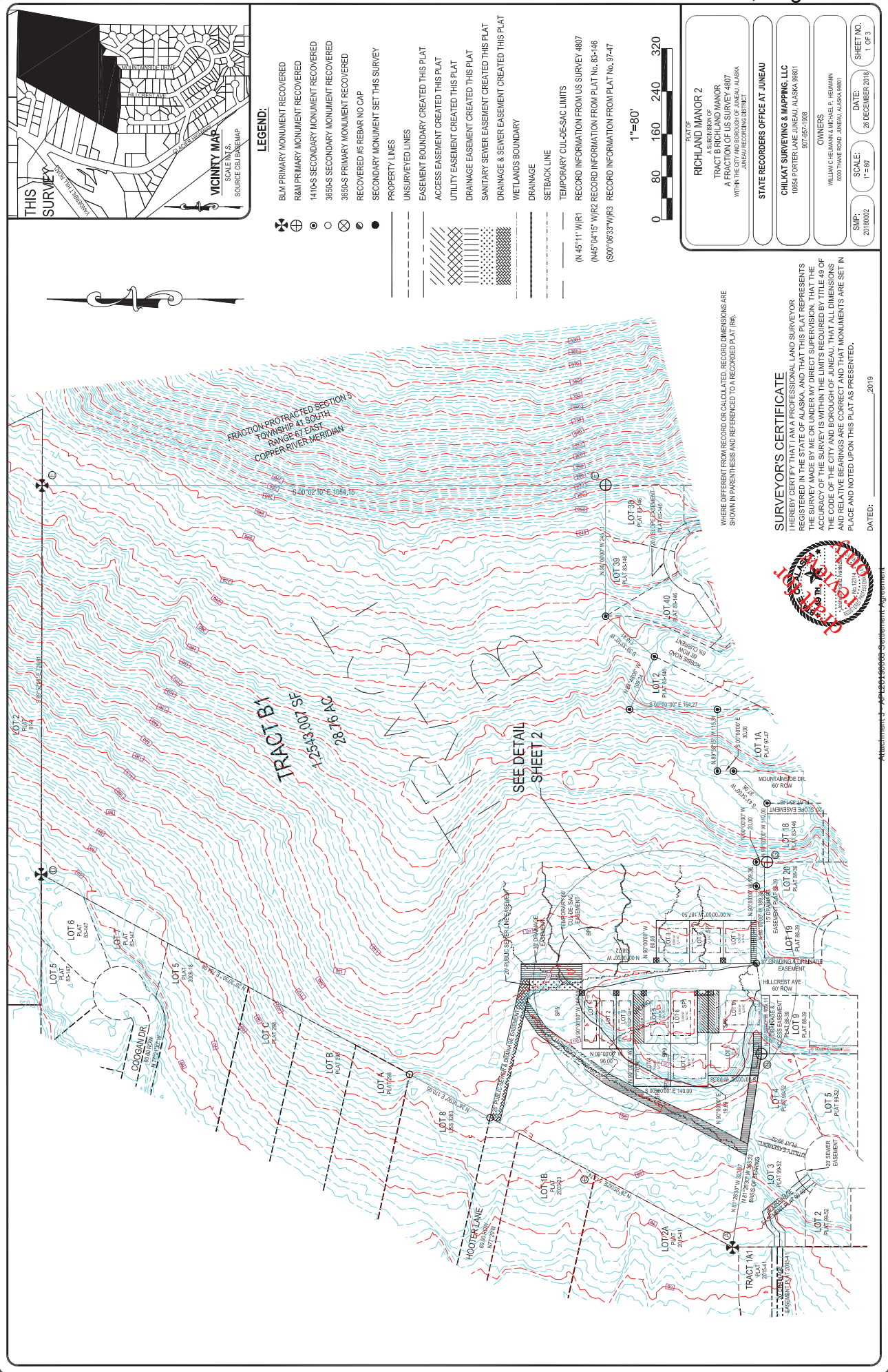
3/5/2019

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

EXHIBIT A





Date: 24 JANUARY 2019

To: CBJ COMMUNITY DEVELOPMENT DEPARTMENT
 155 SOUTH SEWARD ST.
 Juneau, Alaska 99801

Subject: Lot closure reports

Remarks: The lot closure reflects the proposed subdivision of Richland Manor II

BLOCK A
 Lot 1

Northing	Easting	Bearing	Distance
2379490.480	2527711.091	N 90°00'00" W	110.000
2379490.480	2527601.091	N 00°00'00" W	32.000
2379522.480	2527601.091	N 90°00'00" E	110.000
2379522.480	2527711.091	S 00°00'00" E	32.000
2379490.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 284.000			
Polyline Area: 3520 sq ft, 0.08 acres			

Lot 2

Northing	Easting	Bearing	Distance
2379458.480	2527711.091	N 90°00'00" W	110.000
2379458.480	2527601.091	N 00°00'00" W	32.000
2379490.480	2527601.091	N 90°00'00" E	110.000
2379490.480	2527711.091	S 00°00'00" E	32.000
2379458.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 284.000			
Polyline Area: 3520 sq ft, 0.08 acres			

Lot 3

Northing	Easting	Bearing	Distance
2379426.480	2527711.091		
		N 90°00'00" W	110.000
2379426.480	2527601.091		
		N 00°00'00" W	32.000
2379458.480	2527601.091		
		N 90°00'00" E	110.000
2379458.480	2527711.091		
		S 00°00'00" E	32.000
2379426.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 284.000			
Polyline Area: 3520 sq ft, 0.08 acres			

Lot4

Northing	Easting	Bearing	Distance
2379406.480	2527711.091		
		N 90°00'00" W	100.000
2379406.480	2527611.091		
		S 00°00'00" E	50.000
2379356.480	2527611.091		
		N 90°00'00" W	80.000
2379356.480	2527531.091		
		N 00°00'00" W	70.000
2379426.480	2527531.091		
		N 90°00'00" E	180.000
2379426.480	2527711.091		
		S 00°00'00" E	20.000
2379406.480	2527711.091		
Closure Error Distance> 0.00000			
Total Distance> 500.000			
Polyline Area: 7600 sq ft, 0.17 acres			

Lot 5

Northing	Easting	Bearing	Distance
2379356.480	2527611.091		
		N 00°00'00" W	50.000
2379406.480	2527611.091		
		N 90°00'00" E	100.000
2379406.480	2527711.091		
		S 00°00'00" E	50.000
2379356.480	2527711.091		
		N 90°00'00" W	100.000
2379356.480	2527611.091		
Closure Error Distance> 0.00000			
Total Distance> 300.000			
Polyline Area: 5000 sq ft, 0.11 acres			

Lot 6

Northing	Easting	Bearing	Distance
2379306.480	2527611.091	N 90°00'00" E	100.000
2379306.480	2527711.091	N 00°00'00" W	50.000
2379356.480	2527711.091	N 90°00'00" W	100.000
2379356.480	2527611.091	S 00°00'00" E	50.000

2379306.480 2527611.091
Closure Error Distance> 0.00000
Total Distance> 300.000
Polyline Area: 5000 sq ft, 0.11 acres

Lot 7

Northing	Easting	Bearing	Distance
2379286.480	2527711.091	N 90°00'00" W	180.000
2379286.480	2527531.091	N 00°00'00" W	70.000
2379356.480	2527531.091	N 90°00'00" E	80.000
2379356.480	2527611.091	S 00°00'00" E	50.000
2379306.480	2527611.091	N 90°00'00" E	100.000
2379306.480	2527711.091	S 00°00'00" E	20.000

2379286.480 2527711.091
Closure Error Distance> 0.00000
Total Distance> 500.000
Polyline Area: 7600 sq ft, 0.17 acres

Lot 8

Norththing	Easting	Bearing	Distance
2379266.480	2527711.091	N 00°00'00" W	20.000
2379286.480	2527711.091	N 90°00'00" W	160.109
2379286.480	2527550.982	S 00°00'00" E	93.380
2379193.100	2527550.982	S 81°26'30" E	41.359
2379186.946	2527591.880	N 90°00'00" E	39.100
2379186.946	2527630.980	N 00°00'00" W	79.535
2379266.480	2527630.980	N 90°00'00" E	80.111
2379266.480	2527711.091		

Closure Error Distance> 0.00000
Total Distance> 513.594
Polyline Area: 9439 sq ft, 0 acres

Lot 9

Norththing	Easting	Bearing	Distance
2379186.946	2527701.100	N 90°00'00" W	70.120
2379186.946	2527630.980	N 00°00'00" W	79.535
2379266.480	2527630.980	N 90°00'00" E	80.111
2379266.480	2527711.091	S 00°00'00" E	77.983
2379188.497	2527711.091	S 81°10'15" W	10.110
2379186.946	2527701.100		

Closure Error Distance> 0.00000
Total Distance> 317.859
Polyline Area: 6364 sq ft, 0 acres

BLOCK B

Lot 1

Northing	Easting	Bearing	Distance
2379196.264	2527761.091		
		N 00°00'00" W	62.500
2379258.764	2527761.091		
		N 90°00'00" E	80.000
2379258.764	2527841.091		
		S 00°00'00" E	62.500
2379196.264	2527841.091		
		N 90°00'00" W	80.000
2379196.264	2527761.091		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0 acres			

Lot 2

Northing	Easting	Bearing	Distance
2379258.764	2527761.091		
		N 00°00'00" W	62.500
2379321.264	2527761.091		
		N 90°00'00" E	80.000
2379321.264	2527841.091		
		S 00°00'00" E	62.500
2379258.764	2527841.091		
		N 90°00'00" W	80.000
2379258.764	2527761.091		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0 acres			

Lot 3

Northing	Easting	Bearing	Distance
2379321.264	2527761.091		
		N 00°00'00" W	62.500
2379383.764	2527761.091		
		N 90°00'00" E	80.000
2379383.764	2527841.091		
		S 00°00'00" E	62.500
2379321.264	2527841.091		
		N 90°00'00" W	80.000
2379321.264	2527761.091		
Closure Error Distance> 0.00000			
Total Distance> 285.000			
Polyline Area: 5000 sq ft, 0 acres			

Tract B1 Northing	Easting	Bearing	Distance
2379193.100	2527550.982	N 81°26'30" W	323.971
2379241.313	2527230.618	N 28°05'00" E	513.740
2379694.567	2527472.464	N 28°16'00" E	170.950
2379845.132	2527553.422	N 28°30'30" E	784.080
2380534.140	2527927.653	S 89°52'00" E	726.810
2380532.449	2528654.461	S 00°02'30" E	1054.150
2379478.299	2528655.227	N 90°00'00" W	245.110
2379478.299	2528410.117	S 39°33'10" W	118.408
2379387.002	2528334.716	N 64°48'00" W	109.340
2379433.556	2528235.782	S 00°00'00" E	164.270
2379269.286	2528235.782	N 89°58'15" W	115.310
2379269.345	2528120.472	S 00°00'00" E	30.000
2379239.345	2528120.472	S 43°34'00" W	87.060
2379176.264	2528060.471	N 90°00'00" W	110.000
2379176.264	2527950.471	N 00°00'00" W	20.000
2379196.264	2527950.471	N 90°00'00" W	109.380
2379196.264	2527841.091	N 00°00'00" W	187.500
2379383.764	2527841.091	N 90°00'00" W	80.000
2379383.764	2527761.091	N 00°00'00" W	138.720
2379522.484	2527761.091	N 90°00'00" W	160.000
2379522.484	2527601.091	S 00°00'00" E	96.000
2379426.484	2527601.091	N 90°00'00" W	70.000
2379426.484	2527531.091	S 00°00'00" E	140.000
2379286.484	2527531.091	N 90°00'00" E	19.890
2379286.484	2527550.981	S 00°00'00" E	93.383
2379193.101	2527550.981		

Closure Error Distance> 0.00090 Error Bearing> S 81°26'30" E
Closure Precision> 1 in 6266245.1 Total Distance> 5668.072
Polyline Area: 1253007 sq ft, 29 acres

EXHIBIT B

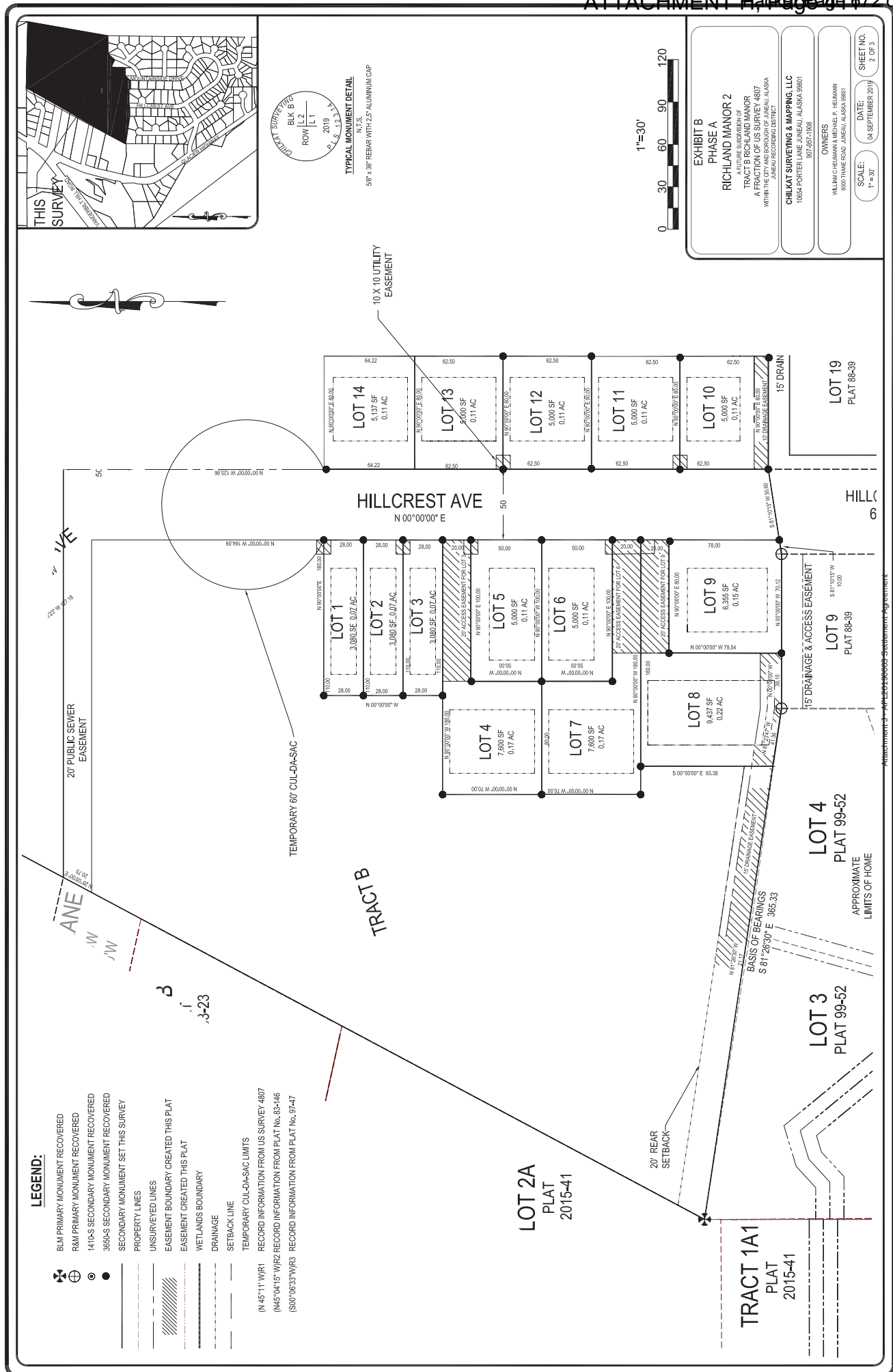




EXHIBIT C

RICHLAND MANOR 2
A FUTURE SUBDIVISION OF
TRACT B RICHLAND MANOR
A FRACTION OF US SURVEY 4
WITHIN THE CITY AND BOROUGH OF JUNEAU,
JUNEAU RECORDING DISTRICT

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99801
907-957-1908

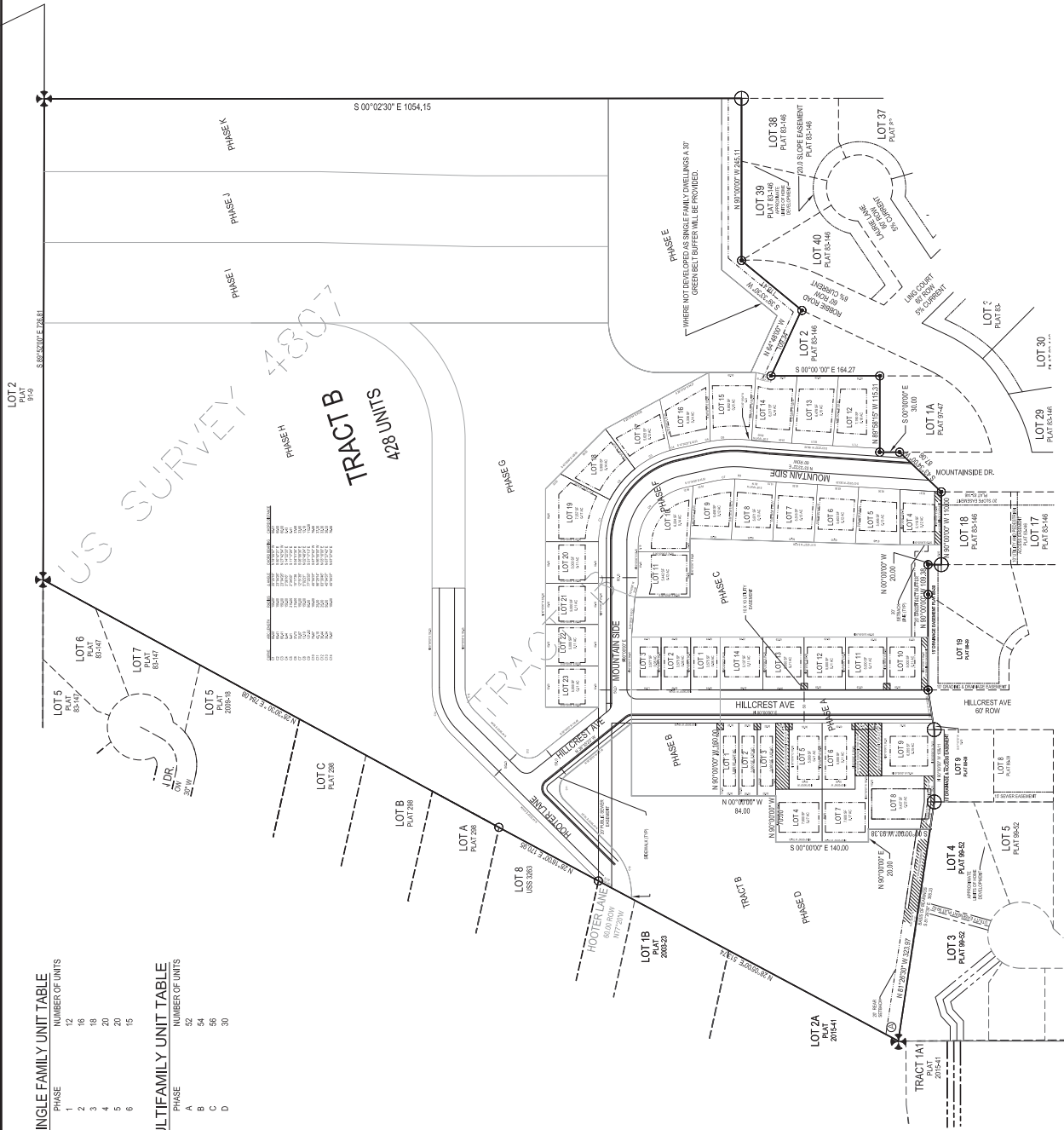
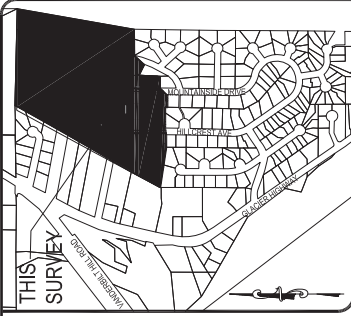
OWNERS
WILLIAM C HEUMANN & MICHAEL P. HEUMANN
6000 THANE ROAD JUNEAU, ALASKA 99801

SCALE:
1" = 50'

DATE:
4 SEPTEMBER 2019

SHEET NO.
1 OF 1

EXHIBIT D



SINGLE FAMILY UNIT TABLE

PHASE	NUMBER OF UNITS
1	12
2	18
3	18
4	20
5	20
6	15

MULTIFAMILY UNIT TABLE

PHASE	NUMBER OF UNITS
A	52
B	54
C	56
D	30

LEGEND:

- BLM PRIMARY MONUMENT RECOVERED
- R&M PRIMARY MONUMENT RECOVERED
- 1410-S SECONDARY MONUMENT RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
- UNSURVEYED LINES
- WETLANDS BOUNDARY
- DRAINAGE
- PHASE BOUNDARY
- (N45°11'W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N45°04'15\"W)R2 RECORD INFORMATION FROM PLAT No. 85-146
- (S00°06'33\"W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- (N45°11'W)R4 RECORD INFORMATION FROM PLAT No. 95-52



EXHIBIT D

SKETCH PLAT OF
RICHLAND MANOR 2
 A FUTURE SUBDIVISION OF
 TRACT B RICHLAND MANOR
 A FRACTION OF US SURVEY 4807
 WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA

CHILKAT SURVEYING & MAPPING, LLC
 10554 PORTER LANE JUNEAU ALASKA 99801
 907-587-1500

OWNERS
 WILLIAM C. HELMANN & MICHAEL P. HELMANN
 8000 THANE ROAD JUNEAU ALASKA 99801

SCALE
 1"=80'

DATE:
 4 SEPTEMBER 2019

SHEET NO.
 1 OF 1

Minutes
Planning Commission
Regular Meeting
CITY AND BOROUGH OF JUNEAU
Michael LeVine, Chairman
July 28, 2020

I. ROLL CALL

Michael LeVine, Chairman, called the Regular Meeting of the City and Borough of Juneau (CBJ) Planning Commission (PC), held in the Assembly Chambers of the Municipal Building, to order at 7:08 p.m.

Commissioners present: All Commissioners present via video conferencing – Michael LeVine, Chairman; Nathaniel Dye, Vice Chairman; Paul Voelckers, Clerk; Travis Arndt, Assistant Clerk; Ken Alper; Dan Hickok; Weston Eiler; Josh Winchell; Erik Pedersen

Commissioners absent: None

Staff present: Jill Maclean, CDD Director; Emily Wright, Law; Allison Eddins, CDD; Laurel Christian, CDD

Assembly members: None

II. REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA - None

III. APPROVAL OF MINUTES

A. June 23, 2020 Draft Minutes – Planning Commission Meeting

MOTION: *by Mr. Voelckers to approve the Planning Commission June 23, 2020, Planning Commission Committee of the Whole Meeting minutes.*

The motion passed with no objection.

IV. BRIEF REVIEW OF THE RULES FOR PUBLIC PARTICIPATION – Mr. LeVine explained the rules and process for public participation.

V. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS - None

VI. **ITEMS FOR RECONSIDERATION** - None

VII. **CONSENT AGENDA**

Mr. Pedersen announced a conflict of interest as he is employed by the Applicant and has worked on the project. He did not participate in the vote for CSP2020 0005.

CSP2020 0005: Asphalt rehabilitation and reconstruction of the Juneau Douglas Bridge, roundabout, and a portion of the South Douglas Highway
Applicant: State of Alaska Department of Transportation & Public Facilities
Location: Juneau Douglas Bridge, Douglas Roundabout, a little ways south on Douglas Highway

Staff Recommendation

Staff recommends the Planning Commission adopt the Director's analysis and findings and **APPROVE** the proposed asphalt rehabilitation and reconstruction of the Juneau Douglas Bridge, roundabout, and a portion of South Douglas Highway.

MOTION: *by Mr. Dye to accept staff's findings, analysis and recommendations and approve CSP2020 0005. Mr. Dye recognized a comment had been received regarding new construction of bicycle facilities. Mr. Dye felt comfortable with the motion since new construction was outside of the scope of the project.*

The motion passed with no objection.

CSP2020 0006 moved to Regular Agenda by Mr. Dye

~~**CSP2020 0006:** Land disposal and sale of land to Taku Terrace Condos
Applicant: City & Borough of Juneau
Location: 1220 Glacier Avenue~~

Staff Recommendation

~~Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of **APPROVAL** with one advisory condition to the CBJ Assembly for the sale of CBJ-owned land (1-C03-0-J01-000-1) to the Taku Terrace Condo Association.~~

~~Advisory Condition:~~

- ~~1. If any human remains are discovered during development activity, the individual responsible for managing the property should immediately notify the State Historic Preservation Officer at the Department of Natural Resources and all work should cease~~

~~until work is authorized by the agency with jurisdiction. Destruction or removal of human remains may be a crime.~~

SMF2020 0001: Final Plat approval for a phased major subdivision creating 14 lots and 1 large tract for future development (15 total parcels)
Applicant: William & Michael Heumann
Location: 4506 Hillcrest Avenue

Staff Recommendation

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested final plat. The final plat approval allows for the Chilkat Vistas Subdivision Phase I – a phased major subdivision – creating 14 lots and 1 large tract for future development (15 lots total). This approval allows the applicant to record the final plat with the State Recorder's Office.

MOTION: *by Mr. Dye to accept staff's findings, analysis and recommendations and approve SMF2020 0001.*

The motion passed with no objection.

VIII. **UNFINISHED BUSINESS** - None

IX. **REGULAR AGENDA**

CSP 2020 0006 moved from Consent Agenda by Mr. Dye

CSP2020 0006: Land disposal and sale of land to Taku Terrace Condos
Applicant: City & Borough of Juneau
Location: 1220 Glacier Avenue

Staff Recommendation

Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of **APPROVAL** with one advisory condition to the CBJ Assembly for the sale of CBJ-owned land (1-C03-0-J01-000-1) to the Taku Terrace Condo Association.

Advisory Condition:

1. If any human remains are discovered during development activity, the individual responsible for managing the property should immediately notify the State Historic Preservation Officer at the Department of Natural Resources and all work should cease

until work is authorized by the agency with jurisdiction. Destruction or removal of human remains may be a crime.

Staff Presentation

Ms. Eddins presented CSP2020 0006.

Questions from Commissioners

Commissioners and staff discussed concerns that the CBJ would have no way to enforce the Advisory Condition regarding human remains. Mr. Voelckers asked why the CBJ had added the Advisory Condition regarding human remains. Ms. Eddins explained that adding it as a Condition allows it to be displayed on the first page of the packet and ensures applicant awareness that there may be unknown or unmarked graves on the property.

Mr. Dye asked whether a replat of the lot would be an option to get rid of the nonconforming situation as the property is nonconforming for setbacks. Ms. Eddins explained that the property is nonconforming for several items including density, parking and access as well as setbacks and a replat would not correct all of those. Overall, she said, nonconforming for setback is not a big deal.

Commissioners noted the 2016 Lands Management Plan map is mislabeled. Mr. LeVine had concerns that since the Land Management plan was mislabeled, they could not actually say it is in accordance with the Comprehensive Plan. Ms. Wright confirmed that in order to make things as clear as possible, the Commission should make a two-part recommendation to correct the Plan and then to approve the CSP.

Applicant Testimony

Mr. Bleidorn, CBJ Lands Manager, spoke to Commission concerns regarding an easement for the utilities on the property and explained that there would be one when the land sold. Mr. Dye asked whether CBJ would be willing to sell more land with this parcel to remove the nonconforming setback situation. Mr. Bleidorn said he could look into that but did not know if it would encroach on any graves. He added that there would likely be resistance from the Parks department if they did attempt to enlarge the parcel.

Public Testimony

Tom Locher, 933 C Street, told the Commission he has served on the Home Owners Association Board and he said he thinks they have covered the subject well.

Martin Stepetin, W Juneau, urged the Commission to take care to ensure any remains are protected.

Questions for Staff

Mr. Dye asked for clarification as to why the Advisory Condition was included and asked what was CBJ intent in including it. Ms. Maclean explained that it was included as a notice to inform the purchaser of the process to be followed in case human remains or undocumented gravesites were discovered. Mr. Dye felt that the notice was made by including it in the staff report and by documentation of the discussion in the minutes of this meeting.

Mr. Pedersen asked whether the sale would be accomplished via quit-claim deed or a warranty deed. Ms. Wright answered that would be a decision made by the Lands Department. She added the Lands Department tends to use quit-claim deeds.

At approximately 8:00 p.m. it was noted that Mr. Winchell was no longer in the Zoom meeting and it was unclear when the connection had been lost.

MOTION: *by Mr. Voelckers to accept staff's findings, analysis and recommendations and approve CSP2020 0006 with 2 recommendations the first being to correct the 2016 Lands Management Plan and the second to approve the sale of the property.*

MOTION to Amend Original Motion: *by Mr. Dye to amend by removing the Advisory Condition and make it a Condition.*

Mr. Voelckers asked for Legal advice from Ms. Wright who explained that it is cleaner to leave it as an advisory condition.

Roll Call Vote: Yes: Mr. Dye, Mr. Alper, Mr. LeVine; No: Mr. Hickok, Mr. Pedersen, Mr. Eiler, Mr. Arndt, Mr. Voelckers

The motion to amend failed.

MOTION to Amend Original Motion: *by Mr. LeVine to amend the finding to read: In accordance with CBJ 49.15.580, staff finds the proposed land sale to the Taku Terrace Condo Association complies with the Title 49 Land use Code and is in general conformity with **the intent of** adopted plans, specifically the 2013 Comprehensive Plan and the goals and objectives in the 2016 Lands Management Plan. **Based on staff assurances, the Planning Commission is confident that the retain designation for the subject parcel is in error.***

Roll Call Vote: Yes: Mr. LeVine, Mr. Arndt, Mr. Eiler, Mr. Pedersen, Mr. Hickok, Mr. Alper, Mr. Voelckers, Mr. Dye

The motion to amend passed.

MOTION to Amend Original Motion: ~~by Mr. LeVine to strike the advisory condition and make it a finding adding the clause~~ **the Planning Commission emphasizes the fact that** ~~to the beginning of it.~~

~~Mr. Arndt was concerned that removing the advisory condition would remove it from the letter. Ms. MacLean said that in this particular case, since it would be an amendment to findings, it would appear on the face of the letter. Normally, however, findings are not included in the letter of recommendation.~~

Mr. LeVine rescinded the amendment.

Mr. Voelckers asked if there was particular concern with the term ‘advisory condition’ that was causing them to struggle with CSP. Mr. Dye answered that advisory conditions often don’t work well because there is no enforceability and they can be ignored. If the Commission feels strongly that it should be stated then it should be a condition and it should be justified. Mr. Arndt added that the reasoning given for including the advisory condition was to inform the purchaser. However, the recommendation will go to the Lands Department as the applicant and to the Assembly but will not be given directly to the purchaser.

MOTION to Amend Original Motion: ~~by Mr. Arndt to amend to strike the advisory condition and to add~~ **The Planning Commission recommends notifying to the end user that if any human remains are discovered during development activity, the individual responsible for managing the property should immediately notify the State Historic Preservation Officer at the Department of Natural Resources and all work should cease until work is authorized by the agency with jurisdiction. Destruction or removal of human remains may be a crime** ~~as a third recommendation to the Assembly.~~

Roll Call Vote: Yes: Mr. Arndt, Mr. Eiler, Mr. Pedersen, Mr. Dye, Mr. Voelckers, Mr. Alper, Mr. Hickok, Mr. LeVine

The motion to amend passed.

AMENDED MOTION: to accept staff’s findings, analysis and recommendations and approve CSP2020 0006 with three (3) recommendations and a finding to read:

Finding: In accordance with CBJ 49.15.580, staff finds the proposed land sale to the Taku Terrace Condo Association complies with the Title 49 Land use Code and is in general conformity with the intent of adopted plans, specifically the 2013 Comprehensive Plan and the goals and objectives in the 2016 Lands Management Plan. Based on staff assurances, the Planning Commission is confident that the retain designation for the subject parcel is in error.

Recommendations:

- 1) *Correct the 2016 Lands Management Plan*
- 2) *Approve the sale of the property*
- 3) *The Planning Commission recommends notifying to the end user that if any human remains are discovered during development activity, the individual responsible for managing the property should immediately notify the State Historic Preservation Officer at the Department of Natural Resources and all work should cease until work is authorized by the agency with jurisdiction. Destruction or removal of human remains may be a crime.*

The motion as amended passed with no objection.

X. BOARD OF ADJUSTMENT – None

XI. OTHER BUSINESS None

XII. STAFF REPORTS

- Ms. Wright reported on the status of pending appeals.

Ms. Maclean reported:

- She is working to schedule Title 49 meeting.
- She will join the CBJ Chief Housing Officer in presenting to the Assembly Public Works Committee on August 10th.
- She will also be presenting to Lands Committee on August 10th.
- The next Blue Print meeting will be August 13th.
- Tim Felstead has resigned from CDD and interviewing for his replacement will begin in upcoming weeks.
- She will be scheduling to meet with the Governance committee soon.
- The next Planning Commission meeting will be August 11th and it will be a full agenda.

At 8:48 P.M., Mr. LeVine noted for the record that Mr. Winchell had contacted him and was been unable to reconnect with the Zoom meeting. Mr. LeVine stated this should not count toward the count of absences allowed.

XIII. COMMITTEE REPORTS – None

XIV. LIAISON REPORTS – None

XV. CONTINUATION OF PUBLIC PARTICIPATION ON NON-AGENDA ITEMS –None

XVI. PLANNING COMMISSION COMMENTS AND QUESTIONS

Mr. Voelckers complimented Mr. LeVine on another successful Zoom meeting.

Mr. Arndt spoke to the need to find an alternate way to convey information to applicants other than through the use of conditions. Mr. LeVine agreed with Mr. Arndt and suggested there could be other ways to inform applicants.

XVII. EXECUTIVE SESSION – None

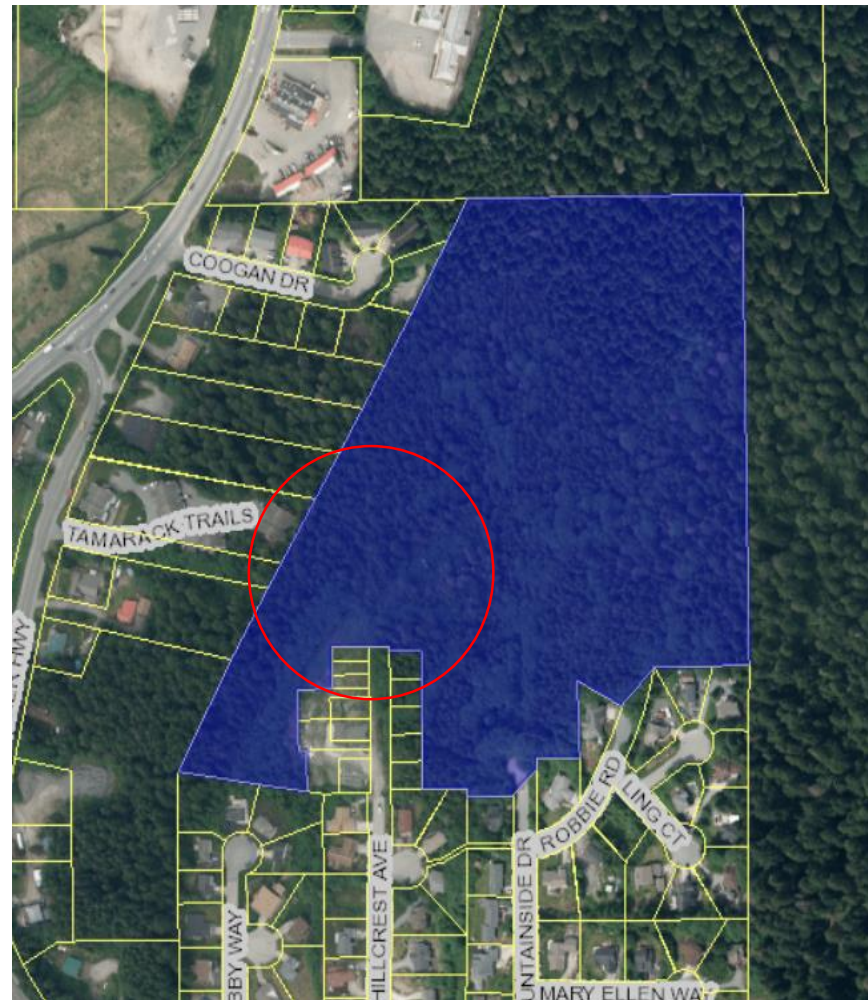
XVIII. ADJOURNMENT – 8:55 P.M.

SMP2021 0004

Chilkat Vistas Subdivision, Phase II
Regular Planning Commission Meeting
February 8, 2022

Packet Page 105

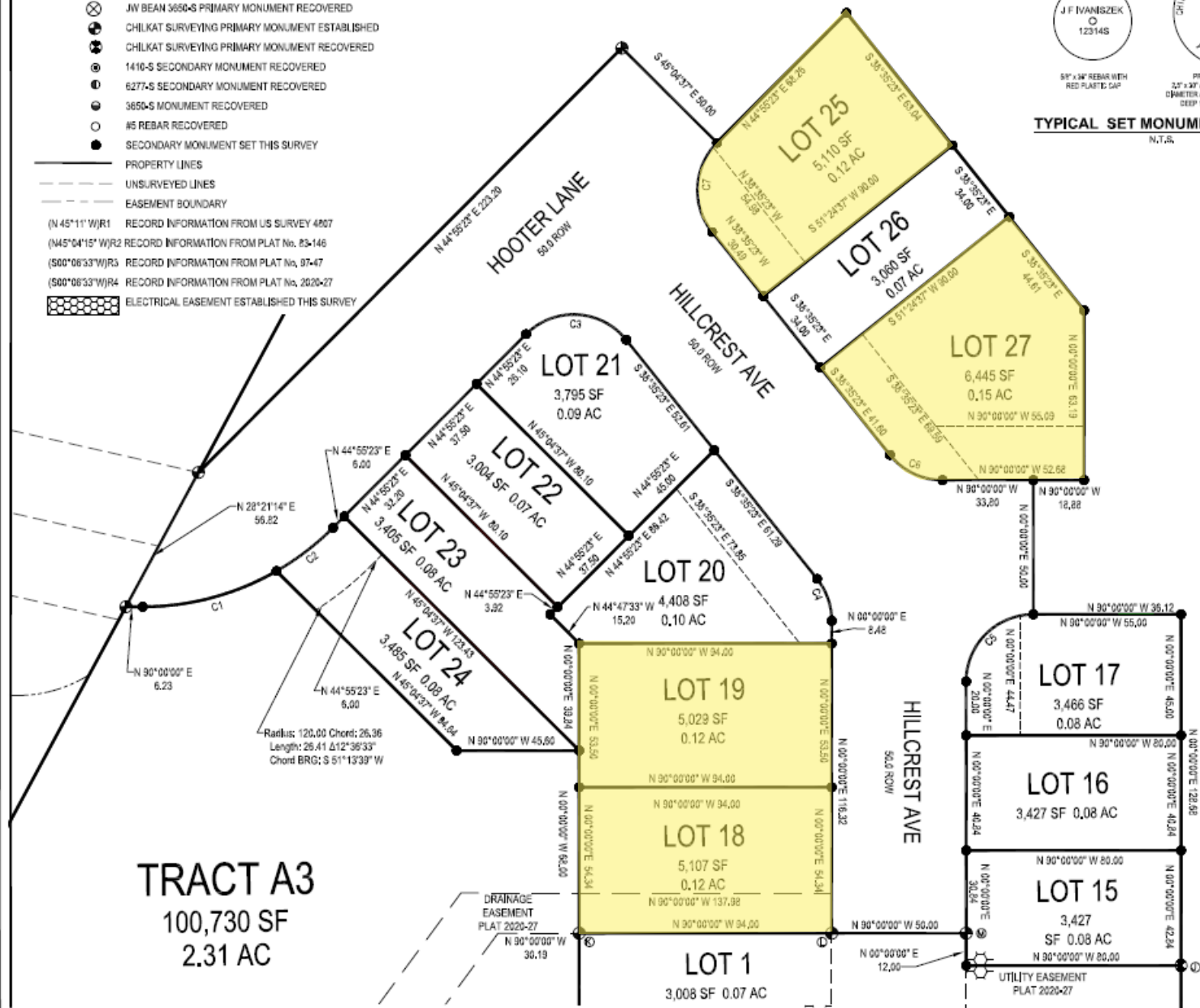
Location



Packet Page 107

LEGEND:

- ⊕ BLM PRIMARY MONUMENT RECOVERED
- ⊗ R&M PRIMARY MONUMENT RECOVERED
- ⊗ JW BEAN 3650-S PRIMARY MONUMENT RECOVERED
- ⊗ CHILKAT SURVEYING PRIMARY MONUMENT ESTABLISHED
- ⊗ CHILKAT SURVEYING PRIMARY MONUMENT RECOVERED
- ⊗ 1410-S SECONDARY MONUMENT RECOVERED
- ⊗ 6277-S SECONDARY MONUMENT RECOVERED
- ⊗ 3650-S MONUMENT RECOVERED
- #5 REBAR RECOVERED
- SECONDARY MONUMENT SET THIS SURVEY
- PROPERTY LINES
- - - UNSURVEYED LINES
- - - EASEMENT BOUNDARY
- (N 45°11' W)R1 RECORD INFORMATION FROM US SURVEY 4807
- (N 45°04'15" W)R2 RECORD INFORMATION FROM PLAT No. 83-146
- (S 00°06'33" W)R3 RECORD INFORMATION FROM PLAT No. 97-47
- (S 00°06'33" W)R4 RECORD INFORMATION FROM PLAT No. 2020-27
- ⊗ ELECTRICAL EASEMENT ESTABLISHED THIS SURVEY



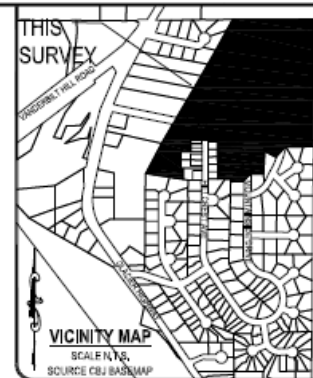
5/8" x 3/4" REBAR WITH
RED PLASTIC CAP

TYPICAL SET MONUMENT DETAIL

N.T.S.



PRIMARY MONUMENT
2 1/2" x 3" ALUMINUM PIPE WITH 1/2" x 3/4" DIAMETER ALUMINUM CAP WITH CLEAR
DEEP 1 MAGNET AT THE BASE



CURVE RAD	ARC LENGTH	CHORD LENGTH	CHORD BEARING	Δ ANGLE	
C1	100.00	52.17	51.58	S 75°03'17" W	29°53'28"
C2	100.00	28.51	28.43	S 82°30'58" W	15°11'11"
C3	25.00	42.10	37.30	N 86°50'00" W	96°23'14"
C4	25.00	16.84	16.52	S 10°17'41" E	38°35'23"
C5	25.00	39.27	35.36	N 45°00'00" E	30°00'00"
C6	25.00	21.55	20.28	N 63°13'53" W	49°22'48"
C7	25.00	36.44	33.30	S 03°10'00" W	83°30'45"

SURVEYOR'S CERTIFICATE

I, JOSHUA FRANTZ IVANSZEK, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 48 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATED: 20 DECEMBER 2021



1"=20'



PLAT OF
CHILKAT VISTAS SUBDIVISION PHASE 2
SUBDIVISION OF
TRACT A CHILKAT VISTA SUBDIVISION
A FRACTION OF US SURVEY 4807
WITHIN THE CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDERS OFFICE AT ANCHORAGE

CHILKAT SURVEYING & MAPPING, LLC
10654 PORTER LANE JUNEAU, ALASKA 99901
907-987-1905

OWNERS
WILLIAM C. HELMANN & MICHAEL P. HELMANN
4000 THRIVE ROAD JUNEAU, ALASKA 99901

SMP: 20210004 SCALE: 1" = 20' DATE: 20 DECEMBER 2021 SHEET NO. 2 OF 3

ATTACHMENT C, Page 1

Discussion, Packet
Page 107

Image, Packet
Page 189

Traffic

- Ph I: 206.43 ADT
- Ph II: 150.36 ADT
- TOTAL 356.79 ADT
- Between 250-500, TIA may be required
- TIA submitted under Ph 1

Access and public improvements

- Sidewalks one side
- Travelled width 22 feet
- Street lights at intersections
- ROW reduced from 60 to 50 feet under Ph I.

Stipulated Settlement Agreement

- Hillcrest will terminate at Hooter
- Hooter, Hillcrest and Mountainside – sidewalk on one side
- Hooter Lane development

Next steps

- Construction plan submittal and review
- Drainage
- Common mail box access

Recommend APPROVAL with conditions

- Construction Plans
- Drainage plan
- Wetlands fill permit
- Certificate of Taxes Paid
- Construction of or bonding for improvements

Thank you!



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION

NOTICE OF DECISION

Date: February 22, 2022

File No.: SMP2021 0004

William & Michael Heumann
6000 Thane Road
Juneau, AK 99801

Proposal: Preliminary plat review for Chilkat Subdivision Phase II: Proposing subdivision of one tract into 13 lots and three tracts of land at Hillcrest Avenue in a D15 zone.

Property Address: Hillcrest Avenue

Legal Description: Chilkat Vistas Tract A

Parcel Code No.: 7B1001160011

Hearing Date: February 8, 2022

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated February 1, 2022, and APPROVED the preliminary plat to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Provide a wetlands fill permit from the United States Army Corps of Engineers.
2. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
3. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering & Public Works for compliance with CBJ 49.35.140.
4. Prior to approval of the final plat, the applicant has constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010.
5. Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510.

William & Michael Heumann
 File No.: SMP2021 0004
 February 22, 2022
 Page 2 of 2

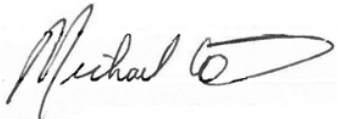
Attachment: February 1, 2022 memorandum from Irene Gallion, Community Development, to the CBJ Planning Commission regarding SMP2021 0004.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, February 8, 2022.

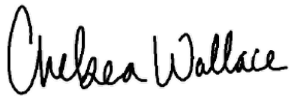
Expiration Date: The permit will expire five (5) years after the effective date, or February 8, 2027, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.



Michael Levine, Chair
 Planning Commission

February 25, 2022

Date



Filed With City Clerk

February 25, 2022

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

**PLANNING COMMISSION AGENDA
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

Additional Materials for February 8, 2022 Planning Commission

ATTACHMENTS:

Description	Upload Date	Type
Additional Materials for February 8, 2022 Planning Commission	2/4/2022	Miscellaneous

Additional Materials

Regular Planning Commission Meeting

Virtual Meeting Only
7:00pm
Meeting Date: February 8, 2022

1. SMP2021 0006:

- a. Public Comment – William Kantola, received 1.19.22 (page 2)

2. CSP2021 0007:

- a. Public Comment – John “Jonas” Lamb, received 2.2.22 (page 3)
- b. Public Comment – Milt Barker, received 2.2.22 (page 4)
- c. Memo from Joseph Meyers (page 5)

3. SMP2021 0004:

- a. Public Comment – Rick Janik & Chailly Clayton, received 2.4.22 (page 9)

4. Informational Item from Public Works and Facilities Committee (page 10)

January 15, 2022

CBJ Community Development
155 S.Seward St.
Juneau, AK 99801

William Kantola
8287B Garnet
Juneau, AK 99801

Dear Joseph Meyers and Commissioners,

I write in support of the proposed subdivision at 8284 Garnet Street in Juneau (case no. SMP 2021 0006, parcel no. 5B2401440030.) As you can see from the return address I live across the street from the proposed subdivision.

I support the proposal because the two bungalow lots will help the city move toward its goal of providing affordable housing, since the city has stated on many occasions it supports the provision of low-income housing. The bungalow lots, if approved, will provide for environmentally friendly living in smaller and more energy efficient homes.

You all should approve the subdivision plan.

Respectfully,



William Kantola

RECEIVED

JAN 19 2022

Permit Center/CDD

From: Jonas Lamb <jonaslamb@gmail.com>
Sent: Wednesday, February 02, 2022 2:29 PM
To: PC_Comments
Subject: CSP2021 0007

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Thanks for the opportunity to submit a comment regarding "Reconstruction of Harris Street starting at Harris and Fourth Street to the Gold and Seventh Street intersection." I'm a resident in the neighborhood at 638 Gold Street (corner of 7th and Gold) and am happy to see this stretch of Harris scheduled for repair. For years the road surface has been sinking and the sidewalks have been in rough shape.

The primary aim of my comment is to suggest that any reconstruction of downtown streets that include utilities provide adjacent owners with opportunities to upgrade their utilities, particularly aging water lines connecting to city mains and underground power.

As the owner of a 110 year old house and all the national news about lead water mains I hope CBJ is doing its part to identify and update similar aging infrastructure.

I would also like to know if any properties adjacent to the project area (ie my home) might be able to address any deficient water service lines, problematic storm drains, etc. during the project?

I'd also like to recommend that CBJ consider a plan to move toward alternating one-way streets for 4th-7th street to improve safety at blind corners, narrow roads and turning lanes and to simplify parking.

Thanks,

John "Jonas" Lamb
638 Gold

From: mbbarker <mbbarker@gci.net>
Sent: Wednesday, February 02, 2022 1:24 PM
To: PC_Comments
Subject: Harris Street reconstruction, Planning Commission Case No. CSP2021 0007

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

The Planning Commission should consider including two additional items as part of the CBJ Harris Street reconstruction project, Planning Commission Case No. CSP2021 0007:

- laying of conduit in the street while it is excavated to allow for underground electrical and communication services; and,
- installation of charging stations for electrical vehicles.

These improvements should be considered for most, if not all, street reconstruction projects.

CBJ reconstructed 7th Street between Main and Gold in 2006. The homeowners in these blocks took it upon themselves to contract and pay for the placement of conduit in the street, furnishing of utility pedestals at each lot corner, and new electrical transformers. 12 of 17 homes in the project area now have underground electrical service and almost all have underground communications services from GCI.

CBJ should not leave such improvements to the initiative of homeowners. Whether CBJ or homeowners or utilities pay for the improvements need not be cast in stone, and might vary as such efforts evolve. The main thing needed is planning and commitment to such improvements by CBJ.

--
Milt Barker
MB Barker, LLC
119 Seward Street, Suite 3
Juneau, AK 99801
907-586-4301
mbbarker@gci.net



(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

February 4, 2022

MEMO

From: Joseph Meyers, Planner I
To: Mike Levine, Chair
Through: Jill Maclean, AICP, Director
Case Number: CSP2021 0007: Harris Street Reconstruction

RE: Public Comments on Harris Street Reconstruction

In today's Friday packet, you'll receive two comments.

Mr. Lamb proposes an opportunity for residents to upgrade existing water lines, the ability to underground their utilities, and creation of alternating one-way streets from Fourth to Seventh Streets.

Mr. Barker proposes laying conduits while the street is excavated, and building charging stations for electric vehicles.

Below are consolidated comments and staff responses to these submitted public comments.

1. Underground installation of utilities:

CBJ-Owned Utilities: The scope of this project includes replacement of water and sewer mains and separation of the currently combined storm and sanitary sewer system. While CBJ provides service connections near the property line, individual property owners are responsible for maintenance of service lines within their private property. The Harris Street project presents a good opportunity for property owners within the project limits to evaluate the age and condition of their private utilities and to contact General Engineering regarding permits and requirements, arranging repairs or replacement if necessary.

Electric and Telecommunication Utilities: Electric and telecommunication utilities are not owned by the CBJ and the scope of this project does not include underground burial of electric and telecommunications utilities. When contacted by staff, AEL&P indicated they have no plan to bury their utilities within the project area. Property owners will need to agree that they would like to pursue this and contribute to the cost to perform this action. CBJ will coordinate with these property owners when undergrounding is desired.

- 2. EV Charging Stations:** While EV chargers are a priority of the Juneau Commission on Sustainability, staff advises against this inclusion.

The Engineering and Public Works Department (E&PW) is currently working on a plan for strategically locating charging stations throughout Juneau. Accommodations for downtown neighbors who don't have their own charging location will be considered during this planning effort.

In addition, street maintenance was also flagged as a concern by the Public Works Department, particularly when plowing in the winter months. With that said, the scope of the work being done on this project does not preclude EV chargers from being installed in the future.

- 3. Alternating one-way streets on Fourth through Seventh Streets:** Creating one way streets in this area would require a more robust planning effort as this change could have far reaching impacts on traffic patterns in downtown. The scope of work for this project does not preclude a change in traffic directions should it be decided in the future.

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--
Milt Barker
MB Barker, LLC
119 Seward Street, Suite 3
Juneau, AK 99801
907-586-4301
mbbarker@gci.net

February 4, 2022

Dear Ms. Gallion and Members of CBJ Planning Commission,

Re: Chilkat Subdivision Phase II SMP2021 0004 Parcel 7B1001160011

Chailly and I would like to comment on the proposed future development within the Chilkat Subdivision. We are opposed to these changes and addition of new lots shown as 15-25. We prefer Mr. Heumann continue with development previously negotiated with owners and reach substantial completion of those lots prior to approval from CBJ for any additional building previously referred to as exhibits C and D. Mr. Heumann contacted owners in May of 2021 requesting changes with a similar proposal which was rejected.

Homeowners like us, who live along Hillcrest Avenue have experienced a disproportionate burden of this construction with increased traffic, noise, and changes to the harmony of our neighborhood. The combined impact of this development along with other construction must be judged in its totality. In combination the development along Glacier Highway has caused a new undesirable view of the dump, the multifamily housing at Tamarack Trails and the Egan Highway. We understood a green belt would be preserved but these new lots would eliminate the limited buffer remaining between our living and dining room views and the dump.

We applaud efforts by CBJ to finalize road construction for Hooter Lane and the infrastructure required for future development i.e water, sewage, lighting and sidewalks. We are thankful for a design which aims to prevent Hillcrest Avenue becoming a collector street for all of Mountainside. We support enhancements to improve pedestrian safety.

Respectfully,

Rick Janik
Chailly Clayton
4473 Hillcrest
Juneau, Alaska 99801



MEMORANDUM

DATE: February 4, 2022
TO: Chair LeVine and CBJ Planning Commission
FROM: Katie Koester, Engineering and Public Works Director
SUBJECT: New City Hall Site Selection Update

The purpose of this memo is to update the Planning Commission on City Hall Site Selection. In November of 2021 CBJ issued a survey requesting input from the public on how they use City Hall, priorities for the facility, and recommendations on locations. Core takeaways from the survey were a desire to occupy the vacant Walmart building, a preference for a building with a long life span and adequate parking.ⁱ The feedback from the survey was used to build a matrix for site selection and come up with a list of sites to vet. At the December 20, 2021 PWFC meeting, the committee reviewed a list of sites, the site selection matrix and narrowed the list to the sites listed below. The matrix for the top 4 sites and the presentation detailing pros and cons of the 4 alternatives is attached. A public forum was held January 26 via zoom to get additional feedback and present more detail on the top 4 sites.

- Status Quo (renovate current facilities)
- Walmart Building
- 450 Whittier/ Public Safety Lot
- Downtown Transportation Center

Next Steps:

February 14 PWFC - staff report on feedback from public forum and request for PWFC to prioritize two of the four sites for further analysis and development.

February 22 Planning Commission – Staff report on top 2 sites; collect input from Commission for Assembly review of site selection

March 7 PWFC and COW - concept drawings, economic analyses and input from Planning Commission will be provided on the two selected sites in order to inform a decision on a single site.

Enc:

Presentation on New City Hall Site Analysis

Site Selection Matrix for top 4 sites

ⁱ Visit the New City Hall page for copies of published information, including the results of the New City Hall survey <https://juneau.org/engineering-public-works/new-city-hall>

NEW CITY HALL SITE SELECTION MATRIX 12.17.21

		CRITERIA	% Recommended in survey *	Designed for long service life	Adequate parking	Sustainability/ Energy Efficiency*	Located in concentrated business area/ near State and Federal offices	Repurpose existing building	Available Space (lot/building size)- space needs 46,000 sqft facility	Ownership (do we own it, is it for sale or could it be?)	Capital cost (acquisition, construction & remediation)	Displacement of other use	Operating cost estimate	Accessibility (pedestrian and auto)	Note
	OPTIONS														
	Downtown Renovate														
	Status Quo: Renovate current building; continue to rent		4% including demo/addition 18% opposed to New City Hall	Limited: Facility is already 70 years old; renovate to get another 25 years.	No. Current parking is a challenge	Remodel of City Hall would need to be LEED certified. Repurposed old garage so difficult to build in sustainable components. Repurposing has value.	Heart of Downtown	Yes	City Hall: 17,000 sq ft + 33,000 sq. ft. rental = 50,000 sq. ft. TOTAL	Own City Hall, continue to rent Marine View, Muni Way Bldg, Seadrome & Sealaska	\$11.2M in renovations to City Hall to extend life 25 years; \$ tenant improvements to leased space needed	Status quo (displaces downtown housing)	\$750/year rent; \$265,000 operating City Hall (today's dollars)	Traffic access can be a challenge at existing facilities; pedestrain access good	Hard to phase, hazmat, displace city offices and chambers for construction
	Downtown New Construction														
	450 Whittier (Public Safety Lot)		<1%	Long: new construction	Good: available public parking around (150 spots leased to state; Zach Gordon and JACC); simple site to consider building additional parking underground	New construction can incorporate sustainability		Supports campus expansion of cultural institutions; lots of surrounding public facilities	Yes. Main parcel 14,400 sqft with 3,000 sq ft city parcel to north.	CBJ owns	\$33.5M new construction; +\$4M for underground parking (36 spaces); +\$9.6M to add 2 levels @DTC (124 spaces)*	Lot used for parking now; good location for future housing development	\$355,000.* New and purpose built = lower operating cost.	Accessible location outside of Downtown core with good traffic access from all parts of CBJ. Good pedestrian access	Promotes growth of Aak'w Village District.
	On top of Down Town Parking Garage (DTC)			Long: new construction	No. Displaces existing parking	New construction can incorporate sustainability.	In Downtown core	No	Yes. Garage built to hold multi-story addition.	CBJ owns	\$32.8M (does not add parking)*	Some parking	\$355,000*. New construction could be built efficiently	Moderate; access not at street level	Logistically challenging and disruptive to Downtown during construction
	Valley/ Lemon Creek Remodel														
	Walmart Building		32%	No. Poorly constructed 30 year old building that has sat vacant for years	Yes. Tons of parking.	Weather envelope minimal; building has sat cold for years; possibility for mold; will be difficult to meet LEED standards. Repurposing facility has value.	Centrally located between Downtown and Valley.	Yes	Yes. Building is 122,000 square feet (Almost 3x needed space). Large lot.	Building for sale, land lease	TOTAL: \$52.6M - Acquisition: \$9M + land lease; remodel of less than half building (50,000 sq. ft.): \$40M*; demo/warehouse remainder: \$3.6M	Vacant building; valuable lot and location for future large retail development	Land lease: \$271,000 for 50 years; Could remodel 50,000 sq. ft. and leave rest as warehouse for cost of demo but have to heat it which would increase costs.	Good auto access; poor pedestrian access	Lemon Creek Plan supports re-use of Walmart building
			*of the 2/3 of respondents who gave a specific location			*Per CBJ code, all major renovation and new construction needs to be LEED certified					* Costs escalated to 2025.		* Estimate based on analysis for operating cost of new City Hall on top of DTC in 2026		

New City Hall

Preliminary Site Analysis

Preliminary Analysis

- Status Quo
- Downtown Transit Center
- 450 Whittier (Public Safety Lot)
- Walmart building

Status Quo Location

PRO

- Least expensive in short term (11.2M)
- Lots of feedback against a New City Hall (for different reasons)
- Always consider the status quo option

CON

- A lot to sink into a 70 year old facility
- Does not consolidate City services
- Does not improve parking



Municipal Building: Projected Repairs/System Replacement Timeline

2024	2029	2034
EXTERIOR REPAIR PACKAGE Exterior Painting, Mural Repair, Window Replacement, Marquee Repairs & Fall Protection \$1,074,000	ROOF REPLACEMENT Replacement of main roof, Installation of Fall Protection \$1,016,000	
INTERIOR FINISH UPGRADES Carpet Replacement, Stair Tread Replacement, Interior Painting \$755,000	MECHANICAL, ELECTRICAL, & PLUMBING UPGRADES Upgrade existing Ventilation and Heating System, install Ventilation where lacking (50% of building), replace Domestic Water and Waste Water Piping, Upgrade Electrical ³ \$4,429,000	MAJOR TENANT IMPROVEMENT Reconfigure space to reflect current use, upgrade all restrooms ³ \$3,778,000
LED LIGHTING + SECURITY CAMERAS \$94,000		
2024	2029	2034
\$1,923,000	\$5,445,000	\$3,778,000
GRAND TOTAL		\$11,146,000

Notes

1. Estimated costs reflect total project costs.
2. Construction costs have been escalated from November 2021 to June of the year planned at 3%/yr.
3. Estimate does not include cost for temporarily relocating staff/departments during construction.

Downtown Transit Center (DTC)

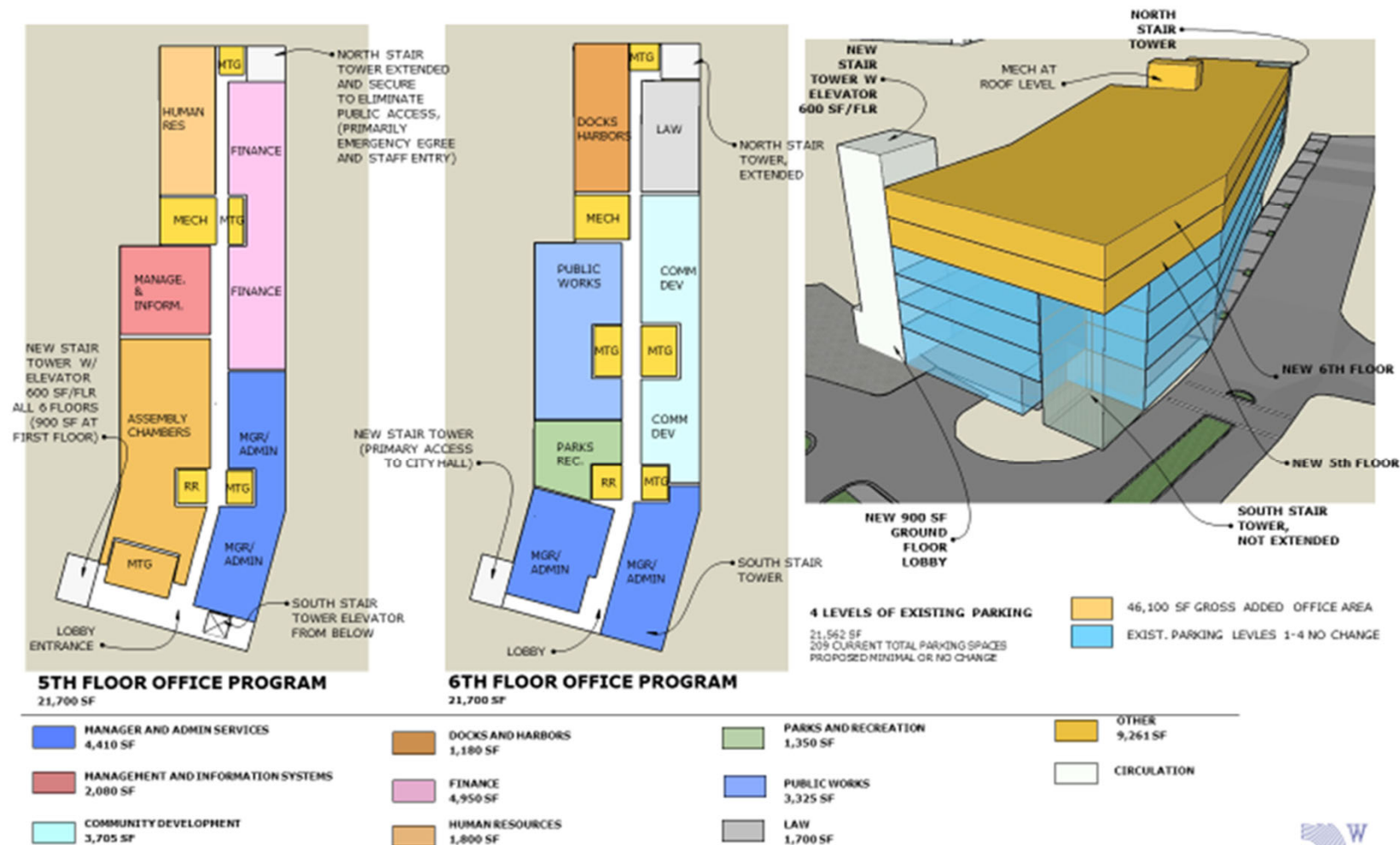
PRO

- Least expensive option by a few million (because foundation work done with garage)
- Work has already been done to bring this concept to next phase
- Does not take up other valuable real-estate for downtown development
- Remains in downtown core
- Dedicated parking easy

CON

- No street access
- Displaces existing parking; No net growth in parking
- Challenge to retrofit concrete structure with utilities





CITY HALL PLANNING
PROGRAM - 2 FLOOR ADDITION ABOVE CURRENT 4TH FLOOR PARKING LEVEL

10-16-18





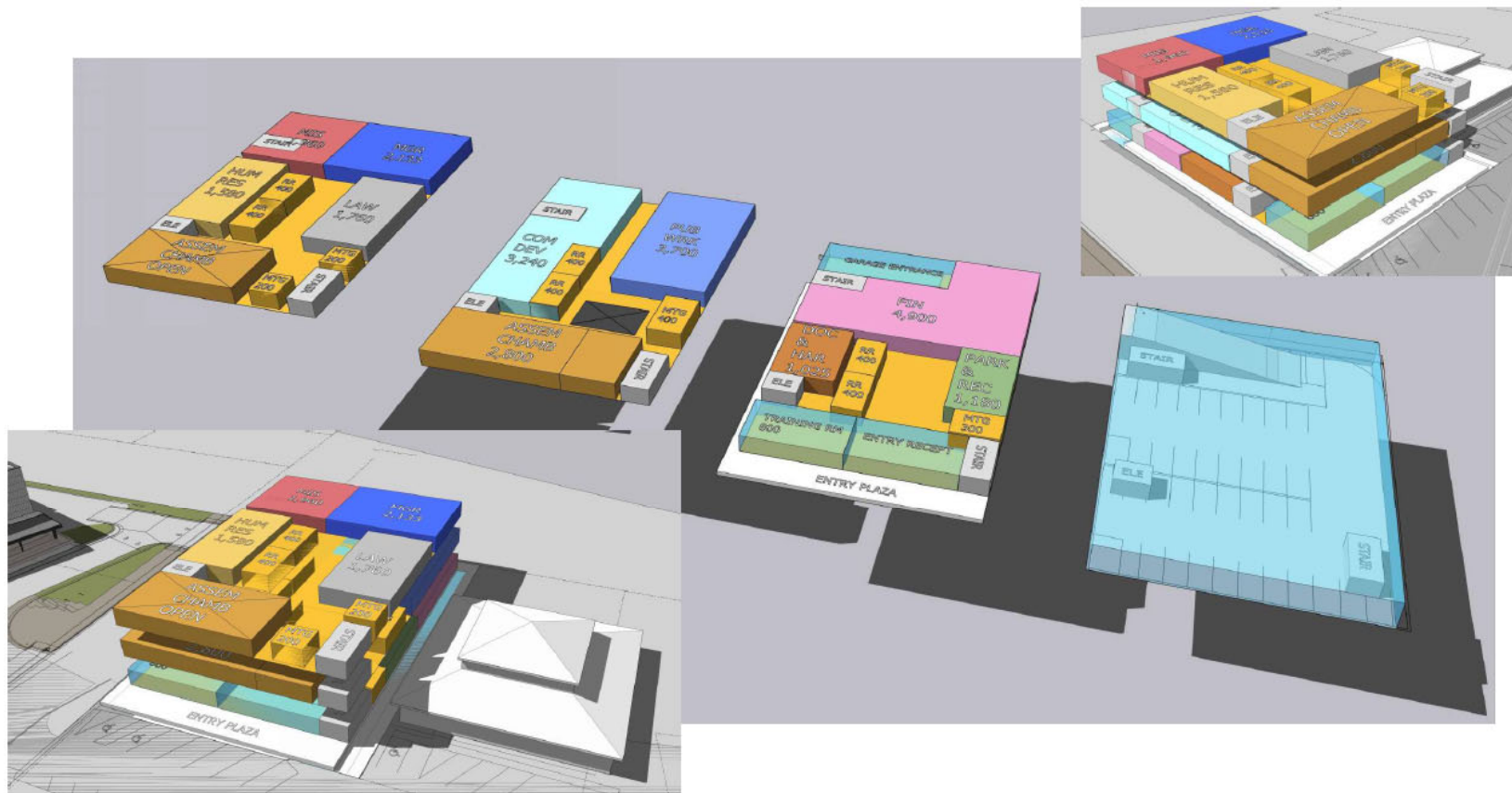
450 Whittier

PRO

- CBJ owns the lot (and several surrounding lots)
- Development of Aak'w Village District: Tribe offices, Centennial Hall, Federal building.
- Opportunity for maximal use of parking
 - Underground/ shared parking
 - Option to supplant displaced parking at DTC

CON

- Would be a great location for future housing development
- Outside of Downtown Core
- Cost: \$33.5 + parking expansion (less than a million more than the DTC)



■ MANAGER AND ADMIN SERVICES 4,410 SF	■ DOCKS AND HARBORS 1,180 SF	■ PARKS AND RECREATION 1,350 SF	■ OTHER 9,261 SF
■ MANAGEMENT AND INFORMATION SYSTEMS 2,080 SF	■ FINANCE 4,950 SF	■ PUBLIC WORKS 3,325 SF	■ CIRCULATION
■ COMMUNITY DEVELOPMENT 3,705 SF	■ HUMAN RESOURCES 1,800 SF	■ LAW 1,700 SF	

CITY HALL PLANNING
Development at the 450 Whittier Site

NorthWind Architects + SRS Architecture



Former Walmart

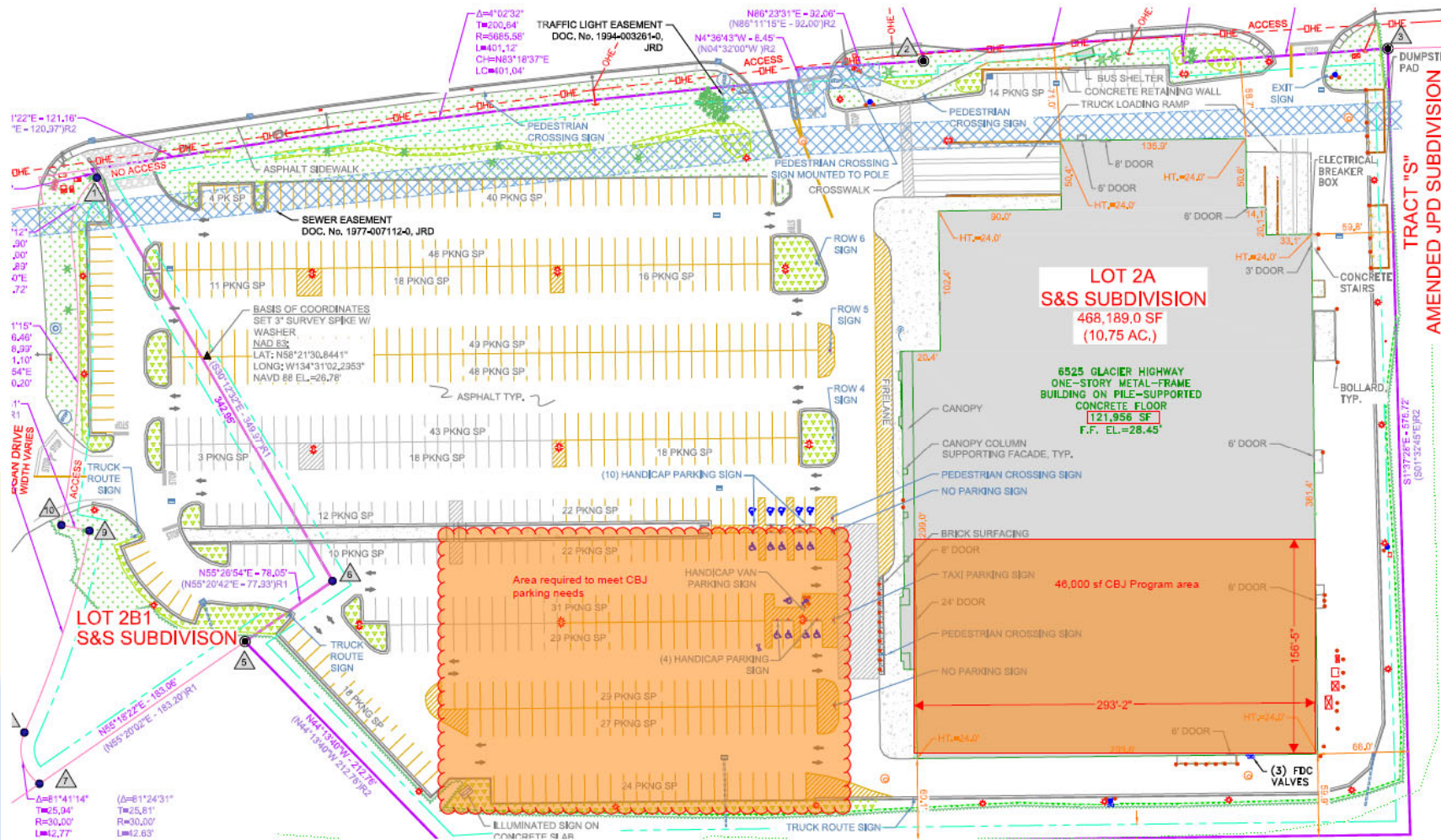


PRO

- Lots of public support for reuse of facility
- Central Location between population centers
- Opportunity for additional uses (122,000 square feet and 10 acre lot)
- Tons of parking

CON

- Building has sat vacant for years, unknown condition
- Difficult to bring to LEED standards
- Land Lease \$271,000/yr 50 years (land not currently for sale)
- Good location for other/large retail development
- Challenge to bring up to current codes required by change in use
- Twice the SF needed



Next Steps

- Ongoing: For 4 sites, refine cost estimates, answer questions
- January 26: Public Meeting on list of sites
- February 14:
 - Staff report on Public Meeting feedback; Analysis of DT employee spending
 - PWFC prioritizes sites to 2
- February 22 Planning Commission: review 2 sites and collect feedback
- March 7 PWFC and COW review economic analysis and select single site
- March – April: Conceptual work on preferred alternative
- Early April: Public Meeting on preferred alternative
- April/May: PWFC and Assembly – report on public feedback, presentation of preferred alternative
- July: Introduce ordinance for ballot proposition

Questions?