Matanuska-Susitna Borough

Planning Commission Meeting Agenda

Meeting Date: July 20, 2026
Meeting Time: 6:00 PM

Meeting Location

Assembly Chambers – Dorothy Swanda Jones Building
350 E. Dahlia Avenue
Palmer, Alaska 99645

Planning Commission Members

Chairperson: Richard Allen
Vice-Chair: Doug Glenn
Commissioners:

- Brendan Carpenter
- Vacant
- Linn McCabe
- Ivan Fonov
- Curt Scoggin

Ways to Participate in the Meeting

1. Participate In Person

Members of the public may attend the meeting in person. You will have **three (3) minutes** to provide oral comments unless otherwise directed by the Chair.

2. Submit Written Comments

Send written comments to the Planning Commission Clerk:
Email: msb.planning.commission@matsugov.us
Deadline: Written comments must be received **by 12:00 p.m. (noon) on the Friday before the meeting.**

3. Provide Testimony by Telephone

1) Dial **1-855-290-3803**.
2) You will hear "joining conference" when connected.
3) You will be automatically muted and able to listen to the meeting.
4) When the Chair opens public testimony, if you would like to speak, press ***3**.
5) You will hear "Your hand has been raised."
6) When it is your turn to speak, you will hear "Your line has been unmuted."
7) State your name for the record, spell your last name, and provide your testimony.

4. Observe the Meeting Online

You may watch the meeting live using one of the following platforms:

- Matanuska-Susitna Borough Facebook page
- Matanuska-Susitna Borough YouTube channel

Meeting Agenda

1. Call to Order, Roll Call, and Determination of Quorum
2. Approval of Agenda
3. Pledge of Allegiance
4. Consent Agenda
   A. Meeting Minutes – June 15, 2026
   B. Introduction for Public Hearing: Quasi-Judicial Matters
   C. Introduction for Public Hearing: Legislative Matters

Resolution 26-11 A Resolution Of The Matanuska-Susitna Borough Planning Commission Expressing Support For The Proposed Annexation Of The Chugiak, Eagle River, Peters Creek, Eklutna, And Associated Areas Into The Matanuska-Susitna Borough.
Staff: Alex Strawn, Planning and Land Use Director
Public Hearing Date: August 3, 2026

Resolution 26-13 A Resolution Of The Matanuska-Susitna Borough Planning Commission Supporting The Engstrom Road To Trunk Road Corridor Project And Recommending North Route 1 As The Preferred Alignment Identified In The October 2025 Draft Route Selection Report.
Staff: Alex Strawn, Planning and Land Use Director
Public Hearing Date: August 3, 2026

Resolution 26-14 A Resolution Of The Matanuska-Susitna Borough Planning Commission Recommending Approval Of The Areawide Power To Acquire Public Rights-Of-Way And Design And Construct Roads, Streets, Sidewalks, And Related Drainage Facilities, And To Submit The Question To The Qualified Areawide Voters At The November 3, 2026 Regular Election.
Staff: Alex Strawn, Planning and Land Use Director
Public Hearing Date: August 3, 2026

5. Committee Reports
6. Agency/Staff Reports
7. Land Use Classifications

A. **Resolution 26-15** A Resolution Of The Matanuska-Susitna Borough Planning Commission Recommending Approval Of An Ordinance Classifying A Portion Of 27N05W18A001 As Reserved Use Land For The Purpose Of A Shooting Range (MSB008307).
Staff: Peter Burton, Land Management Specialist

B. **Resolution 26-16** A Resolution Of The Matanuska-Susitna Borough Planning Commission Recommending Approval Of An Ordinance Classifying A Portion Of 20N04W08001 As Reserved Use Land For The Purpose Of A Shooting Range (MSB008308).
Staff: Peter Burton, Land Management Specialist

8. Audience Participation

9. Public Hearing: Quasi-Judicial Matters
   A. **Resolution 26-10** A Conditional Use Permit In Accordance With MSB 17.70 - Regulation Of Alcoholic Beverage Uses To Expand Operations For A Pre-Existing Alcoholic Beverage Dispensary (Bar), Located At 10204 S. Knik Goose Bay Road (Tax ID# 7186000L001), Within Township 16 North, Range 03 West, Section 24, Seward Meridian.
   Applicant: Knik Landing
   Property Owner: Broken Boat LLC
   Staff: Wade Long, Development Services Manager

10. Public Hearing: Legislative Matters

11. Correspondence and Information

12. Unfinished Business

13. New Business

14. Commission Business
    A. Upcoming Planning Commission Agenda Items

15. Director and Commissioner Comments

16. Adjournment

Accessibility and Accommodation Information

Individuals with disabilities who need reasonable accommodation to participate in this meeting should contact the Borough ADA Coordinator:
Phone: 907-861-8432
Request Deadline: At least **one week before the meeting.**

MINUTES

June 15, 2026

Matanuska-Susitna Borough
Planning Commission Meeting Minutes

Meeting Date: June 15, 2026
Meeting Time: 6:00 PM

Meeting Location

Assembly Chambers – Dorothy Swanda Jones Building
350 E. Dahlia Avenue
Palmer, Alaska 99645

Planning Commission Members

Chairperson: Richard Allen

Vice-Chair: Doug Glenn

Commissioners:
- Brendan Carpenter
- Michael Collins
- Linn McCabe
- Ivan Fonov
- Curt Scoggin

Meeting Agenda

1. Call to Order, Roll Call, and Determination of Quorum

   The Matanuska-Susitna Borough Planning Commission's regular meeting was held on June 15, 2026, at the Matanuska-Susitna Borough Assembly Chambers, 350 E. Dahlia Avenue, Palmer, Alaska. Chair Glenn called the meeting to order at 6:00 p.m.

   Attendance:
   (*) Next to a name indicates telephonic participation.

   Present: Commissioner McCabe
   Commissioner Fonov
   Commissioner Carpenter
   Commissioner Glenn

   Absent: Commissioner Scoggin

Commissioner Allen

Staff Present: Mr. Alex Strawn, Planning and Land Use Director
Ms. Lacie Olivieri, Planning Department Admin
Mr. Alex Lowe, Assistant Borough Attorney

2. Approval of Agenda

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

GENERAL CONSENT: The Agenda was approved without objection.

3. Pledge of Allegiance

Commissioner McCabe led the Pledge of Allegiance.

4. Consent Agenda

A. Meeting Minutes – June 1, 2026

B. Introduction for Public Hearing: Quasi-Judicial Matters

Resolution 26-10 A Conditional Use Permit In Accordance With MSB 17.70 - Regulation Of Alcoholic Beverage Uses To Expand Operations For A Pre-Existing Alcoholic Beverage Dispensary (Bar), Located At 10204 S. Knik Goose Bay Road (Tax ID# 7186000L001), Within Township 16 North, Range 03 West, Section 24, Seward Meridian.
Staff: Wade Long, Development Services Manager
Public Hearing Date: July 20, 2026

C. Introduction for Public Hearing: Legislative Matters

Chair Glenn read the Consent Agenda into the record.

GENERAL CONSENT: The Consent Agenda was approved without objection.

5. Committee Reports *(There were no Committee reports)*
6. Agency/Staff Reports *(There were no Agency/Staff reports)*
7. Land Use Classifications *(There were no Land Use Classifications)*
8. Audience Participation

There being no persons to be heard, audience participation was closed without objection.

9. Public Hearing: Quasi-Judicial Matters *(There were no Quasi-Judicial public hearings)*

10. Public Hearing: Legislative Matters

Resolution 26-09 A Resolution Of The Matanuska Susitna Borough Planning Commission Recommending Approval Of An Ordinance Amending MSB 17.73 Multifamily Development Design Standards To Align Permitting And Design Standards With The Scale And Complexity Of Development Projects.

Staff: Alex Strawn, Planning Director

Chair Glenn read the resolution title into the record.

Mr. Alex Strawn presented his staff report.

Chair Glenn inquired if commissioners had any questions for staff.

Commissioner Carpenter asked questions of Mr. Strawn.

Chair Glenn opened the public hearing.

Colleen Vague spoke on behalf of the North Lakes Community Council about their suggestions.

There being no other persons to be heard, Chair Glenn closed the public hearing, and the discussion moved to the Planning Commission.

MOTION: Commissioner McCabe moved to approve Planning Commission Resolution 26-09. The motion was seconded by Commissioner Carpenter.

MOTION: Commissioner McCabe made an amendment to accept the clerical changes. The motion was seconded by Commissioner Carpenter

Discussion ensued.

VOTE: The main motion was passed without objection.

11. Correspondence and Information *(There was no Correspondence and information)*

12. Unfinished Business *(There was no unfinished business)*

13. New Business *(There was no new business)*

14. Commission Business

    A. Upcoming Planning Commission Agenda Items

Chair Glenn asked whether Commissioners had any questions about the list of upcoming agenda items in their folders.

Commissioner Carpenter inquired about adding Ken McCarty to the next agenda. He asked that we have a Resolution prepared to be able to send to the Assembly.

15. Director and Commissioner Comments

Commissioner Fonov: No Comment.

Commissioner Carpenter: No Comment.

Commissioner McCabe: Hello, and enjoy the nice weather this week.

Alex Strawn: No Comment.

Commissioner Glenn: No Comment.

16. Adjournment

The regular meeting adjourned at 6:31 p.m.

RICHARD ALLEN

Planning Commission Chair

ATTEST:

LACIE OLIVIERI

Planning Commission Clerk

Minutes approved: _____

INTRODUCTION FOR PUBLIC HEARING LEGISLATIVE

Resolution No. 26-11

A Resolution Of The Matanuska-Susitna Borough Planning Commission Expressing Support For The Proposed Annexation Of The Chugiak, Eagle River, Peters Creek, Eklutna, And Associated Areas Into The Matanuska-Susitna Borough.

Staff: Alex Strawn, Planning and Land Use Director

Public Hearing Date: August 3, 2026

ANNEX NOW
to
MAT-SU

ANNEX NOW TO MAT-SU DRAFT

Matanuska-Susitna Borough
Planning Presentation
6/15/2026

ANNEX NOW TO MAT-SU 3

ANNEXATION PETITION FORM 3

- **Petition** 3
- **Name and Class of the Borough for Which a Change is Proposed** 3
- **General Description of the Nature of the Proposed Boundary Change** 4
- **Map of the Existing Boundaries of the borough and the boundaries of the area.** 22
- **Size of the Area Proposed for Annexation** 23
- **Data Estimating the Population of the Area Proposed for Annexation** 23
- **Tax Data** 24
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ANNEX NOW TO MAT-SU DRAFT

ANNEX NOW TO MAT-SU

ANNEXATION PETITION FORM

Petition

To the Local Boundary Commission is to Annex 994 Square Miles of Chugiak, Eagle River, Hiland, Peters Creek, Eklutna, part of Fort Richardson, and Chugach State Park to the Matanuska-Susitna Borough, a Second Class Borough, using the Local Option by Election Method. The Petition is to add three new service areas into the Petition Area which involves Police Service, Eagle River Fire Service, and Municipality of Anchorage / Anchorage School District Bond Repayment area. The Municipality of Anchorage / Anchorage School District Bond Repayment Service Area shall sunset upon completion of the repayment total.

The petitioner of Annex Now to Mat-Su (Chugiak / Eagle River area) (hereafter "Petitioner") hereby requests that the Local Boundary Commission (hereafter "commission" or "LBC") grant this detachment and annexation petition for annexation under Article 10, Section 12 of the Constitution of the State of Alaska, AS 29.06.040(a), AS 44.33.812, and 3 AAC 110.210(3).

This petition incorporates by reference all of the attached exhibits. All of the petition's sections and exhibits need to be addressed and filled out. If a requirement does not apply, simply state "not relevant." If the petition has already addressed a requirement, simply state where the requirement was addressed.

"Area" means the area proposed for annexation. "Borough" means the borough that seeks to annex the area. "Proposed expanded boundaries of the borough" means the borough *plus* the area.

ANNEX NOW TO MAT-SU DRAFT

Name and Class of the Borough for Which a Change is Proposed

3 AAC 110.420(b)(3)

The name and class of the borough proposing annexation is:

Name: Matanuska-Susitna Borough
Class: Second Class Borough

General Description of the Nature of the Proposed Boundary Change

3 AAC 110.420(b)(4)

This Petition, initiated by the residence of Chugiak / Eagle River under the authority of 3 AAC 110.410(a)(4), requests that the LBC authorize the annexation of area generally described as modified District 2 of the Municipality of Anchorage (Exhibit B) to the Matanuska-Susitna Borough under the local option method.

Reasons for the Proposed Boundary Change

3 AAC 110.420(b)(6).

The State of Alaska was established and exists due to the Alaska Spirit of making things happen. The phrase, "North to the Future" is affirming the Alaska Spirit of taking on the opportunities for the future and making them happen. The current governmental construct of the Municipality of Anchorage over the Petition Area is contrary of North to the Future and the Alaska Spirit. Current economic development in the Municipality of Anchorage is inhibiting, controlling, and instilling fear with learned helplessness of residents and businesses, which negatively impacts Alaska as a whole. Due to current policies and political directions, the Municipality of Anchorage is collapsing as seen by irresponsible fiscal management, excess debts, decrease in credit rating, out of control homelessness, departure of businesses, loss of healthy Alaska societal norms / values, and the overall negative impact upon Alaska.

The desires of the Petition is for the Alaska Spirit and North to the Future. The history of the Petition Area residents have held common values, collaboration, and support with Mat-Su. The proposed annexation will return a group of people and land back to Alaska opportunities and strength for the betterment of the State of Alaska.

ANNEX NOW TO MAT-SU DRAFT

HISTORICAL CONNECTION WITH MAT-SU BOROUGH

The formation and development of the area of Chugiak / Eagle River has always been an independent community with more support from Palmer, JBER, and the Mat-Su. Chugiak / Eagle River has been disconnected from Anchorage in character, values, land formation, and fiscal support. The Palmer highway, which is now known as the Old Glenn Highway was the primary artery from Palmer to Chugiak and Anchorage.

In 1947 the established residents chose the name of Chugiak. By 1948 Chugiak was recognized to have its own precinct to vote within the boundaries without being required to go to Anchorage to vote in the GAAB (Greater Area Anchorage Borough). By 1950 Matanuska Electric Association began to provide power to some 50 families throughout Chugiak as Anchorage did not wish to provide. Not long

afterward, those same families convinced Matanuska Telephone Association to assist the community with communication service. The people of Chugiak strung Army surplus field telephone wire throughout the woods for the residence of Chugiak. In 1951, Chugiak Territorial School was built by the labor, sweat, and funding of Chugiak residents and support of Fort Richardson and Palmer. The school was intended for 50 students yet on opening day there were 75 waiting on the door steps. In 1952 the Chugiak Volunteer Fire Department was organized. By 1954, Vernon Haik was elected mayor of Chugiak and residents put on the Chugiak Spring Carnival on the Memorial Day weekend, which became a big success. Proceeds from the carnival went to several projects within Chugiak, which included the Chugiak Volunteer Fire Department. Soon the growth of the community of Eagle River began to surpass Chugiak in size and had to form their own volunteer fire department.

The growth of Chugiak / Eagle River necessitated their own high school, as students were bussed to Anchorage resulting in extensive time in transport and on poorly developed roads. By 1964 Chugiak / Eagle River built its own high school, which was primarily constructed and improved upon by the independent spirit and sweat of the residents of Chugiak / Eagle River. By 1970 the residents of Chugiak / Eagle River began to seek independence from Anchorage (GAAB). The pursuit for a new borough was favorably voted upon by August 1974. Lee Jordan became the mayor however people in Anchorage resented the independence of Chugiak / Eagle River and filed suit against the decision. On April 15, 1975 Alaska Supreme court ruled that the legislation leading to the vote on secession was unconstitutional thus the process was null and void. Those individuals who were involved in the new borough of 1970's later stated that they had considered annexation into Matanuska-Susitna Borough at that time but chose Anchorage instead.

In 1975, Anchorage transitioned from being a borough to a Municipality which encompassed from the Knik River through Chugiak-Eagle River through Anchorage to past Girdwood. The Municipality of Anchorage held out good faith provisions of recognition for the uniqueness of Chugiak-Eagle River like the independence of Service Areas, a unique comprehensive plan, taxation, community councils, and special building codes. Since 1975, Chugiak / Eagle River had continued to remain autonomous in principle, values, and land. JBER availed a clean boundary line between Anchorage and Chugiak / Eagle River.

Over the years, the Municipality of Anchorage has reneged on its agreement to recognize Chugiak / Eagle River with greater autonomy. Currently the Anchorage Assembly has stated it no longer recognizes the unique Comprehensive Plan, Community Councils, and the autonomy of Service Areas and money generated thereof. Chugiak / Eagle River wishes to be aligned with a governance who listens to the residents thereof and is invested in the well-being of said residents, thus the inquiry to explore the possibilities of annexation of Chugiak / Eagle River into Mat-Su.

ANNEX NOW TO MAT-SU DRAFT

Legal Metes and Bounds Description of the Proposed Annexed boundaries

including the USGS quad information and dates.

This includes the USGS quad information and dates. Any plats required by the Department of Commerce, Community, and Economic Development (hereafter "department") to demonstrate the accuracy of the legal descriptions are also included.

TABLE – Area to be detached from the Municipality of Anchorage		
Township	**Range**	**Section**
Seward Meridian, Alaska		
T15N	R05E - R01E	All Sections Beginning at the N.E. corner of Section 1, T15N, R05E proceed W to N.W. corner of Section 6, T15N, R02E
T16N	R01E	All Sections except Sections 1 through 14 and 23 through 24. said, S.E. corner of Section 36, T16N, R01E; proceed North to N.E. corner of Section 25, T16N, R01E;
T16N	R01E	said N.E. corner of Section 25, T16N, R01E; proceed West to N.W. corner of Section 26, T16N, R01E;
T16N	R01E	said N.E. corner of Section 27, T16N, R01E; proceed North to N.E. corner of Section 15, T16N, R01E;
T16N	R01E	said N.E. corner of Section 15, T16N, R01E; proceed West to N.W. corner of Section 18, T16N, R01E;
T16N-T15N	R01W-R03W	All Sections except those portions lying north and west of the protracted southwest line; said N.W. corner of Section 13, T16N, R01W; proceed southwest to N.W. corner of Section 13, T15N, R03W;
T15N	R03W-R05E	all except those portions lying northwest and west of the protracted southwest line between Section 14, T15N, R03W to approximate N.W. Corner of Section 33, T15N, R03W; said N.E. Corner of Section 14, T15N, R01W to approximate N.W. Corner of Section 33, T15N, R03W;
T14N	R03W – R02W	all except those portions lying southwest of the protracted southeast line at approximately N.E. Corner of Section 4, T14N, R03W to the S.W. Corner of Section 17, T14N, R02W; (partially included Sections are: Section 4, 3, 2, 11,12, 13, T14N, R03W and Section 18, T14N, R02W);

T14N	R02W – R05E	All section except portion of Section 18, 19 through 22, portion of Section 23 and 25 through 36; said S.W. Corner of Section 17, T14N, R02W proceed East to the Eastern edge of the Northbound Glenn Hwy; proceed South along the eastern edge of the Northbound Glenn Hwy to the southern edge of Section 22; proceed East from the Southern boundary of Section 22, T14N, R02W to the S.W. Corner of Section 24, T14N, R02W;
T14N – T12N	R01W - R05E	All Sections East of said N.W. Corner of Section 30, T14N, R01W; proceed South to S.W. Corner of Section 31, T12N, R01W;
T12N	R01W - R05E	All Sections North of said S.W. Corner of Section 31, T12N, R01W; proceed East to S.E. Corner of Section 36 T12N, R05E;
T12N – T15N	R05E	All Sections West of said S.E. Corner of Section 36, T12N, R05E; proceed North to N.E. Corner of Section 1, T15N, R05E to the beginning.

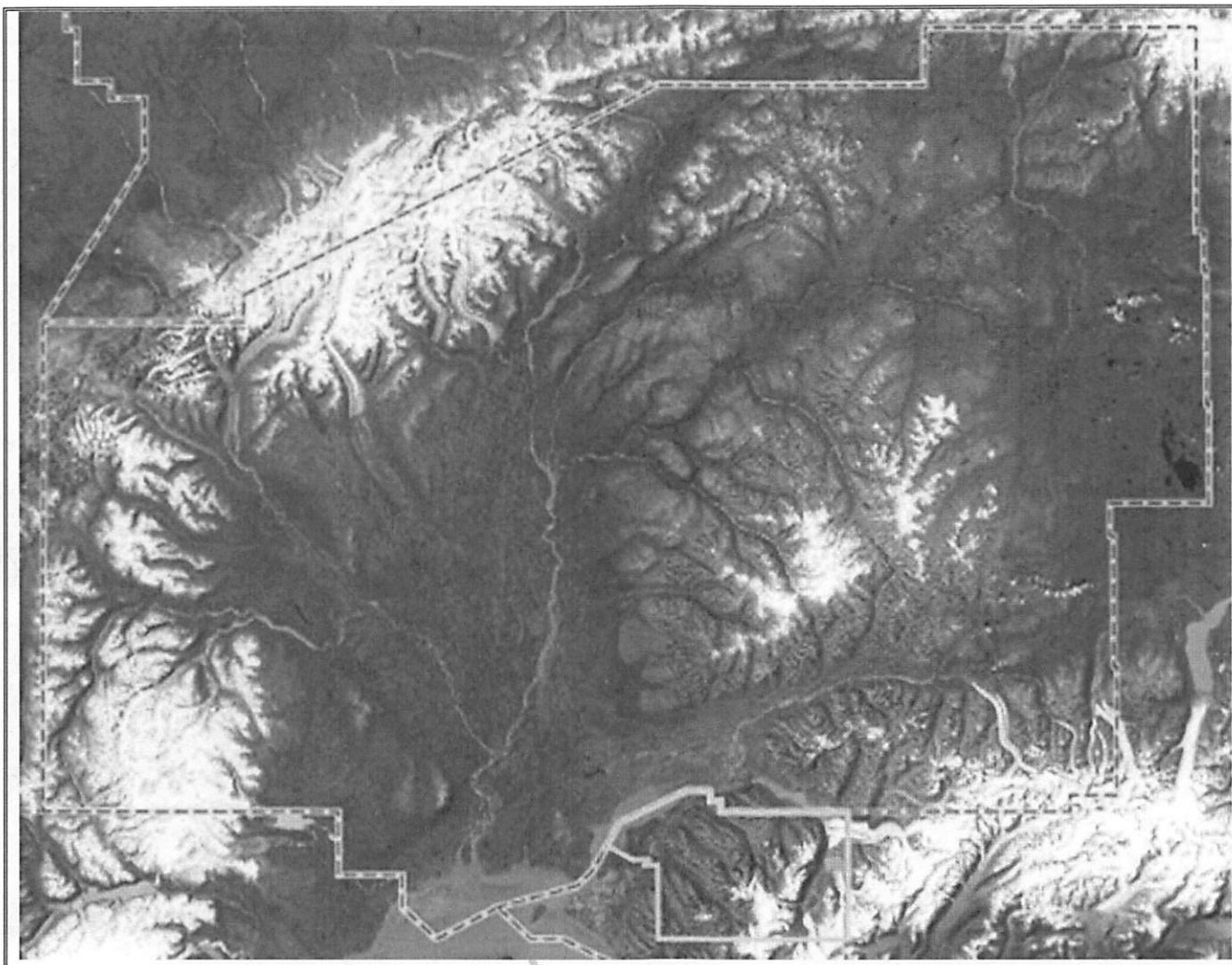
ANNEX NOW TO MAT

ANNEXATION AREA

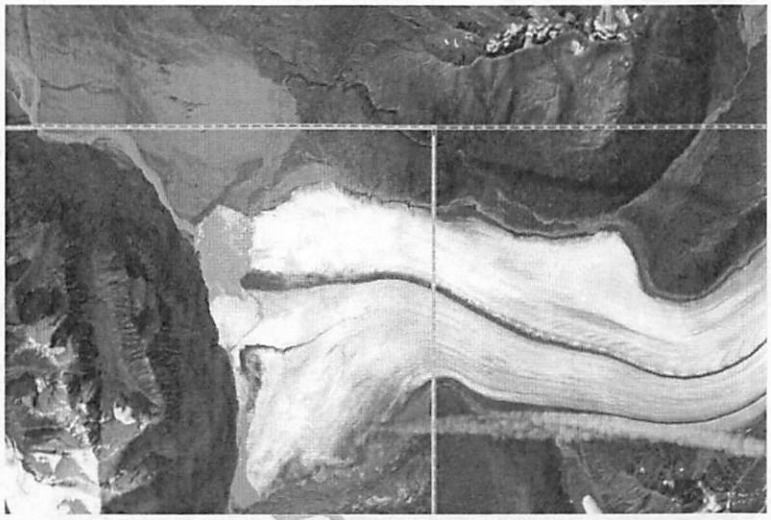
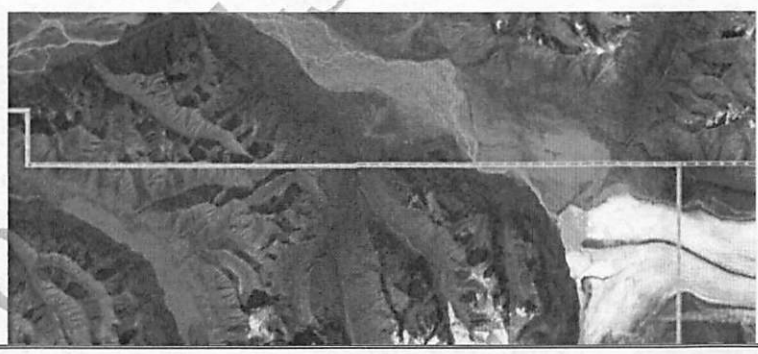


MAT-SU BOROUGH AND ANNEXATION AREA

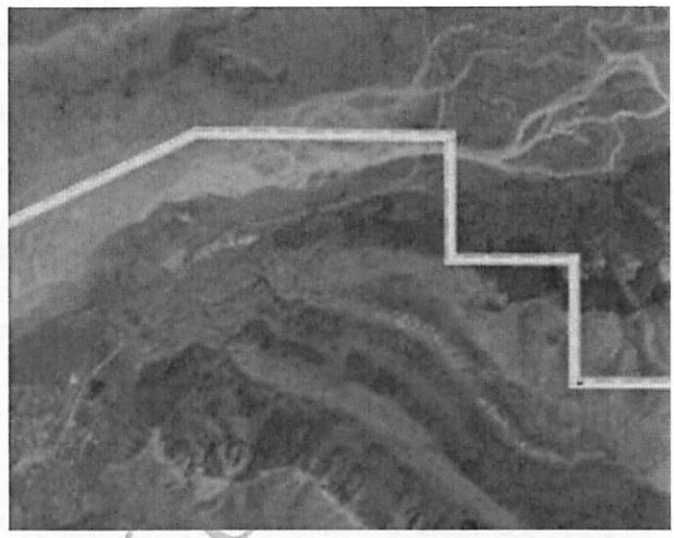
ANNEX NOW



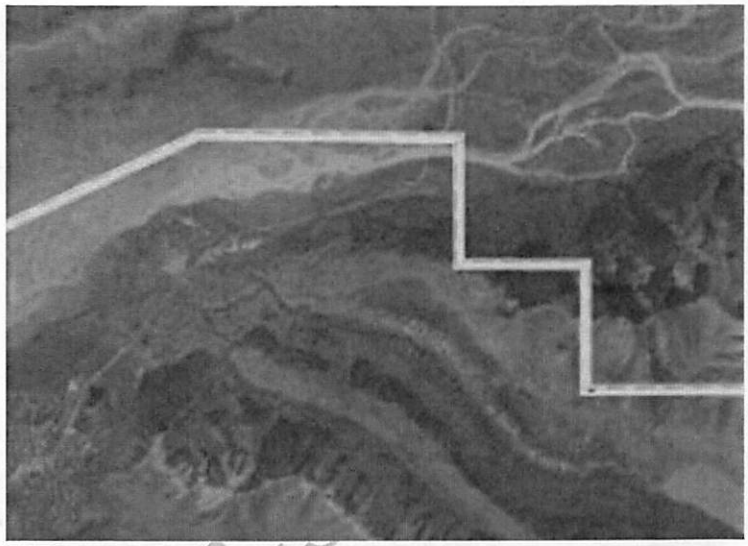
ANNEX NOW

TOWNSHIP	RANGE	SECTION	MAP
		Starting at North East Corner of S15N005E located at Latitude 61.4262N, Longitude 148.4624W. Traverse 23.8 miles West on Latitude 61.4262N	 

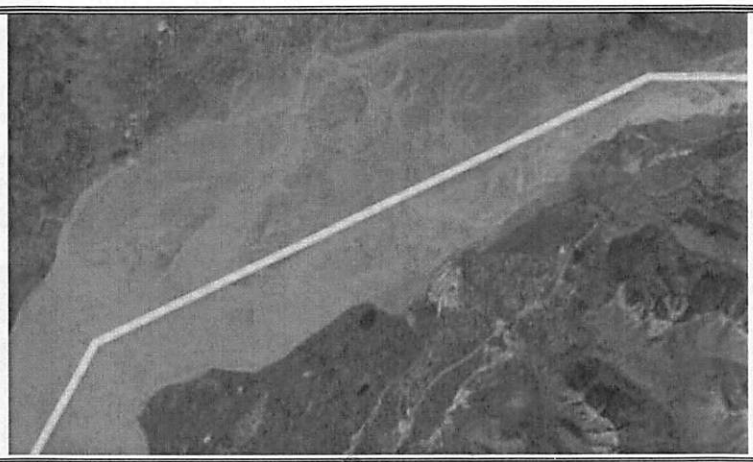
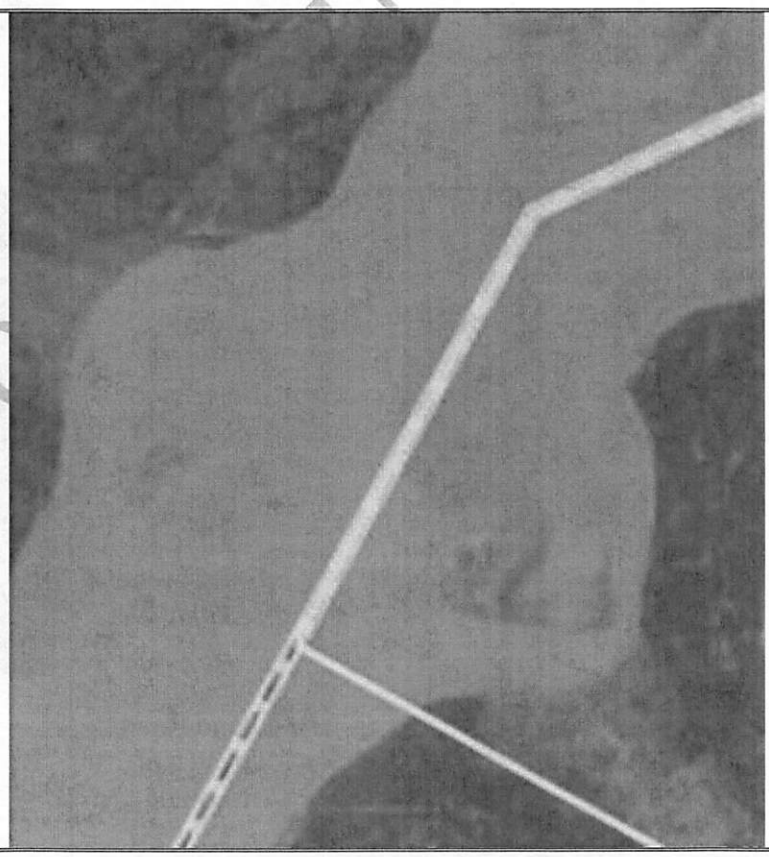
ANNEX NOW TO MAT-SU

TOWNSHIP	RANGE	SECTION	MAP
		At the South West Corner of S16N001E located at Latitude 61.4262N, Longitude 149.1804W. Traverse 2 miles North on Longitude 149.1804W	

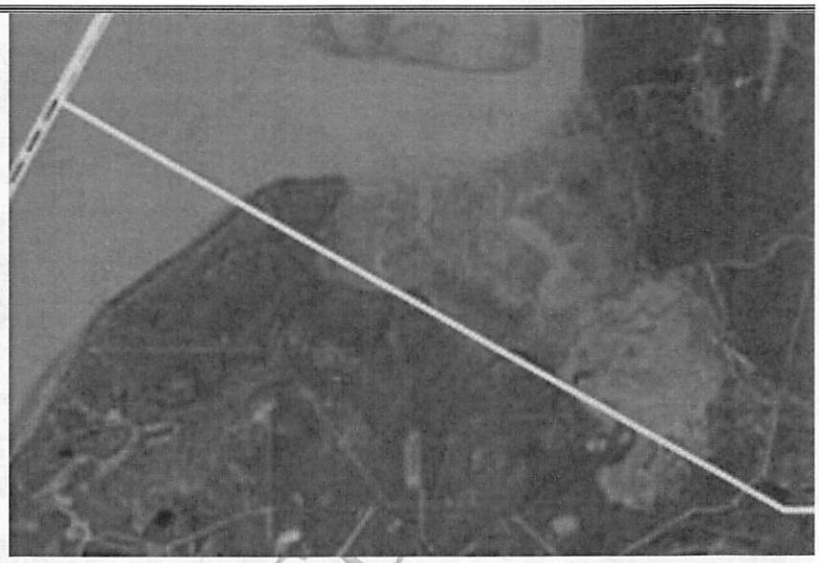
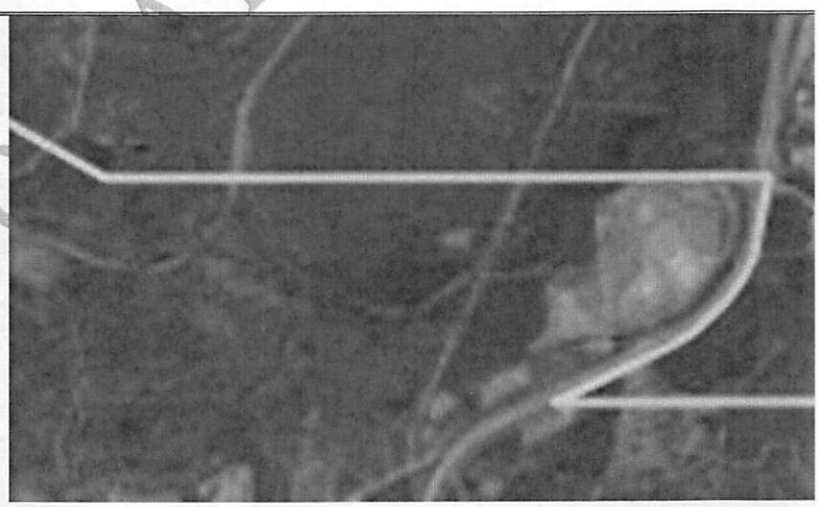
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TOWNSHIP	RANGE	SECTION	MAP
		At the North East Corner of S16N001E located at Latitude 61.4550N, Longitude 149.1804W. Traverse 2 miles West on 61.4550N	
		At the South West Corner of S16N001E27 located to Latitude 61.4550N, Longitude 149.2407W. Traverse 2 miles North on 61.4550N.	
		At North East Corner of S16N001E15 located at Latitude 61.4840N, Longitude 149.2407W. Traverse 4.1 miles West on 61.4840N.	

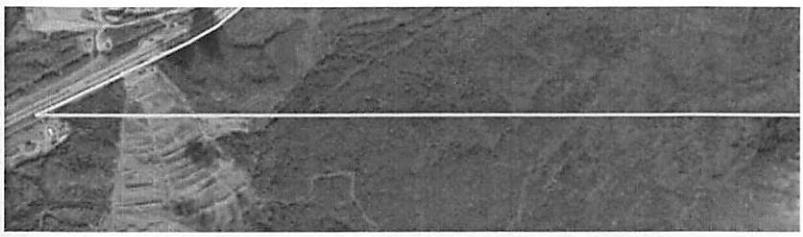
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TOWNSHIP	RANGE	SECTION	MAP
		At the North East Corner of S16N001W13 located at Latitude 61.4840N, Longitude 149.3594W. Traverse 14 miles Southwest down the Knik River.	
		Near the North East Corner of S15N003W14 located at Latitude 61.3974N, Longitude 149.7484W. Traverse 4.9 miles Southwest down the Knik River.	

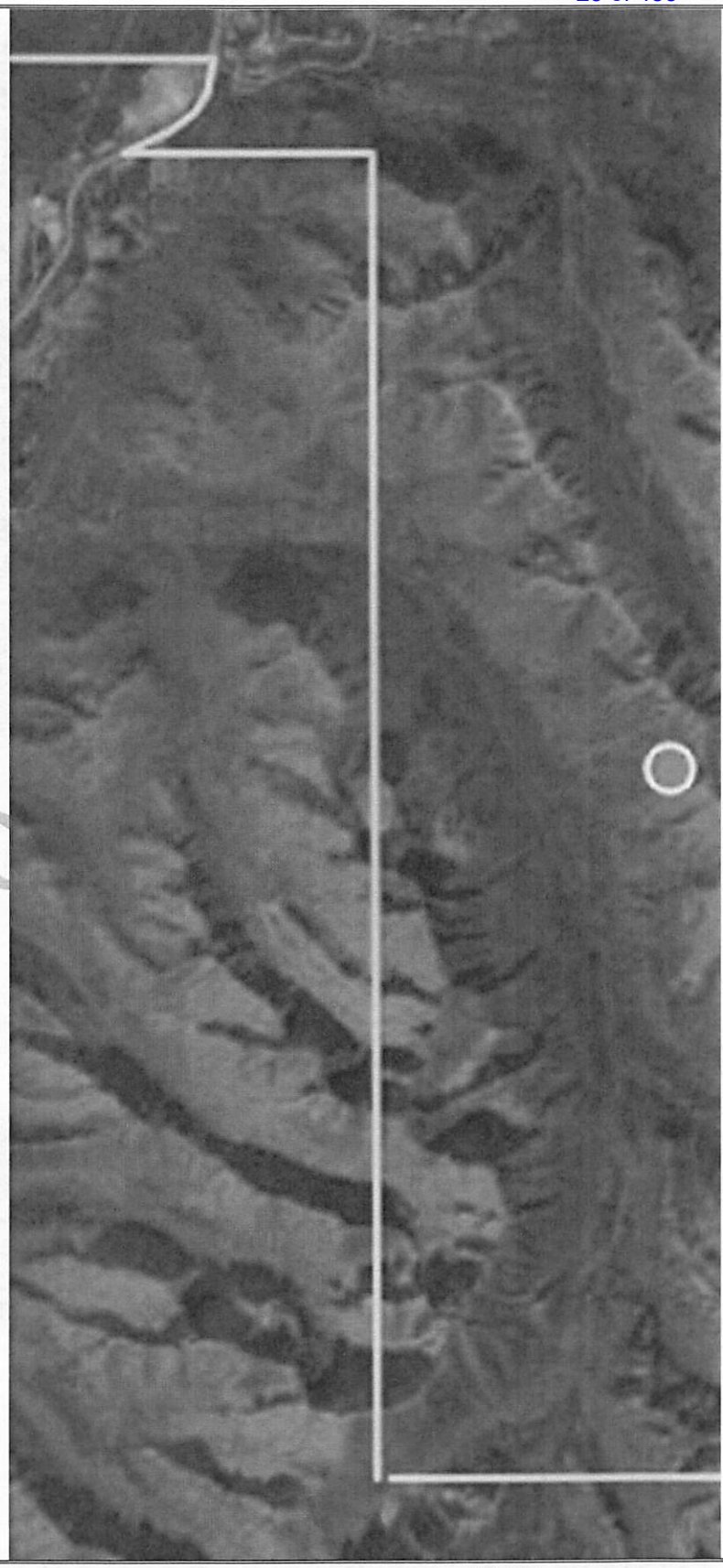
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TOWNSHIP	RANGE	SECTION	MAP
		Between Section lines S14N003W04 and S15N003W33 located at Latitude 61.3396N, Longitude 149.8200W. Traverse 5.5 miles Southeast along the Southern portion of the Eagle River Flat area to the Southern shore of Gwen Lake..	
		At the Southern shore of Gwen Lake located at Latitude 61.2961N, Longitude 149.6762W. Traverse East 2.9 miles to the North East corner of the Glenn Hwy at the North bound onramp at Hiland Road, located at Latitude 61.2961N, Longitude 149.5883W.	

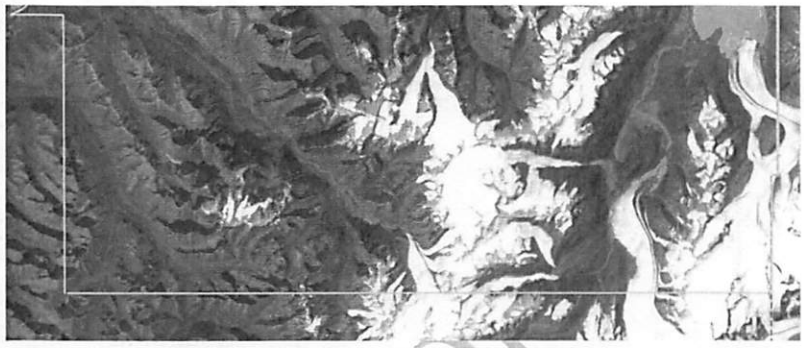
ANNEX NOW TO MAT-SU

TOWNSHIP	RANGE	SECTION	MAP
		At the North East corner of the Glenn Hwy at the North bound onramp at Hiland Road, located at Latitude 61.2961N, Longitude 149.5883W. Traverse 1.5 miles along the curvature of the Eastern Right of Way of the North Bound Glenn Hwy to Latitude 61.2816N, Longitude 149.6168W, which is near the North East corner of the State of Alaska DOT Way Station.	
		At the State of Alaska DOT Way Station located Latitude 61.2816N, Longitude 149.6168W. Traverse 2.6 miles East on Latitude 61.2816N to the conversion of Longitude 149.5387W near Hiland Mountain.	
TOWNSHIP	RANGE	SECTION	MAP

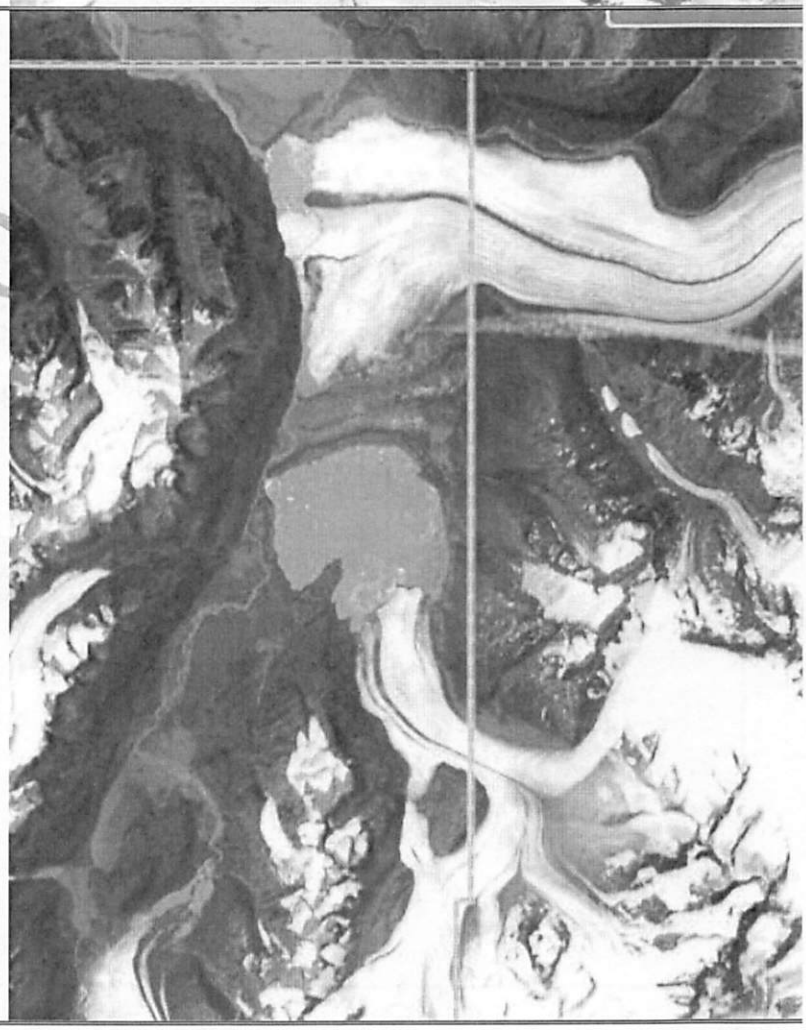
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TOWNSHIP	RANGE	SECTION	MAP
		At Latitude 61.2816N, Longitude 149.5387W near Hiland Mountain. Traverse 14 miles South to near the north end of Ship Lake, located at Latitude 61.0794N, Longitude 149.5322W.	

ANNEX NOW TO

		At the north end of Ship Lake, located at Latitude 61.0794N, Longitude 149.5322W. Traverse East along Latitude 61.0794N for 35.5 miles to the junction of Latitude 61.0794N, Longitude 148.4720W which is Southwest form Mt. Muir.	
		At Latitude 61.0794N, Longitude 148.4720W. Traverse 5.9 miles North along Longitude 148.4720W to the junction of Latitude 61.1662N, Longitude 148.4720W, which is located near the northern ridge of Mt. Muir and West of Mt. Gilbert.	

ANNEX NOW TO MAT-SU DRAFT

TOWNSHIP	RANGE	SECTION	MAP
		At Latitude 61.1662N, Longitude 148.4720W. Traverse East for about 1/3 mile to the junction of Latitude 61.1662N, Longitude 148.4627W.	
		At Latitude 61.1662N, Longitude 148.4627W. Traverse 17.9 miles North along Longitude 148.4627W over Colony Glacier and along the Eastern shore of Inner Lake George to Latitude 61.4262N, Long 148.4624W which is the Southern boundary of Mat-Su Borough.	

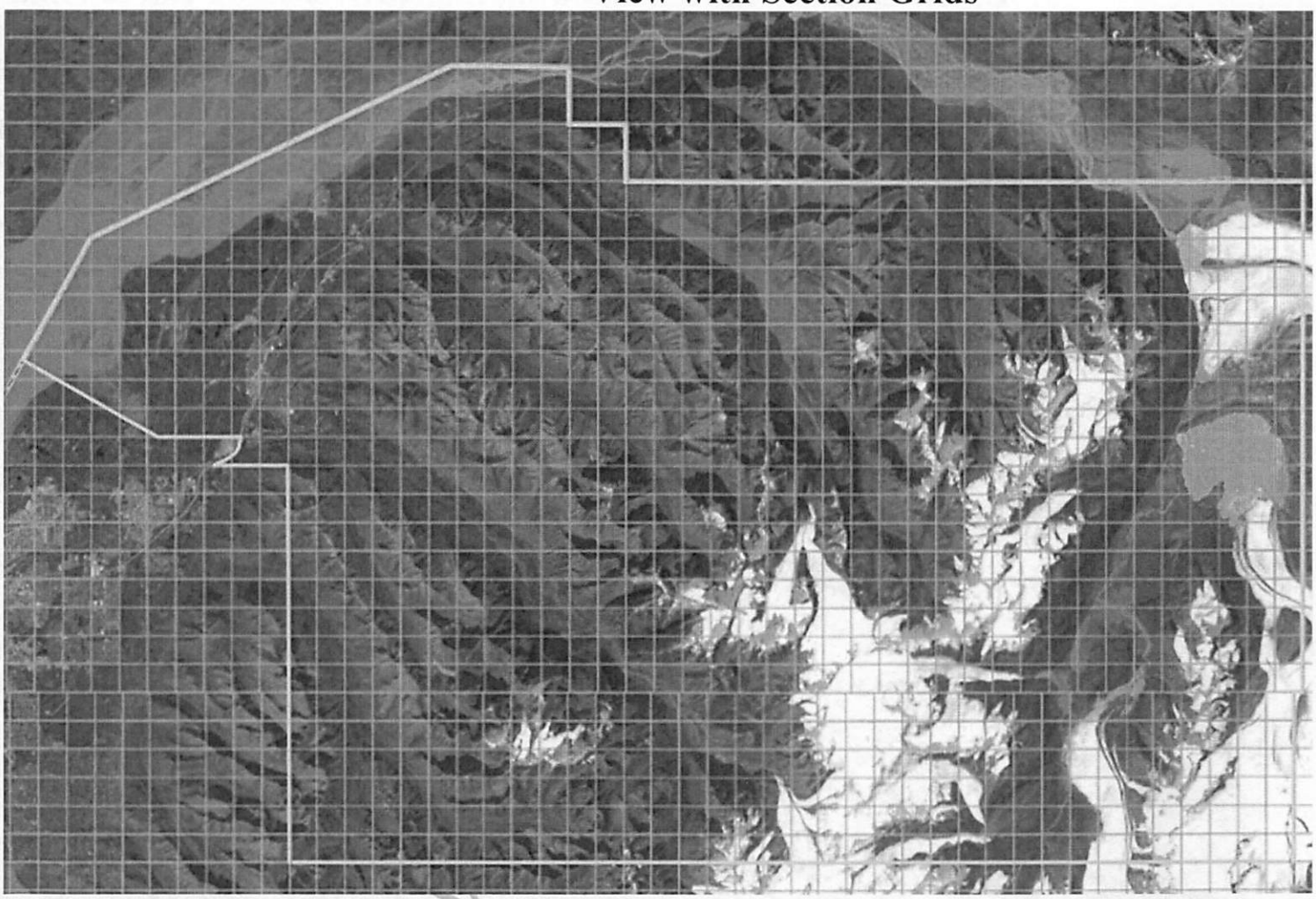
ANNEX NOW TO

Zoom In of Anchorage Landfill, Eagle River Loop Rd, & Hiland R



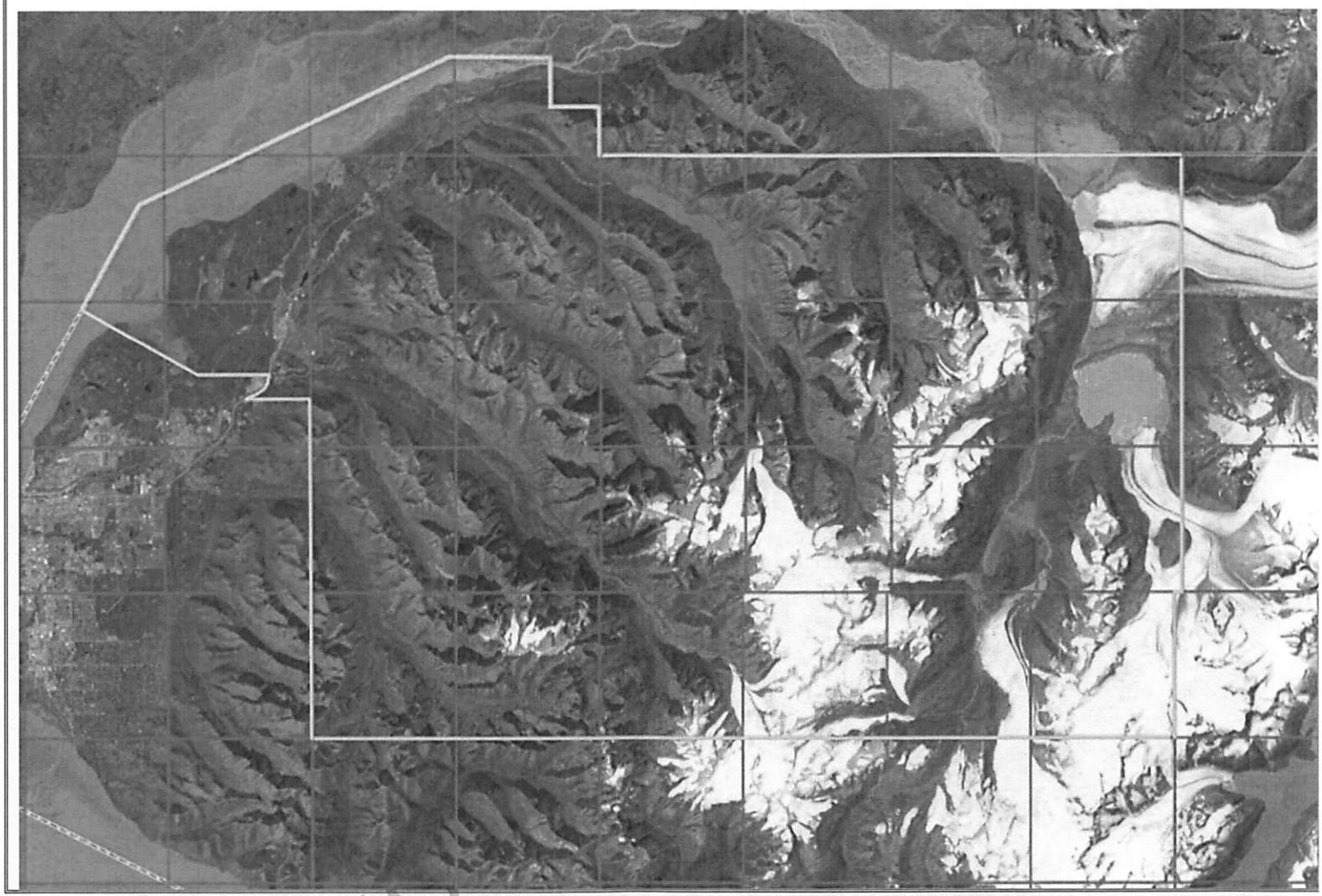
ANNEX NO

View with Section Grids



ANNEX NOW

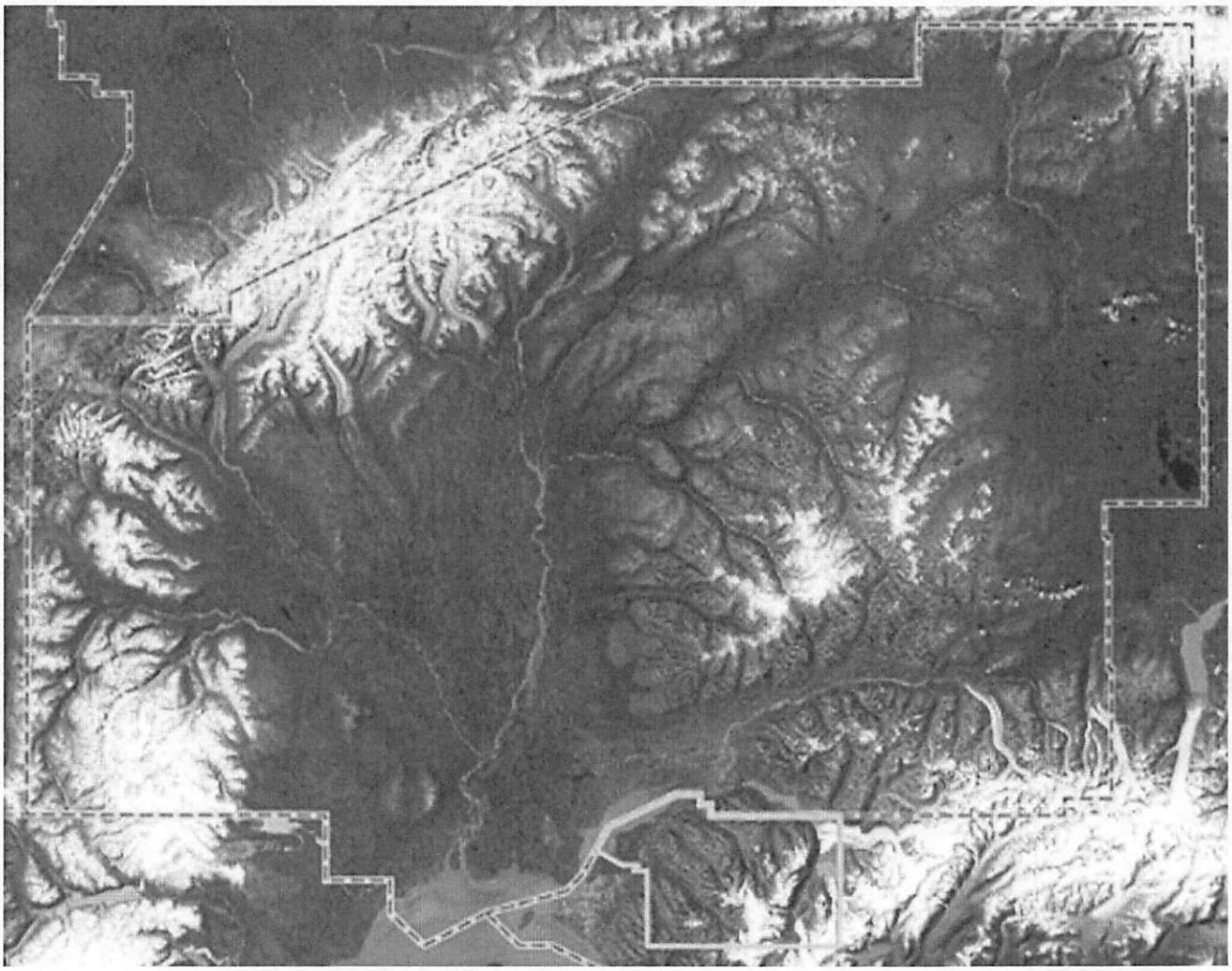
View with Township Grids



ANNEX NO

Map of the Existing Boundaries of the borough and the boundaries of the area.

This includes the USGS quad information and dates. Any plats required by the department to demonstrate the accuracy of the legal descriptions are also included.



Size of the Area Proposed for Annexation

3 AAC 110.420(b)(8).

a) The existing borough proposing annexation encompasses **25,258** square miles.

b) The area encompasses **990** square miles.

c) The borough after the proposed annexation would encompass **26,248** square miles.

DRAFT

Data Estimating the Population of the Area Proposed for Annexation

3 AAC 110.420(b)(9).

a) The estimated population within the current boundaries of the borough is **117,613**. (Data compiled from www.census.gov/quickfacts and Matanuska-Susitna Borough Alaska. which includes data from the 2020 US Census)

b) The estimated population of the area is **34,147**. (Data compiled from 3 A.I. websites which includes data from the 2020 US Census)

c) The estimated population of the borough after the proposed annexation is **151,760** which will involve a **30%** population increase.

ANNEX NOW TO MAT-SU

Tax Data

3 AAC 110.420(b)(12).

a) The assessed or estimated value of taxable property in the area proposed for detachment (for any existing municipality for which a change is proposed that currently levies or proposes to levy property taxes).

Real property $ **5,033,585,668**

Tax Categories	General Revenue Tax for 2025	General Projected Revenue Tax for 2026
Alcohol		
E-911		
Marijuana		
Motor Fuel		
Room		
Tobacco		
Vehicle		

DRAFT

ANNEX NOW TO MAT-SU DRAFT

TAX AREA	MUNI MILL RATE	Muni 2025 Budget	MAT-SU MILL RATE	Mat-Su 2025 ANNEX BUDGET
Areawide General	0.21	$1,083,931	8.748	$ 45,153,493.09
Non-Areawide			0.371	$ 1,914,945.81
Areawide EMS – Lease, Fund	0.02	$103,231	0	
Chugiak Fire Service Area	1	$1,614,746	1.2	$ 1,937,695.20
Areawide APD I.T. Systems	0.04	$206,463	0	
Chugiak, Birchwood, Eagle River Rural Road Service Area	2.1	$10,839,315.90	2.1	$ 10,839,315.90
Eaglewood Contributing Road Service Area	0.42	$137,288	0.42	$ 137,288.00
Eagle River Street Light Service Area	0.2	$338,544	0.2	$ 338,544.00
Anchorage Fire Service Area	2.18	$11,252,242	0	
Public Safety / Police Anchorage Metropolitan Police Service Area	3.61	$18,633,300	1.5	$7,742,369
Eagle River Chugiak Parks & Recreation Service Area	1	$5,161,579	1	$ 5,161,579.00
Eagle River Fire – Station 11	0	$0	1.2	$1,937,695
Education	6.32	$32,621,179.28	5.36 inckuded in areawide	
Sunset Repayment Bond	0	0	1.5	$7,742,368.50
TOTAL	**17.1**	**$81,991,819**	**18.239**	**$82,905,293**
Sunset Bond Adjustment			16.739	$ 75,162,924.70

Service Area Totals	**$**	**35,836,854.30**
School District Totals	**$**	**27,666,063.44**
Borough Totals	**$**	**19,402,375.46**
	$	**82,905,293.20**

ANNEX NOW TO

Existing Long Term Municipal Debt

3 AAC 110.420(b)(14)

Municipality of Anchorage
The Municipality of Anchorage has more than $466 million in general obligation bonds outstanding through 2042. It authorized but not issued an additional $104 million in bonds. The total bond obligation is $560 million.

ASD Bond
ASD has more than $163 million in general obligation bonds outstanding.

Total bond obligation for the Municipality of Anchorage and ASD is $723 million.

Matanuska-Susitna Borough
The Matanuska-Susitna Borough has more than $166,420,000 in general obligation bonds outstanding through 2042.

Responsibility of Chugiak / Eagle River toward Bonds
The Petition Area of Chugiak / Eagle River is responsible for a portion of the general bonds outstanding with the Municipality of Anchorage. Based on demographic formation, the Petition area represents a population of 12.15% for the Municipality of Anchorage, which the equality of debt obligation for the Petition area would equal $90 million. Post-annexation will not impose Petition area Municipality of Anchorage bond obligations onto the residents of the Borough, rather that is the responsibility of the Petition area until the bond obligation is paid off. A Mill rate of 2 will be assed to the Area which will sunset upon fulfillment of the bond repayment (which is calculated to take 9 years). Funds collected toward the repayment shall be held in a third-party escrow account.

The post-annexation would involve the Petition area to contribute to all debts owed by the Borough through Borough taxation.

ANNEX NOW MAT-SU DRAFT

Municipal Powers and Functions. 3 AAC 110.420(b)(15).

The powers and functions of any existing municipality for which change is proposed.

Name of municipality or service area	Powers and functions before the proposed change	Powers and functions after the proposed change
Chugiak Volunteer Fire Depart.	Service Area under the Municipality of Anchorage	Service Area under the Borough of Matanuska-Susitna
Eagle River Fire Service Area (Station 11)	Service Area under the Municipality of Anchorage	Service Area under the Borough of Matanuska-Susitna
Chugiak - Eagle River Rural Road Board Service Area	Service Area under the Municipality of Anchorage	Service Area under the Borough of Matanuska-Susitna
Chugiak - Eagle River Parks and Recreation	Service Area under the Municipality of Anchorage	Service Area under the Borough of Matanuska-Susitna
Eagle River Street Lights	Service Area under the Municipality of Anchorage	Service Area under the Borough of Matanuska-Susitna
Eaglewood Contributing Road	Service Area under the Municipality of Anchorage	Service Area under the Borough of Matanuska-Susitna
Chugiak / Eagle River Public Safety	Not existent	Service Area under the Borough of Matanuska-Susitna

Borough Assembly Composition and Appointment

3 AAC 110.420(b)(17).
(Both before and after the proposed annexation).

Prior to annexation the area of interest currently has two (2) assembly members who represent District 2 for the Municipality of Anchorage. The proposed annexation into Matanuska-Sustina Borough would constitute either a new formulation of constituents per the current 7 assembly members or a borough change in the assembly structure to represent the current constituent demographics. The final decision will be on the Matanuska-Susitna Borough. In either case new elected representative would need to be chosen. The appointment of a temporary assembly member(s) by the Matanuska-Susitna Borough Assembly shall occur until regular elections occur.

ANNEX NOW MAT-SU BOROUGH

ANNEX NOW TO MAT-SU DRAFT



A viable, makes sense plan to recognize and accept Chugiak / Eagle River which is attainable NOW!

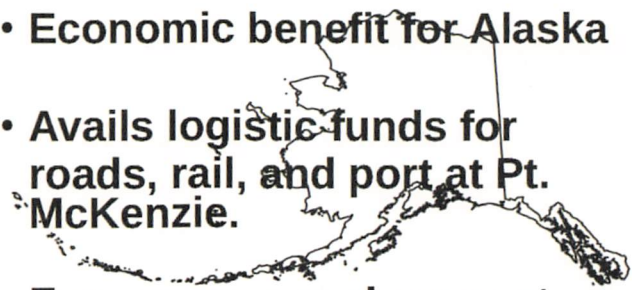
Annexation into the Mat-Su Borough means...

- In an established Borough,
- Fiscally responsible governance,
- Established & effective education for our youth,
- Lower taxes on property and specialty fees,
- Residents being heard,
- Removes over-regulations,
- Honors Service Areas.

Separate from the Muni and Annex Now to Mat-Su

BENEFITS TO ANNEX NOW

- Promotes Alaska for Alaskans
- Shared Alaska values rather than rogue dysfunctions of Anchorage
- Economic benefit for Alaska
- Avails logistic funds for roads, rail, and port at Pt. McKenzie.



- Encourages and supports business growth
- Stimulates jobs, workforce & family security
- Greater voice in Juneau
- Supports stability of families

By:
Introduced:
Public Hearing:
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 26-11

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION EXPRESSING SUPPORT FOR THE PROPOSED ANNEXATION OF THE CHUGIAK, EAGLE RIVER, PETERS CREEK, EKLUTNA, AND ASSOCIATED AREAS INTO THE MATANUSKA-SUSITNA BOROUGH.

WHEREAS, the Matanuska-Susitna Borough Planning Commission serves as an advisory commission to the Borough Assembly on matters affecting the orderly growth, development, and long-range planning of the Borough; and

WHEREAS, a petition has been submitted to the Alaska Local Boundary Commission proposing annexation of approximately 990 square miles from the Municipality of Anchorage into the Matanuska-Susitna Borough, including the communities of Chugiak, Eagle River, Peters Creek, Eklutna, and associated lands; and

WHEREAS, the petition estimates that approximately 34,147 residents would become residents of the Matanuska-Susitna Borough as a result of annexation, increasing the Borough's population to more than 150,000 residents; and

WHEREAS, the proposed annexation area shares substantial transportation, economic, recreational, employment, utility, and social connections with the Matanuska-Susitna Borough through the

Glenn Highway corridor and longstanding regional relationships; and

WHEREAS, residents of the proposed annexation area and residents of the Matanuska-Susitna Borough routinely utilize common transportation facilities, educational institutions, recreational amenities, commercial services, and employment opportunities, creating an interconnected regional community; and

WHEREAS, the Planning Commission finds that the proposed annexation area constitutes a logical geographic extension of the Borough's existing southern boundary and would create opportunities for coordinated land use planning, transportation planning, emergency service coordination, economic development, and regional infrastructure planning; and

WHEREAS, the Planning Commission further finds that residents of the proposed annexation area should be afforded the opportunity to determine through the processes established by Alaska law whether they wish to become part of the Matanuska-Susitna Borough; and

WHEREAS, the Alaska Constitution encourages maximum local self-government with a minimum number of local governmental units and promotes the establishment of logical municipal boundaries.

DRAFT

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby expresses its support for the concept of annexation of the Chugiak, Eagle River, Peters Creek, Eklutna, and associated areas into the Matanuska-Susitna Borough.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this -- day of --, 2026.

_____
RICHARD ALLEN, CHAIR

ATTEST

_____
LACIE OLIVIERI, PLANNING CLERK

(SEAL)

YES:

NO:

DRAFT

INTRODUCTION FOR
PUBLIC HEARING LEGISLATIVE

Resolution No. 26-13

A Resolution Of The Matanuska-Susitna Borough Planning Commission Supporting The Engstrom Road To Trunk Road Corridor Project And Recommending North Route 1 As The Preferred Alignment Identified In The October 2025 Draft Route Selection Report.

Staff: Alex Strawn, Planning and Land Use Director

Public Hearing Date: August 3, 2026

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

ROUTE SELECTION REPORT

FINAL

Prepared for:

Matanuska-Susitna Borough
350 East Dahlia Avenue
Palmer, Alaska 99645

Prepared by:

1617 S. Industrial Way, Suite 3
Palmer, AK 99645
907.746.5230

Reviewed by:
Shawn Hull, P.E.
Project Manager

July 2026

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APPENDICES

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LIST OF ABBREVIATIONS

AADT ..... Annual Average Daily Traffic
COP ..... City of Palmer
COW ..... City of Wasilla
DCM ..... Design Criteria Manual
DOT&PF ..... Alaska Department of Transportation & Public Facilities
FHWA ..... Federal Highway Administration
GCI ..... General Communications, Inc.
HDL ..... HDL Engineering Consultants, LLC
HSIP ..... Highway Safety Improvement Program
LOS ..... Level of Service
LRTP ..... Long Range Transportation Plan
MEA ..... Matanuska Electric Association
MSB ..... Matanuska-Susitna Borough
MTA ..... Matanuska Telephone Association
OSHP ..... Official Streets & Highways Plan
ROW ..... Right-of-Way
TIP ..... 2021 Transportation Infrastructure Projects
USACE ..... United States Army Corps of Engineers

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1.0 INTRODUCTION

The Matanuska-Susitna Borough (MSB) is reviewing potential routes for a major collector roadway from Engstrom Road to Trunk Road or Palmer-Fishhook Road in the Fishhook Triangle Area. This Route Selection Report presents the alignment analysis and recommends a route that will address the area's need for improved connectivity and safety, as well as accommodate current and future traffic volumes. The project study area in this evaluation is shown in Figure 1.

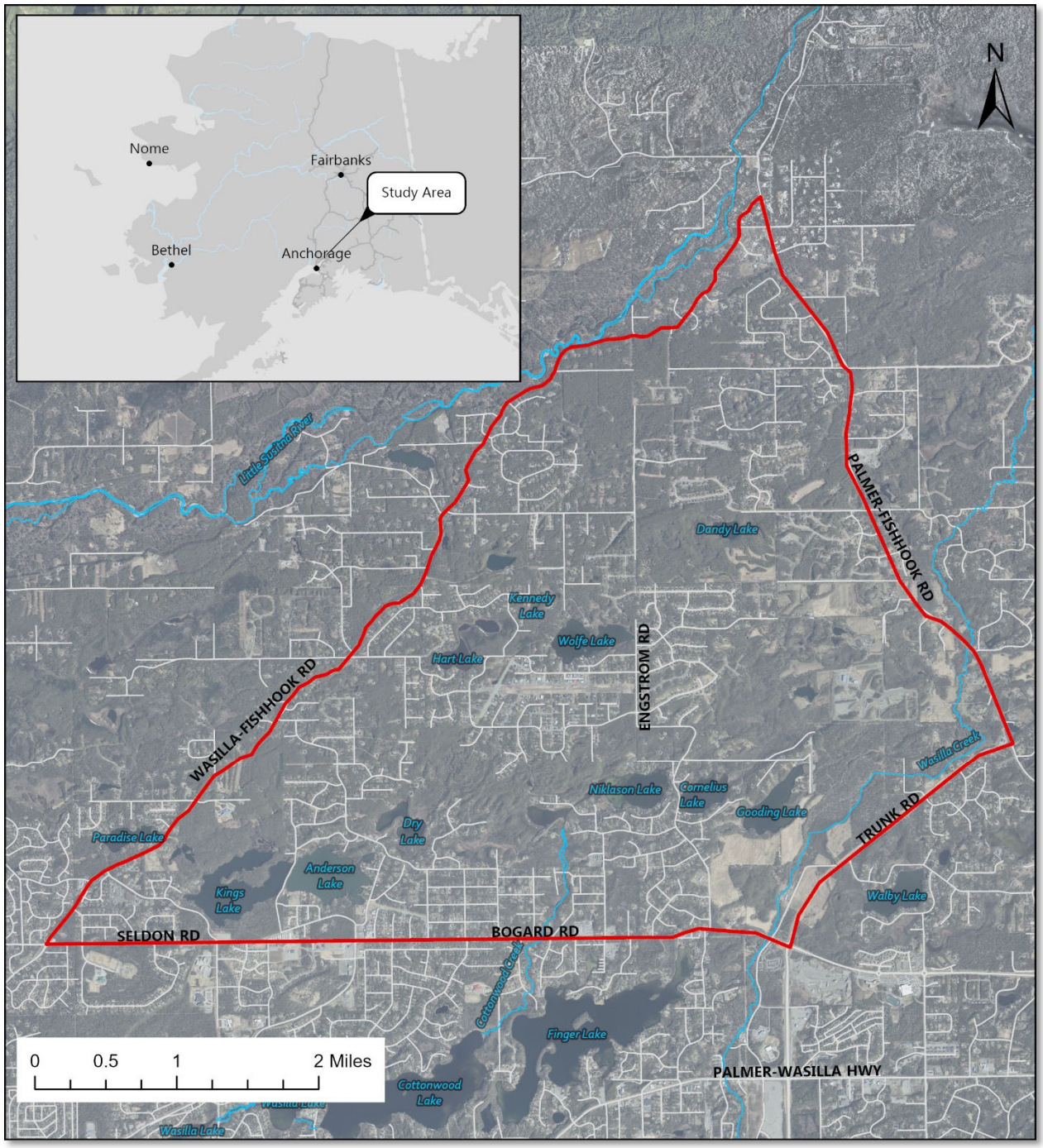


Figure 1: Project Area

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The Engstrom Road to Trunk Road Corridor project area is located within an area of the MSB bounded by Wasilla-Fishhook Road, Palmer-Fishhook Road, Trunk Road, and Bogard Road, referred to locally as the Fishhook Triangle. The Fishhook Triangle area is comprised of portions of the Fishhook, North Lakes, and Farm Loop communities.

1.1 Purpose and Need

Both the rapid increase in residential and commercial development within the Fishhook Triangle and the corresponding increase in local traffic have increased demand on the poorly connected network of local roads. Currently, Engstrom Road serves as a north-south collector roadway from the center of the Fishhook Triangle south to Bogard Road. There are no direct connections between Engstrom Road and Trunk Road or Palmer-Fishhook Road. Traffic traveling to and from Trunk Road and Engstrom Road must use Bogard Road and enter using the only collector intersection serving the area within the Fishhook Triangle. This has resulted in a high concentration of traffic at the Engstrom Road and Bogard Road intersection. In particular, left-turning traffic from Engstrom Road onto Bogard Road has limited sight distance and faces heavy congestion. Also, the crash rate at this intersection is higher than the statewide average for similar intersections (see the Traffic Analysis included in Appendix A).

The MSB has identified the need to construct a major collector roadway between Engstrom Road and either Palmer-Fishhook Road or Trunk Road to provide congestion relief, safety improvements, and alternative access along Engstrom Road (Figure 2). According to the MSB's February 2025 Design Criteria Manual, a major collector roadway is designed to permit relatively unimpeded traffic movement and is intended for use in commercial/industrial or high-density residential areas.

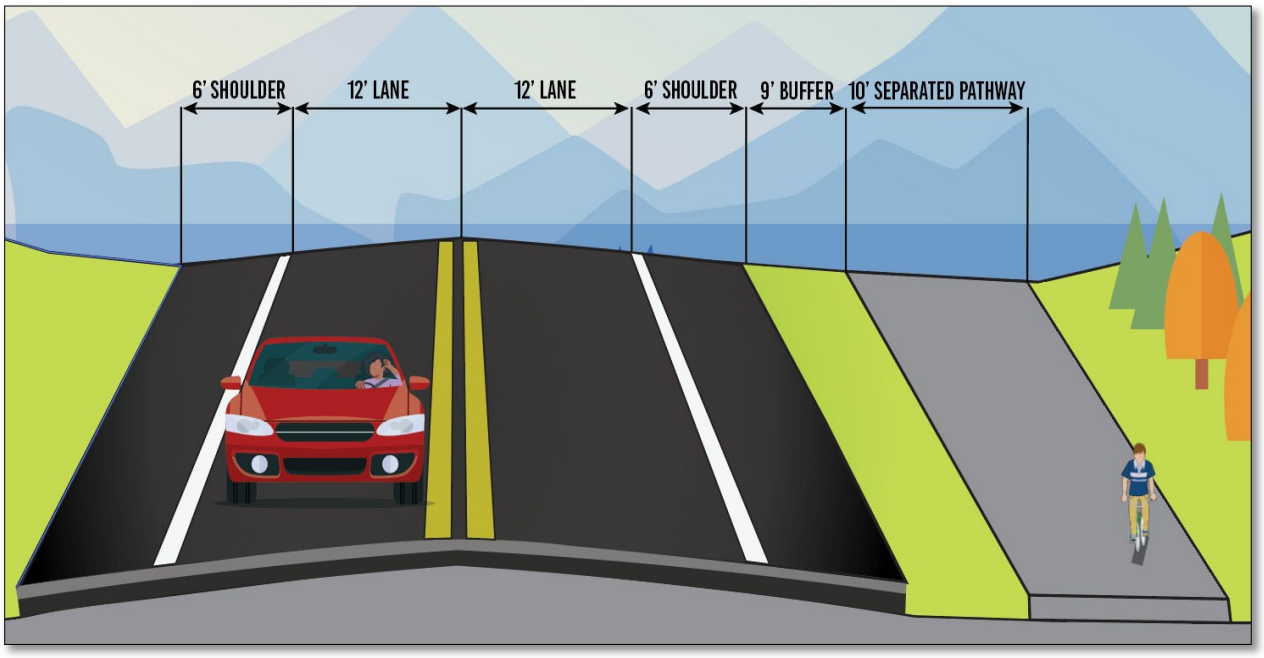


Figure 2: Major Collector Roadway

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The proposed project may include:

- Construction of a major collector roadway from Engstrom Road to either Palmer-Fishhook Road or Trunk Road
- Drainage Improvements
- Construction of water crossings (bridges or culverts) at Wasilla Creek and other waterways in the area
- Wetland impacts
- Right-of-Way (ROW) acquisitions
- Signage and other roadside hardware
- Lighting
- Utility work
- Vegetation clearing and grubbing
- Non-motorized pathway (pending funding availability)

2.0 OVERVIEW OF THE PROJECT AREA

2.1 Population Growth

The MSB, along with its Core Area, has experienced continued rapid growth over the last several decades. According to the MSB's 2022 Official Streets and Highways Plan (OSHP), the population growth rate in the MSB has increased approximately 4% per year since the 1980s. The expectation is that this level of growth will continue through 2045. As a rural area with no mass transit system in place, increases in traffic volumes will outpace upgrades to the existing road network. As population and traffic volumes grow, road congestion and safety issues on the existing road network will become exponentially worse if improvements are not made.

2.2 Land Use and Transportation Goals

The Fishhook Triangle is not located within a city zoning boundary or within an MSB special-use district. Land uses within the Fishhook Triangle consist of undeveloped lands, low- and high-density residential parcels, commercial, industrial, and agricultural development. Due to a lack of land use and zoning requirements, land uses in the area are intermixed with no restrictions.

The proposed project conforms with the goals and objectives of local and regional land use and transportation plans.

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2.3 Matanuska-Susitna Borough Comprehensive Plan

The MSB's Comprehensive Plan outlines the long-term vision for land use, development, and resource management within the MSB. It provides policies to guide growth, emphasizing integrated transportation, protection of residential neighborhoods, and consideration of environmental resources in future development decisions. Relevant land use and transportation goals include:

- Promoting street connectivity
- Protecting property values through compatible development
- Considerations for environmental protection in new development

2.3.1 Fishhook Comprehensive Plan

The Fishhook Community Council area (an MSB-recognized local planning area) overlaps the study area and outlines the following goals and objectives that are relevant to the MSB's proposed project:

- Transportation Goal: Develop a secondary road network that limits direct access to state arterials and ensures local roads intersect state routes at safe and regular intervals.
- Environmental and Community Objectives: Maintain scenic, recreational, and residential qualities; preserve natural vegetative buffers along roadways for wildlife movement and visual character; discourage development that could affect public land access, fish and wildlife habitat, or groundwater quality.

2.3.2 2035 MSB Long Range Transportation Plan

The 2035 MSB Long Range Transportation Plan (LRTP) assesses projected growth in the MSB over a 20-year horizon and identifies key elements of the future transportation system needed to serve its growing communities. It supports the development of new transportation corridors, such as the proposed Engstrom–Trunk connection, to enhance mobility and accommodate anticipated development. It also identifies a common public concern that new road construction can lead to increased traffic speeds, higher traffic volumes, and associated safety risks. The proposed project was identified in the 2035 MSB LRTP:

"Assess various alternatives to relieve congestion on Engstrom Road and provide a second access to Trunk Road or Palmer-Fishhook Road."

The project was approved by voters as part of the 2021 Transportation Infrastructure Projects (TIP21).

2.3.3 2022 Official Streets and Highways Plan

The 2022 OSHP serves as the MSB's official guide for identifying existing and future roadway corridors necessary to support regional growth and mobility. It outlines planned connections, including a conceptual corridor between Engstrom Road and Trunk Road designated as a future major collector roadway to improve east-west traffic circulation.

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2.4 Planned Future Development

Planned future development within the Fishhook Triangle is described below and shown in Figure 3.

2.4.1 Planned Subdivisions

There are three planned residential subdivisions that are platted for development within the Fishhook Triangle. The Stone Creek subdivision is located off Engstrom Road. Just north of Tex-Al, there are two additional residential subdivisions planned.

2.4.2 Gravel Extraction Site

A new gravel extraction site has been developed north of Bogard Road and east of Engstrom Road. There are shared-use safety concerns with the addition of truck traffic to the Engstrom Road corridor.

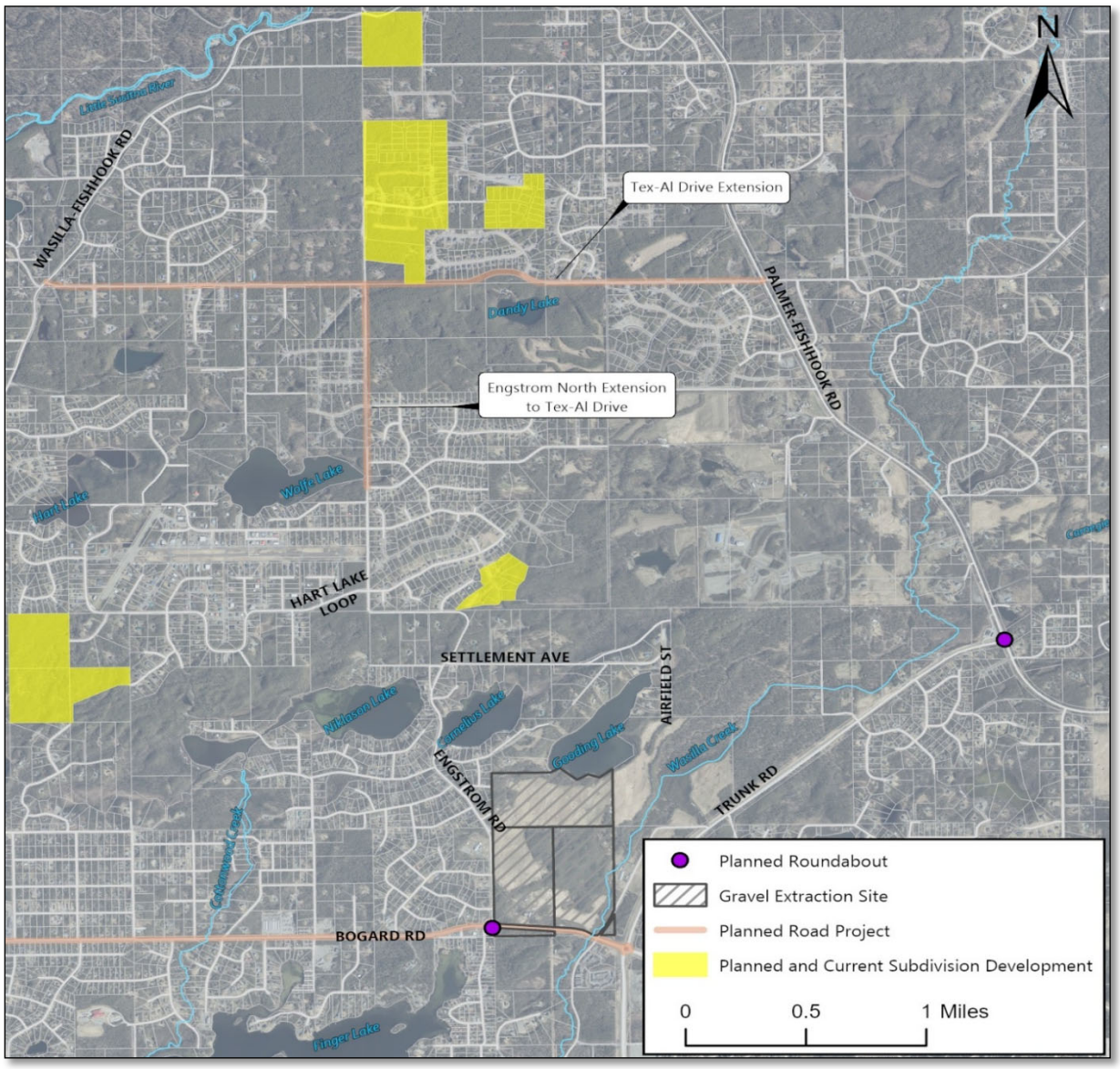


Figure 3: Planned and Current Development

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2.4.3 Level of Service

Intersection Level of Service (LOS) is a method to describe how well traffic moves through an intersection. It is based on calculations used to determine the amount of time vehicles are delayed by the intersection. Letter grades are used to categorize how well an intersection functions. Table 1 gives a description of traffic conditions for each letter grade, and a delay range (in seconds) that drivers may experience at different intersection types.

Table 1: Intersection Level of Service

LEVEL OF SERVICE	DESCRIPTION	DELAY (Two-Way Stop-Controlled or Roundabout Intersection):	DELAY (Signalized Intersection)
A	Cars move freely. Delays are less than 10 seconds. There's almost no stopping or waiting.	**0-10**	**≤10**
B	Traffic is light. Some cars might have to stop, but not for long.	**>10-15**	**>10-20**
C	Things slow down a bit. Some cars might need to wait, but most people are still moving.	**>15-25**	**>20-35**
D	Traffic is getting busy. Cars wait longer or need to stop more often, but things still move.	**>25-35**	**>35-55**
E	The intersection is close to being overloaded, lots of cars are waiting. Traffic may feel jammed.	**>35-50**	**>55-80**
F	Traffic hardly moves. Delays are long and it feels like the intersection isn't working at all.	**>50**	**>80**

The current LOS for the Engstrom leg of the Engstrom Road/Bogard Road intersection is LOS E to F during AM and PM peak traffic periods. With expected continued growth, traffic forecasting indicates that delays will increase significantly on Engstrom Road by the project design year of 2050 to a LOS F during all peak traffic periods.

2.4.4 Utilities

Utilities in the area include electricity, telephone, internet, and natural gas. Utilities generally follow the existing road network, with service lines extending to individual parcels. The following utility companies maintain and operate the existing facilities within the Fishhook Triangle area:

- Matanuska Electric Association (MEA) – overhead and buried electric
- Matanuska Telephone Association (MTA) – overhead and buried communication/fiber optic
- Enstar Natural Gas Company – buried gas
- General Communications, Inc. (GCI) – buried communication

Individual parcels utilize private or shared water wells and privately maintained septic systems. Municipal water and sewer services are not currently available within the Fishhook Triangle. The City of Palmer (COP) water and sewer system terminates near Colony High School. The COP is currently

developing a long-range plan to extend its system to the west, with the goal of connecting to the City of Wasilla (COW) system for redundancy and resiliency. The preferred alternative for the extension continues along Bogard Road, the southern border of the study area.

2.4.5 Pedestrian Facilities

In the Fishhook Triangle area, pedestrian facilities are currently limited to a separated multi-use pathway along Trunk Road. There are plans for adding pedestrian improvements along Bogard Road as part of the Department of Transportation and Public Facilities' (DOT&PF) Safety and Capacity Improvements project. The MSB's LRTP also adopted the strategy of establishing non-motorized design requirements on all major collector roads in the MSB Core Area as part of its goal to improve connectivity (Goal 3). To align with this strategy, potential separated pathway projects are under consideration for Tex-Al Drive, Palmer-Fishhook Road, and the Engstrom Road North Extension to Tex-Al Drive.

The MSB hosted a public open house regarding the Engstrom Road to Trunk Road Corridor project in March 2025 (described in more detail in Section 4.6). Public feedback collected during and after the project open house meeting indicates strong support for the addition of pedestrian facilities in the Fishhook Triangle. This is also consistent with the 2017 Fishhook Comprehensive Plan that highlights the community's desire for designated bike trails.

2.4.6 Wind and Snow Drift

The Mat-Su Valley is impacted by strong winds throughout the year, especially in the Palmer area. Operations and Maintenance staff combat drifted snow piles that often close Engstrom Road at the curve south of Glade Court (beginning of the proposed Southern Route) and the section near Cornelius Lake. An alternative route would reduce the impact of these road closures.

2.4.7 Planned Transportation Improvements

Ongoing and future planned roadway projects in the Fishhook Triangle area are depicted on Figure 3.

Engstrom North Extension to Tex-Al (MSB)

Currently in the preliminary design phase, the MSB proposes to extend Engstrom Road by establishing a new roadway connection between East Wolf Creek Road and East Aspen Ridge Road and upgrading the existing sections of roadway from East Wolf Creek Road to East Tex-Al Drive and East Aspen Ridge Road to East Beechcraft Road. Upon completion, the entire length of the project corridor will consist of a two-lane roadway designed and constructed to major collector roadway standards.

Tex-Al Drive Extension, Upgrade and Pathway (MSB)

The MSB is in the design and right-of-way acquisition phase of a proposed upgrade and extension of Tex-Al Drive between Palmer-Fishhook Road and Wasilla-Fishhook Road, providing a new connection and pathway. Currently, there are no east-west connections between Palmer-Fishhook Road and Wasilla-Fishhook Road north of Trunk Road. This project aims to:

1. Improve area traffic and pedestrian circulation
2. Provide an alternate route between Palmer-Fishhook Road and Wasilla-Fishhook Road

3. Shorten commuting time for residents in the area
4. Provide safer secondary access in case of road closures
5. Shorten emergency response time
6. Improve safety at the intersections on the east and west ends of Tex-Al Drive

Bogard Road at Engstrom Road/Green Forest Drive Intersection Improvements (DOT&PF)

The DOT&PF, in cooperation with the Federal Highway Administration (FHWA), is in the design phase of a proposed single lane roundabout at the intersection of Bogard Road with Engstrom Road and Green Forest Drive (Figure 3). The project is being developed and funded through the Highway Safety Improvement Program (HSIP), which specifically targets reducing fatalities and severe injury crashes on Alaska's roadways. The purpose of DOT&PF's Bogard Road to Engstrom Road/Green Forest Drive Intersection Improvements project is to improve safety at the intersections of Green Forest Drive and Engstrom Road with Bogard Road. The accident rate for these intersections exceeds the statewide average for similar intersections. These two existing intersections are within 200 feet of each other, which creates overlapping influence areas that potentially increase the accident rate. The DOT&PF project documents indicate an anticipated LOS of D during the AM peak hour and C during the PM peak hour at the intersection following construction.

Palmer-Fishhook Road & Trunk Road Roundabout (DOT&PF)

The DOT&PF is working on an HSIP project to reconstruct the Palmer-Fishhook Road and Trunk Road intersection. The project is currently under construction and improvements include a single-lane roundabout to replace the existing traffic control measures, consisting of stop control for Trunk Road at this three-way intersection. The purpose of the project is to improve safety by mitigating rear-end, head-on, and angle collisions related to high speeds and left-turning movements. The DOT&PF pursued this current project as a cost-effective solution to meet the fast-growing traffic volumes and improve safety for all user groups at the intersection, including, vehicular, bicycle, and pedestrian.

Bogard Road Safety and Capacity Improvements (DOT&PF)

The DOT&PF is in the preliminary design stage of a safety and capacity improvements project to upgrade Bogard Road between Trunk Road and Grumman Circle to an arterial highway standard. The project will construct a pathway and will provide safety and capacity improvements, which may include roundabouts, raised medians, widened shoulders, turn lanes, drainage, signage, addressing access management issues, improving intersections as necessary, and providing an improved clear zone.

2.4.8 Department of Transportation and Public Facilities

The Fishhook Triangle is bounded by four DOT&PF-owned and operated roads: Wasilla-Fishhook Road, Palmer-Fishhook Road, Trunk Road, and Bogard Road. Any proposed connections or upgrades that impact these roads will require consultation between the MSB and DOT&PF. All four route options require a connection with either Trunk Road or Palmer-Fishhook Road. Once a route is selected by the MSB, further government-to-government coordination will be required to determine the appropriate intersection design that meets the needs of the MSB, DOT&PF, and the traveling public.

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3.0 ROUTE OPTIONS

Four proposed routes plus the No Build option have been identified for analysis through preliminary planning, reconnaissance engineering, and public input (Figure 4). Rough, planning-level construction costs were estimated assuming general terrain and geotechnical similarities exist between the two Northern Routes and the Stone Creek to Aspen Ridge Route.

Each of the proposed routes, including the No Build option, is described in further detail below.

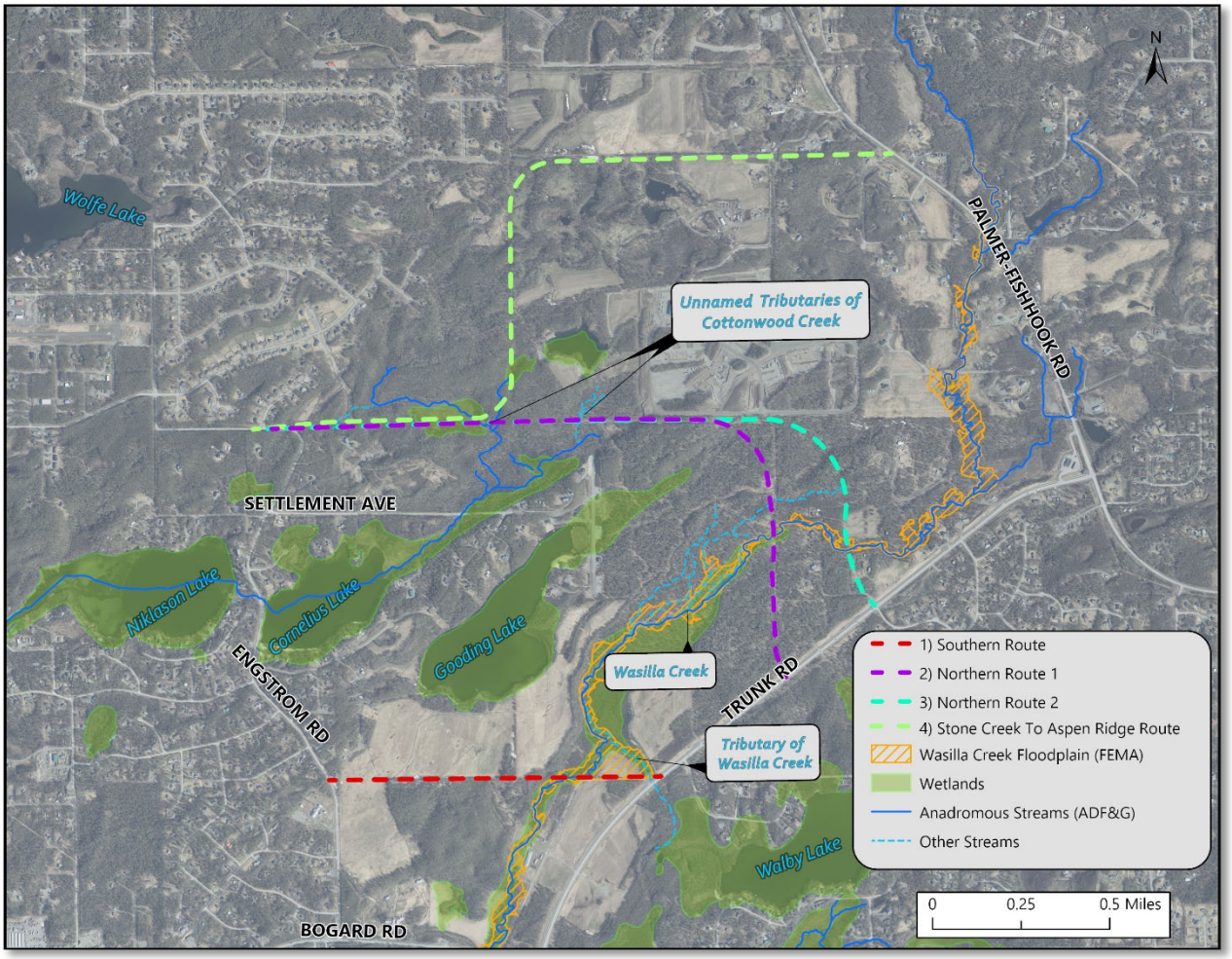


Figure 4: Proposed Route Options

3.1 No Build

The No Build option consists of maintaining the existing roadway network. No improvements or new connections would be made to Trunk Road or Palmer-Fishhook Road. With expected continued growth, traffic forecasting indicates that delays will increase significantly on Engstrom Road by the project design year of 2050 to a LOS F during all peak traffic periods. This increase in LOS will also result in queue lengths of 20-25 vehicles and delays of up to five minutes for some turning movements at the Bogard Road and Engstrom Road intersection.

The No Build option does not satisfy the purpose and need of this project for the following reasons.

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- An alternate route between Engstrom Road and Trunk Road or Palmer-Fishhook Road would not be established, failing to reduce traffic congestion and provide emergency access redundancy.
- Safety improvements would not be addressed. Traffic volumes are expected to continue to increase, and an increase in traffic volume beyond the existing roadway's design capacity greatly increases the likelihood of crashes and a reduction in safety.
- Traffic congestion would continue to get worse, and the LOS would continue to decrease.
- The No Build option does not meet the goals set forward by the MSB's adopted transportation plans.

3.2 Southern Route

The proposed Southern Route begins approximately 0.4 miles north of the Bogard Road-Engstrom Road intersection and extends east, merging into North Old Homestead Road. This is the alignment presented to voters as part of the TIP21.

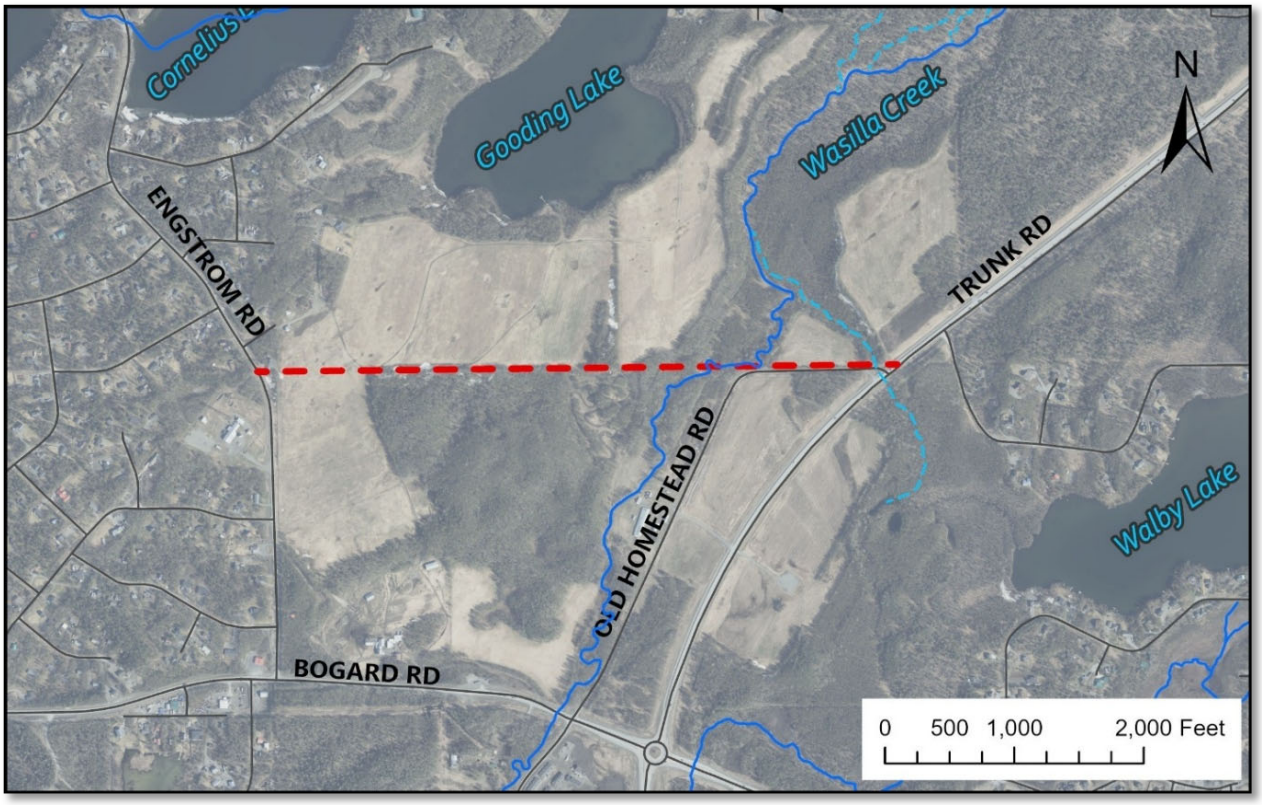


Figure 5: Southern Route

The Southern Route is approximately 0.9 miles long and would require construction of a new approach/intersection with Engstrom Road. While this alternative makes use of the existing approach to Trunk Road, improvements would be required to, at a minimum, widen the approach to match the assumed typical section and accommodate the existing multi-use pathway along Trunk Road.

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The close proximity to both the existing Trunk Road-Bogard Road roundabout and the proposed (currently in design) Bogard Road-Engstrom Road roundabout provides limited added benefit in reducing congestion, i.e., improving LOS and increasing connectivity.

Key attributes of the Southern Route are summarized below.

- Less than 1 mile long
- Planning-level estimated cost: $9.1 million
- Uses existing approach at Trunk Road (requires DOT&PF approval)
- Anadromous stream crossing of Wasilla Creek; will require a Section 404 Clean Water Act permit from the United States Army Corps of Engineers (USACE)
- Less than 0.5-mile separation from Bogard Road roundabouts at Trunk Road and Engstrom Road (proposed)
- Up to seven impacted parcels
- Aligns with road network spacing for a minor collector corridor

3.3 Northern Route 1

The proposed Northern Route 1 (Figure 6) begins approximately 1.6 miles north of the Bogard Road-Engstrom Road intersection, extends east along the ¼ Section line of Section 22 to Section 23, then turns southeast and then south, where it connects to Trunk Road approximately 0.2 miles southwest of Heaton Road.

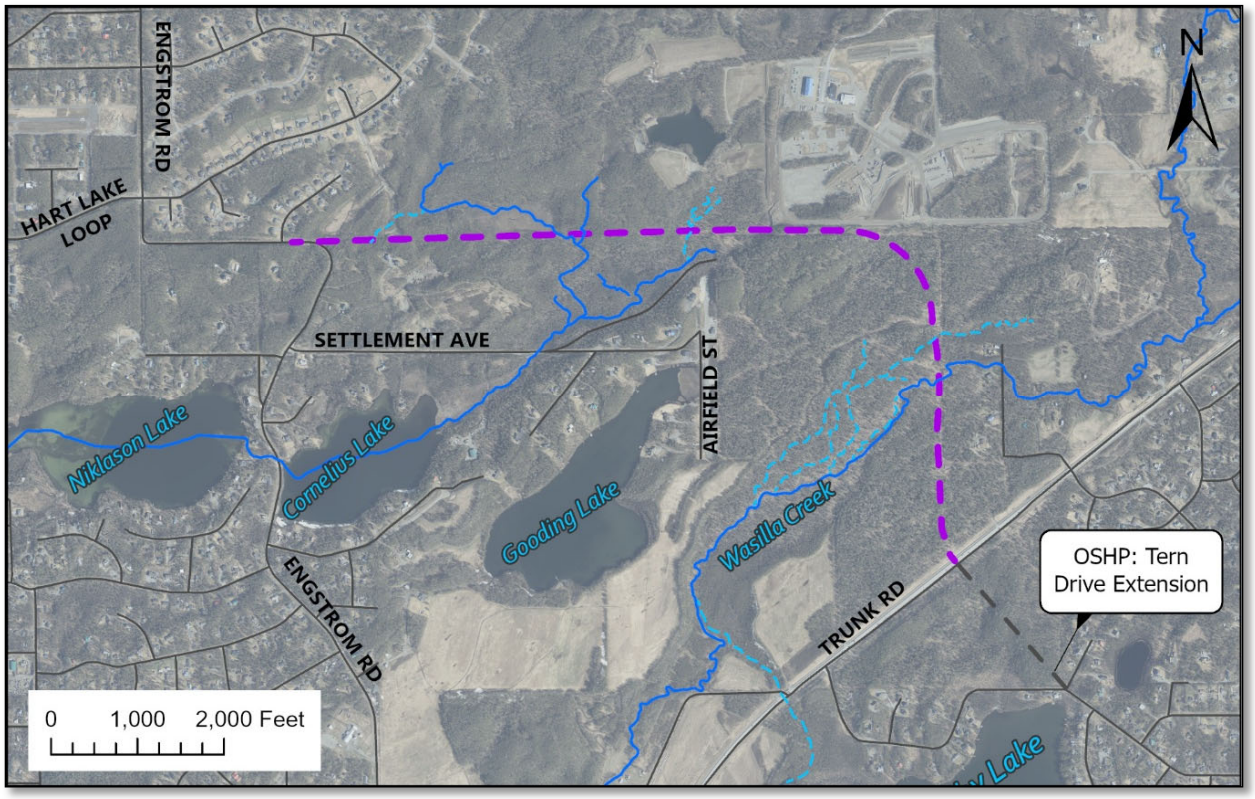


Figure 6: Northern Route 1

The proposed corridor is approximately 1.9 miles long and would require a new intersection at both Engstrom Road and Trunk Road. Trunk Road is owned and maintained by DOT&PF and will require coordination with them on the connection and an appropriate intersection configuration. The proposed intersection location with Trunk Road aligns with a proposed future collector road north of Walby Lake, identified in the OSHP.

The MSB recently approved an application for the development of the Stone Creek Phase 6 Tract Z residential subdivision, which is the property immediately north of the proposed alignment near the western end and extends approximately 3,200 feet east off of Engstrom Road. This alignment is shown in the Traffic Analysis to reduce traffic congestion at the Engstrom Road-Bogard Road intersection by providing an additional option for residents living in areas further to the north.

Key attributes of the north alignment are summarized below.

- Approximately 2 miles long
- Planning-level estimated cost: $21.6 million
- Proposed intersection with Trunk Road aligns with future collector road north of Walby Lake
- Anadromous stream crossings of Wasilla Creek and tributary of Cottonwood Creek; will require a Section 404 Clean Water Act permit from the USACE
- Greater than 1.5-mile separation from Bogard Road roundabouts at Trunk Road and Engstrom Road (proposed)
- Up to 12 impacted parcels
- Reduces future traffic volume increase from Stone Creek Development on Engstrom Road by approximately 12%
- Provides alternate collector-level route around annual road closures caused by snow drifts that typically occur south of Cornelius Lake
- Aligns with road network spacing for a major collector roadway
- Reduces ROW costs by utilizing the future Stone Creek Development roadway ROW along the proposed western connection

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3.4 Northern Route 2

The proposed Northern Route 2 (Figure 7) begins approximately 1.6 miles north of the Bogard Road-Engstrom Road intersection, extends east along the ¼ Section line of Section 22 and part of Section 23, then turns south where it connects to Trunk Road at Heaton Road.

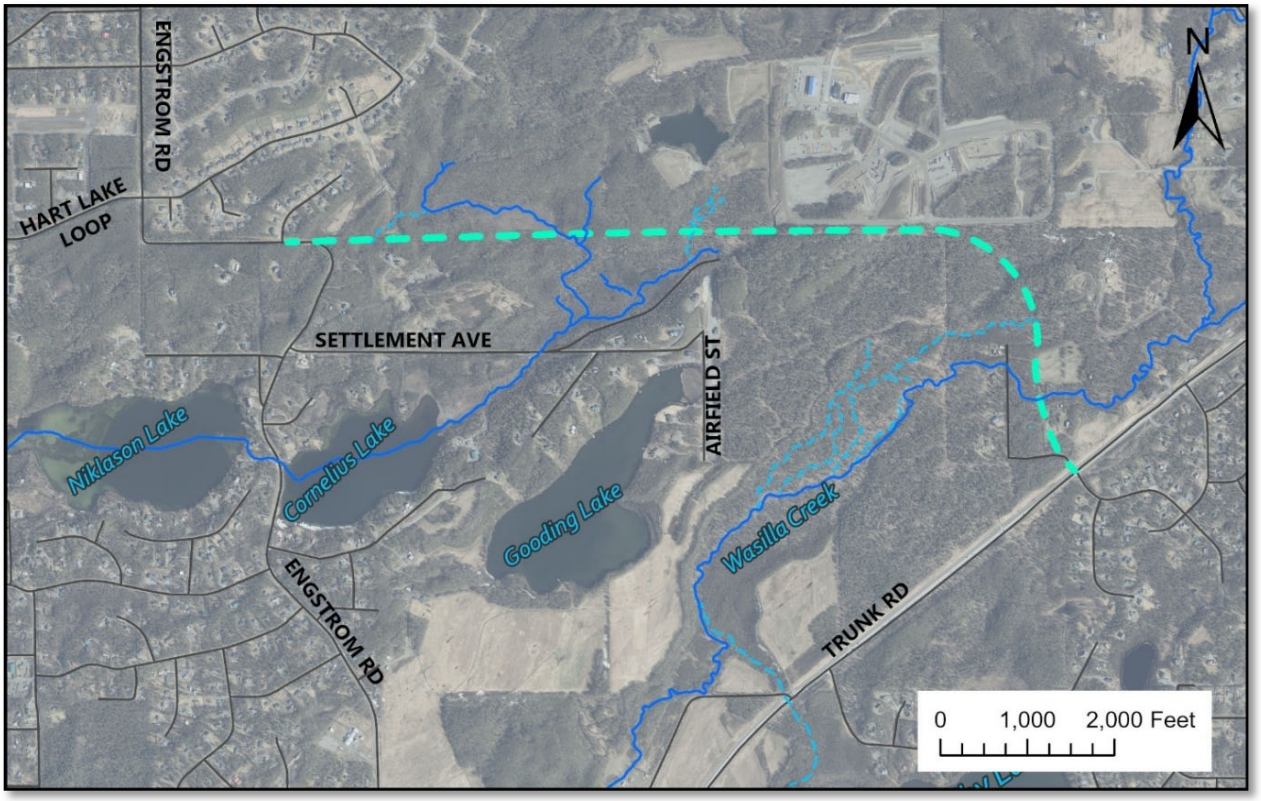


Figure 7: Northern Route 2

The proposed corridor is approximately 1.9 miles long and would require a new intersection at Engstrom Road and an upgraded intersection at Trunk Road. Trunk Road is owned and maintained by DOT&PF and will require coordination for the connection and an appropriate intersection configuration. The proposed intersection location with Trunk Road aligns with North Forestwood Drive.

The MSB recently approved an application for the development of the Stone Creek Phase 6 Tract Z residential subdivision, which is the property immediately north of the proposed alignment near the western end and extends approximately 3,200 feet east off of Engstrom Road. This alignment is shown in the Traffic Analysis to reduce traffic congestion at the Engstrom Road-Bogard Road intersection by providing an additional option for residents living in areas further to the north.

Key attributes of the Northern Route 2 are summarized below.

- Approximately 2-miles long
- Planning-level estimated cost: $26.3 million
- Proposed intersection with Trunk Road is an existing 4-way intersection
- Anadromous stream crossings of Wasilla Creek and tributary of Cottonwood Creek; will require a Section 404 Clean Water Act permit from the USACE

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- Greater than 1.5-mile separation from Bogard Road roundabouts at Trunk Road and Engstrom Road (proposed)
- Up to 17 impacted parcels
- Reduces future traffic volume increase from Stone Creek Development on Engstrom Road by approximately 12%
- Provides alternate collector-level route around annual road closures caused by snow drifts that typically occur south of Cornelius Lake
- Aligns with road network spacing for a major collector roadway
- Reduces ROW costs by utilizing the future Stone Creek Development roadway ROW along the proposed western connection

3.5 Stone Creek to Aspen Ridge Route

The proposed Stone Creek to Aspen Ridge Route (Figure 8) begins approximately 1.6 miles north of the Bogard Road-Engstrom Road intersection, extends east along the ¼ Section line of Section 22, then turns north along the Section 22/23 Line, and turns east where it connects to Palmer-Fishhook Road at Snicker Avenue.

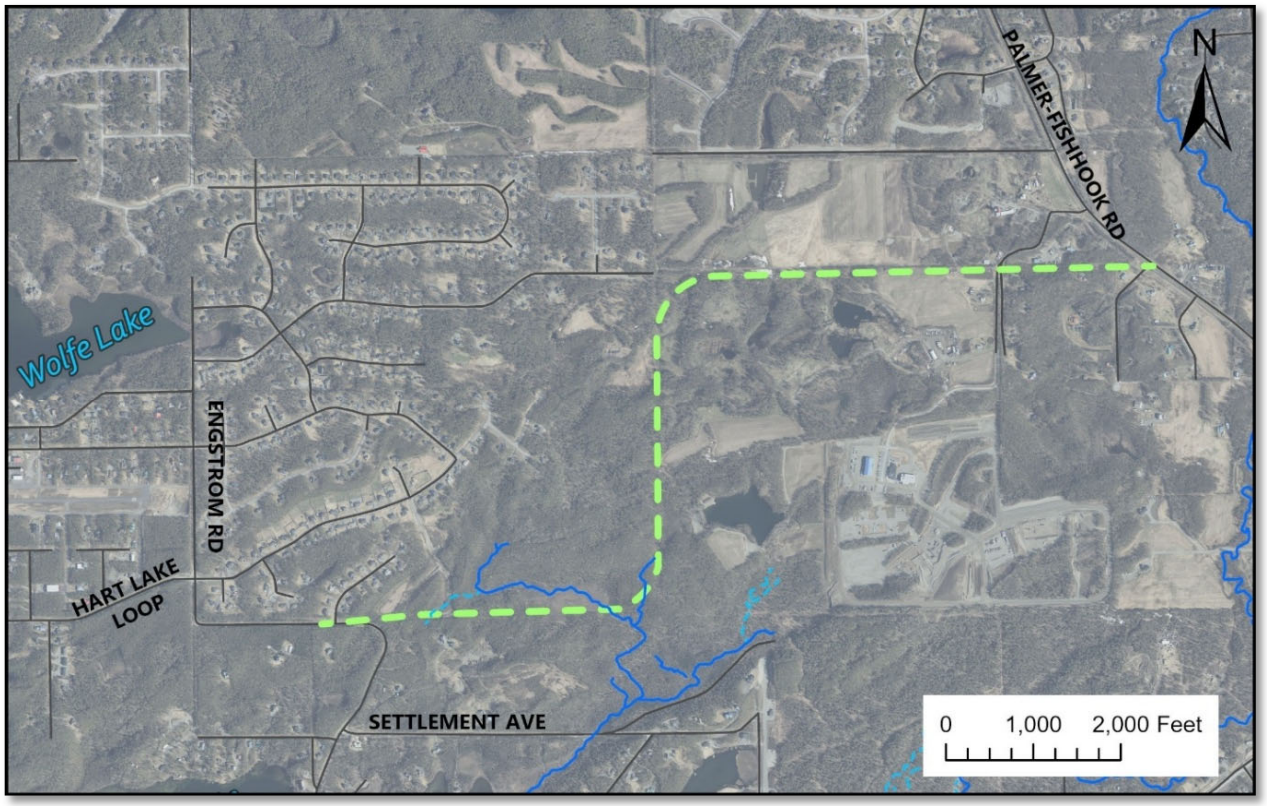


Figure 8: Stone Creek to Aspen Ridge Route

The proposed corridor is approximately 2.5 miles long and would require a new intersection at Engstrom Road and an upgraded intersection at Palmer-Fishhook Road. Palmer-Fishhook Road is owned and maintained by DOT&PF and will require coordination with them on the connection and an appropriate intersection configuration.

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The MSB recently approved an application for the development of the Stone Creek Phase 6 Tract Z residential subdivision, which is the property immediately north and west of the proposed alignment near the western end and extends approximately 3,200 feet east off of Engstrom Road. This alignment may help reduce traffic congestion at the Engstrom Road-Bogard Road intersection by moving the corridor further north and diverting a portion of traffic to Palmer-Fishhook Road, where it could be further distributed between Trunk Road and Glenn Highway.

Key attributes of the Stone Creek to Aspen Ridge Route are summarized below.

- Approximately 2.5 miles long
- Planning-level estimated cost: $32.6 million
- Proposed connection with Palmer-Fishhook Road is at an existing intersection
- Anadromous stream crossings of tributary of Cottonwood Creek; will require a Section 404 Clean Water Act permit from the USACE
- Greater than 1.5-mile separation from Bogard Road roundabouts at Trunk Road and Engstrom Road (proposed)
- Up to 19 impacted parcels
- Anticipated to reduce future traffic volume increase from Stone Creek Development on Engstrom Road by approximately 2%
- Provides alternate collector-level route around annual road closure caused by snow drift south of Cornelius Lake
- Aligns with road network spacing for a minor collector corridor
- Reduces ROW costs by utilizing the future Stone Creek Development roadway ROW along the proposed western connection
- Requires out-of-direction travel to reach Bogard Road

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4.0 SELECTION CRITERIA

The No Build option and four route alignments were evaluated based on the following key criteria: Connectivity and Access; Mobility and Use; Environmental; Engineering/Constructability; Community Impacts; Other Considerations. The results of the route evaluation are presented in the evaluation matrix table at the end of this section.

4.1 Connectivity and Access

Connectivity and Access evaluate how well the route meets the need of improving connectivity. The MSB's Design Criteria Manual (DCM) states that intersection spacing for major collector roadways should be no less than ¼ mile; however, the OSHP recommends prioritizing minimum intersection spacing of ½ mile wherever possible. The Southern Route provides a reduced level of network resiliency compared to the other three build options due to its proximity to Bogard Road and due to its location south of Gooding Lake, an area known for snow accumulation sufficient to close Engstrom Road. Both the Southern Route and the Stone Creek to Aspen Ridge Route provide ideal spacing for minor collector roadways; both Northern Routes provide ideal spacing for a major collector roadway.

While the DOT&PF intersection improvements at Bogard Road and Engstrom Road/Green Forest Drive address safety (crashes), the roundabout does not address the MSB's goal of improved connectivity and reduced congestion. Alternate collector routes are still needed to provide access to and from subdivisions in the Fishhook Triangle. As discussed earlier, Engstrom Road is consistently, albeit briefly, closed in the winter due to high winds and drifted snow; the intersection improvements with Bogard Road provide no solution for traffic in this situation.

Comments provided by DOT&PF staff concur that alternate access would provide more than just congestion relief and safety improvements along Engstrom Road by balancing the traffic volume load across collector roads. An alternate collector road would provide additional route options for emergency services, school buses, detours for construction or emergencies (such as winter weather closures), and reduce volumes along residential roads that have previously been used as collector roads. Further, DOT&PF staff indicated the South Route would not be a prudent option given its close proximity to Bogard Road.

4.2 Mobility and Use

Mobility and Use evaluate how effectively each route reduces congestion and how likely it is to be utilized. The Traffic Analysis (Appendix A) looked at forecasted traffic volumes in the design year (2050) and compared each option. When looking at the Engstrom-Bogard intersection, the analysis found that all the proposed routes reduced delay over the No Build option during peak periods. The Southern and Northern Routes reduced overall intersection delay by 12 to 28 seconds, while the Stone Creek to Aspen Ridge option reduced overall intersection delay by 8 to 14 seconds.

The Traffic Analysis looked at future 2050 traffic volumes that would utilize the new roadway, as well as any change in volumes on Engstrom for each route. The Southern Route is anticipated to have an annual average daily traffic (AADT) of about 700 while reducing the traffic on Engstrom by the same amount. The two Northern Route options will have an AADT of about 1,300 while reducing traffic on Engstrom by 700 vehicles. The Stone Creek to Aspen Ridge route will have an AADT of about 800 while reducing the traffic on Engstrom by about 100 vehicles.

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4.3 Environmental

A Preliminary Environmental Impact Evaluation (Appendix B) has been performed to identify potential environmental impacts associated with each route. The No Build option is the only option that effectively eliminates/prevents impacts on potential historic resources, wetland impacts, floodplain impacts, and fish habitat and stream crossings.

The Southern Route reduces/minimizes impacts on potential historic resources, wetland impacts, and stream crossings with a single crossing point with Wasilla Creek; however, floodplain impacts are considered high due to the location of the Wasilla Creek crossing and the portion of the route between the stream crossing and Trunk Road that borders the Wasilla Creek Floodplain.

Both Northern Routes have a high degree of impact or potential impact on historic resources, wetlands, and fish habitat and stream crossings. Due to the high number of crossings of Wasilla Creek, Cottonwood Creek, and their tributaries, floodplain impacts are considered fair based on the proximity of the routes to the Wasilla Creek Floodplain.

The Stone Creek to Aspen Ridge Route has a high degree of impact on wetlands due to the total number of wetland crossings; impact on floodplains is low with no mapped floodplain along the route; impacts on fish habitat and stream crossings, or potential impact on historic resources are considered fair based on the lower number of Cottonwood Creek tributaries crossings.

4.4 Engineering/Constructability

Engineering and constructability compare overall cost for bridge or structure (such as large diameter culverts), construction, maintenance, and ROW requirements for each route. The Southern Route has the lowest construction and maintenance cost due to its total length and a fair level of ROW costs due to the smaller number of impacted properties; however, the cost for a bridge is the highest of the options due to the greater crossing span distance of Wasilla Creek and its associated wetlands and floodplain. Both Northern Routes are considered to have fair structure/bridge requirements due to the smaller crossing widths of each crossing; both are considered fair for maintenance and ROW costs due to the longer length and fewer number of total impacted properties. The Stone Creek to Aspen Ridge Route is considered fair for structure/bridge requirements due to the smaller crossing widths of each crossing; construction, maintenance, and ROW costs are considered high due to the longest length and the high number of properties impacted.

Planning level cost estimates for design, ROW, utilities, and construction are compared for each route in Table 2.

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4.4.1 Route Cost Comparison

Initial three-dimensional design was performed for two of the proposed routes to establish rough order-of-magnitude construction costs. Design was developed for the Southern Route and Northern Route 1 only, due to their significant differences in length, water body crossings, and localized terrain geometry. Results of the Northern Route 1 estimate were used to develop a per mile unit cost for construction and materials in this area. This unit cost was used to generate estimates for the Northern Route 2 and Stone Creek-Aspen Ridge Routes. The Southern Route estimate assumes the construction of one bridge; the three northern routes assume two bridges will be required.

ROW costs as shown in Table 2 reflect early planning-level estimates of parcel impacts based on the current level of minimal preliminary design. All costs presented are rough estimates based on limited available data and are subject to change as design for a selected route is developed.

Table 2: Route Cost Estimates

ESTIMATED COSTS FOR:	SOUTHERN ROUTE	NORTHERN ROUTE 1	NORTHERN ROUTE 2	STONE CREEK-ASPEN RIDGE ROUTE
Design	**$660,000**	**$1,610,000**	**$1,860,000**	**$2,370,000**
ROW	**$750,000**	**$1,350,000**	**$2,900,000**	**$2,650,000**
Utilities	**$100,000**	**$100,000**	**$100,000**	**$200,000**
Construction	**$7,590,000**	**$18,515,000**	**$21,390,000**	**$27,255,000**
TOTAL COST:	**$9,100,000**	**$21,575,000**	**$26,250,000**	**$32,575,000**

4.5 Other Considerations

Historically, utility impacts can provide significant cost increases to a project, particularly in the MSB, where utility companies have installed many of their facilities within the road ROW, even when utility ROW exists. The No Build option is the only option that does not impact utilities. The Southern and Northern Routes are considered fair with anticipated impacts located near the intersections at the start and end of the routes. The Stone Creek to Aspen Ridge Route is anticipated to have a greater magnitude of utility impacts due to the greater number of established buildings and homes along the eastern half of the route. Utility costs for each route are included in the cost estimates presented in Table 2, above.

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4.6 Public Involvement

Community Impacts focus on identifying the route(s) that meet the purpose and need of the project, are consistent with MSB plans and policies, and have overall support from the community.

4.6.1 Public Open House

The MSB hosted a public open house meeting on March 26, 2025, introducing the project's purpose and need, summarizing the project's history, and outlining the MSB's initial route considerations for an east-west connection between Engstrom Road and Trunk Road. At the time, the MSB was considering three options, including the No Build, the Southern Route, and the Northern Route. The goal of the meeting was to solicit the public's feedback on the options presented and gather comments regarding additional route options that should be considered.

Over 100 members of the public attended the meeting. Attendees voiced strong support for the project and for the route they preferred. Supporters of the Southern Route emphasized its lower cost and perceived shorter timeline to construction and associated the recently permitted adjacent gravel excavation pit with additional potential cost savings. They also reminded the project team that the Southern Route was the alignment depicted to voters in the TIP21, and that acquiring ROW for the Northern Route would prove a substantial obstacle to the project.

Supporters of the Northern Route felt that, unlike the Southern Route, it addressed the issues of limited connectivity in the area and provided emergency access. They were aware that some portions required ROW for the Northern Route had already been purchased by the MSB, and communicated that their only significant concern with this route was the possible extended construction timeline.

Seventeen comment forms were filled out and submitted by members of the public at the meeting. Additional comments were submitted via the project website both before and after the meeting. Approximately 80% of comments received via the website and during the public meeting supported the selection of the Northern Route as the preferred option.

A full summary of the March 26, 2025, public open house is included in Appendix C.

4.6.2 Additional Routes Considered but Dismissed

As a result of the public open house and the feedback received, additional route alignments were identified by the design team. The routes are presented below and were considered but ultimately eliminated from further analysis for the following reasons:

- Engstrom Road to Palmer-Fishhook Road along ¼ Section Line of Section 22, 23, & 24 – did not meet the 0.5-mile minimum intersection spacing
- Farm Meadow Avenue extension from Engstrom Road to Palmer-Fishhook Road – too close to the Tex-Al Drive extension
- Aspen Ridge Road upgrade and extension from Engstrom Road to Palmer-Fishhook Road – excessive impacts on private properties required for existing road upgrades to major collector roadway
- Settlement Avenue upgrade and extension from Engstrom Road to Palmer-Fishhook Road – excessive impacts on private properties required for existing road upgrades to major collector roadway

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4.6.3 Public Survey

An online survey was posted to the project website and distributed via email to all project contacts on July 21, 2025. Results indicate of the 461 survey respondents, 63% of respondents would prefer a connection from Engstrom Road to Trunk Road, rather than to Palmer-Fishhook Road. Additionally, 25% of respondents prioritize "Access and Connectivity" over other project concerns, such as "traffic increase to residential areas (22%), "safety" (18%), "impacts on private property" (18%), "cost" (10%), and "environmental impacts" (7%).

Combined engagement responses to the public involvement campaign for the project indicate the following:

- Interested parties that support the project generally favor the development of a Northern Route over the Southern Route
- Prefer a connection to Trunk Road rather than Palmer-Fishhook Road
- Prioritize selection of a route option that improves access and connectivity

4.6.4 Ongoing Public Engagement

Strong levels of interest in the project have produced additional community comments and ongoing resident advocacy based on route preference. The MSB will continue to engage with the public to address concerns and provide information on the route selection process.

Table 3: Route Evaluation Matrix

Criteria	No Build	South	North 1	North 2	SC to AR
Transportation Planning Goals and Objectives					
Does the route meet the purpose and need of the project? (Yes/No)					
Is the route consistent with adopted plans and policies (OSHP & LRTP)? (Yes/No)					
Connectivity and Access					
Does the route increase network resilience by providing alternate access?					
Does the route integrate with surrounding streets?					
Does the route meet major collector roadway spacing recommendations?					
Mobility and Safety					
Will the route improve LOS at Engstrom-Bogard?					
Will the route be utilized by traffic in the area?					
Environmental					
Will the route minimize or mitigate impacts on historic resources?					
Degree of wetland impacts					
Degree of floodplain impacts					
Fish Habitat & stream crossings					
Engineering/Constructability					
What is the Structure/Bridge requirements?					
What is the overall route cost?	—	—	—	—	—
Construction					
Maintenance					
ROW					
Other Considerations					
Utilities					

Color Rankings: Red=poor; Yellow=fair; Green=good

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5.0 RECOMMENDATIONS

The purpose of this report is to provide information to support the MSB's decision on selecting a route for further design development and construction that meets the purpose and need of the project with the greatest overall positive impact on the community. Following this criterion, the No Build option does not meet the purpose and need of the project and therefore is not recommended as the preferred option. The remaining four routes do meet the purpose and need of the project and are discussed further below.

5.1 Southern Route

The Southern Route meets the purpose and need of the project and meets the overall criteria at a fair level. Notably, there are three poorly met criteria: major collector roadway spacing recommendations, degree of floodplain impacts, and structure/bridge requirements. While the route meets minimum spacing recommendations for a minor collector roadway, it does not meet recommended spacing for a major collector roadway. Further, DOT&PF staff indicated the Southern Route would not be a prudent option given its close proximity to Bogard Road. The Southern Route is anticipated to reduce congestion at the Engstrom-Bogard intersection; however, it is also anticipated to carry the lowest AADT, indicating a lower benefit to the overall road network. Due to the topography and alignment of Wasilla Creek and the Wasilla Creek Floodplain at the east end of the route, impacts are significant, and a bridge is anticipated due to the span of the crossing. As part of the overall collector road network and in keeping with the OSHP and LRTP, this route is recommended for a future project as a minor collector roadway; it is not recommended for the Engstrom Road to Trunk Road Corridor project.

5.2 Northern Routes 1 & 2

Both Northern Routes meet the purpose and need of the project and meet the overall criteria at a fair to good level. Notably, there are three poorly met criteria: degree of wetland impacts, fish habitat & stream crossings, and construction cost. Both routes share the same approximately 1,000-foot wetland crossing at the western end of the routes, along with crossings of Wasilla Creek and Cottonwood Creek tributaries. All identified routes, including the Northern Routes, will require a Section 404 Clean Water Act permit from the USACE; the extent of waterbody and wetland impacts will be quantified once a route is selected and the roadway alignment has been further refined. Due to the overall length of the routes, both Northern Routes are estimated at approximately double the construction cost of the Southern Route.

The criteria where both Northern Routes outpace the other options include Connectivity and Access, and Mobility and Use. Of the other options, the Northern Routes best increase network resiliency, integrate with surrounding streets (existing and planned), and meet the recommended spacing for major collector roadways. They also reduce congestion at the Engstrom-Bogard intersection.

Additionally, based on public comments received during the Public Open House (March 26, 2025) and public survey (issued July 23, 2025), there is overwhelming community support for a Northern Route. Common/recurring comments include needing alternate access for emergency services and vehicles to avoid snowdrifts south of Cornelius Lake, reducing traffic at the Engstrom-Bogard intersection, and routing traffic from newer subdivisions in the area to Trunk Road (an arterial-level roadway).

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While both Northern Routes meet the evaluation criteria equally and differ only in the location of their terminus with Trunk Road, this difference results in significantly lower ROW costs for Northern Route 1. It is recommended that Northern Route 1 be considered as the preferred alternative for design.

5.3 Stone Creek to Aspen Ridge Route

The Stone Creek to Aspen Ridge Route was identified through public comment during Public Open House #1 (March 26, 2025). While it does meet the purpose and need of the project, it ranks worst of the four routes at meeting evaluation criteria. Most notably, it has the least benefit to the Engstrom-Bogard intersection, and has the highest anticipated construction, maintenance, and ROW costs, the greatest anticipated utility impacts, a high degree of wetland impacts, and does not meet the recommended spacing for major collector roads. For these reasons, it is not recommended for the Engstrom Road to Trunk Road Corridor project. However, it should be considered as a future minor collector roadway project as the area south of Tex-Al Drive continues to develop.

5.4 Conclusion

Northern Route 1 is recommended for further design development as a major collector-level connection between Engstrom Road to Trunk Road, as identified in the OSHP and LRTP. This recommendation is based on the results of this analysis, the majority of public input received, and the adherence of the route to the desired functionality and connectivity improvements outlined in the planning documents. MSB will present Northern Route 1 to the Borough Assembly for approval as the preferred design alternative for the Engstrom Road to Trunk Road Corridor and proceed with a Public Works Decisional Document identifying this route as selected for further design development.

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APPENDIX A

Traffic Analysis

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

TRAFFIC ANALYSIS

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APPENDICES

Appendix A Synchro Inputs/Outputs

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LIST OF ABBREVIATIONS

AADT	Average Annual Daily Traffic
AMATS	Anchorage Metropolitan Area Traffic Solutions
DOT&PF	Department of Transportation and Public Facilities
HDL	HDL Engineering Consultants, LLC
HSIP	Highway Safety Improvement Plan
LOS	Level of Service
LRTP	Long Range Transportation Plan
MSB	Matanuska-Susitna Borough
OSHP	Official Streets and Highways Plan
ROW	Right-of-Way
TAZ	Transportation Analysis Zones
TIP21	Transportation Infrastructure Program (2021)

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1.0 INTRODUCTION

The Matanuska-Susitna Borough (MSB) proposes construction of a new road connecting Engstrom Road and Trunk Road to provide an alternate travel route between these existing roadways. This development will improve connectivity and reduce congestion to meet the needs of current and future traffic volumes, which are constricted by the Fishhook and North Lakes areas' limited collector-level road network. Improvements may include right-of-way (ROW) acquisition, existing road upgrades and new road construction, intersection improvements, creek crossing(s), utility relocations, pedestrian facilities, drainage improvements, and signage and striping.

HDL Engineering Consultants, LLC (HDL) is under contract with MSB to complete a traffic analysis to determine future traffic conditions in the area for each selected connector route between Engstrom Road and Trunk Road.

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2.0 PROJECT HISTORY AND BACKGROUND

2.1 Population Location

The project is located in Sections 22, 23, 26, and 27, Township 18 South, Range 1 East, of the Seward Meridian; Latitude 61°37'37.5", Longitude 149°14'15.1". The analysis area is generally bounded to the west by Engstrom Road, to the south by Bogard Road, to the east by Trunk Road and Palmer-Fishhook Road, and to the north by Tex-Al Road (Figure 1).

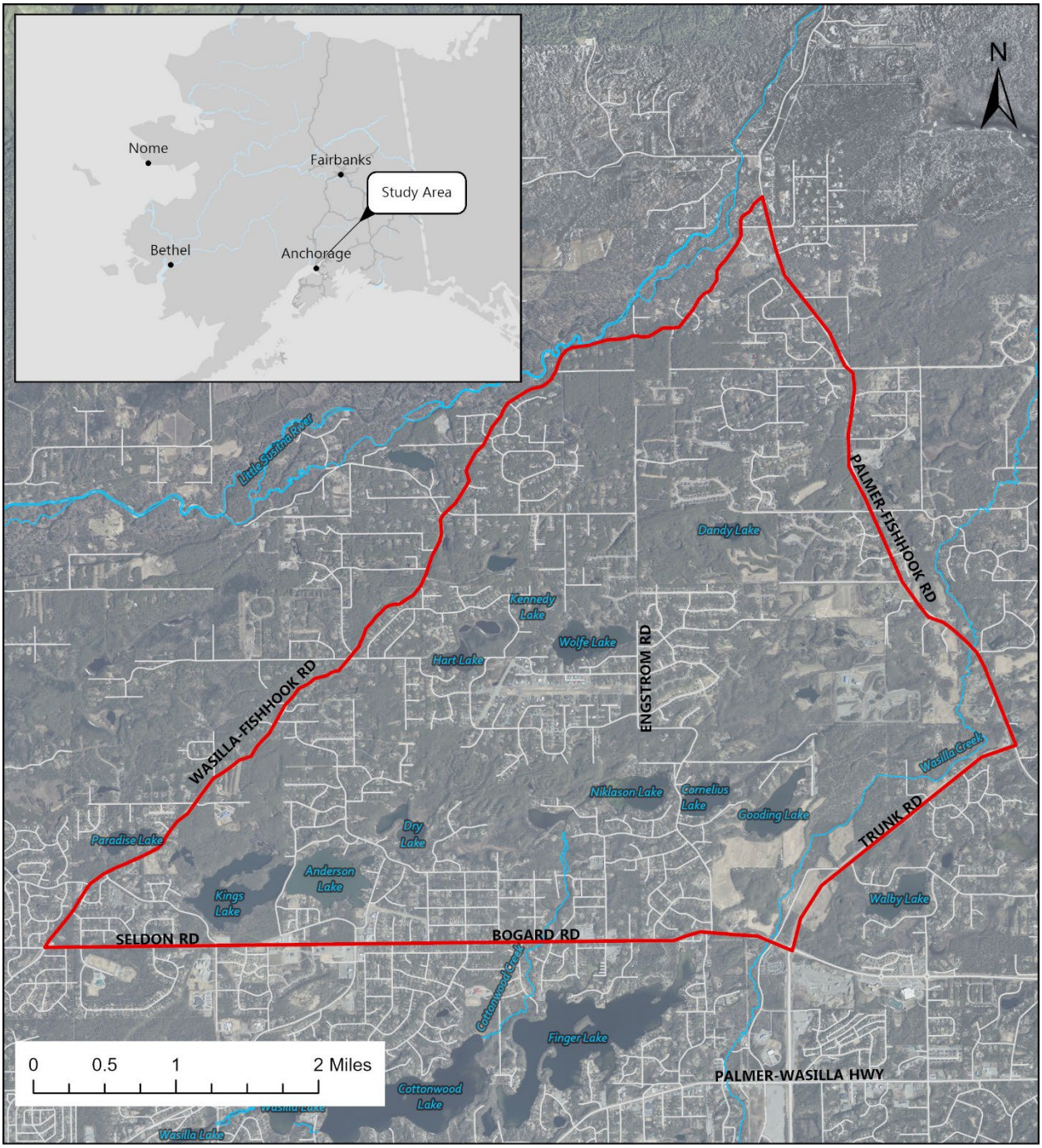


Figure 1: Project Area

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2.2 Existing Facilities and Land Use

There is no current direct connection between Engstrom Road and Trunk Road. Traffic traveling to and from Trunk Road and Engstrom Road must use Bogard Road and enter using the only collector intersection serving the project area. This has resulted in a high concentration of traffic at the Engstrom Road and Bogard Road intersection, particularly left-turning traffic from Engstrom Road onto Bogard Road. The intersection has limited sight distance, which, coupled with high traffic volumes, has contributed to congestion and a crash rate higher than the statewide average for similar intersections.

Engstrom Road is classified by the MSB 2022 Official Streets and Highway Plan (OSHP) as a major collector. The paved surface is 24 feet wide and accommodates two-way traffic (one travel lane in each direction), and the existing speed limit is 35 mph. Trunk Road is classified by the MSB OSHP as a major arterial and consists of one 12-foot lane and an 8-foot shoulder in each direction, with a 12-foot separated pathway along the northwest side.

Adjacent land use largely consists of single-family and multi-family developments intermixed with some agricultural and industrial facilities. Additionally, large areas within the project area, including areas along the proposed connection routes, remain undeveloped.

2.3 Transportation Planning

Considerable steady population growth throughout the MSB has occurred over the last several decades, which has increased demand on the poorly connected network of local roads. The MSB's 2035 Long Range Transportation Plan (LRTP) specifically identified congestion issues along Engstrom Road, and a need to reduce congestion and provide an alternate access to Trunk Road or Palmer-Fishhook Road. The project has been developed in accordance with the 2035 LRTP and 2022 OSHP, and was approved by voters as part of the 2021 Transportation Infrastructure Program (TIP21).

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3.0 PROJECT DEVELOPMENT

In 2022, the MSB solicited proposals to design a connector from Engstrom Road to Trunk Road that was generally in line with the existing North Old Homestead Road; this was referred to as the "Southern Route" alternative. Subsequently, HDL performed an evaluation for the MSB of an alternate route beginning approximately 1 mile to the north on Engstrom Road, referred to as the "Northern Route".

The Southern and Northern Routes were presented to the public in an open-house meeting on March 26th, 2025. Based on public input from the meeting, the MSB and HDL expanded the project to include evaluation of additional routes, designated as "Northern Routes 1 and 2" and the "Stone Creek to Aspen Ridge Route". The four routes were selected for further evaluation and traffic analysis based on criteria including minimum intersection spacing, MSB planned and future planned projects, and ongoing and future residential development (Figure 2).

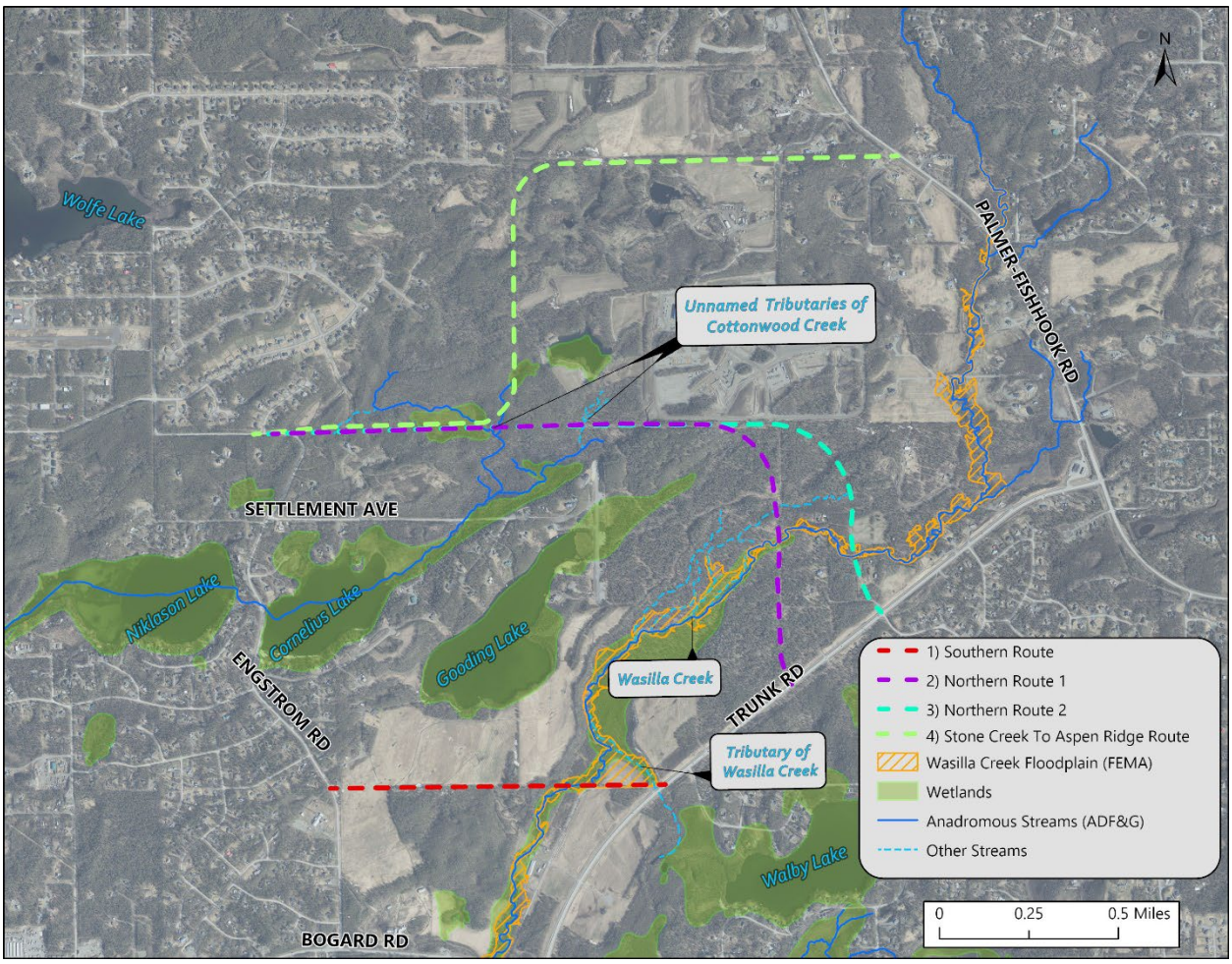


Figure 2: Selected Routes and Future Development

The selected routes are described in the sections below.

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3.1 Southern Route

The proposed Southern Route begins approximately 0.4 miles north of the Bogard Road/Engstrom Road intersection and extends east, merging into North Old Homestead Road. This route was presented to voters as part of TIP21. The Southern Route is approximately 0.9 miles long and would require construction of a new approach/intersection with Engstrom Road and make use of the existing approach of North Old Homestead Road to Trunk Road. A new gravel extraction site has been permitted in this area, and gravel operations would likely make use of this route.

3.2 Northern Route 1

Northern Route 1 begins approximately 1.6 miles north of the Bogard Road/Engstrom Road intersection, extends east along the ¼ Section line of Section 22 to Section 23, then turns southeast and then south, where it connects to Trunk Road approximately 0.2 miles southwest of Heaton Road. The proposed corridor is approximately 1.9 miles long and would require a new intersection at both Engstrom Road and Trunk Road. The proposed intersection location with Trunk Road aligns with a proposed future collector road north of Walby Lake, as identified in the OSHP.

3.3 Northern Route 2

Northern Route 2 to Trunk Road follows the same alignment as the Northern Route 1, but continues approximately 800 feet further east before turning south to make use of the existing intersection of North Heaton Road with Trunk Road.

3.4 Stone Creek to Aspen Ridge Route

The Stone Creek to Aspen Ridge Route follows the same alignment eastward as the two Northern Routes for approximately 0.5 miles and then turns north towards Aspen Ridge Road. It then extends along Aspen Ridge Road eastward before intersecting with Palmer-Fishhook Road at Snicker Avenue.

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4.0 DESIGN CRITERIA AND TYPICAL SECTION

A future potential connector roadway between Engstrom Road and Trunk Road is depicted in the MSB's LRTP as a major collector. The design speed and posted speed limit have yet to be determined. For the purpose of this analysis, 40 mph has been selected as the design speed.

The typical section for each proposed route consists of two 12-foot lanes, 6-foot shoulders, 10-foot wide 4H:1V foreslopes, and 3H:1V backslopes (Figure 3). Pedestrian facilities will be considered in accordance with the MSB's 2023 Bike and Pedestrian Plan and may include a 10-foot separated path.

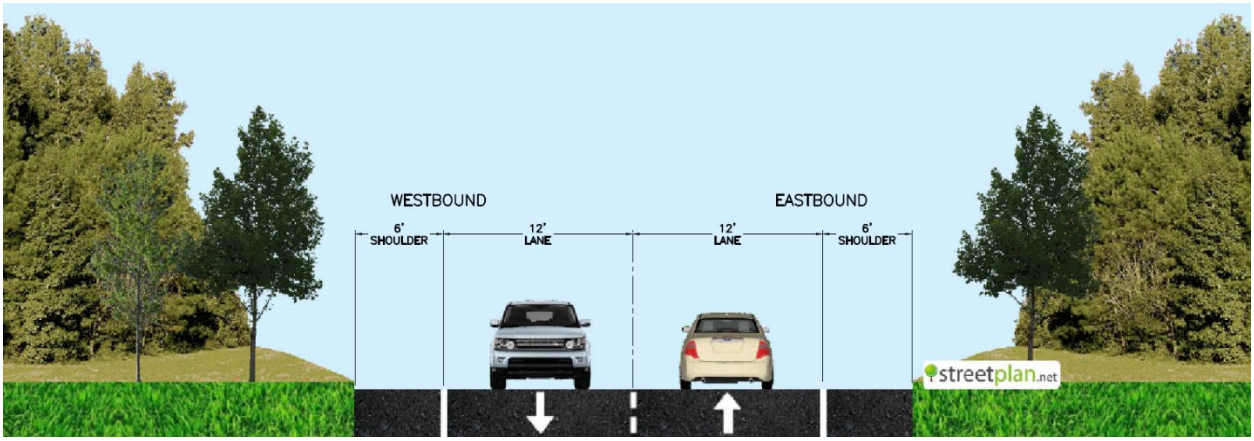


Figure 3: Major Collector Typical Section

Additional sections may be considered as the design progresses. These sections may include retaining walls, guardrail, slope variations, and shoulder width variations at applicable locations, such as creek crossings and areas requiring significant cut or fill.

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5.0 CRASH HISTORY

Collision data for the project area was obtained from the MSB's online traffic data resource and is summarized in Table 1.

Table 1: Intersection Crash History (2018-2022)

LOCATION	SEVERITY					TOTAL CRASHES
	No Apparent Injury	Possible Injury	Suspected Minor Injury	Suspected Serious Injury	Fatal Injury	
Engstrom Rd/Bogard Rd/ Green Forest Dr Intersections	11	8	2	0	0	21
Trunk Rd/Bogard Rd Roundabout	40	5	2	0	0	47
Engstrom Rd (Bogard Rd to Aspen Ridge Rd)	13	4	1	1	0	19
Bogard Rd (Engstrom Rd to Trunk Rd)	10	2	2	0	1	15
Trunk Rd (Bogard Rd to Palmer-Fishhook Rd)	4	1	1	1	0	11

The majority of the collisions in the five-year study period occurred at the Trunk Road/Bogard Road roundabout, but did not result in serious injuries or fatalities. The number of crashes resulting in injury or possible injury was slightly higher for the Engstrom Road/Bogard Road/Green Forest Drive intersection than for surrounding roadways; the Department of Transportation and Public Facilities' (DOT&PF) Highway Safety Improvement Program (HSIP) roundabout project at this intersection is intended to address these crashes. One fatality occurred within the project area during the study period, on Bogard Road between Engstrom Road and Trunk Road.

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6.0 EXISTING TRAFFIC CONDITIONS

Existing daily traffic counts and peak hour volumes were determined using volumes recorded by HDL in 2024, and data collected by DOT&PF traffic recorder sites within or adjacent to the project area.

6.1 2024 Traffic Counts

HDL performed a 24-hour traffic count within the project area on Thursday, October 3, 2024, using a MioVision Traffic Recorder camera. School was in session, and the roadways were clear of snow during this period. The counts were performed at the roundabout at the intersection of Trunk Road and Bogard Road. Existing traffic for other intersections within the project area was determined using data from the nearby DOT&PF traffic recorder sites.

6.2 Existing Traffic Volumes, Level of Services, and Delays

Engstrom Road serves as the primary access route for the existing subdivisions between Tex-Al Drive and Bogard Road. Existing traffic volumes often result in substantial queues and delay times at the Engstrom Road and Bogard Road intersection (Figure 4).

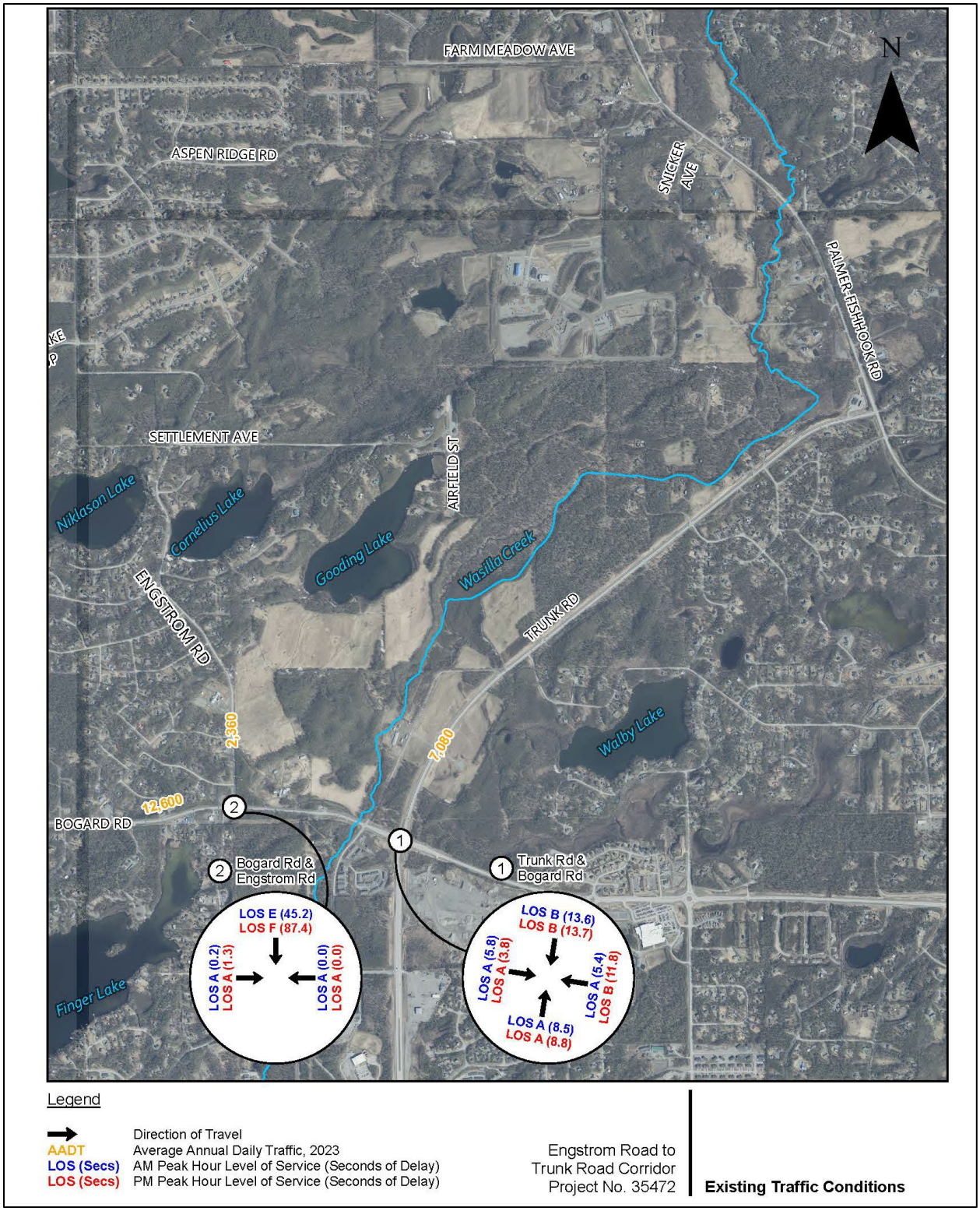


Figure 4: Existing Traffic Conditions

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7.0 TRAFFIC FORECASTS

Future traffic conditions were forecasted for the Design Year (2050) based on outputs from the DOT&PF's Draft Intraregional Traffic Corridor Study Model. The model was originally produced for Anchorage Metropolitan Area Transportation Solutions (AMATS) in 2016 and was updated in 2019. The updates to the AMATS base model included current socioeconomic data and increased density of the transportation analysis zones (TAZ) and road network features within the MSB. More information is available in the *Draft Mat-Su Intra-Regional Corridor Study: Travel Demand Model 2019 Update Technical Memorandum* (Kinney Engineering, LLC, April 2022). The model assumes the future construction of other adjacent projects identified in the MSB's planning documents, including the Engstrom Road North Extension and the Tex-Al Drive Extension, as well as the DOT&PF's planned roundabout at the Engstrom Road and Bogard Road intersection.

Calculated growth rates for various roadway segments within the roadway corridor are presented in Table 2.

Table 2: Calculated Annual Growth Rates

LOCATION	ANNUAL GROWTH RATE
Bogard Road, Sebastion to Engstrom	2.26%
Bogard Road, Trunk to 49th State	2.78%
Trunk Road, Katherine to Bogard	1.86%
Trunk Road, Bogard to Palmer-Fishhook	0.97%
Engstrom, Bogard to Hart Lake	3.35%
Palmer-Fishhook, Alpine to Trunk	-0.09%
Palmer-Fishhook, Trunk to Farm Loop	1.12%

The future construction of the Engstrom Road, Bogard Road, and Green Forest Drive roundabout by the DOT&PF will significantly affect traffic delays in the project area. The future traffic conditions presented in this report address these anticipated changes.

7.1 Traffic Volume Forecasts

Traffic volumes were calculated for Engstrom Road, Bogard Road, and Trunk Road for the Design Year (2050) under the No Build condition (Figure 5). Levels of Service (LOS) and delay times were calculated for the Engstrom Road/Bogard Road and Bogard Road/Trunk Road intersections for the existing and future design years.

The alignment and intersection locations of each proposed route impact future traffic volumes, LOS, and delay times on the adjacent connecting roadways. To reflect this, for each of the proposed routes, Design Year (2050) volumes were forecasted for Engstrom Road, Bogard Road, and Trunk Road, in addition to the selected route. Design Year (2050) intersection LOS and delays were analyzed for the Engstrom Road/Bogard Road, Bogard Road/Trunk Road, and Trunk Road/Palmer-Fishhook Road intersections for each proposed route, in addition to the LOS and delays for the connecting intersections for each route. Stop-control was assumed for all future potential intersections.

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Future traffic conditions for the No Build condition are presented in Figure 5; future conditions for the four proposed routes are presented in Figures 6, 7, 8, and 9. Intersection delay times and LOS are presented in Table 3.

Table 3: Intersection Level of Service and (Delay in Seconds)

INT.		2023 EXISTING (STOP CONTROLLED AT ENG/BOG)				2050 NO BUILD				2050 SOUTHERN ROUTE				2050 NORTHERN ROUTE 1				2050 NORTHERN ROUTE 2				2050 STONE CREEK TO ASPEN RIDGE ROUTE			
DIRECTION		EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB
ENGSTROM/ BOGARD ROUNDABOUT	AM	A (0.2)	A (0.0)	-	E (45.2)	F (299.9)	C (21.8)	C (23.5)	F (178.9)	F (253.1)	D (26.1)	C (21.6)	F (117.8)	F (258.7)	D (26.0)	C (21.8)	F (124.7)	F (258.7)	D (26.0	C (21.8)	F (124.7)	F (275.7)	D (25.8)	C (22.5)	F (146.7)
	PM	A (1.3)	A (0.0)	-	F (87.4)	F (115.2)	F (142.2)	C (18.4)	F (236.4)	F (91.0)	F (148.1)	C (17.1)	F (166.0)	F (93.8)	F (147.3)	C (17.3)	F (174.0)	F (93.8)	F (147.3)	C (17.3)	F (174.0)	F (102.3)	F (145.2)	C (17.7)	F (198.9)
TRUNK/ BOGARD ROUNDABOUT	AM	A (5.8)	A (5.4)	A (8.5)	B (13.6)	E (35.4)	A (7.3)	E (45.7)	F (230.8)	E (39.5)	A (7.3)	E (47.8)	F (257.2)	E (39.0)	A (7.3)	E (47.5)	F (254.2)	E (39.0)	A (7.3)	E (47.5)	F (254.2)	E (37.8)	A (7.3)	E (47.2)	F (245.0)
	PM	A (3.8)	B (11.8)	A (8.8)	B (13.7)	A (7.0)	F (56.5)	E (47.6)	F (217.6)	A (7.3)	F (55.3)	F (57.2)	F (219.5)	A (7.3)	F (55.0)	F (55.2)	F (220.4)	A (7.3)	F (55.0)	F (55.2)	F (220.4)	A (7.2)	F (56.0)	F (51.8)	F (220.0)
TRUNK/ PALMER FISHOOK	AM					B (10.4)	-	A (5.6)	A (0.0)	B (10.4)	-	A (5.6)	A (0.0)	B (10.4)	-	A (5.6)	A (0.0)	B (10.4)	-	A (5.6)	A (0.0)	B (11.0)		A (5.2)	A (0.0)
	PM					C (15.7)	-	A (3.0)	A (0.0)	C (15.7)	-	A (3.0)	A (0.0)	C (15.7)	-	A (3.0)	A (0.0)	C (15.7)	-	A (3.0)	A (0.0)	C (20.0)		A (2.6)	A (0.0)
ENGSTROM/ CONNECTOR	AM									-	A (9.3)	A (0.0)	A (1.1)	A (0.0)	A (1.4)	B (11.1)	-	A (0.0)	A (0)	B (8.8)	-	A (0.0)	A (1.5)	B (11.2)	-
	PM									-	B (11.9)	A (0.0)	A (1.2)	A (0.0)	A (1.6)	C (17.8)	-	A (0.0)	A (0)	B (8.9)	-	A (0.0)	A (1.4)	C (17.5)	-
TRUNK/ CONNECTOR	AM									D (25.2)	-	A (0.9)	A (0.0)	E (39.9)		A (1.1)	A (0.0)	F (55.1)	F (80.1)	A (1.0)	A (0.1)	A (9.1)		A (1.4)	A (0.0)
	PM									C (18.8)	-	A (0.7)	A (0.0)	E (38.5)		A (0.9)	A (0.0)	F (79.0)	F (151.5)	A (0.9)	A (0.4)	A (9.6)		A (1.3)	A (0.0)

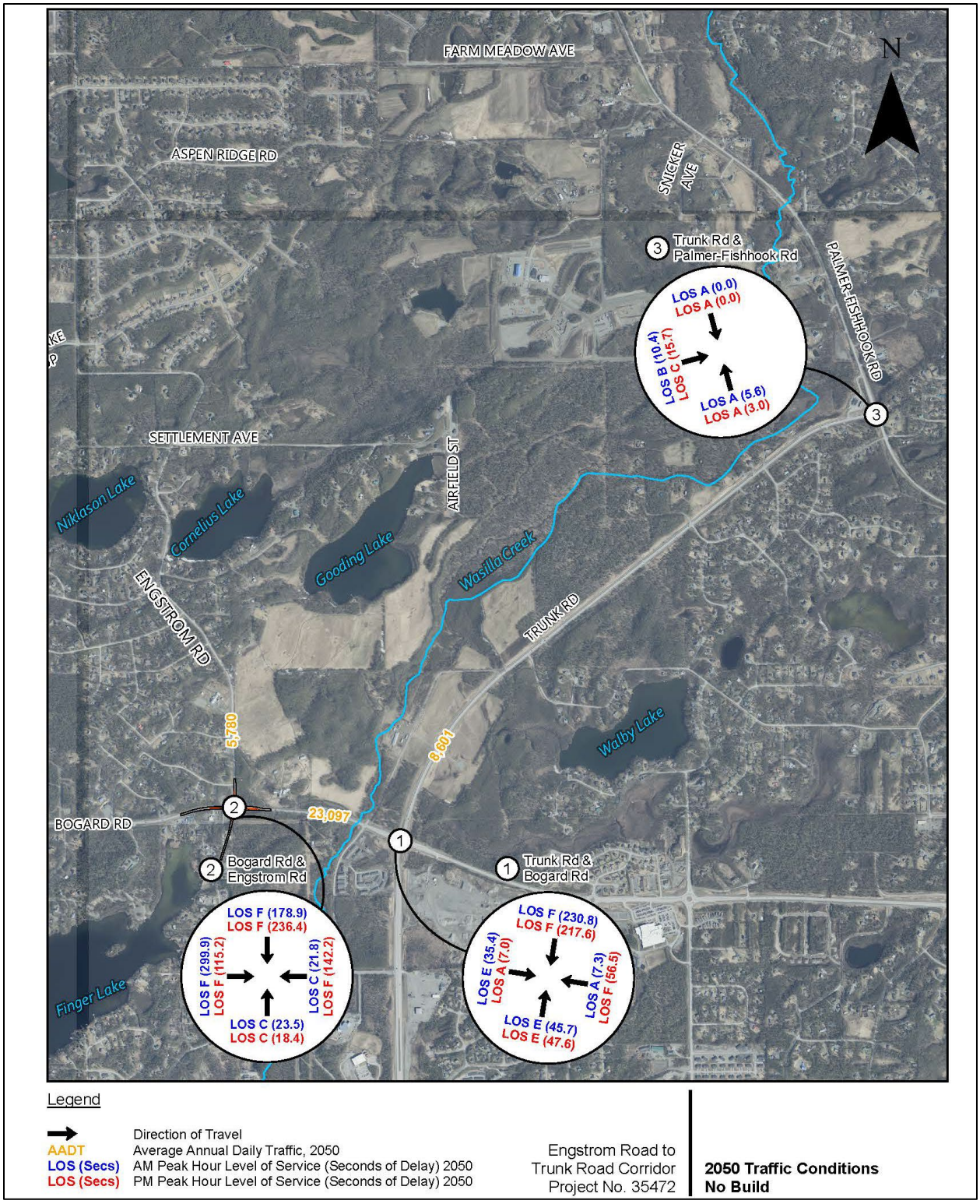


Figure 5: No Build 2050 Traffic Conditions

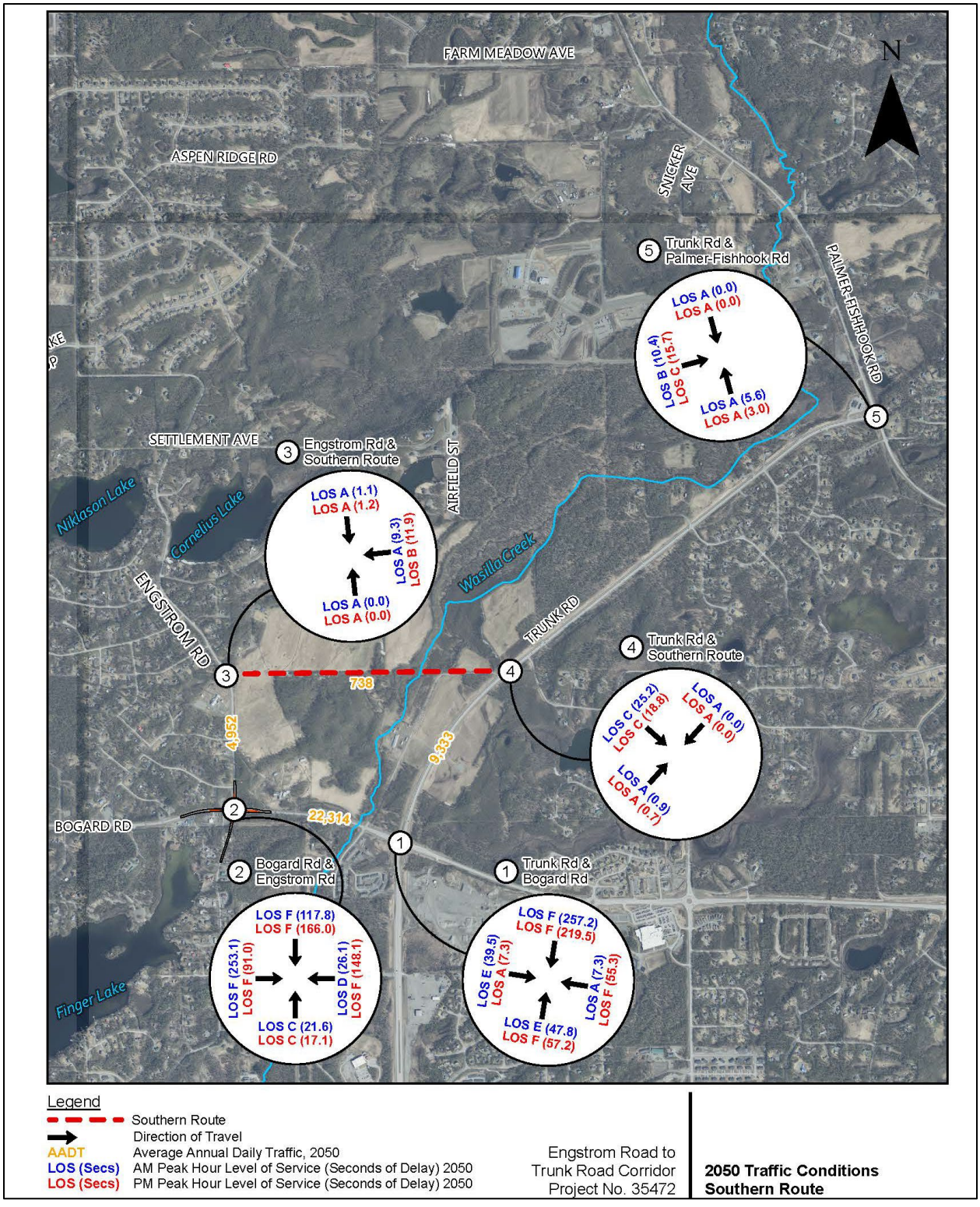


Figure 6: Southern Route 2050 Traffic Conditions

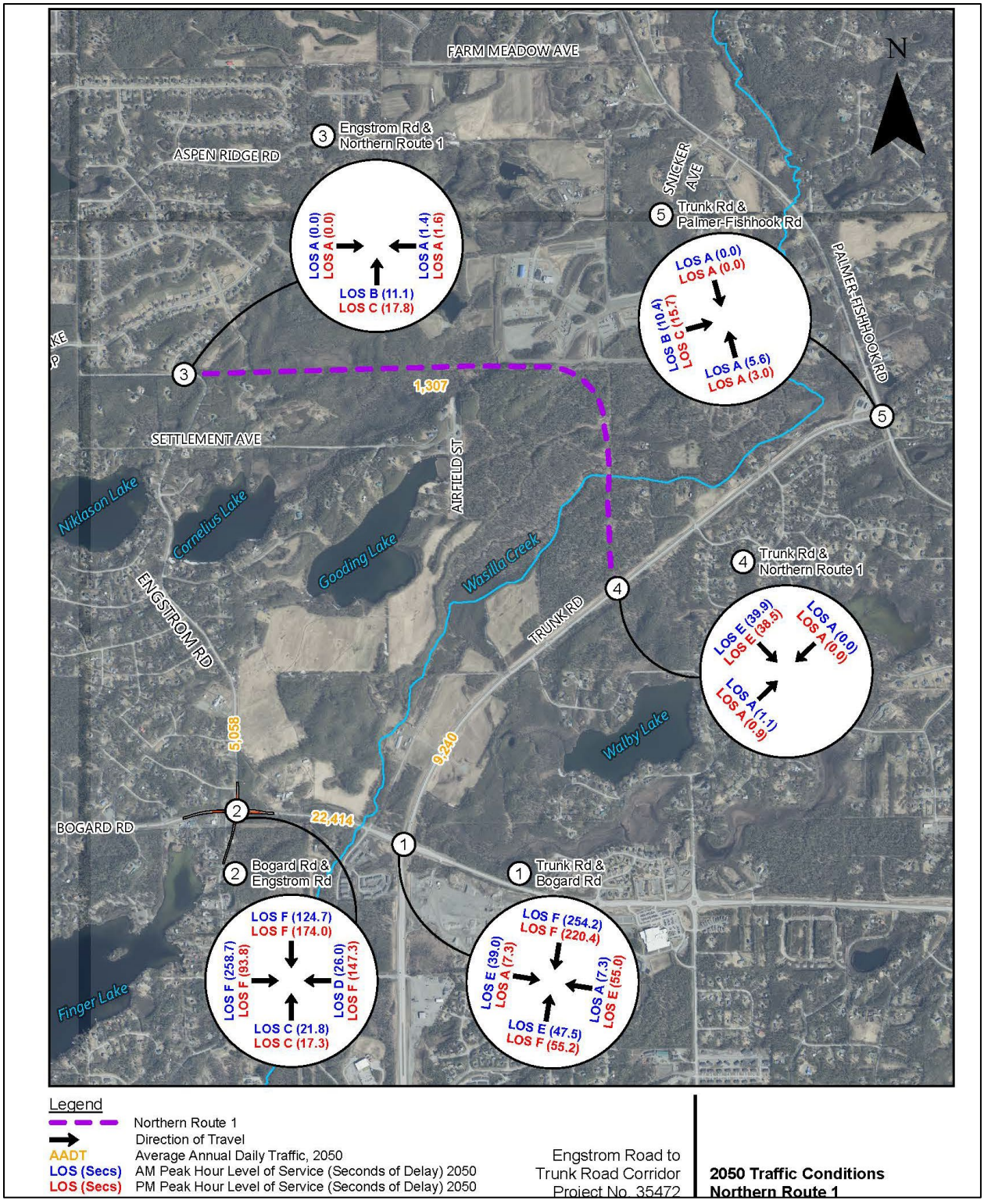


Figure 7: Northern Route 1 2050 Traffic Conditions

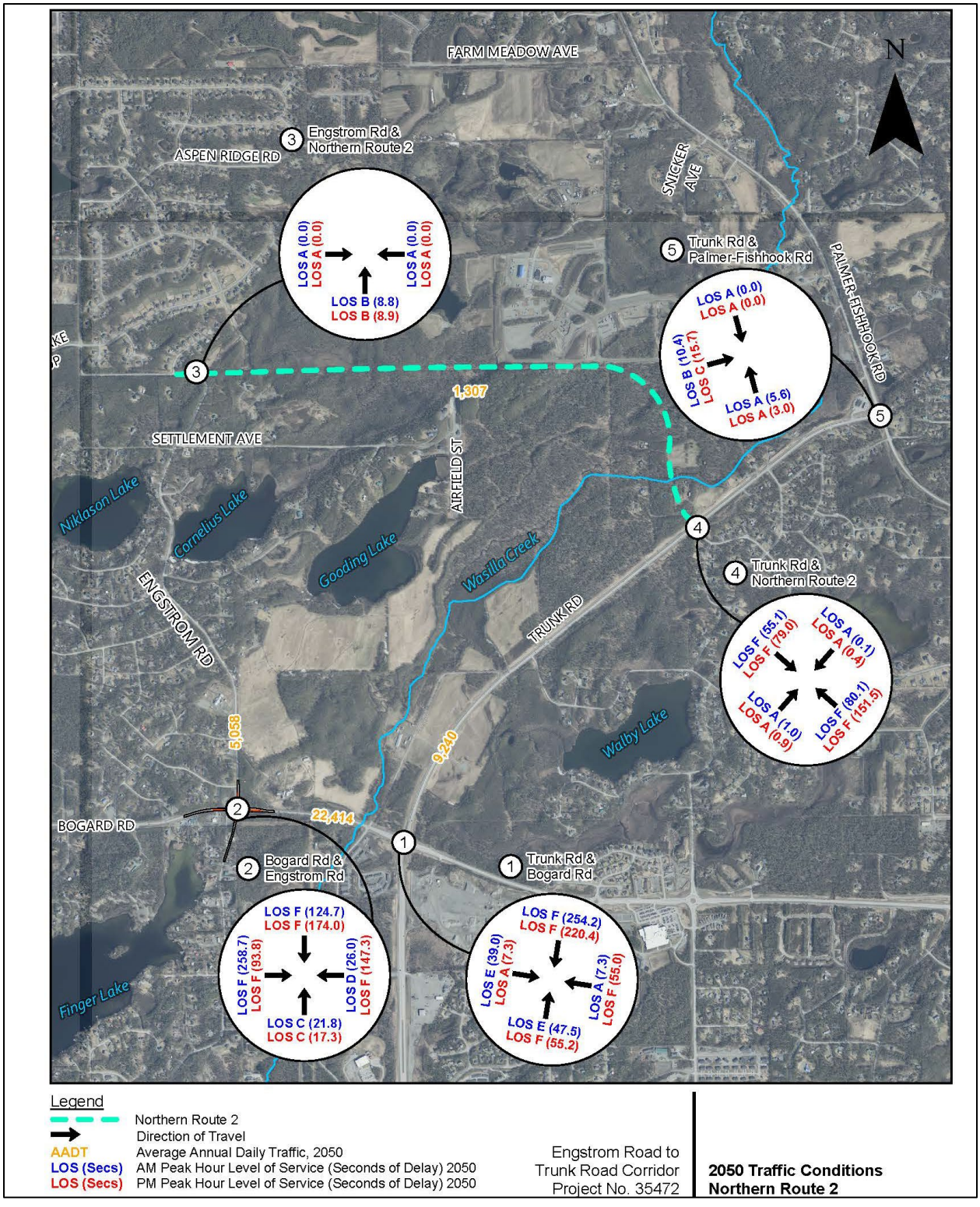


Figure 8: Northern Route 2 2050 Traffic Conditions

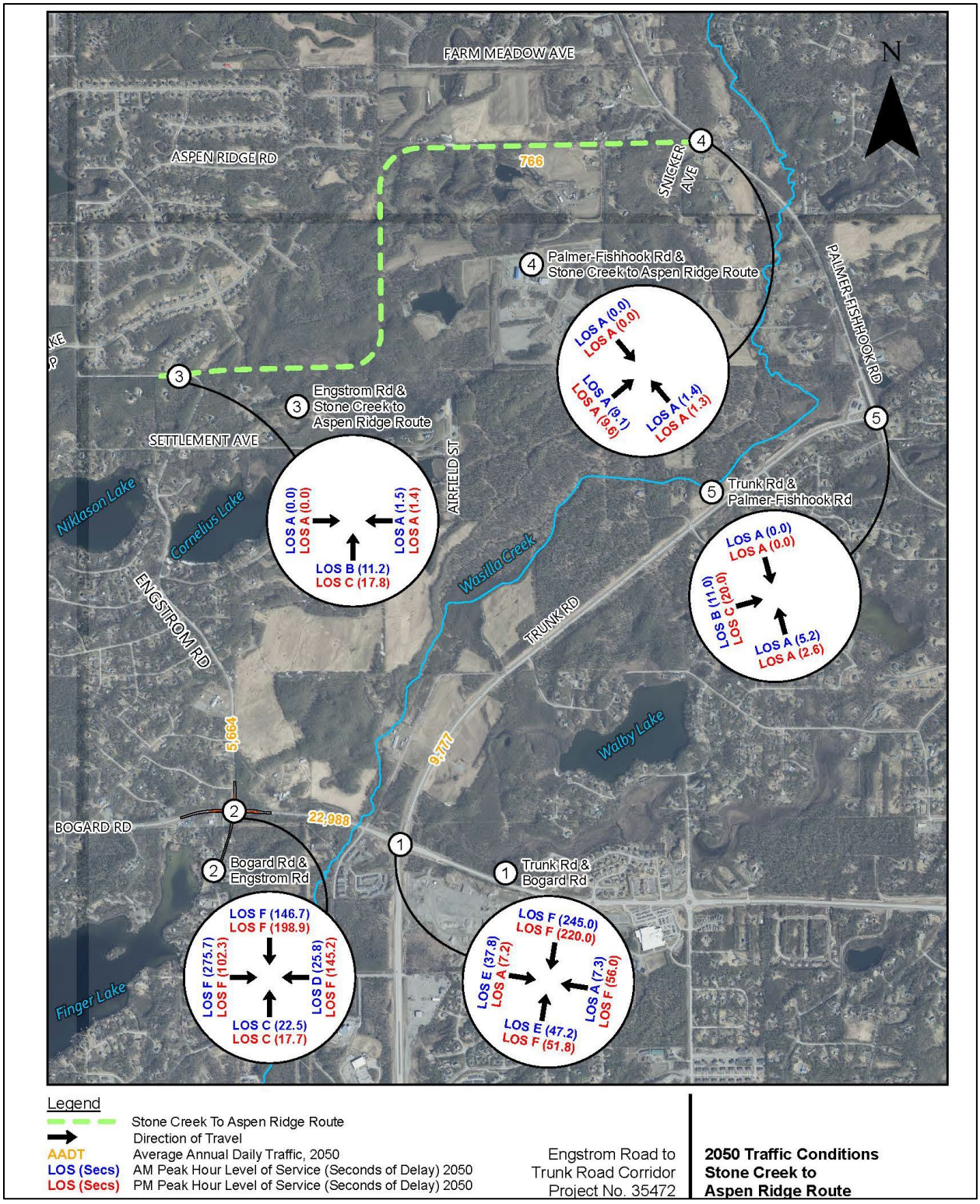


Figure 9: Stone Creek to Aspen Ridge Route 2050 Traffic Conditions

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8.0 ANALYSIS RESULTS

Each of the four selected routes evaluated in this analysis will result in different future Design Year (2050) traffic conditions. The information presented in this report, in addition to other decision criteria, is intended to aid in the comparison and selection of a preferred alternative

8.1 Traffic Delay Comparison

Table 4 compares the overall intersection delay times for the four proposed routes at the future Engstrom Road/Bogard Road roundabout and the Trunk Road/Bogard Road roundabout against the No Build option for the Design Year (2050).

Each of the proposed routes will result in decreased delay times for vehicles queuing at the Engstrom Road/Bogard Road roundabout when compared to the No Build. Northern Routes 1 and 2 will improve total wait times by nearly twice as many seconds as the Stone Creek to Aspen Ridge Route, and the Southern Route provides the greatest reduction in traffic delay overall for this intersection.

Table 4: 2050 Critical Intersections - LOS (Delay in Seconds)

INT.		2050 NO BUILD				2050 SOUTHERN ROUTE				2050 NORTHERN ROUTE 1				2050 NORTHERN ROUTE 2				2050 STONE CREEK TO ASPEN RIDGE ROUTE			
		Entire Intersection				Entire Intersection				Entire Intersection				Entire Intersection				Entire Intersection			
DIRECTION/TIME		EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB
ENGSTROM/ BOGARD ROUNDABOUT	AM	F 174.3				F -27.7				F -24.3				F -24.3				F -13.8			
		F 299.9	C 21.8	C 23.5	F 178.9	F -46.8	D +4.3	C -1.9	F -61.1	F -41.2	D +4.2	C -1.7	F -54.2	F -41.2	D +4.2	C -1.7	F -54.2	F -24.2	D +4	C -1	F -32.2
	PM	F 139.1				F -13.9				F -12.4				F -12.4				F -7.6			
		F 115.2	F 142.2	C 18.4	F 236.4	F -24.2	F +5.9	C -1.3	F -70.4	F -21.4	F +5.1	C -1.1	F -62.4	F -21.4	F +5.1	C -1.1	F -62.4	F -12.9	F +3	C -0.7	F -37.5
TRUNK/ BOGARD ROUNDABOUT	AM	F (83.0)				F +12.6				F +11.0				F +11.0				F +6.7			
		E 35.4	A 7.3	E 45.7	F 230.8	E +4.1	A 0	E +2.1	F +26.4	E +3.6	A 0	E +1.8	F 23.4	E +3.6	A 0	E +1.8	F +23.4	E +2.4	A 0	E +1.5	F +14.2
	PM	F (68.4)				F +6.2				F +5.3				F +5.3				F +3.2			
		A 7.0	F 56.5	E 47.6	F 217.6	A +0.3	F -1.2	F +9.6	F +1.9	A +0.3	F -1.5	F +7.6	F +2.8	A +0.3	F -1.5	F +7.6	F +2.8	A +0.2	F -0.5	F +4.2	F -2.4

8.2 Traffic Volumes Comparison

As depicted in Figures 5 through 9, traffic volumes in the Design Year (2050) for each of the evaluated routes vary based on the location of the proposed intersections with Engstrom Road and either Palmer-Fishhook Road or Trunk Road. These volumes are compared against the volumes for the future No Build option in Table 5.

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Table 5: 2050 Critical Roadway Segments: Forecasted Volumes Comparison (AADT)

ROADWAY SEGMENT	2050 NO BUILD	2050 SOUTHERN ROUTE	2050 NORTHERN ROUTE 1	2050 NORTHERN ROUTE 2	2050 STONE CREEK TO ASPEN RIDGE ROUTE
Engstrom Rd	5,780	4,952	5,058	5,058	5,664
Bogard Rd: Engstrom Rd to Trunk Rd	23,097	22,314	22,414	22,414	22,988
Trunk Rd: Bogard Rd to Palmer-Fishhook Rd	8,601	9,333	9,240	9,240	9,777
Proposed Connector Route	–	738	1,307	1,307	766

Traffic volumes on Trunk Road will increase in the design year under all conditions as nearby residential developments expand. All four of the proposed routes will additionally increase traffic volumes on Trunk Road by redirecting traffic from adjacent roadways. Traffic volumes on Engstrom Road and Bogard Road are most significantly decreased by the selection of the Southern Route. The Southern Route also has the lowest traffic volumes on the new connector itself; this is due to its proximity to Bogard Road. Traffic allocated to the new Southern Route is redirected almost exclusively from Engstrom Road and Bogard Road. A new connection in this location does not provide alternative travel routes for residents of the neighborhoods north of Cornelius and Niklason Lakes. Similarly, the Stone Creek to Aspen Ridge Route connects to Palmer-Fishhook Road at a location far enough north of the local neighborhoods to disincentivize most residents from selecting it as an alternative travel route.

Both the Northern Routes connect to Engstrom Road and Trunk Road at locations that make them viable alternative travel routes for a large portion of residents in the area, and therefore, their connector route volumes are the highest. While they do not pull as many vehicles directly from the adjacent Engstrom and Bogard roadways, they attract more vehicles from a broader area than either of the Southern or Stone Creek to Aspen Ridge Routes.

8.3 Intersection Queue Length Comparison

Intersection queue lengths at Engstrom Road and Bogard Road are a substantial source of traffic delays and contribute to driver frustration. Table 6 compares queue lengths generated by each proposed route at the future roundabout against the No Build option, for the Design Year (2050).

Table 6: 95th-Percentile Queue Lengths at Engstrom/Bogard Roundabout (Vehicles)

YEAR/ROUTE	AM PEAK				PM PEAK			
	EB	WB	NB	SB	EB	WB	NB	SB
2050 No Build	86	14	1	23	39	58	1	20
2050 Southern Route	78	16	1	16	34	58	1	15
2050 Northern Route 1	79	16	1	17	34	58	1	16
2050 Northern Route 2	79	16	1	17	34	58	1	16
2050 Stone Creek to Aspen Ridge Route	78	16	1	16	34	58	1	15

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Each route reduces queue lengths for every leg of the future roundabout for both morning and evening peak traffic times, with the exception of the AM westbound leg, where each route will increase the queue length by two vehicles. While queue lengths are otherwise very similar across all four routes, the Southern Route and Stone Creek to Aspen Ridge Route reduce the southbound queue lengths by one additional vehicle for both AM and PM peak traffic hours.

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9.0 SUMMARY

This analysis evaluates future traffic data (2050) for the four proposed connector routes between Engstrom Road and Trunk Road or Palmer-Fishhook Road and compares these routes against the future No Build option. For each proposed route option, the LOS and delay times at the future Engstrom Road/Bogard Road roundabout are considered in addition to forecasted traffic volumes on the connector route itself, and the potential reduction of traffic volumes on Engstrom Road provided by the selection of that route.

Using these criteria, each route is scored on a scale of 1-5, with one representing the most desirable results in a given category. Table 7 summarizes the scoring results for each proposed route.

Table 7: Scoring Results for Proposed Routes

ROUTE	LOS AND DELAY	ROUTE TRAFFIC VOLUMES	ENGSTROM TRAFFIC VOLUME REDUCTION
2050 No Build	5	N/A	5
Southern Route	1	4	1
Northern Route 1	2	1	2
Northern Route 2	2	1	2
Stone Creek to Aspen Ridge Route	4	3	4

Of the four build routes selected for traffic analysis in this report, Northern Routes 1 and 2 both receive the best ratings overall. These two routes are recommended for further evaluation in the Route Selection Report.

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APPENDIX A

Synchro Inputs/Outputs

Intersection	
Intersection Delay, s/veh	174.3
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1629	1304	53	502
Demand Flow Rate, veh/h	1662	1331	54	512
Vehicles Circulating, veh/h	295	55	1808	1224
Vehicles Exiting, veh/h	1441	1807	149	162
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	299.9	21.8	23.5	178.9
Approach LOS	F	C	C	F

Lane	Left	Left	Right	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT	R	LTR	LTR
RT Channelized					
Lane Util	1.000	0.904	0.096	1.000	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.609
Critical Headway, s	4.976	4.544	4.544	4.976	4.976
A (Intercept)	1380	1420	1420	1380	1380
B (Slope)	1.02e-3	9.101e-4	9.101e-4	1.02e-3	1.02e-3
Entry Flow, veh/h	1662	1203	128	54	512
Cap Entry Lane, veh/h	1021	1351	1351	218	396
Entry HV Adj Factor	0.980	0.980	0.977	0.981	0.980
Flow Entry, veh/h	1629	1179	125	53	502
Cap Entry, veh/h	1001	1324	1319	214	388
V/C Ratio	1.627	0.891	0.095	0.247	1.293
Control Delay, s/veh	299.9	23.7	3.5	23.5	178.9
LOS	F	C	A	C	F
95th %tile Queue, veh	86	14	0	1	23

Intersection	
Intersection Delay, s/veh	83.0
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1676	687	542	1028
Demand Flow Rate, veh/h	1709	701	553	1048
Vehicles Circulating, veh/h	913	354	1367	800
Vehicles Exiting, veh/h	935	1566	723	255
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	35.4	7.3	45.7	230.8
Approach LOS	E	A	E	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.469	0.531	0.262	0.738	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	553	624	532	329	372	145	408	1048
Cap Entry Lane, veh/h	583	653	1938	975	1051	384	444	719
Entry HV Adj Factor	0.981	0.980	0.980	0.981	0.979	0.979	0.980	0.981
Flow Entry, veh/h	542	612	522	323	364	142	400	1028
Cap Entry, veh/h	572	640	1900	956	1029	376	435	705
V/C Ratio	0.949	0.955	0.275	0.338	0.354	0.378	0.918	1.457
Control Delay, s/veh	52.6	50.4	0.0	7.4	7.2	17.2	55.8	230.8
LOS	F	F	A	A	A	C	F	F
95th %tile Queue, veh	13	13	1	2	2	2	10	48

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	64	73	122	46	49	65
Future Vol, veh/h	64	73	122	46	49	65
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	200	575	-	-	385
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	79	133	50	53	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	368	53	124	0	-	0
Stage 1	53	-	-	-	-	-
Stage 2	315	-	-	-	-	-
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	632	1014	1463	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	1014	1463	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.38	5.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1463	-	574	1014	-	-
HCM Lane V/C Ratio	0.091	-	0.121	0.078	-	-
HCM Ctrl Dly (s/v)	7.7	-	12.1	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	0.3	-	-

Intersection	
Intersection Delay, s/veh	139.1
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1269	1866	103	379
Demand Flow Rate, veh/h	1294	1903	105	387
Vehicles Circulating, veh/h	241	193	1425	1576
Vehicles Exiting, veh/h	1722	1337	110	146
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	115.2	142.2	18.4	236.4
Approach LOS	F	F	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1294	1529	374	105	387
Cap Entry Lane, veh/h	1079	1133	1938	323	277
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.979
Flow Entry, veh/h	1269	1499	367	103	379
Cap Entry, veh/h	1058	1111	1900	316	271
V/C Ratio	1.199	1.349	0.193	0.325	1.399
Control Delay, s/veh	115.2	177.0	0.0	18.4	236.4
LOS	F	F	A	C	F
95th %tile Queue, veh	39	58	1	1	20

Intersection	
Intersection Delay, s/veh	68.4
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1031	755	1244	658
Demand Flow Rate, veh/h	1052	770	1269	671
Vehicles Circulating, veh/h	486	1345	801	1280
Vehicles Exiting, veh/h	1465	725	471	835
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.0	56.5	47.6	217.6
Approach LOS	A	F	E	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.469	0.531		0.470	0.530	0.433	0.567	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	369	417	266	362	408	550	719	671
Cap Entry Lane, veh/h	863	939	1938	392	453	646	719	478
Entry HV Adj Factor	0.981	0.979	0.980	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	362	408	261	355	400	539	705	658
Cap Entry, veh/h	847	920	1900	384	444	633	705	469
V/C Ratio	0.427	0.444	0.137	0.924	0.901	0.851	1.000	1.403
Control Delay, s/veh	9.5	9.2	0.0	61.7	51.9	33.9	58.1	217.6
LOS	A	A	A	F	F	D	F	F
95th %tile Queue, veh	2	2	0	10	10	10	16	31

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	219	166	110	174	87	82
Future Vol, veh/h	219	166	110	174	87	82
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	200	575	-	-	385
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	238	180	120	189	95	89

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	523	95	184	0	-	0
Stage 1	95	-	-	-	-	-
Stage 2	428	-	-	-	-	-
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	514	962	1391	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	470	962	1391	-	-	-
Mov Cap-2 Maneuver	470	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.66	3.03	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1391	-	470	962	-	-
HCM Lane V/C Ratio	0.086	-	0.506	0.188	-	-
HCM Ctrl Dly (s/v)	7.8	-	20.2	9.6	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	2.8	0.7	-	-

Intersection	
Intersection Delay, s/veh	150.0
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1629	1283	53	446
Demand Flow Rate, veh/h	1662	1309	54	455
Vehicles Circulating, veh/h	238	55	1751	1224
Vehicles Exiting, veh/h	1441	1750	149	34
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	258.7	26.0	21.8	124.7
Approach LOS	F	D	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1662	1203	106	54	455
Cap Entry Lane, veh/h	1082	1305	1938	231	396
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	1629	1179	104	53	446
Cap Entry, veh/h	1061	1279	1900	227	388
V/C Ratio	1.535	0.922	0.055	0.233	1.149
Control Delay, s/veh	258.7	28.3	0.0	21.8	124.7
LOS	F	D	A	C	F
95th %tile Queue, veh	79	16	0	1	17

Intersection	
Intersection Delay, s/veh	94.0
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1619	677	553	1084
Demand Flow Rate, veh/h	1651	691	564	1105
Vehicles Circulating, veh/h	970	365	1343	781
Vehicles Exiting, veh/h	916	1542	765	275
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	39.0	7.3	47.5	254.2
Approach LOS	E	A	E	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.250	0.750	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	535	603	513	325	366	141	423	1105
Cap Entry Lane, veh/h	553	623	1938	965	1041	392	453	731
Entry HV Adj Factor	0.980	0.981	0.980	0.979	0.981	0.979	0.980	0.981
Flow Entry, veh/h	524	591	503	318	359	138	415	1084
Cap Entry, veh/h	542	611	1900	945	1021	384	444	717
V/C Ratio	0.967	0.969	0.265	0.337	0.351	0.359	0.933	1.511
Control Delay, s/veh	58.4	54.9	0.0	7.4	7.2	16.3	57.9	254.2
LOS	F	F	A	A	A	C	F	F
95th %tile Queue, veh	13	14	1	1	2	2	11	53

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	42	368	3	15	116	10
Future Vol, veh/h	42	368	3	15	116	10
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	400	3	16	126	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	446	0	268	246
Stage 1	-	-	-	-	246	-
Stage 2	-	-	-	-	23	-
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	-	-	1115	-	721	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	1000	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1115	-	719	793
Mov Cap-2 Maneuver	-	-	-	-	719	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	997	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.37	11.13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	724	-	-	300	-
HCM Lane V/C Ratio	0.189	-	-	0.003	-
HCM Ctrl Dly (s/v)	11.1	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	3.3

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	35	70	25	224	985	12
Future Vol, veh/h	35	70	25	224	985	12
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	76	27	243	1071	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1375	1077	1084	0	-	0
Stage 1	1077	-	-	-	-	-
Stage 2	298	-	-	-	-	-
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	160	266	644	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	152	266	644	-	-	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	SB	NE	SW
HCM Ctrl Dly, s/v	39.84	1.09	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	181	-	213	-	-
HCM Lane V/C Ratio	0.042	-	0.536	-	-
HCM Ctrl Dly (s/v)	10.8	0	39.8	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	2.8	-	-

Intersection	
Intersection Delay, s/veh	126.7
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1269	1802	103	336
Demand Flow Rate, veh/h	1294	1838	105	343
Vehicles Circulating, veh/h	197	193	1381	1576
Vehicles Exiting, veh/h	1722	1293	110	146
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	93.8	147.3	17.3	174.0
Approach LOS	F	F	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1294	1529	309	105	343
Cap Entry Lane, veh/h	1129	1133	1938	337	277
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	1269	1499	303	103	336
Cap Entry, veh/h	1107	1111	1900	331	271
V/C Ratio	1.146	1.349	0.159	0.311	1.240
Control Delay, s/veh	93.8	177.0	0.0	17.3	174.0
LOS	F	F	A	C	F
95th %tile Queue, veh	34	58	1	1	16

Intersection	
Intersection Delay, s/veh	73.7
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	988	724	1274	701
Demand Flow Rate, veh/h	1008	739	1299	715
Vehicles Circulating, veh/h	530	1375	774	1214
Vehicles Exiting, veh/h	1399	698	513	900
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.3	55.0	55.2	220.4
Approach LOS	A	F	F	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.400	0.600	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	356	401	251	347	392	519	780	715
Cap Entry Lane, veh/h	829	905	1938	381	441	662	735	506
Entry HV Adj Factor	0.979	0.980	0.980	0.981	0.979	0.981	0.980	0.980
Flow Entry, veh/h	349	393	246	340	384	509	765	701
Cap Entry, veh/h	812	887	1900	374	432	650	721	496
V/C Ratio	0.429	0.443	0.129	0.911	0.888	0.784	1.061	1.413
Control Delay, s/veh	9.9	9.5	0.0	60.0	50.6	26.5	74.3	220.4
LOS	A	A	A	F	F	D	F	F
95th %tile Queue, veh	2	2	0	9	9	8	20	33

Intersection	
Int Delay, s/veh	9.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	277	12	48	404	7
Future Vol, veh/h	32	277	12	48	404	7
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	301	13	52	439	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	336	0	264	185
Stage 1	-	-	-	-	185	-
Stage 2	-	-	-	-	78	-
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	-	-	1223	-	725	857
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	945	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1223	-	717	857
Mov Cap-2 Maneuver	-	-	-	-	717	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	934	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.59	17.84
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	719	-	-	360	-
HCM Lane V/C Ratio	0.621	-	-	0.011	-
HCM Ctrl Dly (s/v)	17.8	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.4	-	-	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	27	53	80	733	604	40
Future Vol, veh/h	27	53	80	733	604	40
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	58	87	797	657	43

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1649	678	700	0	-	0
Stage 1	678	-	-	-	-	-
Stage 2	971	-	-	-	-	-
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	109	452	897	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	90	452	897	-	-	-
Mov Cap-2 Maneuver	90	-	-	-	-	-
Stage 1	416	-	-	-	-	-
Stage 2	367	-	-	-	-	-

Approach	SB	NE	SW
HCM Ctrl Dly, s/v	38.52	0.93	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	177	-	192	-	-
HCM Lane V/C Ratio	0.097	-	0.454	-	-
HCM Ctrl Dly (s/v)	9.4	0	38.5	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.3	-	2.1	-	-

Intersection	
Intersection Delay, s/veh	150.0
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1629	1283	53	446
Demand Flow Rate, veh/h	1662	1309	54	455
Vehicles Circulating, veh/h	238	55	1751	1224
Vehicles Exiting, veh/h	1441	1750	149	34
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	258.7	26.0	21.8	124.7
Approach LOS	F	D	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1662	1203	106	54	455
Cap Entry Lane, veh/h	1082	1305	1938	231	396
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	1629	1179	104	53	446
Cap Entry, veh/h	1061	1279	1900	227	388
V/C Ratio	1.535	0.922	0.055	0.233	1.149
Control Delay, s/veh	258.7	28.3	0.0	21.8	124.7
LOS	F	D	A	C	F
95th %tile Queue, veh	79	16	0	1	17

Intersection	
Intersection Delay, s/veh	94.0
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1619	677	553	1084
Demand Flow Rate, veh/h	1651	691	564	1105
Vehicles Circulating, veh/h	970	365	1343	781
Vehicles Exiting, veh/h	916	1542	765	275
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	39.0	7.3	47.5	254.2
Approach LOS	E	A	E	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.250	0.750	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	535	603	513	325	366	141	423	1105
Cap Entry Lane, veh/h	553	623	1938	965	1041	392	453	731
Entry HV Adj Factor	0.980	0.981	0.980	0.979	0.981	0.979	0.980	0.981
Flow Entry, veh/h	524	591	503	318	359	138	415	1084
Cap Entry, veh/h	542	611	1900	945	1021	384	444	717
V/C Ratio	0.967	0.969	0.265	0.337	0.351	0.359	0.933	1.511
Control Delay, s/veh	58.4	54.9	0.0	7.4	7.2	16.3	57.9	254.2
LOS	F	F	A	A	A	C	F	F
95th %tile Queue, veh	13	14	1	1	2	2	11	53

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	42	368	3	15	116	10
Future Vol, veh/h	42	368	3	15	116	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	400	3	16	126	11

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	46	446
Stage 1	-	-	0	0
Stage 2	-	-	46	446
Critical Hdwy	-	-	6.42	6.52
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	5.52
Follow-up Hdwy	-	-	3.518	4.018
Pot Cap-1 Maneuver	-	-	964	507
Stage 1	-	-	-	-
Stage 2	-	-	977	574
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	964	0
Mov Cap-2 Maneuver	-	-	964	0
Stage 1	-	-	-	0
Stage 2	-	-	977	0

Approach	EB	WB
HCM Ctrl Dly, s/v	0	8.81
HCM LOS		A

Minor Lane/Major Mvmt	EBT	EBR	WBLn1
Capacity (veh/h)	-	-	964
HCM Lane V/C Ratio	-	-	0.02
HCM Ctrl Dly (s/v)	-	-	8.8
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

Intersection	
Int Delay, s/veh	7.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	0	70	44	0	22	25	224	15	8	985	12
Future Vol, veh/h	35	0	70	44	0	22	25	224	15	8	985	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	0	76	48	0	24	27	243	16	9	1071	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1392	1409	1077	1394	1407	252	1084	0	0	260	0	0
Stage 1	1095	1095	-	306	306	-	-	-	-	-	-	-
Stage 2	298	314	-	1088	1101	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	119	139	266	119	139	787	644	-	-	1305	-	-
Stage 1	259	290	-	704	662	-	-	-	-	-	-	-
Stage 2	711	656	-	261	288	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	108	130	266	79	130	787	644	-	-	1305	-	-
Mov Cap-2 Maneuver	108	130	-	79	130	-	-	-	-	-	-	-
Stage 1	255	285	-	669	629	-	-	-	-	-	-	-
Stage 2	655	624	-	184	283	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Ctrl Dly, s/v	55.07	80.12	1.03	0.06
HCM LOS	F	F		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	168	-	-	113	179	14	-	-
HCM Lane V/C Ratio	0.042	-	-	0.633	0.638	0.007	-	-
HCM Ctrl Dly (s/v)	10.8	0	-	80.1	55.1	7.8	0	-
HCM Lane LOS	B	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.2	3.6	0	-	-

Intersection	
Intersection Delay, s/veh	126.7
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1269	1802	103	336
Demand Flow Rate, veh/h	1294	1838	105	343
Vehicles Circulating, veh/h	197	193	1381	1576
Vehicles Exiting, veh/h	1722	1293	110	146
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	93.8	147.3	17.3	174.0
Approach LOS	F	F	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1294	1529	309	105	343
Cap Entry Lane, veh/h	1129	1133	1938	337	277
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	1269	1499	303	103	336
Cap Entry, veh/h	1107	1111	1900	331	271
V/C Ratio	1.146	1.349	0.159	0.311	1.240
Control Delay, s/veh	93.8	177.0	0.0	17.3	174.0
LOS	F	F	A	C	F
95th %tile Queue, veh	34	58	1	1	16

Intersection	
Intersection Delay, s/veh	73.7
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	988	724	1274	701
Demand Flow Rate, veh/h	1008	739	1299	715
Vehicles Circulating, veh/h	530	1375	774	1214
Vehicles Exiting, veh/h	1399	698	513	900
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.3	55.0	55.2	220.4
Approach LOS	A	F	F	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.400	0.600	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	356	401	251	347	392	519	780	715
Cap Entry Lane, veh/h	829	905	1938	381	441	662	735	506
Entry HV Adj Factor	0.979	0.980	0.980	0.981	0.979	0.981	0.980	0.980
Flow Entry, veh/h	349	393	246	340	384	509	765	701
Cap Entry, veh/h	812	887	1900	374	432	650	721	496
V/C Ratio	0.429	0.443	0.129	0.911	0.888	0.784	1.061	1.413
Control Delay, s/veh	9.9	9.5	0.0	60.0	50.6	26.5	74.3	220.4
LOS	A	A	A	F	F	D	F	F
95th %tile Queue, veh	2	2	0	9	9	8	20	33

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	278	12	46	403	8
Future Vol, veh/h	31	278	12	46	403	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	302	13	50	438	9

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	34	336
Stage 1	-	-	0	0
Stage 2	-	-	34	336
Critical Hdwy	-	-	6.42	6.52
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	5.52
Follow-up Hdwy	-	-	3.518	4.018
Pot Cap-1 Maneuver	-	-	980	585
Stage 1	-	-	-	-
Stage 2	-	-	989	642
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	980	0
Mov Cap-2 Maneuver	-	-	980	0
Stage 1	-	-	-	0
Stage 2	-	-	989	0

Approach	EB	WB
HCM Ctrl Dly, s/v	0	8.93
HCM LOS		A

Minor Lane/Major Mvmt	EBT	EBR	WBLn1
Capacity (veh/h)	-	-	980
HCM Lane V/C Ratio	-	-	0.064
HCM Ctrl Dly (s/v)	-	-	8.9
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	8.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	0	53	32	0	16	80	733	49	25	604	40
Future Vol, veh/h	27	0	53	32	0	16	80	733	49	25	604	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	0	58	35	0	17	87	797	53	27	657	43

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1703	1757	678	1708	1752	823	700	0	0	850	0	0
Stage 1	733	733	-	997	997	-	-	-	-	-	-	-
Stage 2	971	1024	-	711	754	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	72	85	452	72	86	373	897	-	-	788	-	-
Stage 1	412	427	-	294	322	-	-	-	-	-	-	-
Stage 2	304	313	-	424	417	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	53	65	452	48	66	373	897	-	-	788	-	-
Mov Cap-2 Maneuver	53	65	-	48	66	-	-	-	-	-	-	-
Stage 1	389	402	-	239	262	-	-	-	-	-	-	-
Stage 2	236	255	-	349	393	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Ctrl Dly, s/v	78.98	151.53	0.88	0.36
HCM LOS	F	F		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	165	-	-	68	128	66	-	-
HCM Lane V/C Ratio	0.097	-	-	0.77	0.682	0.034	-	-
HCM Ctrl Dly (s/v)	9.4	0	-	151.5	79	9.7	0	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	3.6	3.7	0.1	-	-

Intersection	
Intersection Delay, s/veh	146.6
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1629	1280	53	438
Demand Flow Rate, veh/h	1662	1306	54	447
Vehicles Circulating, veh/h	230	55	1743	1224
Vehicles Exiting, veh/h	1441	1742	149	34
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	253.1	26.1	21.6	117.8
Approach LOS	F	D	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1662	1203	103	54	447
Cap Entry Lane, veh/h	1091	1305	1938	233	396
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	1629	1179	101	53	438
Cap Entry, veh/h	1070	1279	1900	229	388
V/C Ratio	1.523	0.922	0.053	0.232	1.129
Control Delay, s/veh	253.1	28.3	0.0	21.6	117.8
LOS	F	D	A	C	F
95th %tile Queue, veh	78	16	0	1	16

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	20	123	4	56	347
Future Vol, veh/h	1	20	123	4	56	347
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	22	134	4	61	377

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	635	136	0	0	138	0
Stage 1	136	-	-	-	-	-
Stage 2	499	-	-	-	-	-
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	443	913	-	-	1446	-
Stage 1	891	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	419	913	-	-	1446	-
Mov Cap-2 Maneuver	419	-	-	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.28	0	1.06
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	864	250	-
HCM Lane V/C Ratio	-	-	0.026	0.042	-
HCM Ctrl Dly (s/v)	-	-	9.3	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Intersection Delay, s/veh	95.6
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1611	676	554	1092
Demand Flow Rate, veh/h	1643	690	565	1113
Vehicles Circulating, veh/h	978	366	1340	778
Vehicles Exiting, veh/h	913	1539	771	278
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	39.5	7.3	47.8	257.2
Approach LOS	E	A	E	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.248	0.752	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	533	600	510	324	366	140	425	1113
Cap Entry Lane, veh/h	549	618	1938	964	1040	394	455	733
Entry HV Adj Factor	0.979	0.981	0.980	0.981	0.979	0.979	0.980	0.981
Flow Entry, veh/h	522	589	500	318	358	137	417	1092
Cap Entry, veh/h	538	607	1900	946	1019	385	446	719
V/C Ratio	0.971	0.970	0.263	0.336	0.352	0.356	0.935	1.519
Control Delay, s/veh	59.5	55.4	0.0	7.4	7.2	16.2	58.2	257.2
LOS	F	F	A	A	A	C	F	F
95th %tile Queue, veh	13	14	1	1	2	2	11	54

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	6	54	21	230	1005	0
Future Vol, veh/h	6	54	21	230	1005	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	59	23	250	1092	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1388	1092	1092	0	-	0
Stage 1	1092	-	-	-	-	-
Stage 2	296	-	-	-	-	-
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	157	261	639	-	-	-
Stage 1	321	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	261	639	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	SE	NE	SW
HCM Ctrl Dly, s/v	25.16	0.91	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	151	-	243	-	-
HCM Lane V/C Ratio	0.036	-	0.268	-	-
HCM Ctrl Dly (s/v)	10.8	0	25.2	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1.1	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	64	73	122	46	49	65
Future Vol, veh/h	64	73	122	46	49	65
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	200	575	-	-	385
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	79	133	50	53	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	368	53	124	0	-	0
Stage 1	53	-	-	-	-	-
Stage 2	315	-	-	-	-	-
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	632	1014	1463	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	1014	1463	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.38	5.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1463	-	574	1014	-	-
HCM Lane V/C Ratio	0.091	-	0.121	0.078	-	-
HCM Ctrl Dly (s/v)	7.7	-	12.1	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	0.3	-	-

Intersection	
Intersection Delay, s/veh	125.2
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1269	1792	103	330
Demand Flow Rate, veh/h	1294	1828	105	337
Vehicles Circulating, veh/h	191	193	1375	1576
Vehicles Exiting, veh/h	1722	1287	110	146
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	91.0	148.1	17.1	166.0
Approach LOS	F	F	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1294	1529	299	105	337
Cap Entry Lane, veh/h	1136	1133	1938	339	277
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.979
Flow Entry, veh/h	1269	1499	293	103	330
Cap Entry, veh/h	1113	1111	1900	333	271
V/C Ratio	1.139	1.349	0.154	0.309	1.219
Control Delay, s/veh	91.0	177.0	0.0	17.1	166.0
LOS	F	F	A	C	F
95th %tile Queue, veh	34	58	1	1	15

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	65	402	2	43	260
Future Vol, veh/h	3	65	402	2	43	260
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	71	437	2	47	283

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	814	438	0	0	439	0
Stage 1	438	-	-	-	-	-
Stage 2	376	-	-	-	-	-
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	347	619	-	-	1121	-
Stage 1	650	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	330	619	-	-	1121	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.9	0	1.19
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	596	255	-
HCM Lane V/C Ratio	-	-	0.124	0.042	-
HCM Ctrl Dly (s/v)	-	-	11.9	8.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Intersection Delay, s/veh	74.6
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	982	721	1279	707
Demand Flow Rate, veh/h	1002	736	1304	721
Vehicles Circulating, veh/h	536	1380	771	1203
Vehicles Exiting, veh/h	1389	695	519	912
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.3	55.3	57.2	219.5
Approach LOS	A	F	F	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.469	0.531		0.470	0.530	0.394	0.606	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	354	400	248	346	390	514	790	721
Cap Entry Lane, veh/h	824	900	1938	379	439	664	737	511
Entry HV Adj Factor	0.981	0.979	0.980	0.980	0.980	0.981	0.980	0.980
Flow Entry, veh/h	347	392	243	339	382	504	775	707
Cap Entry, veh/h	809	881	1900	372	431	651	723	501
V/C Ratio	0.429	0.444	0.128	0.912	0.888	0.774	1.071	1.412
Control Delay, s/veh	9.9	9.5	0.0	60.6	50.6	25.7	77.6	219.5
LOS	A	A	A	F	F	D	F	F
95th %tile Queue, veh	2	2	0	9	9	7	21	34

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	5	40	61	760	643	7
Future Vol, veh/h	5	40	61	760	643	7
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	43	66	826	699	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1661	703	707	0	-	0
Stage 1	703	-	-	-	-	-
Stage 2	959	-	-	-	-	-
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	107	438	892	-	-	-
Stage 1	491	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	92	438	892	-	-	-
Mov Cap-2 Maneuver	92	-	-	-	-	-
Stage 1	424	-	-	-	-	-
Stage 2	372	-	-	-	-	-

Approach	SE	NE	SW
HCM Ctrl Dly, s/v	18.82	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	134	-	309	-	-
HCM Lane V/C Ratio	0.074	-	0.158	-	-
HCM Ctrl Dly (s/v)	9.4	0	18.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	219	166	110	174	87	82
Future Vol, veh/h	219	166	110	174	87	82
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	200	575	-	-	385
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	238	180	120	189	95	89

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	523	95	184	0	-	0
Stage 1	95	-	-	-	-	-
Stage 2	428	-	-	-	-	-
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	514	962	1391	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	470	962	1391	-	-	-
Mov Cap-2 Maneuver	470	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.66	3.03	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1391	-	470	962	-	-
HCM Lane V/C Ratio	0.086	-	0.506	0.188	-	-
HCM Ctrl Dly (s/v)	7.8	-	20.2	9.6	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	2.8	0.7	-	-

Intersection	
Intersection Delay, s/veh	160.5
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1629	1292	53	470
Demand Flow Rate, veh/h	1662	1318	54	479
Vehicles Circulating, veh/h	262	55	1775	1224
Vehicles Exiting, veh/h	1441	1774	149	34
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	275.7	25.8	22.5	146.7
Approach LOS	F	D	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1662	1203	115	54	479
Cap Entry Lane, veh/h	1056	1305	1938	226	396
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.981
Flow Entry, veh/h	1629	1179	113	53	470
Cap Entry, veh/h	1035	1279	1900	222	389
V/C Ratio	1.573	0.922	0.059	0.239	1.210
Control Delay, s/veh	275.7	28.3	0.0	22.5	146.7
LOS	F	D	A	C	F
95th %tile Queue, veh	82	16	0	1	19

Intersection	
Intersection Delay, s/veh	89.7
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1644	682	548	1061
Demand Flow Rate, veh/h	1677	696	559	1082
Vehicles Circulating, veh/h	947	360	1355	789
Vehicles Exiting, veh/h	924	1554	748	267
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	37.8	7.3	47.2	245.0
Approach LOS	E	A	E	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.254	0.746	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	543	613	521	327	369	142	417	1082
Cap Entry Lane, veh/h	565	635	1938	969	1046	388	449	726
Entry HV Adj Factor	0.981	0.980	0.980	0.980	0.980	0.979	0.980	0.981
Flow Entry, veh/h	533	601	511	321	362	139	409	1061
Cap Entry, veh/h	554	622	1900	950	1024	380	440	712
V/C Ratio	0.961	0.966	0.269	0.337	0.353	0.366	0.929	1.490
Control Delay, s/veh	56.3	53.6	0.0	7.4	7.2	16.7	57.5	245.0
LOS	F	F	A	A	A	C	F	F
95th %tile Queue, veh	13	14	1	1	2	2	11	51

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	407	2	9	128	6
Future Vol, veh/h	25	407	2	9	128	6
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	442	2	10	139	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	470	0	263	248
Stage 1	-	-	-	-	248	-
Stage 2	-	-	-	-	14	-
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	-	-	1092	-	726	790
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	1009	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1092	-	725	790
Mov Cap-2 Maneuver	-	-	-	-	725	-
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	1007	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.51	11.18
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	728	-	-	327	-
HCM Lane V/C Ratio	0.2	-	-	0.002	-
HCM Ctrl Dly (s/v)	11.2	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	5	57	80	2	20	84
Future Vol, veh/h	5	57	80	2	20	84
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	62	87	2	22	91

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	223	88	0	0	89	0
Stage 1	88	-	-	-	-	-
Stage 2	135	-	-	-	-	-
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	765	970	-	-	1506	-
Stage 1	935	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	754	970	-	-	1506	-
Mov Cap-2 Maneuver	754	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	EB	SE	NW
HCM Ctrl Dly, s/v	9.09	0	1.43
HCM LOS	A		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	346	-	948	-	-
HCM Lane V/C Ratio	0.014	-	0.071	-	-
HCM Ctrl Dly (s/v)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	73	122	61	89	82
Future Vol, veh/h	70	73	122	61	89	82
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	200	575	-	-	385
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	79	133	66	97	89

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	428	97	186	0	-	0
Stage 1	97	-	-	-	-	-
Stage 2	332	-	-	-	-	-
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	583	960	1389	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	528	960	1389	-	-	-
Mov Cap-2 Maneuver	528	-	-	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.99	5.24	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1389	-	528	960	-	-
HCM Lane V/C Ratio	0.095	-	0.144	0.083	-	-
HCM Ctrl Dly (s/v)	7.9	-	13	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.5	0.3	-	-

Intersection	
Intersection Delay, s/veh	131.5
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	1269	1828	103	354
Demand Flow Rate, veh/h	1294	1865	105	361
Vehicles Circulating, veh/h	215	193	1399	1576
Vehicles Exiting, veh/h	1722	1311	110	146
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	102.3	145.2	17.7	198.9
Approach LOS	F	F	C	F

Lane	Left	Left	Bypass	Left	Left
Designated Moves	LTR	LT	R	LTR	LTR
Assumed Moves	LTR	LT		LTR	LTR
RT Channelized			Free		
Lane Util	1.000	1.000		1.000	1.000
Follow-Up Headway, s	2.609	2.609		2.609	2.609
Critical Headway, s	4.976	4.976		4.976	4.976
A (Intercept)	1380	1380		1380	1380
B (Slope)	1.02e-3	1.02e-3		1.02e-3	1.02e-3
Entry Flow, veh/h	1294	1529	336	105	361
Cap Entry Lane, veh/h	1108	1133	1938	331	277
Entry HV Adj Factor	0.980	0.980	0.980	0.981	0.981
Flow Entry, veh/h	1269	1499	329	103	354
Cap Entry, veh/h	1086	1111	1900	325	271
V/C Ratio	1.168	1.349	0.173	0.317	1.305
Control Delay, s/veh	102.3	177.0	0.0	17.7	198.9
LOS	F	F	A	C	F
95th %tile Queue, veh	36	58	1	1	18

Intersection	
Intersection Delay, s/veh	71.6
Intersection LOS	F

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1006	738	1262	683
Demand Flow Rate, veh/h	1027	753	1287	697
Vehicles Circulating, veh/h	512	1363	786	1242
Vehicles Exiting, veh/h	1427	710	496	874
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.2	56.0	51.8	220.0
Approach LOS	A	F	F	F

Lane	Left	Right	Bypass	Left	Right	Left	Right	Left
Designated Moves	LT	TR	R	LT	TR	L	LTR	LTR
Assumed Moves	LT	TR		LT	TR	L	TR	LTR
RT Channelized			Free					
Lane Util	0.470	0.530		0.470	0.530	0.413	0.587	1.000
Follow-Up Headway, s	2.667	2.535		2.667	2.535	2.667	2.535	2.535
Critical Headway, s	4.645	4.328		4.645	4.328	4.645	4.328	4.328
A (Intercept)	1350	1420		1350	1420	1350	1420	1420
B (Slope)	9.199e-4	8.501e-4		9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	362	408	257	354	399	532	755	697
Cap Entry Lane, veh/h	843	919	1938	385	446	655	728	494
Entry HV Adj Factor	0.980	0.980	0.980	0.980	0.980	0.981	0.980	0.980
Flow Entry, veh/h	355	400	252	347	391	522	740	683
Cap Entry, veh/h	826	901	1900	378	437	643	714	484
V/C Ratio	0.430	0.444	0.133	0.919	0.895	0.812	1.037	1.411
Control Delay, s/veh	9.7	9.4	0.0	61.3	51.4	29.3	67.6	220.0
LOS	A	A	A	F	F	D	F	F
95th %tile Queue, veh	2	2	0	10	10	8	18	33

Intersection	
Int Delay, s/veh	9.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	306	6	29	431	4
Future Vol, veh/h	19	306	6	29	431	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	333	7	32	468	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	353	0	232	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	45	-
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	-	-	1205	-	757	855
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	752	855
Mov Cap-2 Maneuver	-	-	-	-	752	-
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	973	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.37	17.48
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	753	-	-	309	-
HCM Lane V/C Ratio	0.628	-	-	0.005	-
HCM Ctrl Dly (s/v)	17.5	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.5	-	-	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	4	43	119	7	64	300
Future Vol, veh/h	4	43	119	7	64	300
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	47	129	8	70	326

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	598	133	0	0	137	0
Stage 1	133	-	-	-	-	-
Stage 2	465	-	-	-	-	-
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	465	916	-	-	1447	-
Stage 1	893	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	438	916	-	-	1447	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	EB	SE	NW
HCM Ctrl Dly, s/v	9.57	0	1.34
HCM LOS	A		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	316	-	838	-	-
HCM Lane V/C Ratio	0.048	-	0.061	-	-
HCM Ctrl Dly (s/v)	7.6	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	240	166	110	224	118	95
Future Vol, veh/h	240	166	110	224	118	95
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	200	575	-	-	385
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	261	180	120	243	128	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	611	128	232	0	-	0
Stage 1	128	-	-	-	-	-
Stage 2	483	-	-	-	-	-
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	457	922	1336	-	-	-
Stage 1	898	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	416	922	1336	-	-	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	621	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20.04	2.62	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1336	-	416	922	-	-
HCM Lane V/C Ratio	0.089	-	0.627	0.196	-	-
HCM Ctrl Dly (s/v)	8	-	27.1	9.9	-	-
HCM Lane LOS	A	-	D	A	-	-
HCM 95th %tile Q(veh)	0.3	-	4.1	0.7	-	-

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APPENDIX B

Traffic Model Volume Outputs Map



Legend

- Traffic Analysis Zones (TAZ)
- Connectors
- Road Networks
- Study Area

Engstrom Road to Trunk Road Corridor
Project No. 35472

Traffic Model Volume Outputs Map

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APPENDIX B

Preliminary Environmental Overview

MEMORANDUM

Date: July 31, 2025

To: Cole Branham, Project Management Division Manager
Matanuska-Susitna Borough

From: Marie Schmidt, Environmental Planner
HDL Engineering Consultants, LLC

Subject: Engstrom Road to Trunk Road Corridor - Preliminary Environmental Impact Evaluation

Introduction

A Route Selection Report (RSR) is currently being developed, to select a preferred route for a new roadway connection between Engstrom Road and Trunk Road in Wasilla, Alaska. Four preliminary build routes, along with a no-build option, are being considered, as shown in Figure 1.

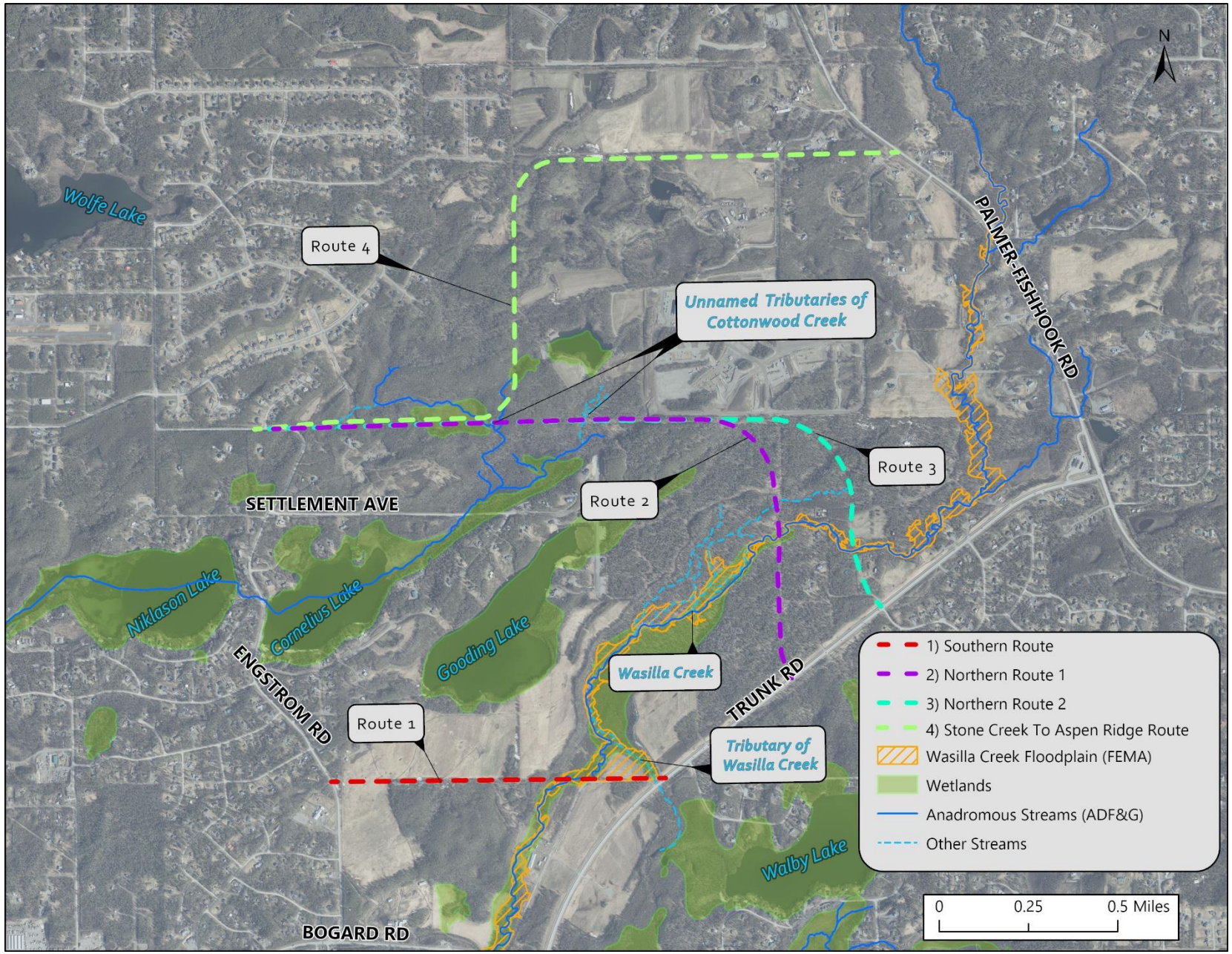
- Route 1: Southern Route
- Route 2: Northern Route 1 (from Recon Eng Report)
- Route 3: Northern Route 2 (Heaton Road / Forestwood Drive and Trunk Road)
- Route 4: Stone Creek to Aspen Ridge Route
- Route 5: No Build

This environmental analysis supports the RSR process by identifying environmental resources and regulatory authorizations associated with each route. The Alaska Department of Transportation & Public Facilities (DOT&PF) State-Funded Projects Environmental Documentation Form was used as a framework for this analysis. The form is intended to document environmental considerations and compliance steps for non-federally funded road projects, to ensure that appropriate permits are obtained and environmental factors are addressed in project design and construction.

Although the project is not currently slated to receive federal funding, such funding may become available in the future. If federal funds are secured, the project would require a full environmental review under the National Environmental Policy Act (NEPA). Additionally, a Clean Water Act Section 404 permit will be required for all identified routes, which establishes a federal nexus. As a result, compliance with federal laws, such as Section 106 of the National Historic Preservation Act, would be required even without federal funding. In addition to supporting early environmental considerations and permit compliance, this analysis can also help inform a potential NEPA analysis by identifying anticipated environmental impacts and summarizing applicable regulatory requirements.

The Engstrom Road to Trunk Road Corridor project is in the early stages of planning, while the DOT&PF Environmental Documentation Form is typically used for projects that are further along in development—where field studies, agency consultations, and public scoping have already occurred. Many of the environmental considerations presented here are still under evaluation. Accordingly, this document reflects preliminary findings. Full environmental analysis will be completed once a preferred route is selected.

Figure 1: Environmental Resource Map



Environmental Consequences

A: Land Use and Transportation Plans

This section discusses relevant local and regional land use and transportation plans, and how the proposed routes align with goals and objectives established in these plans.

1. Applicable Land Use Plans:

Matanuska-Susitna Borough (MSB) Comprehensive Plan

- Source/Link: https://matsugov.us/docs/general/14173/borough-wide-comprehensive-plan.pdf
- Date Reviewed: May 19, 2025
- Jurisdiction: MSB
- Description: This plan outlines the long-term vision for land use, development, and resource management within the MSB. It provides policies to guide growth, emphasizing integrated transportation, protection of residential neighborhoods, and consideration of environmental resources in future development decisions. Relevant land use and transportation goals include:
    - Promoting street connectivity
    - Protecting property values through compatible development
    - Considerations for environmental protection in new development

Fishhook Comprehensive Plan

- Source/Link: https://matsugov.us/docs/general/13532/final-adopted-plan-3-21-17.pdf
- Date Reviewed: May 19, 2025
- Jurisdiction: Fishhook Community Council (MSB-recognized local planning area)
- Description: The Fishhook Community Council area overlaps with the northern-most routes, including a substantial portion of Route 4 (Stone Creek to Aspen Ridge Route). Relevant goals and objectives include:
    - Transportation Goal: Develop a secondary road network that limits direct access to state arterials and ensures local roads intersect state routes at safe, regular intervals.
    - Environmental and Community Objectives: Maintain scenic, recreational, and residential qualities; preserve natural vegetative buffers along roadways for wildlife movement and visual character; discourage development that could affect public land access, fish and wildlife habitat, or groundwater quality.

Compatibility of Routes with Land Use Plans

None of the project areas are located within a city zoning boundary or within a MSB special-use district.

All four build routes support the MSB's land use goal of improving roadway connectivity, whereas the No-Build would not address this need. Each identified route could result in environmental impacts; design and construction practices that protect natural resources will be implemented to ensure

consistency with land use goals. In some locations, the routes are near existing residential neighborhoods and agricultural land uses. Compatibility with adjacent land uses will be considered as part of the selection of a preferred route.

2. Applicable Transportation Plans:

2035 MSB Long Range Transportation Plan (LRTP)

- Source/Link: https://matsugov.us/docs/general/13985/Combined-Document.pdf
- Date Reviewed: May 19, 2025
- Jurisdiction: MSB
- Description: The LRTP assesses projected growth in the MSB over a 20-year horizon and identifies key elements of the future transportation system needed to serve its growing communities. It supports the development of new transportation corridors, such as the proposed Engstrom–Trunk connection, to enhance mobility and accommodate anticipated development. It also identifies a common public concern that new road construction can lead to increased traffic speeds, higher traffic volumes, and associated safety risks.

2022 Official Streets and Highways Plan (OSHP)

- Source/Link: https://oshp.matsugov.us/
- Date Reviewed: May 19, 2025
- Jurisdiction: MSB
- Description: The OSHP serves as the MSB's official guide for identifying existing and future roadway corridors necessary to support regional growth and mobility. It outlines planned connections, including a conceptual corridor between Engstrom Road and Trunk Road designated as a future major collector to improve east-west traffic circulation.

Compatibility of Routes with Transportation Plans

The ongoing development of a RSR and selection of a preferred route directly support goals from multiple MSB transportation plans. All four build routes are consistent with these plans by improving roadway connectivity and addressing known gaps in the network. The No Build would not meet identified transportation goals. Design considerations will incorporate safety and access management to address potential public concerns about increased traffic volumes and speeds.

B: Right-of-Way Impacts

1. Permanent Right-of-Way Requirements

Permanent right-of-way (ROW) would be required for all identified routes. An in-depth ROW analysis has not yet been conducted. Preliminary estimates of the maximum number of affected parcels are provided below to support a high-level comparison of routes. A more detailed ROW analysis will be completed once a preferred route is selected.

- Route 1: ROW requirements will impact up to 7 parcels
- Route 2: ROW requirements will impact up to 12 parcels
- Route 3: ROW requirements will impact up to 17 parcels
- Route 4: ROW requirements will impact up to 19 parcels

2. Temporary Construction Easements

All four routes may require temporary construction easements.

3. Transfer from a local, state, or federal agency

For all of the routes, property transfer from a local, state, or federal agency will not be required

4. ANILCA Title XI approval

None of the routes will require ANILCA Title XI approval.

C: Historic Properties and Cultural Impacts

All four identified routes would tie into a state-owned road (either Trunk Road or Palmer-Fishhook Road), resulting in state involvement and requiring compliance with the State Historic Preservation Act. In addition, because a Section 404 wetland permit would be required, the project must also comply with the National Historic Preservation Act as part of the federal permitting process. To meet the requirements of these regulations, the project will need to complete a cultural resource evaluation and undertake formal consultation with the State Office of History and Archeology (OHA).

A desktop-level cultural resource review was completed in 2022 during an earlier phase of project planning, prior to the development of the current set of routes. As a result, the study area assessed does not fully encompass all four routes—specifically, Route 4 extends north of the area previously reviewed. The review, conducted by Northern Land Use Research Alaska, LLC, included a search of the Alaska Heritage Resources Survey (AHRS) database and identified eleven known cultural sites within the reviewed area. Due to the sensitive nature of cultural resources, specific locations and details of identified sites are not discussed in this document.

Based on the recommendations of the 2022 review, a Cultural Resource Phase I/II survey should be completed along the finalized APE for the selected route to inform the assessment of potential cultural resource impacts. Additional review and formal consultation under the Alaska Historic Preservation Act (AS 41.35) will be required once a preferred route is selected and the APE is finalized.

D: Section 6(f) Impacts

No Section 6(f) Land and Water Conservation Fund resources exist within or adjacent to the project areas for any of the proposed routes.

E: Contaminated Sites and Hazardous Materials Impacts

1. Data Source

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program database, accessed on May 19, 2025, was used to determine presence of contaminated sites.

2. Presence of Contaminated Sites

There are no known contaminated sites within the immediate vicinity (within 0.10 mile) of any of the proposed routes.

3. Acquisition of hazardous material sites

No documented hazardous material sites would be acquired.

For any new property acquisition, the Matanuska-Susitna Borough (MSB) may conduct a Phase I Environmental Site Assessments (ESA) to evaluate the potential for recognized environmental conditions that could pose a liability or require remediation. Phase I ESAs are required for new property acquisition on federally funded projects. For non-federally funded projects, completion of a Phase I ESA would be at the discretion of the MSB as a risk management measure.

4. Dewatering

There are no known contaminated sites within 1,500 feet of where excavation dewatering could occur in association with any of the proposed routes.

F: Floodplain Impacts

1. Mapped and Unmapped Floodplains

Routes 1, 2, and 3 would cross the mapped Wasilla Creek floodplain (Zone AE) and would require an MSB Floodplain Development Permit. Route 4 would not affect any mapped floodplains and would not require a floodplain permit.

Routes 2, 3, and 4 cross tributaries of Cottonwood Creek, and Routes 2 and 3 also cross a tributary of Wasilla Creek. These routes would also encroach into unmapped floodplains.

None of the routes would encroach into a regulatory floodway.

A hydraulic and hydrologic study will be conducted for the selected route. This study will inform project design and, if applicable, support the floodplain permitting process. The analysis will evaluate potential impacts on flood elevations and flow patterns.

2. Local Flood Hazard Requirements

For the selected route, the project will be designed and permitted in accordance with MSB flood hazard regulations.

G: Wetland and Waterbody Impacts

1. Wetlands and Waters of the U.S.

All four identified routes would impact wetlands or waters of the U.S. Below is an overview of wetland impacts, based on Cook Inlet Wetlands and National Wetlands Inventory mapping. Wetlands are also shown in Figure 1. A project specific wetland delineation will be required once a preferred route is selected, to more precisely map wetland boundaries, quantify wetland impacts, and support the Section 404 permitting process.

- Route 1: Crosses Wasilla Creek and the adjacent riparian wetlands on both sides of Wasilla Creek. This route may also impact a tributary of Wasilla Creek near the tie-in with Trunk Road.
- Route 2: Includes multiple stream crossings, including Wasilla Creek and tributaries of Cottonwood Creek. Also crosses approximately 1,000 feet of wetland on the western side of the project area.
- Route 3: Similar to Route 2, with crossings of Wasilla Creek and Cottonwood Creek tributaries, and the same approximately 1,000-foot wetland crossing in the western portion of the project area.
- Route 4: Crosses several tributaries of Cottonwood Creek and wetlands at the southwestern side of the route. This route avoids Wasilla Creek.

2. Navigable Waters

Wasilla Creek is not listed on the U.S. Army Corps of Engineers (USACE) Alaska District *Non-Tidal Section 10 Navigable Waters List*. The Alaska Department of Natural Resources (ADNR) identifies Wasilla Creek as a non-navigable waterbody. None of the routes would impact a navigable water body.

3. Waterbody Involvement

All identified routes will involve work in waterbodies – including culverts and possibly bridges. The nature and extent of waterbody impacts have not been evaluated at this stage.

4. USACE Authorization

All of the identified routes would require a Section 404 Clean Water Act permit from the USACE. It is possible that the routes will require more than 0.5 acres of wetland fill, which may exceed the threshold typically allowed under applicable Nationwide Permits. Wetland impacts will be quantified once a route is selected and the roadway alignment has been further refined. The type of USACE permit will depend on the extent and nature of impacts.

H: Fish and Wildlife Impacts

1. Anadromous and resident fish habitat

All identified routes would cross anadromous streams, including Wasilla Creek and tributaries of Cottonwood Creek (Figure 1). Work below the ordinary high water mark of any fish-bearing water will require Fish Habitat Permits under AS 16.05.841. The Alaska Department of Fish and Game (ADF&G) Anadromous Waters Catalog and Mapper (accessed May 19, 2025) was used to determine anadromous stream status. Below is a summary of anadromous streams that would be impacted.

- Route 1: Crosses Wasilla Creek
- Route 2: Crosses Wasilla Creek and anadromous tributary of Cottonwood Creek
- Route 3: Crosses Wasilla Creek and anadromous tributary of Cottonwood Creek
- Route 4: Crosses anadromous tributary of Cottonwood Creek

Routes 2, 3, and 4 all have additional stream crossings that are non-anadromous. The project should consult with ADF&G to determine if resident fish are present, and if a permit is required for work below ordinary high water at these streams.

Temporary impacts to fish habitat would occur during in-water construction activities (e.g., culvert or bridge installation). Adverse effects on spawning or rearing habitat are not anticipated with proper timing windows and the use of appropriate design and construction practices. A detailed review will occur during permitting.

2. Fish and wildlife subsistence species

No adverse effects on fish or wildlife subsistence species are anticipated under any of the proposed routes. The project area consists of large undeveloped parcels and low-density residential development, with surrounding areas that include more concentrated urban and commercial uses. The project is not expected to significantly alter the character of fish and wildlife habitat or affect access to or availability of subsistence resources.

3. Threatened and Endangered Species

No federally listed threatened or endangered species, proposed or candidate species, or designated critical habitat are present in the project area of any proposed routes. This was determined using the U.S. Fish and Wildlife Service (USFWS) IPaC tool (accessed May 19, 2025).

4. Marine Mammals

The proposed routes are not located in a marine environment, and no marine mammals are present. Therefore, the Marine Mammal Protection Act does not apply.

5. Wildlife Resources

The vicinity of all of the identified routes include habitat used by wildlife. According to the Alaska Department of Fish and Game's Wildlife–Vehicle Collision Map Viewer (accessed May 19, 2025), the major roads near the project area, particularly along Trunk Road, Palmer-Fishhook Road, and Bogard Road, have a high frequency of moose–vehicle collisions. While the routes do not bisect any mapped large-scale migration corridors or critical habitat, wildlife movement through the area is likely.

6. Bald and Golden Eagle Protection

A bald eagle nest survey will be conducted once a preferred route is selected. If an active nest is found within regulatory thresholds, consultation with USFWS will be initiated.

I: Invasive Species Impacts

1. Data Source

The University of Alaska Anchorage Exotic Plants Information Clearinghouse Invasive Plants Mapper (accessed May 20, 2025) was used.

2. Presence of Invasive Species

No invasive plant infestations are currently mapped along the corridors for any of the identified routes. However, invasive species infestations are present along Trunk Road, Palmer Fishhook Road, and Snicker Avenue—in proximity to the potential tie-in locations for all four routes. As a result, road construction activities in these areas may disturb or spread invasive species.

3. Management Measures

The project should implement invasive species management measures during design and construction, such as equipment cleaning protocols, appropriate material handling, and revegetation with seed recommended for the region by ADNR's A Revegetation Manual for Alaska.

J: Water Quality Impacts (18 AAC 70)

1. Drinking water Protection Areas

All of the identified routes intersect drinking water protection areas for part of the routes, as follows:

- Route 1
  - Creekwood Park Water System (AK2220154) Zone A and B
  - Silver Creek Springs (AK2220070) Zone B
- Route 2
  - Creekwood Park Water System (AK2220154) Zone A and B
- Route 3
  - Creekwood Park Water System (AK2220154) Zone A and B
- Route 4
  - Creekwood Park Water System (AK2220154) Zone B

The project would adhere to guidance in the ADEC-issued *Recommendations for general project activities associated with, or near, a public water system source*.

2. Stormwater Discharges

All four of the identified routes would result in a discharge of storm water to a water body as defined at AS 46.03.900(37)

3. Impaired Waterbodies

Per Alaska's Final 2024 Integrated Water Quality Monitoring and Assessment Report, there are no 303-listed waterbodies in the vicinity of any of the proposed routes and therefore there would be no stormwater discharges into an impaired water body.

4. Area of Ground Disturbance

All of the identified routes would require over 1 acre of ground disturbance. An ADEC Alaska Pollution Discharge Elimination System approved Stormwater Pollution Prevention Plan (SWPPP) will be required.

5. Municipal Separate Storm Sewer System

None of the routes are located within an area covered by a Municipal Separate Storm Sewer System permit.

6. ADEC Non-domestic Wastewater Plan Approval

None of the proposed routes would require ADEC Non-Domestic Wastewater Plan Approval.

K: Air Quality Impacts (18 AAC 50)

1. Air quality maintenance area or nonattainment area

None of proposed routes are located within a designated air quality maintenance area or nonattainment area under 18 AAC 50. Therefore, no additional air quality permitting or conformity analysis is anticipated.

L: Noise Impacts

1. Evaluation of Noise Impacts

All of the identified routes would introduce a new roadway corridor in areas that currently experience little or no traffic-related noise. As a result, changes in ambient noise conditions may be a concern for nearby residents. The project would trigger a noise study under both Federal Highway Administration (FHWA) regulations and DOT&PF policy.

If federal funding is involved, a noise analysis will be required under FHWA regulations (23 CFR 772). If the project is not federally funded, there is no regulatory requirement to conduct a noise study; however, the MSB may choose to do so voluntarily, for example, to support public transparency or address community concerns. If a study is conducted, it is expected that the DOT&PF Noise Policy would guide the analysis.

In addition, the MSB has a local noise ordinance that limits amplified sound to 50 decibels between 10:00 p.m. and 7:00 a.m. on weeknights, and 60 decibels at other times. If construction is anticipated during restricted hours, a noise permit from MSB may be required.

M: Social and Economic Impacts

1. Neighborhood and Community Cohesion

None of the routes would divide or isolate existing neighborhoods. The routes pass through areas characterized by a mix of undeveloped land, large-lot residential and agricultural parcels, and low-density development. The project is expected to improve east–west connectivity and may enhance access between neighborhoods.

Residential displacements may be required; however, the current level of analysis is not detailed enough to determine their potential locations or to compare the proposed routes.

While none of the routes are expected to significantly affect neighborhood cohesion overall, they may alter the character of certain areas. Increased traffic noise, changes to viewsheds, and proximity of the roadway may impact individual residences located near the corridor for all four of the identified routes.

2. Community Facilities and Services

The project would not adversely affect school boundaries, churches, parks, police or fire protection facilities, or other public services. All of the routes are located outside the boundaries of existing school properties and developed recreational areas. Emergency response times may improve due to enhanced east–west connectivity.

3. Impacts on Vulnerable Populations

All four identified routes would be constructed in areas without known concentrations of low-income. The project is not expected to disproportionately affect populations that may have fewer transportation options.

4. Travel Patterns and Accessibility

Each identified route would provide a new roadway connecting Engstrom Road to Trunk Road or Palmer-Fishhook Road, improving east–west circulation and reducing out-of-direction travel for local residents. The project is expected to improve accessibility for users.

5. Economic Impacts on the Local or Regional Economy

The project is not expected to result in adverse effects on the local or regional economy. None of the routes would affect existing commercial areas, and no business displacements are proposed. Improved roadway connectivity may support future development and improve access to existing neighborhoods and services. Route 1 bisects a gravel extraction site currently being developed and would provide alternate commercial vehicle access to Trunk Road

6. Impacts to Existing Businesses or Business Districts

No existing commercial businesses would be displaced under any of the routes.

Temporary Construction Impacts

1. Temporary Waterbody Involvement or Stream Diversion

All of the identified routes would require construction work within waterbodies. Temporary stream diversion or bypass would be required during culvert or bridge installation to allow for dry working conditions. ADNR temporary water use authorization will be required.

2. Temporary Degradation of Water Quality

Ground disturbance near streams and wetlands may result in short-term increases in turbidity or sedimentation. These impacts would be minimized through construction best management practices (BMPs), in accordance with the Construction General Permit and the site-specific SWPPP that will be developed for the project.

3. Impacts to Fish Habitat

In-water work within Wasilla Creek and or Cottonwood Creek tributaries may temporarily affect fish habitat for all four routes. Work will be conducted in compliance with ADF&G timing windows and permit conditions to avoid or minimize harm to fish habitat.

4. Temporary Degradation of Air Quality

Temporary increases in dust and emissions from construction equipment are expected for all identified routes, but would be localized and short-term.

5. Temporary Delays and Detours of Traffic

Construction activities may require temporary traffic control measures on Trunk Road, Engstrom Road, Palmer-Fishhook Road, or other local access points. Delays and detours would be managed with appropriate signage and traffic control plans to maintain safe travel conditions.

6. Temporary Impacts on Businesses

No direct impacts to business operations are anticipated for any of the routes, as none of the routes pass through established business. Temporary traffic or access disruptions may occur for businesses located near tie-in points along Trunk Road or Palmer-Fishhook Road but are expected to be short-term.

7. Temporary Noise Impacts

Construction equipment and activities will result in elevated noise levels during daytime working hours. These impacts will be temporary and limited to the duration of construction. If work is proposed between 10:00 p.m. and 7:00 a.m. on weeknights, or during hours that exceed allowable sound levels under the MSB noise ordinance (MSB 8.52), a noise permit may be required. Compliance with applicable local sound regulations will be maintained throughout construction.

8. Temporary Right-of-Way Impacts

Temporary construction easements may be needed to accommodate grading, equipment staging, and material storage during construction.

9. Temporary Utility Disruptions

Utility relocations may be required for all four of the identified routes. An analysis of utility impacts will be conducted as the project progresses. Utility relocations may result in short-term service disruptions to nearby properties, depending on the final alignment and affected infrastructure.

Comments and Coordination

Public Involvement

Public involvement will be an integral part of the process to select a preferred route. The project team will engage with the public through presentations at Fishhook Community Council and North Lakes Community Council meetings, as well as dedicated meetings with the public. All public comments received will be documented and considered in the decision-making process.

Agency Involvement

An agency scoping letter will be distributed to relevant resource agencies once a preferred route is selected. Ongoing coordination with these agencies will help inform project design and shape environmental commitments. All agency input will be documented and incorporated into the final project development process.

Permits and Authorizations

The below table lists the permitting and authorization requirements for each identified route.

Permit or Authorization	Route 1	Route 2	Route 3	Route 4	Notes
Section 404 Clean Water Act (USACE)	✓	✓	✓	✓	Required for wetland and waterbody impacts
Section 401 Water Quality Certification (ADEC)	✓	✓	✓	✓	Required for all Section 404 permits; individual certification may be needed if Nationwide Permit conditions are not met
Fish Habitat Permit (ADF&G)	✓	✓	✓	✓	Required for work below OHW of streams supporting anadromous or resident fish
Floodplain Development Permit (MSB)	✓	✓	✓		Required for development within FEMA-mapped 100-year floodplain
APDES Construction General Permit (SWPPP) (ADEC)	✓	✓	✓	✓	Required for over 1 acre of disturbance that discharges stormwater to Waters of the U.S.
Temporary Water Use Authorization (ADNR)	✓	✓	✓	✓	Required for temporary surface water withdrawal (e.g., construction dewatering and temporary stream diversions)
Consultation under the Alaska State Historic Preservation Act and National Historic Preservation Act (OHA)	✓	✓	✓	✓	Required for projects with State involvement or a federal nexus, with potential to affect cultural resources
Noise Permit (if needed) (MSB)	(✓)	(✓)	(✓)	(✓)	Required if construction occurs during designated night-time hours

(✓) indicates that a permit may be required

Environmental Commitments

A list of project specific environmental commitments will be developed following agency coordination and permit review. Below is a preliminary list of environmental commitments based on this evaluation. Additional commitments will be added as environmental field studies and coordination with resource agencies progress.

- Implement measures to prevent the spread of invasive species
- Adhere to ADF&G timing windows for in-water work in fish-bearing streams
- Adhere to guidance in the ADEC-issued *Recommendations for general project activities associated with, or near, a public water system source*
- Avoid vegetation clearing during the migratory bird nesting season (May 1 through July 15 for South Central Alaska)

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APPENDIX C

Public Open House Summary

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR: MARCH 26, 2025

PUBLIC OPEN HOUSE NO. 1

MEETING LOCATION:	Mat-Su Central School 2055 Stringfield Road, Palmer, Alaska 99645 5:30 p.m. – 7:30 p.m.
PROJECT TEAM IN ATTENDANCE:	Matanuska-Susitna Borough: Cole Branham, Andrew Strahler HDL Engineering Consultants, LLC: Shawn Hull, Matthew Coburn, Heather Campfield, Kelsey Means
PUBLIC ATTENDANCE:	114 members of the public signed in

On Wednesday, March 26, 2025, the Matanuska-Susitna Borough (MSB) held the first public open house for the proposed Engstrom Road to Trunk Road Corridor project. The MSB proposes to construct a new corridor between Engstrom Road and Trunk Road that will:

- Enhance connectivity
- Reduce congestion
- Increase safety
- Provide an alternate route between Engstrom Road and Trunk Road

The purpose of the public open house was to introduce the project to the public, summarize the project's history and why it is needed and outline the MSB's initial route considerations for an east-west connection between Engstrom Road and Trunk Road.

This summary outlines the MSB's efforts to garner public interest in the project, describes the meeting proceedings that took place at the public open house, and documents the comments received following the open house.

PUBLIC OUTREACH

Newspaper Outreach: The public meeting was advertised in the Anchorage Daily News (ADN) on March 19th, 2025, and in the Frontiersman on March 21st, 2025.

Project Website: A project website was created to provide the public with up-to-date project information, provide a way for the public to sign-up for project updates, and encourage public comments (https://engstromtotrunkcorridor.com/). An announcement about the public open house

location, date, and time was posted to the project website in advance of the meeting taking place. Following the public open house, all materials presented at the meeting were made available on the project website.

Email Notification: On March 20, 2025, the MSB distributed an electronic postcard to project stakeholders, providing details of the public meeting's date, location, and time.

Social Media: On March 20, 2025, the MSB published a Facebook post to its account, providing details of the public meeting's date, location, and time.

U.S. Postal Service: HDL coordinated mailing of meeting announcement postcards to be sent to 4,231 property owners, stakeholders, and other interested parties on March 7, 2025. A second meeting announcement postcard was sent on March 18, 2025. The names and addresses were sourced from MSB Borough parcel data.

Outreach materials are included in Attachment A.

OPEN HOUSE

Four stations were set up at the public open house. Each station had two versions of a large roll plot displayed on tables; one version depicted the project corridor with the proposed northern and southern routes shown, and the other showed the same area without the routes. The intent of the second version of the roll plot was to encourage members of the public to sketch in their own suggestions for a route connecting Engstrom Road to Trunk Road. Comment sheets were made available throughout the meeting space; participants were encouraged to provide input by placing sticky notes on the roll plots or by submitting a comment sheet. Project staff were available to discuss the project and answer questions.

Several posters were displayed during the meeting:

- A map of the project area showing the northern and southern routes, additional transportation projects in the vicinity of the proposed project and planned future development within the Fishhook Triangle.
- A timeline of the project's history and development, highlighting key milestones such as voter funding approval and the initiation of a Traffic Study.
- An illustrated list of project goals including increased roadway capacity and enhanced safety and connectivity.
- A representation of the rapid growth in the project area utilizing aerial imagery from 2011 compared to imagery from 2024 and a population growth chart.

PRESENTATION

Cole Branham, MSB Project Manager, gave two separate PowerPoint presentations throughout the public open house. Each presentation described project context, history and development, and purpose/need, and included preliminary traffic projection data, possible typical sections, environmental considerations, and a discussion of potential bike/pedestrian facilities. Fact sheets with a QR code

linking to the project website were also distributed. All presented and distributed materials are included in Attachment B.

PUBLIC COMMENT

The MSB encouraged the public to submit comments at any time throughout the project. There was a 30-day comment period associated with public Open House No. 1, which closed on April 24, 2025. Comments received during the public open house (including any made on the roll plots provided) and throughout the 30-day comment period can be found in Attachment C.

Throughout the Open House, members of the public provided comments to the project team. Consistent questions and discussion themes and responses (in italicized text) from the project team are summarized below:

- **Need for the project:** Several meeting attendees questioned the validity of the project considering the many other nearby projects which are planned or ongoing. Other attendees emphasized that the proposed corridor was needed in combination with the planned Tex-Al Drive and Engstrom North Extension projects to alleviate traffic congestion.
    - *The project was first identified in the MSB's Long Range Transportation Plan as a necessary expansion of the local connector system. Other nearby projects do not address increased traffic volumes on Engstrom Road, or the lack of a secondary connection from the Stone Creek area to Trunk Road.*

- **Engstrom Safety Concerns:** Meeting attendees discussed increased traffic on Engstrom Road, including concerns about increased truck traffic from the future gravel extraction site. Some also described dangerous vehicle speeds on Engstrom Road, stating that it is no longer safe to bike or walk, and requested a traffic calming study. Many commenters brought up the issue of disaster evacuation from Stone Creek and other adjacent neighborhoods, emphasizing that there are no direct routes out of the subdivisions when snow drifts from Niklason and Cornelius Lakes make Engstrom Road impassable.
    - *Traffic volumes and speeds along with truck volumes will be examined as a part of the ongoing Traffic and Safety Analysis. A variety of pedestrian/bike facilities will be considered for the corridor based on public feedback. Evacuation routes will be considered as a part of the decision-making process established in the Route Selection Report that the MSB will complete as part of this project.*

- **Southern Route:** Several members of the public support the Southern Route. Attendees stated that it is already supported by landowners in the area, and that the owner of the adjacent gravel extraction site has pledged to provide affordable materials and possible construction assistance; conversely, property owners within the proposed corridor for the Northern Route are not willing sellers of their property. Supporters of the Southern Route also cited its lower cost and assumed shorter timeline to construct. Some felt that it is the only route that should be considered and cited that it was the only option shown on the initial ballot for the 2021 Transportation Improvement Plan (TIP21).

  - *Advantages and disadvantages of the Southern Route will be analyzed further in the Route Selection Report. Results of the report will be used in addition to public input to assist in the selection of a preferred alternative.*

- **Northern Route:** Overall, the Northern Route received more support from meeting attendees. Supporters felt that unlike the Southern Route, it addressed the issues of limited connectivity for residents in the Stone Creek area and provided a solution to the disaster evacuation problem. Commenters emphasized that while the Southern Route is less costly to construct, it would not address these issues. They also mentioned that the MSB has already purchased some of the right-of-way (ROW) along the Northern Route. Some appreciated the improvement of the sharp curves along Engstrom Road which are considered a hazard. Supporters' only significant concern regarding the Northern Route was the timeline to construct. Some alternative alignments for the Northern Route were suggested, including extension east to Palmer-Fishhook Road and along the South and East property lines of Stone Creek Tract 6.
  - *Advantages and disadvantages of the Northern Route will be analyzed further in the Route Selection Report. Results of the report will be used in addition to public input to assist in the selection of a preferred alternative.*

- **Timeline:** Several attendees asked about the project timeline and next steps and referenced the delay to the Department of Transportation and Public Facilities (DOT&PF) Bogard Roundabout project. They asked who will select the final route, and whether the public will be allowed to provide input.
  - *The timeline is dependent on funding; the next steps in the process are to assess public input and complete the Route Selection Report and Traffic and Safety Analysis. The MSB will use these factors to determine a preferred alternative.*

- **Property Impacts and Cost to Construct:** Attendees asked how many properties were affected by each route, how much ROW has been purchased, and the total cost to construct each route.
  - *ROW assessment is ongoing; ROW for a collector level road has been acquired by the MSB as part of the development process of the Stone Creek subdivision expansion along the subdivision's southern edge. The current estimated costs are $8 million for the Southern Route, and $15 million for the Northern Route.*

- **Environmental:** Attendees stated that fish have been observed in the headwaters of Cottonwood Creek and asked about the new Waters of the U.S. laws and Army Corps of Engineers permitting process.
  - *Environmental factors, including impacts to fish habitat and Waters of the U.S., will be analyzed further once a preferred route is chosen.*

Attachments to this summary include:

- Attachment A – Outreach Materials
- Attachment B – Meeting Materials
- Attachment C – Comment/Response Summary

Attachment A: Outreach Materials

Notice of Public Open House

Matanuska-Susitna Borough

Engstrom Road to Trunk Road Corridor

Wednesday, March 26, 2025
5:30 p.m. – 7:30 p.m.
Mat-Su Central School
2055 N. Stringfield Road
Palmer, Alaska

The Matanuska-Susitna Borough (MSB) is proposing the construction of a new corridor between Engstrom Road and Trunk Road. The addition of the new corridor in this area will enhance connectivity, reduce congestion, increase safety, and provide an alternate route between Engstrom Road and Trunk Road.

Have questions or comments about the project? You can join us in person at the public meeting or visit the project website at https://engstromtotrunkcorridor.com. You can also contact one of the following team members: MSB Project Manager, Cole Branham, (907) 861-7711, Cole.Branham@matsugov.us; Public Involvement Coordinator, Kelsey Means, (907) 564-2124, KMeans@HDLAlaska.com.

The MSB complies with Title II of the Americans with Disabilities Act of 1990. It is the policy of the MSB that no one shall be subject to discrimination on the basis of race, color, national origin, sex, age, or disability, regardless of the project funding source.

Government agencies sometimes need to acquire additional property rights for public projects. The U.S. Constitution promises private citizens the right to just compensation for property rights required for public use. The Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs Act (49 CFR Part 24) is used to assure equitable treatment to property owners and that just compensation is provided for any additional property rights. The MSB Right of Way (ROW) section will reach out directly to any property owners whose property is necessary for the construction of the project. The ROW Acquisitions Brochure explains the rights and benefits of property owners whose real property is to be acquired.

Frontiersman
Growing with the Valley since 1947.

5751 E. MAYFLOWER CT.
Wasilla, AK 99654

(907) 352-2250 ph
(907) 352-2277 fax

AFFIDAVIT OF PUBLICATION

UNITED STATES OF AMERICA, STATE OF ALASKA, THIRD DIVISION

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC, THIS DAY

PERSONALLY APPEARED BEFORE **BENJAMIN BORG** WHO, BEING

FIRST DULY SWORN, ACCORDING TO LAW, SAYS THAT HE IS THE

LEGAL AD CLERK OF THE **FRONTIERSMAN**

PUBLISHED AT WASILLA AND CIRCULATED THROUGH OUT MATANUSKA

SUSITNA BOROUGH, IN SAID DIVISION THREE AND STATE OF ALASKA

AND THAT THE ADVERTISEMENT, OF WHICH THE ANNEXED IS A TRUE

COPY, WAS PUBLISHED ON THE FOLLOWING DAYS:

03/21/2025

AND THAT THE RATE CHARGED THEREIN IS NOT IN EXCESS OF

THE RATE CHARGED PRIVATE INDIVIDUALS.

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 3rd DAY OF April, 2025.

NOTARY PUBLIC FOR STATE OF ALASKA

CHRISTY PINKERTON
Notary Public
State of Alaska
My Commission Expires
October 09, 2027

HDL ENGINEERING CONSULTANTS
PUBLIC OPEN HOUSE NOTICE
ACCOUNT NUMBER 405998

Notice of Public Open House

Matanuska-Susitna Borough

Engstrom Road to Trunk Road Corridor

Wednesday, March 26, 2025
5:30 p.m. – 7:30 p.m.
Mat-Su Central School
2055 N. Stringfield Road
Palmer, Alaska

The Matanuska-Susitna Borough (MSB) is proposing the construction of a new corridor between Engstrom Road and Trunk Road. The addition of the new corridor in this area will enhance connectivity, reduce congestion, increase safety, and provide an alternate route between Engstrom Road and Trunk Road.

Have questions or comments about the project? You can join us in person at the public meeting or visit the project website at https://engstromtotrunkcorridor.com. You can also contact one of the following team members: MSB Project Manager, Cole Branham, (907) 861-7711, Cole.Branham@matsugov.us; Public Involvement Coordinator, Kelsey Means, (907) 564-2124, KMeans@HDLAlaska.com.

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ANCHORAGE DAILY NEWS
AFFIDAVIT OF PUBLICATION

Account #: 102401 HDL ENGINEERING CONSULTANTS
3335 Arctic Blvd, Suite 100, anchorage, ak 99503

Order #: W0051476 Cost: $246.39

STATE OF ALASKA
THIRD JUDICIAL DISTRICT

Lisi Misa being first duly sworn on oath deposes and says that she is a representative of the Anchorage Daily News, a daily newspaper. That said newspaper has been approved by the Third Judicial Court, Anchorage, Alaska, and it now and has been published in the English language continually as a daily newspaper in Anchorage, Alaska, and it is now and during all said time was printed in an office maintained at the aforesaid place of publication of said newspaper. That the annexed is a copy of an advertisement as it was published in regular issues (and not in supplemental form) of said newspaper on

03/19/2025

and that such newspaper was regularly distributed to its subscribers during all of said period. That the full amount of the fee charged for the foregoing publication is not in excess of the rate charged private individuals.

Lisi Misa

Signed_____

Subscribed and sworn to before me

2025-03-21

Jada L. Nowling

Notary Public in and for
The State of Alaska.
Third Division
Anchorage, Alaska

MY COMMISSION EXPIRES

2028-07-14

Jada Nowling
ELECTRONIC NOTARY PUBLIC
STATE OF ALASKA
MY COMMISSION EXPIRES 07/14/2028

Notice of
Public Open House
Matanuska-Susitna Borough

Engstrom Road to Trunk Road Corridor

Wednesday, March 26, 2025
5:30 p.m. – 7:30 p.m.
Mat-Su Central School
2055 N. Stringfield Road
Palmer, Alaska

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Pub: Mar. 19, 2025

Heather A. Campfield

From: Heather A. Campfield
Sent: Friday, March 21, 2025 9:08 AM
To: Heather A. Campfield
Cc: Shawn M. Hull; Matthew Coburn; Kelsey M. Means; Tom Adams; Cole Branham; Chad.Fry@matsugov.us
Subject: Engstrom Road to Trunk Road Corridor – Public Open House

Dear Project Stakeholder,

You are receiving this email regarding the Matanuska-Susitna Borough's proposed Engstrom Road to Trunk Road Corridor project because you have been identified as a project stakeholder or you have requested to receive project updates via the project website at https://engstromtotrunkconnector.com/.

Please join us at the upcoming public open house, which is scheduled to take place at the NEW Mat-Su Central School, 2055 N Stringfield Road, in Palmer.



If you no longer wish to receive emails about this project please let us know and we will remove you from the project stakeholder list.

We hope to see you at the public open house!

HEATHER CAMPFIELD, IAP²
Environmental Services Manager
d: 907.761.1205
o: 907.746.5230
c: 907.229.5646
www.HDLalaska.com

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

5:30 - 7:30 PM
Wednesday, March 26, 2025
Mat-Su Central School

JOIN US!

PUBLIC OPEN HOUSE



The Matanuska-Susitna Borough proposes the construction of a new corridor between Engstrom Road and Trunk Road. The addition of a new corridor in this area will:

- Enhance connectivity
- Reduce congestion
- Increase safety
- Provide an alternate route between Engstrom Road and Trunk Road

Approved by Mat-Su voters as a part of the 2021 Transportation Improvement Plan (TIP21)

OPEN HOUSE

Wednesday, March 26, 2025
5:30 - 7:30 PM
Mat-Su Central School
600 E Railroad Ave.
Wasilla AK 99654

Project Vicinity and Initial Alignment Alternatives



QUESTIONS?

COLE BRANHAM
Projects Division Manager Matanuska-Susitna Borough
Public Works Department Project Management Division
1-907-861-7711
Cole.Branham@matsugov.us

KELSEY MEANS
Public Involvement Coordinator
HDL Engineering Consultants, LLC
1-907-564-2124
kmeans@HDLalaska.com

Visit the project website for more information

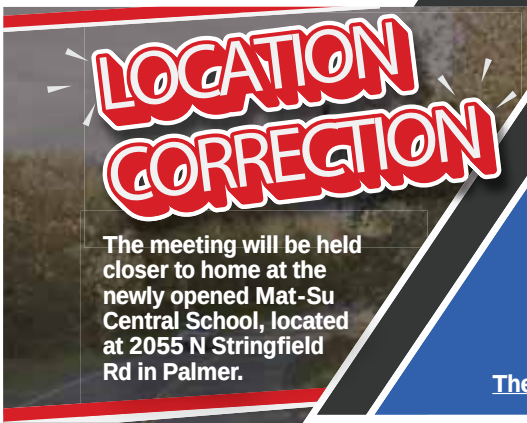
engstromtotrunkcorridor.com

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

5:30 - 7:30 PM
Wednesday, March 26, 2025
2055 N Stringfield Rd, Palmer

JOIN US!

PUBLIC OPEN HOUSE



The meeting will be held closer to home at the newly opened Mat-Su Central School, located at 2055 N Stringfield Rd in Palmer.

The Matanuska-Susitna Borough proposes the construction of a new corridor between Engstrom Road and Trunk Road. The addition of a new corridor in this area will:

- Enhance connectivity
- Reduce congestion
- Increase safety
- Provide an alternate route between Engstrom Road and Trunk Road

There will be a presentation about the project at 6 PM

Approved by Mat-Su voters as a part of the 2021 Transportation Improvement Plan (TIP21)

OPEN HOUSE

Wednesday, March 26, 2025
5:30 - 7:30 PM
Mat-Su Central School
2055 N Stringfield Rd
Palmer

Project Vicinity and Initial Alignment Alternatives



QUESTIONS?

COLE BRANHAM, MANAGER
Project Management Division
Matanuska-Susitna Borough
Public Works Department
1-907-861-7711
cole.branham@matsugov.us

KELSEY MEANS
Public Involvement Coordinator
HDL Engineering Consultants, LLC
1-907-564-2124
kmeans@HDLalaska.com

Visit the project website for more information

Attachment B: Meeting Materials



Public Open House No. 1: March 26, 2025, from 5:30 to 7:30 p.m.

Presentation begins in: **30:00**

ABOUT OUR TEAM

The Mat-Su Borough is managing the project with assistance from HDL Engineering Consultants, LLC.

PRESENTATION GOALS

1. Review the history and purpose of the project

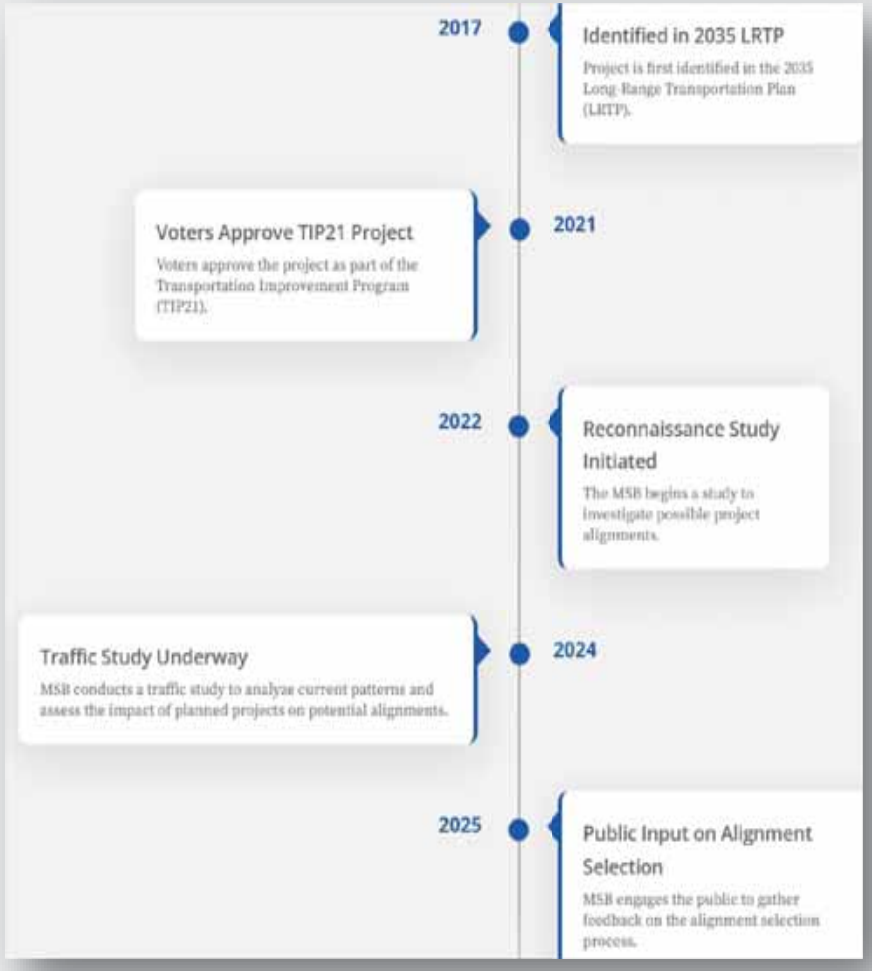
2. Share information about analyses of potential route connections between Engstrom and Trunk

3. Gather public input on additional routes for consideration



PROJECT HISTORY

- Originally adopted by voters in the TIP21 in 2021
- Reconnaissance Study conducted in 2022-2023
- Traffic Study begins in 2024
- Public outreach effort to solicit input on route selection begins in 2025



PROJECT PURPOSE AND NEED

- PURPOSE: Improve safety and increase the capacity of the road network in the Fishhook area by providing an alternate route between Engstrom Road and Trunk Road.

- NEED: Increase road connectivity to reduce congestion and accommodate current and future traffic volumes.

MAT-SU BOROUGH POPULATION GROWTH

- The MSB has experienced sustained rapid growth in the last several decades.



Engstrom and Bogard - 1949

MAT-SU BOROUGH POPULATION GROWTH

- The explosion in housing development has increased traffic pressure on the limited roadway system.
- New planned housing developments have been permitted and are in progress in the project area.



Engstrom and Bogard - 2024

MAT-SU BOROUGH POPULATION GROWTH

- Multiple roadway projects are underway in the area to improve connectivity and reduce congestion.



MSB Proposed Roadway Projects Near Engstrom Road - 2024

Engstrom Road At Bogard Road:
Intersection Queue (AM Peak)

2025 Current Conditions



Left Turns From Engstrom on to Bogard:
- Queue length = 5-10 vehicles

2045 Future No-Build Conditions

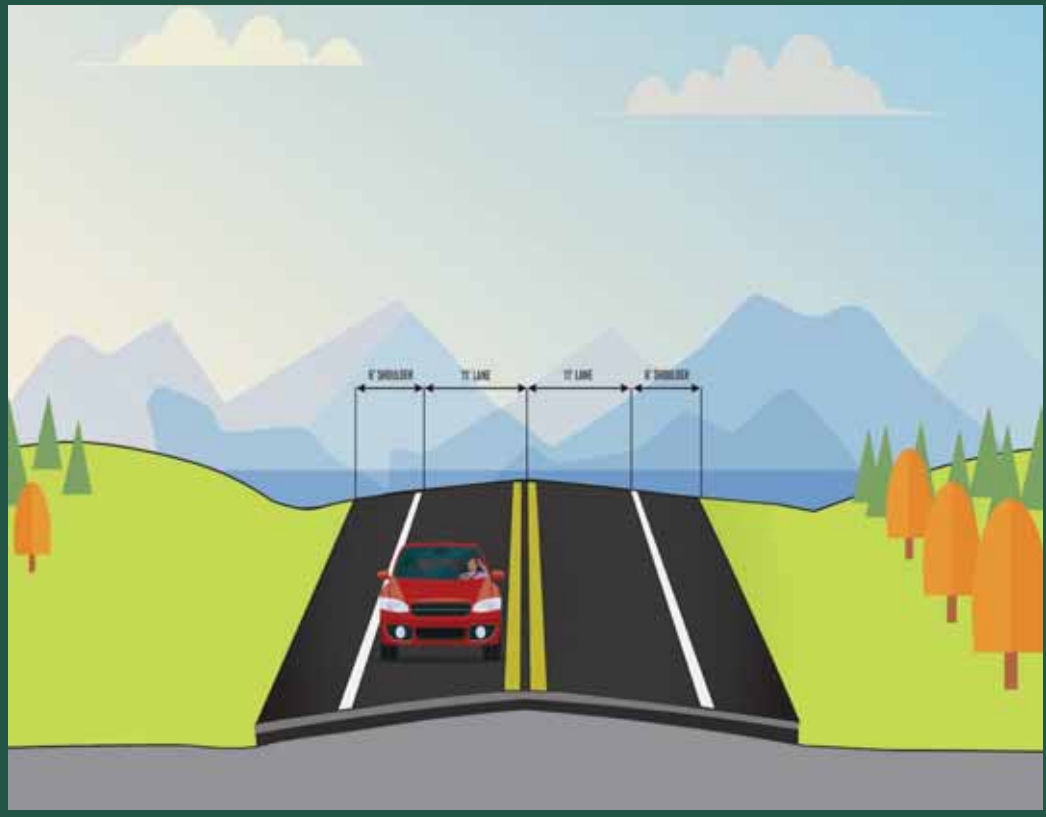


SB Engstrom traffic at Bogard:
- Queue length = 20-25 vehicles

DESIGN CRITERIA

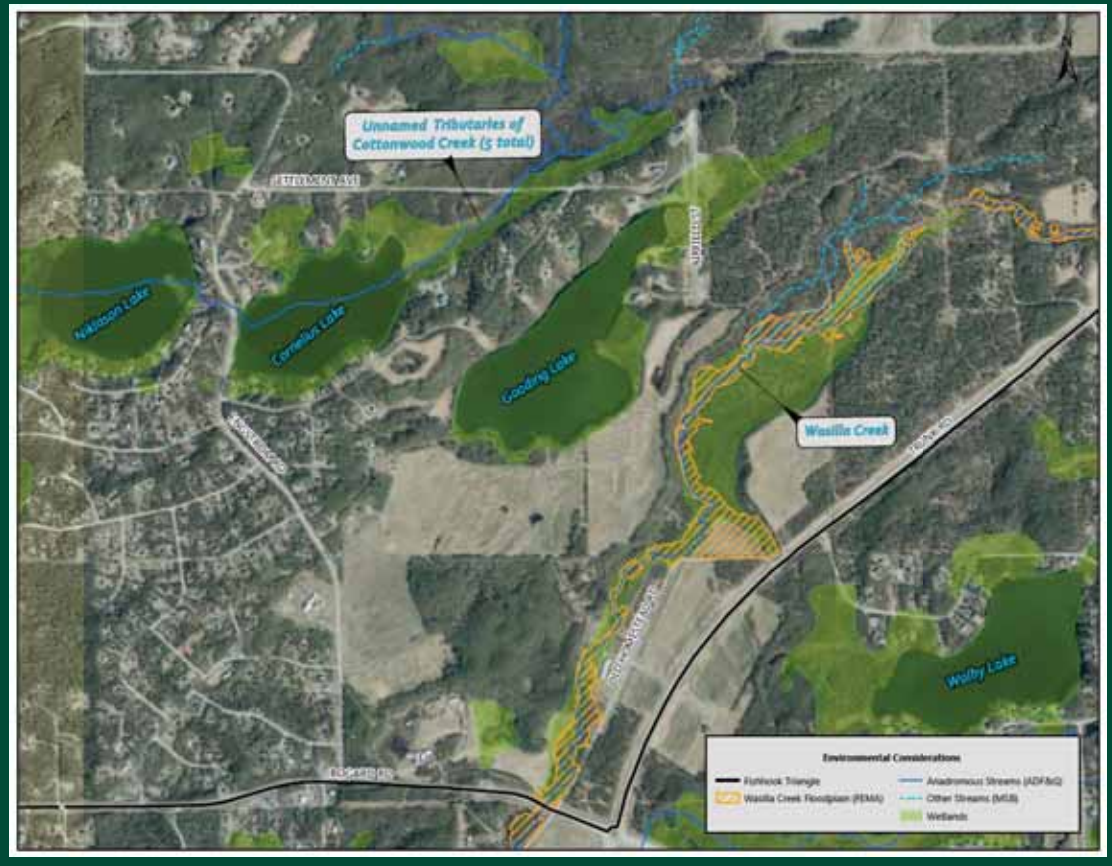
Major Collector Road

- Two 11’ lanes with 6’ shoulders
- Speed limit to be determined
- Bike/Pedestrian accommodations will be considered, in accordance with the MSB’s 2023 Bike and Pedestrian Plan and public input.



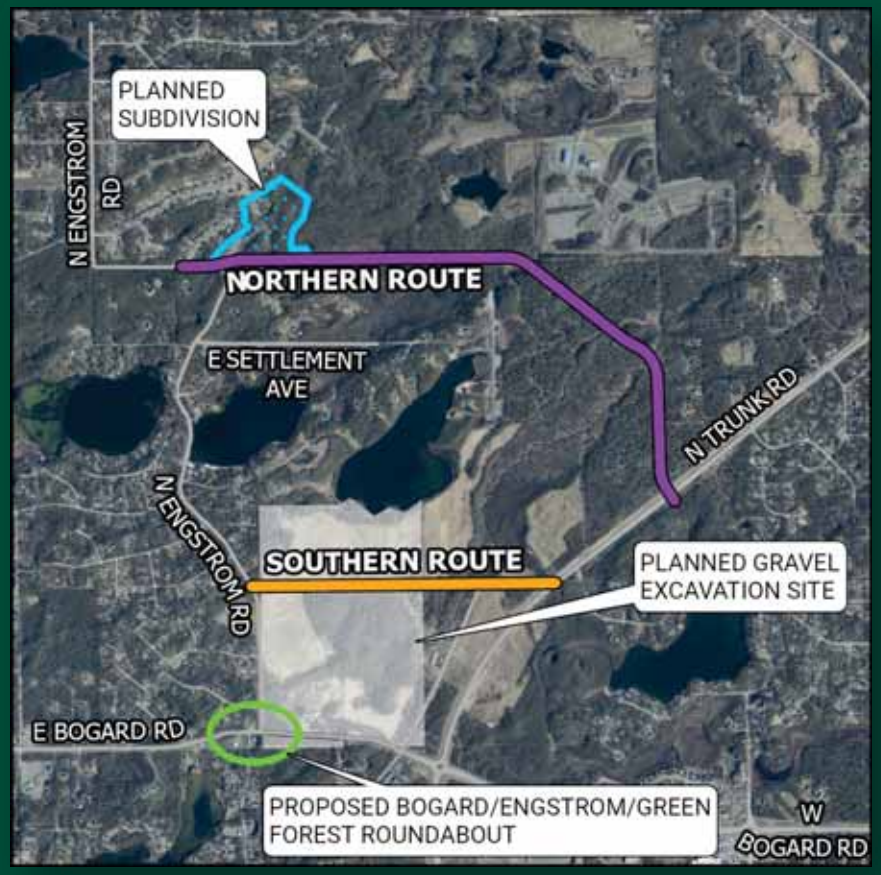
ENVIRONMENTAL CONSIDERATIONS

- Avoid/minimize wetland impacts
- Fish Habitat: Wasilla Creek, Cottonwood Creek, numerous unnamed streams
- Eagle Nests
- Floodplains of Wasilla Creek
- Historic Properties and Cultural Resources



INITIAL ROUTES

- MSB is currently examining two primary routes for safety, performance, effectiveness, and viability based on a variety of engineering criteria and constraints.
- Other routes may be considered.



NEXT STEPS

- Evaluate public feedback and incorporate into the design where feasible
- Complete the Traffic and Safety Analysis
- Complete a Route Selection Report and select a preferred route
- Begin design and field studies in summer/fall 2025



PROJECT CONTACTS

COLE BRANHAM, MANAGER

Project Management Division
Matanuska-Susitna Borough
Public Works Department
907.861.7711
Cole.Branham@matsugov.us

KELSEY MEANS

Public Involvement Coordinator
HDL Engineering Consultants, LLC

907.564.2124
KMeans@HDLAlaska.com

PROJECT WEBSITE



EngstromtoTrunkcorridor.com

MATANUSKA-SUSITNA BOROUGH

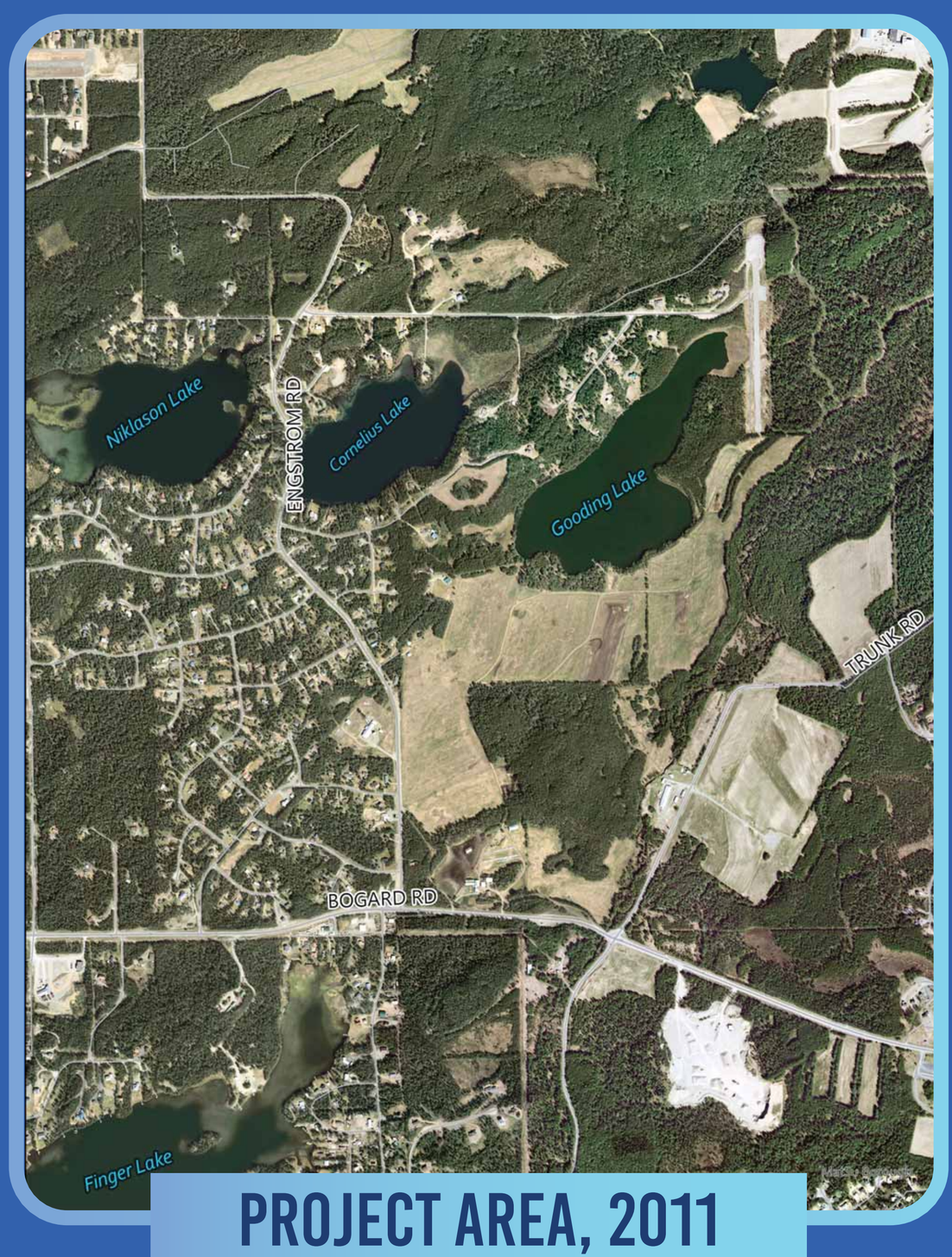
PUBLIC OPEN HOUSE NO. 1 - 03-26-2025

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR: GROWTH HISTORY

The Matanuska-Susitna Borough (MSB) has grown steadily over the years, leading to:

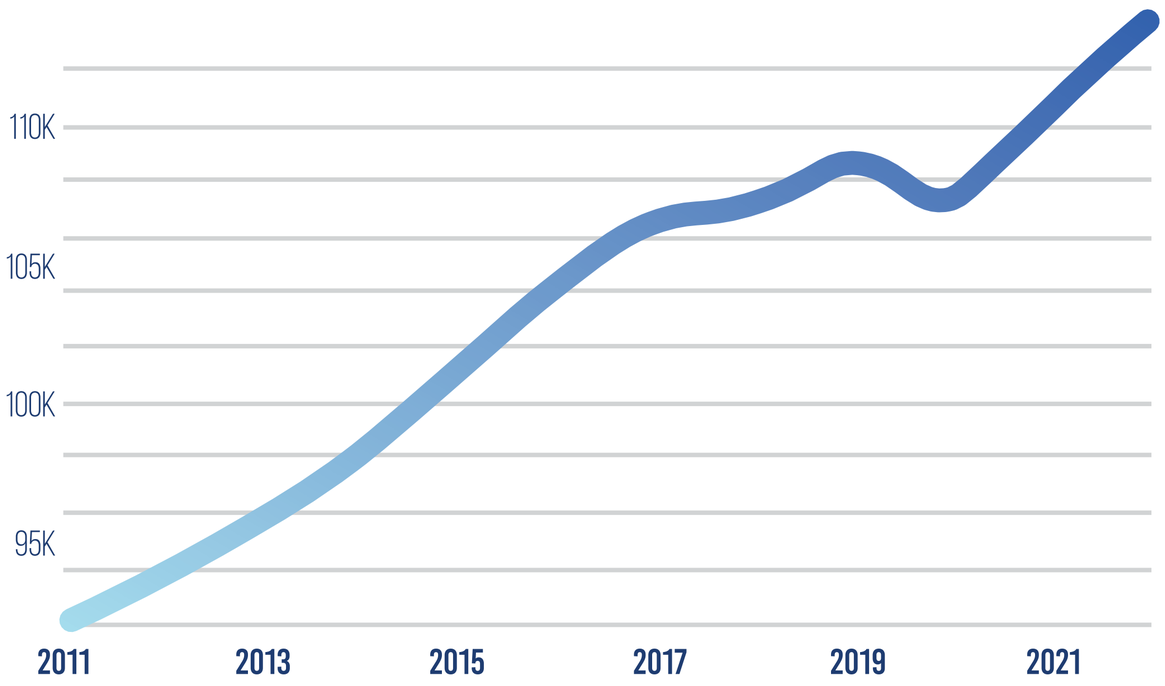
1. More traffic on the roads
2. Increased congestion
3. Safety concerns

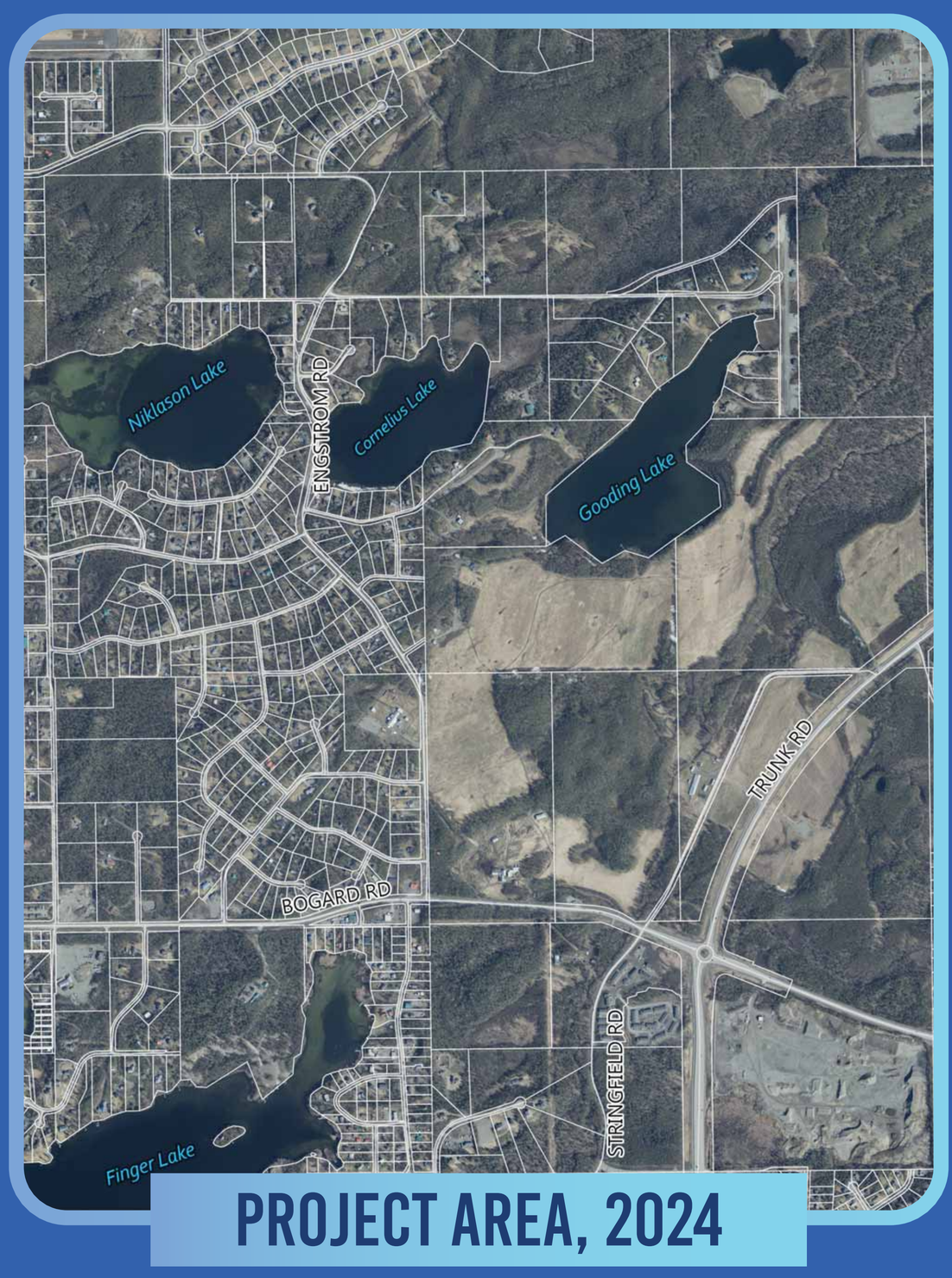
Rapid development in the Core Area, especially along Engstrom Road, has made these challenges even more noticeable. To help ease congestion and improve travel, this project aims to create a better connection and provide an alternative route between Engstrom Road and Trunk Road.



PROJECT AREA, 2011

MSB POPULATION GROWTH





PROJECT AREA, 2024

MATANUSKA-SUSITNA BOROUGH

PUBLIC OPEN HOUSE NO. 1 - 03-26-2025

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR: PROJECT GOALS

ENHANCE SAFETY AND CONNECTIVITY

Improve overall roadway safety by providing an alternate route that reduces congestion and enhances connectivity between Engstrom Road and Trunk Road.





INCREASE ROADWAY CAPACITY

Expand the local road network's capacity to accommodate current and future traffic volumes, improving transportation flow in the growing Fishhook Triangle area.

ENSURE LONG TERM INFRASTRUCTURE SUSTAINABILITY

Develop a roadway with a minimum 20-year design life that supports continued population growth and regional development.





EXPAND NON-MOTORIZED INFRASTRUCTURE

Expand the MSB's non-motorized infrastructure, in accordance with the 2023 Bike and Pedestrian plan and public input.

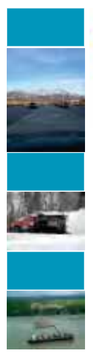
MATANUSKA-SUSITNA BOROUGH

PUBLIC OPEN HOUSE NO. 1 - 03-26-2025

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR: PROJECT HISTORY

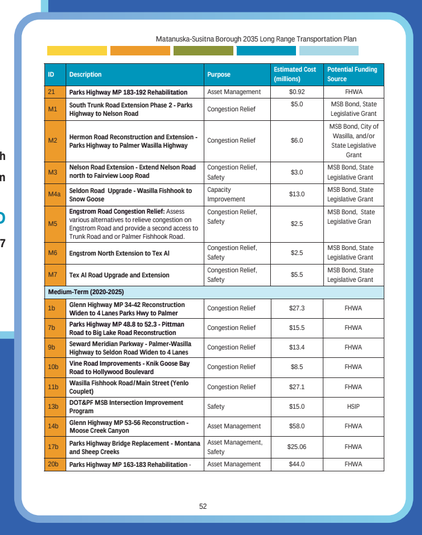
‘17

2017: IDENTIFIED IN 2035 LRTP



Matanuska-Susitna Borough
Long Range Transportation Plan

ADOPTED
December 2017



ID	Description	Purpose	Estimated Cost (millions)	Potential Funding Source
21	**Parks Highway MP 183-192 Rehabilitation**	Asset Management	$0.92	FHWA
M1	**South Trunk Road Extension Phase 2 - Parks Highway to Nelson Road**	Congestion Relief	$5.0	MSB Bond, State Legislative Grant
M2	**Hermon Road Reconstruction and Extension - Parks Highway to Palmer Wasilla Highway**	Congestion Relief	$6.0	MSB Bond, City of Wasilla, and/or State Legislative Grant
M3	**Nelson Road Extension - Extend Nelson Road north to Fairview Loop Road**	Congestion Relief, Safety	$3.0	MSB Bond, State Legislative Grant
M4a	**Seldon Road Upgrade - Wasilla Fishhook to Snow Goose**	Capacity Improvement	$13.0	MSB Bond, State Legislative Grant
M5	**Engstrom Road Congestion Relief:** Assess various alternatives to relieve congestion on Engstrom Road and provide a second access to Trunk Road and or Palmer Fishhook Road.	Congestion Relief, Safety	$2.5	MSB Bond, State Legislative Gran
M6	**Engstrom North Extension to Tex Al**	Congestion Relief, Safety	$2.5	MSB Bond, State Legislative Grant
M7	**Tex Al Road Upgrade and Extension**	Congestion Relief, Safety	$5.5	MSB Bond, State Legislative Grant
Medium-Term (2020-2025)				
1b	**Glenn Highway MP 34-42 Reconstruction Widen to 4 Lanes Parks Hwy to Palmer**	Congestion Relief	$27.3	FHWA
7b	**Parks Highway MP 48.8 to 52.3 - Pittman Road to Big Lake Road Reconstruction**	Congestion Relief	$15.5	FHWA
9b	**Seward Meridian Parkway - Palmer-Wasilla Highway to Seldon Road Widen to 4 Lanes**	Congestion Relief	$13.4	FHWA
10b	**Vine Road Improvements - Knik Goose Bay Road to Hollywood Boulevard**	Congestion Relief	$8.5	FHWA
11b	**Wasilla Fishhook Road/Main Street (Yenlo Couplet)**	Congestion Relief	$27.1	FHWA
13b	**DOT&PF MSB Intersection Improvement Program**	Safety	$15.0	HSIP
14b	**Glenn Highway MP 53-66 Reconstruction - Moose Creek Canyon**	Asset Management	$58.0	FHWA
17b	**Parks Highway Bridge Replacement - Montana and Sheep Creeks**	Asset Management, Safety	$25.06	FHWA
20b	**Parks Highway MP 163-183 Rehabilitation -**	Asset Management	$44.0	FHWA

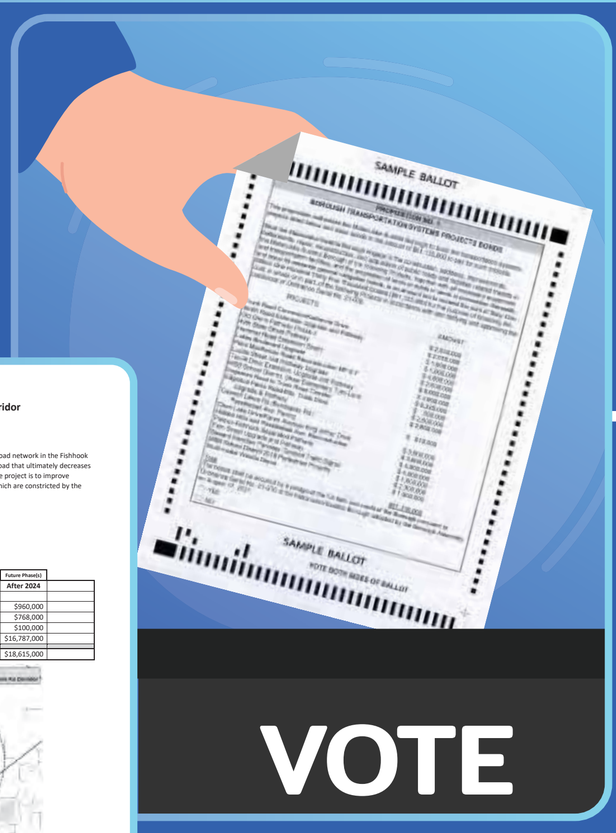
52

This project was first identified in the 2035 Long-Range Transportation Plan (LRTP).

‘21

2021: VOTERS APPROVE TIP21 PROJECT

Voters approve the project as part of the Transportation Improvement Program (TIP21).



TIP21

Engstrom Road to Trunk Road Corridor

Project No.: 35472-1811
Assembly District: 6
Road Service Area: Bogard No. 25
Description: The purpose of this project is to increase the capacity of the road network in the Fishhook area by providing an alternate route between Engstrom Road and Trunk Road that ultimately decreases traffic at the Engstrom Road and Bogard Road intersection. The need of the project is to improve connectivity and congestion to meet current and future traffic volumes, which are constricted by the Fishhook area's limited Collector level road network.
Length: 1-2 miles
Designer: HDL Engineering Consultants, LLC
Contractor: TBD
TIP21 Estimate: $568,000
Future Phase(s) Estimate: $18,615,000
Estimated Total Cost: $19,183,000

	TIP21			Future Phase(s)	
Phase	**2022**	**2023**	**2024**	**After 2024**	
Preliminary Engineering		$68,000	$500,000		
Design				$960,000	
Right-of-Way				$768,000	
Utilities				$100,000	
Construction				$16,787,000	
Year Totals:		$68,000	$500,000	$18,615,000	



Page **15** of **25**

‘22

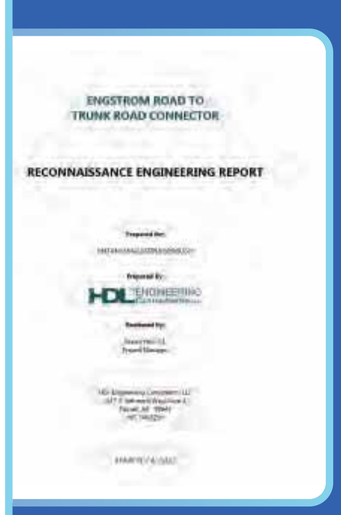
2022: RECONNAISSANCE STUDY BEGINS

RECONNAISSANCE ENGINEERING REPORT ENGSTROM ROAD TO TRUNK ROAD CONNECTOR



Figure 1 Location and Vicinity Map.

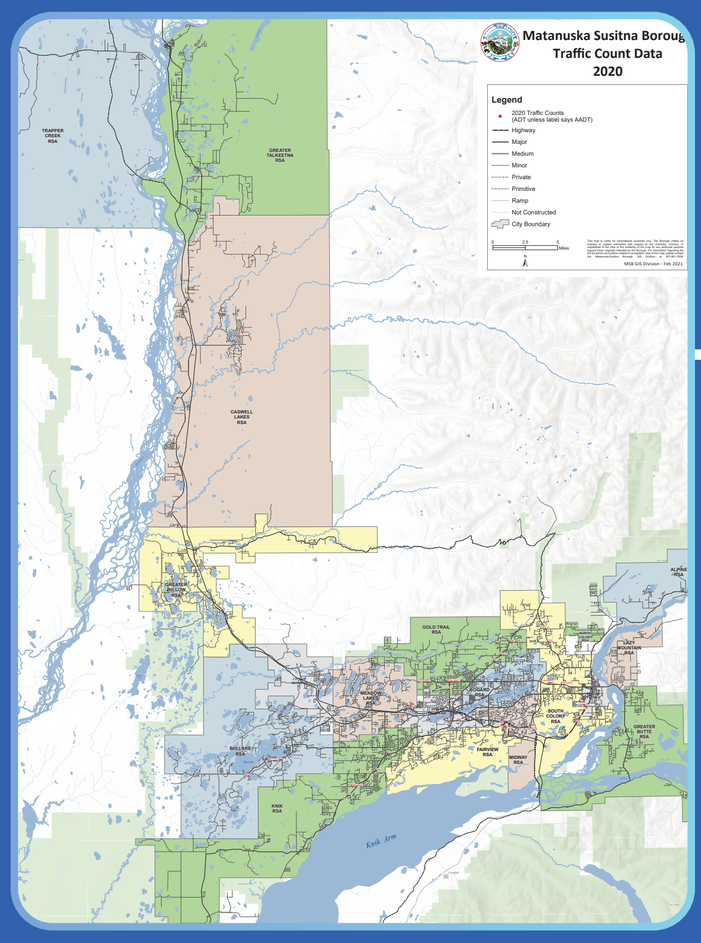
July 31, 2023 2



The MSB initiates a study to investigate possible project **routes**.

‘24

2024: TRAFFIC STUDY UNDERWAY



The MSB conducts a traffic study to analyze current patterns and assess the impact of planned projects on potential **routes**.

‘25

2025: PROJECT PLANNING & DESIGN

ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

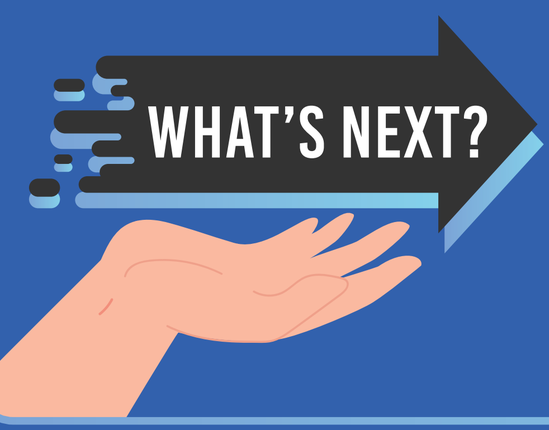
JOIN US!
PUBLIC OPEN HOUSE



The MSB engages the public to gather feedback on the **route** selection process.



WHAT'S NEXT?



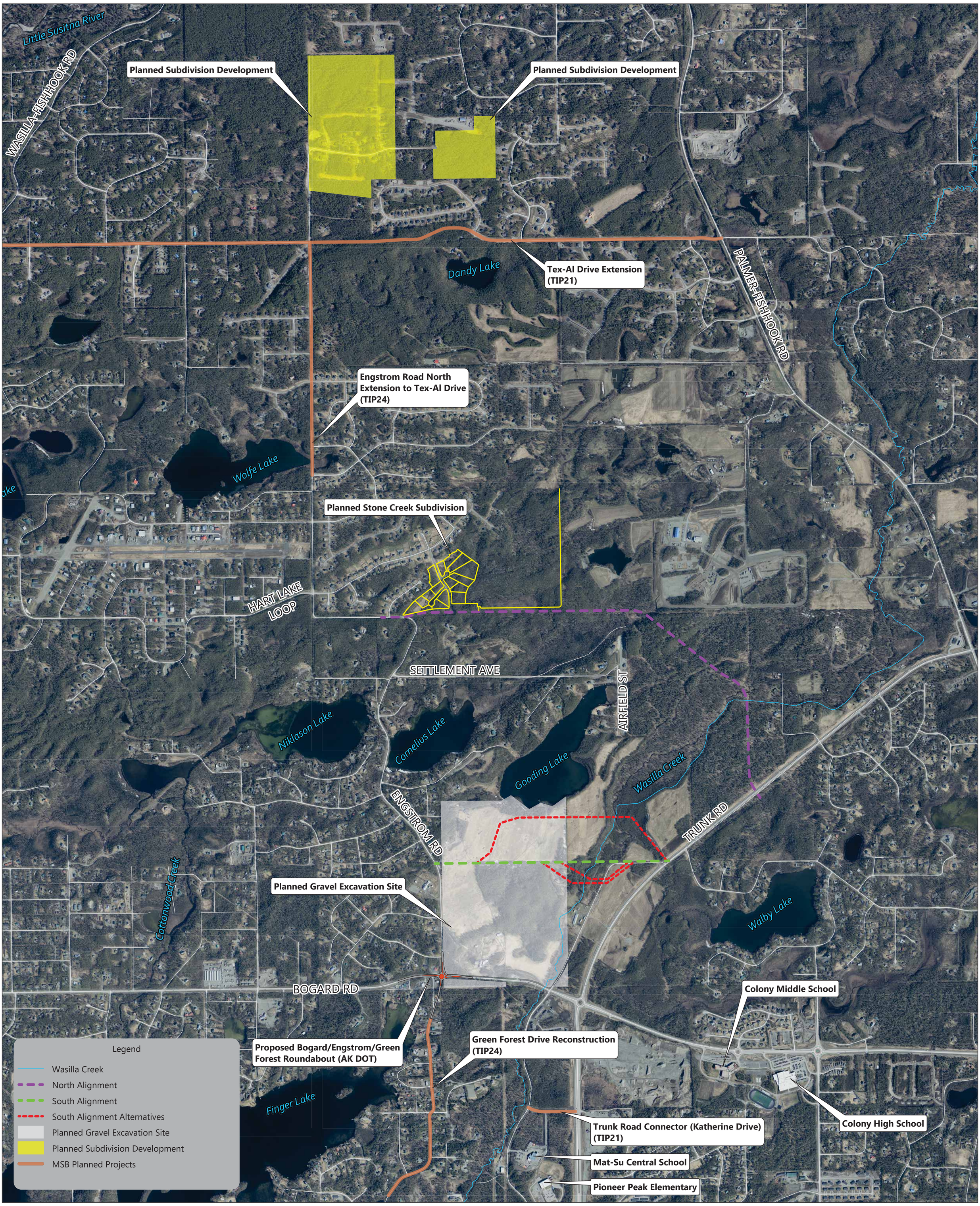
- Complete a Traffic and Safety Analysis
- Conduct field investigations
- Share what we learn through additional stakeholder coordination & public open houses
- Complete an environmental impact evaluation
- Develop a Route Selection Report based on stakeholder & public feedback

Engstrom Road to Trunk Road Corridor:
Project Alternatives and Related Development

Matanuska-Susitna Borough Public Works Department
Project No. 35472-1811

N

0 0.15 0.3 0.6 Miles



Engstrom Road to Trunk Road Corridor:
Project Area and Related Development

Matanuska-Susitna Borough Public Works Department
Project No. 35472-1811

N

0 0.15 0.3 0.6 Miles

Planned Subdivision Development
Planned Subdivision Development
Tex-Al Drive Extension (TIP21)
Engstrom Road North Extension to Tex-Al Drive (TIP24)
Planned Stone Creek Subdivision
Planned Gravel Excavation Site
Proposed Bogard/Engstrom/Green Forest Roundabout (AK DOT)
Green Forest Drive Reconstruction (TIP24)
Trunk Road Connector (Katherine Drive) (TIP21)
Colony Middle School
Colony High School
Mat-Su Central School
Pioneer Peak Elementary

Little Susitna River
WASILLA-FISHHOOK RD
Dandy Lake
PALMER-FISHHOOK RD
Wolfe Lake
HART LAKE LOOP
SETTLEMENT AVE
AIRFIELD ST
Niklason Lake
Cornelius Lake
Gooding Lake
Wasilla Creek
ENGSTROM RD
TRUNK RD
Cottonwood Creek
Walby Lake
BOGARD RD
Finger Lake

Legend
- Planned Gravel Excavation Site
- Planned Subdivision Development
- MSB Planned Projects
- Wetlands
- Floodplains (FEMA)
- Anadromous Streams (ADF&G)
- Other Streams (MSB)



Engstrom Road to Trunk Road Corridor

PROJECT SCOPE

This project will will provide an alternate route between Engstrom Road and Trunk Road north of the Trunk-Bogard roundabout, reducing traffic congestion on Engstrom Road.

BENEFITS: A connection between Engstrom Road and Trunk Road north of the Trunk-Bogard roundabout will improve safety, reduce neighborhood cut-through traffic and congestion, and improve connectivity and capacity to meet demand on Engstrom Road and Bogard Road.

PROJECT STATUS: The MSB completed a reconnaissance engineering study to assess the feasibility of a connection between Engstrom Road and Trunk Road. The MSB is seeking public input on their initial findings and preliminary routes.

WHAT'S NEXT?: Following Public Open House #1, the project team will evaluate public feedback and develop a Route Selection Report to quantify assets and liabilities of route alternatives. The MSB will then select and present the preferred route to the public.

SCHEDULE: The project is currently in the planning phase.

PROJECT VICINITY:



QUESTIONS?

COLE BRANHAM, Manager,
Project Management Division
Matanuska-Susitna Borough
Public Works Department
1-907-861-7711
Cole.Branham@matsugov.us

KELSEY MEANS, EIT
Public Involvement Coordinator
HDL Engineering Consultants, LLC
1-907-564-2124
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Engstrom Road to Trunk Road Corridor
Public Open House No. 1
Wednesday, March 26, 2025

Matanuska-Susitna Borough
Project Website: https://engstromtotrunkcorridor.com/

COMMENT FORM

Name
Street Address or PO Box
City, State, Zip
Email & Phone

Please use this form to provide written comments about this project. Thanks for your input!

Comments

Engstrom Road to Trunk Road Corridor
Public Open House No. 1
Wednesday, March 26, 2025

Matanuska-Susitna Borough
Project Website: https://engstromtotrunkcorridor.com/

COMMENT FORM

Comments

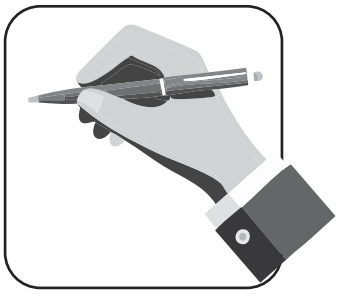


Engstrom Road to Trunk Road Corridor

Comment on the Project!

- Submit comments electronically via the project website at EngstromtoTrunkcorridor.com

- Fill out a comment sheet and hand it into a project team member



QUESTIONS?

COLE BRANHAM, Manager
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Attachment C: Comment/Response Summary and Roll Plots with Public Markups

Matanuska-Susitna Borough
Public Comments Received

PROJECT NAME: ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

No.	Format	Date	Comment	Response	Preferred Route
1	Comment submitted through website	3/20/2025	My main comment on this project (and has been before at meetings & in writing to the borough planning commission): Why are the actual projects approved by voters several years ago not being implemented here? Which are Aspen Ridge Road to Fishhook and Glade Court to Trunk Road?? I do not see why the new North Alternative is even being studies or presented? The Glade Court option is the shortest and the new gravel contractor even agreed to speed that along by helping build that route and giving right of way. Aspen Ridge is voter approved and easily goes along section lines and existing roads for the most part. The northern alternative is NOT voter approved and cuts across large corner of private property, why? I will not be in town the next week for the meeting but please add my email to your list for updates.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Southern Route
2	Comment submitted through website	3/22/2025	Are you doing 2 or 3 routes, or only one of the 3 shown? I think we need at least two	Thank you for your interest in this project and for taking the time to send us your thoughts. At this time, the project will evaluate multiple routes in order to select one that best satisfies the projects purpose and need. However, only one route will be constructed. The alignment selected for construction will be based on technical evaluation, public input, and available funding. We recognize the interest in additional connections and will document that feedback for future planning efforts.	No preference indicated
3	Comment submitted through website	3/22/2025	1.4 Purpose and need cites 'past decades growth', but does not address future growth or decline in population density. Has that been studied? Thank you.	Thank you for your interest in this project. The project's purpose and need statement is to: improve safety and increase the capacity of the road network in the Fishhook area by providing an alternate route between Engstrom Road and Trunk Road in order to increase road connectivity to reduce congestion and accommodate current and future traffic volumes. The project will be looking at future growth and population density in the area, as it relates to traffic volumes. According to the Mat-Su Borough's Forces and Trends Report, produced in January 2024, the population in the Mat-Su Borough is only expected to rise. Therefore, the project team will be assessing how future growth in this area will impact the existing road network and how planned future connections will allow for better traffic flow.	No preference indicated
4	phone call	3/25/2025	Ms. Alverado prefers a route north of Cornelius lake. She explained that for Stone Creek residents, snow drifts make Engstrom impassable. It is difficult and sometimes impossible to get out of the subdivision. She noted that this is a major safety concern, especially for emergency vehicles.	HDL (Kelsey Means) encouraged Ms. Alverado to attend the upcoming 03/26/2025 public meeting and share her concerns with the project team.	Northern Route
5	phone call	3/25/2025	Mr. Burgerr asked about the location of the meeting, and then discussed the traffic issues while waiting to turn from Engstrom onto Bogard. He stated he has waited for over 20 minutes to turn left during peak traffic times.	HDL (Kelsey Means) encouraged Mr. Burgerr to attend the upcoming 03/26/2025 public meeting and share her concerns with the project team.	No preference indicated
6	Comment sheet submitted at PMOH1	3/26/2025	Engstrom to Trunk southern route doesn't solve problems! Northern route would give a route to Trunk for Anchorage commuters with clear shot to the Parks/Glenn. It also routes around the constant snow drift area on south Engstrom. Recommend using northern route to remedy the 90 degree turn on Engstrom near the planned Stone Creek Subdivision. The Engstrom corridor doesn't have enough direct routes with more homes & subdivisions being built, it doesn't allow for safety considerations like police, EMS, fire or quick residential evacuation. The Engstrom roundabout needs to be priority and fast tracked. There is a current dangerous situation, during rush hours, and school commutes at the Colony Schools. Include the bike/pedestrian path on the Northern connector to link with Trunk Road. This brings up property values for quality of life! If northern route is approved and it becomes the right of way route, please rename the section of Engstrom to not right of way! "Bogard" is so disjointed on naming as it snakes through the Mat-Su. Northern connector at Trunk needs a traffic light or roundabout from opening to avoid future backups like Engstrom/Bogard is currently experiencing.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
7	Comment sheet submitted at PMOH1	3/26/2025	I would prefer to see the northern route to keep traffic from the end of Engstrom. Makes no sense to do southern (gravel pit) route. By the time the cars get there they may just continue onto Bogard. [Noted: from Shorewood Subdivision/Spring Wood Drive	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
8	Comment sheet submitted at PMOH1	3/26/2025	Our concern is increased traffic on upper two lane (Dark) Trunk Road. Traffic is already too heavy and speeds are excessive for flow.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	No preference indicated
9	Comment sheet submitted at PMOH1	3/26/2025	The borough bonded the E. Farm Meadows Ave. in 2018. Bonded Tex-Al and Engstrom extension in 2021. Engstrom roundabout will help traffic even if it was funded as a safety project. Also, look at Engstrom widening/upgrade. Build the above first, and do an actual traffic study. Use section lines that is what they are for and were reserved for originally. Aneson's north of Settlement and Olson-Lomann Trust have no intent in ever developing. 100+ years of ownership in the family for the 1 mile + or - that it passes through their property. The 1/2 mile of Arneson property is on the 3rd generation of ownership also. This is 300 acres that has ben leased/used for grazing livestock in recent years and no intention to change use. Northern route was not on the 2021 road bond; the southern route was. Southern is cheaper, shorter, and approved by the voters; not hatched in a meeting. JRK LLC owns the new development pigeon holed at the hairpin Engstrom corner. Also owns the Alpine Ridge subdivision adjacent to the NE abutting Palmer-Fishhook that E Fern Rd Meadows Rd received ROW dedication for when plotted. There is a section line from N Bear St up to E. Sun Crest and Hart Lake Lp. This is where most of the available land is to develop. Has this been considered as another route for traffic form Wolf Lake area? North Exponential Drive will likely be punched through the last 1/4 mile over dry land generally. This is also off Hart Lake Lp. Why did the borough buy ROW/made agreement with JRK LLC for ROW along northern route in August 2024 when Soney Creek was replatted?	Thank you for sharing your thoughts, we appreciate your engagement and the perspective you've provided. This project is part of a broader effort to improve long-term connectivity and resiliency in the Fishhook Triangle, alongside projects like Tex-Al Drive, the Engstrom North Extension, and Shaw Elementary Access. The current scope focuses on evaluating alternatives to connect Engstrom Road to Trunk Road, based on project need, feasibility, cost, and public input. While section line routes such as the one north of Bear Street may have future potential, they fall outside the current study area. Your suggestion will be shared with Planning for future consideration. This corridor is also identified in the Official Streets and Highways Plan (OS&HP). The Borough's right-of-way acquisition was a proactive step to preserve options and avoid development related constraints. Regardless of the chosen alignment, a connection will be needed to serve future growth. Though the southern route was shown in the 2021 bond, the evaluation process for this project includes revisiting all viable alignments to ensure the selected alternative best meets current and future transportation needs. Taking the time to do proper due diligence ensures that the public infrastructure investments provide long-term benefit and align with both current needs and future development patterns.	Southern Route (?)
10	Comment sheet submitted at PMOH1	3/26/2025	The traffic is impossible and having the road further north would really make a difference in traffic.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
11	Comment sheet submitted at PMOH1	3/26/2025	My understanding is there is a road east farmers meadows that could be use as an exit. The gravel pit option drivers will still have to turn left traffic will just be backing higher up Engstrom. I no longer walk my dog or jog from my house because cars have almost hit me, cars have come around the corner so fast that they have flipped, skidded off rd, into my driveway. I would prefer the purple, houses are limited impact. Contractors need to build according to the road in an emergency no one is getting out of Engstrom with the amount of people who live on it. Mat-Su Borough needs to be smarter about these road decisions!	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
12	Comment sheet submitted at PMOH1	3/26/2025	The southern route makes the most $$ sense. Listening to the comments around the tables there is a lot of concern about the safety of pulling in and out of driveways especially with all the curves on Engstrom. Addressing the curves, corners, widening Engstrom, etc. would alleviate this fear of increased traffic on an already dangerous road. DOT already has regulations when a development will be increase traffic to the point of requiring a traffic light. The problem lies in that Engstrom is a MSB road (connector) and it has been used as an arterial road which was never designed for. All the subdivisions should have required a traffic control plan (collectively) before approval. To pull out on Bogard from Engstrom is extremely dangerous and to allow a gravel pit to operate before the roads are safe is like putting the cart before the horse. we can do better!	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Southern Route

Matanuska-Susitna Borough
Public Comments Received

PROJECT NAME: ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

No.	Format	Date	Comment	Response	Preferred Route
13	Comment sheet submitted at PMOH1	3/26/2025	I favor the Southern Route to Engstrom to Trunk Ext. 1. Shorter & basically through a field. 2. Complete sooner by years. 3. Less expensive. 4. Before the field where the Engstrom Rd. drifts over in the winter. 5. Provides an alternate route when construction starts on round-a-bo on Bogard Rd. 6. A northern extension is still necessary do to the growth in this core area. 7. Right of ways by land owner are acceptable. 8. Gravel pit owner will build the road to the creek & give gravel trucks better access to the gravel pit. 9. A majority of residence approve of the southern Engstrom route.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Southern Route
14	Comment sheet submitted at PMOH1	3/26/2025	I hope to see the "northern route" be developed vs. the southern route as it makes more sense to funnel the majority of people from the newer subdivisions sooner rather than have them progress down Engstrom. This will keep traffic more manageable and quieter for the folks already living on Engstrom. Thank you!	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
15	Comment sheet submitted at PMOH1	3/26/2025	Because of all the snowdrifts on Engstrom between Settlement and Bogard and sharp curves, I believe the borough should build the Northern Route. This would also keep traffic farther away from the planned gravel excavation site.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
16	Comment sheet submitted at PMOH1	3/26/2025	1.) Increase through speed design on 10 mph corner just south of Hart Lake Loop - Engstrom. 2.) Recommend north route so intersection with Trunk Road will be closer to the mid point between Bogard and Palmer Fishhook.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
17	Comment sheet submitted at PMOH1	3/26/2025	Thank you for your recent presentation. I live on Wolf Lake Airport and experience firsthand the safety and congestion and lack of connectivity with traffic going on Engstrom and Bogard roads. In regard to route selection it seems the northern route is a much more effective solution in that much of the growth feeding congestion is north of that route. Also it would join Trunk in a more convenient place in terms of traffic on Trunk resulting in a better flow of traffic. The southern route is practically to the Bogard Road intersection (eventually roundabout), is located smack dab where wind forms impassable drifts and enters Trunk closer to Bogard. While the length and cost are doable it would be a better solution to reducing congestion. My second comment is that a pedestrian/bike path is a must to connect the existing path along Trunk, included in the Tax Al plan, making them accessible to a sizable number of families that would have no safe route to using these paths. It's not just roads that connect neighborhoods. Thank you again for your public outreach presentation.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
18	Comment sheet submitted at PMOH1	3/26/2025	Northern route to Trunk Road. Do not use Dania Way as it is only 6/10th from Bogard. People scream down Engstrom speed around the corner south from cornelios lake - there are 3 blind driveways that front onto Engstrom - do not use Dania Way!! People will speed down Engstrom to catch Dania Way - our houses are on the east side of the road with driveways onto Engstrom.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
19	Comment submitted through website	3/26/2025	We would prefer the N alignment. However, whichever is chosen get it done! Neither alignment is getting any cheaper. The studies have been done, pick an alignment and DO IT!	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
20	Comment sheet submitted at PMOH1	3/26/2025	Please include pedestrian and bicycle infrastructure in the final plan in order to make the neighborhood more livable. Consider a plan that keeps motorized traffic speed down for noise abatement as well as safety. Traffic circles are far better and safer than stop signs and stop lights.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	No preference indicated
21	Comment sheet submitted at PMOH1	3/26/2025	We would prefer the northern route because: Northern route divides traffic into 3 roadways to get to Trunk Rd (and Bogard) 1. Tex-Al on the north 2. Northern route in the center 3. Bogard to the south	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
22	Comment sheet submitted at PMOH1	3/26/2025	I live at Wolf Lake Airport and also manage that airport. I also own Steppers Construction so this project has my full support. First, thank you! Second, I think the Northern Route being proposed is the best option for overall safety and future development. I would use it on a daily basis and that would limit the current Engstrom traffic to that area already heavily populated.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
23	Comment sheet submitted at PMOH1	3/26/2025	Can the Borough share the email list?	Thank you for attending the public open house. The MSB is not able to share personal information from those who signed into the public open house.	N/A
24	Comment submitted through website	3/27/2025	The northern route seems like a better way to mitigate traffic for the proposed developments. Also, the southern route seems so close to Bogard as it is that I don't see what the advantage would be.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
25	Comment submitted through website	3/27/2025	My vote would be for the road off the Stone Creek Subdivision indicated by the purple dotted line. It is my understanding when I looked at the permitting plans for the gravel pit they had no plans or requirements to address snow drifting to Engstrom, in fact, it was addressed and if I remember correctly it was deemed not an issue. Residents will still be left with potential snow drifting on the lakes Nickolas / Cornelius and then again at the gravel pit area. The Stone Creek option will give residents a way out that will skirt the drift potential entirely and allow us to not have to deal with the loaders the gravel pit will have passing through at the Engstrom / Bogard daily at the projected 15 min intervals.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route

Matanuska-Susitna Borough
Public Comments Received

PROJECT NAME: ENGSTROM ROAD TO TRUNK ROAD CORRIDOR

No.	Format	Date	Comment	Response	Preferred Route
26	Comment submitted through website	3/27/2025	I attended the meeting last night. I would voice strong support for the proposed northern route. The increased traffic and housing to the north means that MOST people traveling up Engstrom from Bogard would benefit from the northern route. The proposed southern route is so close to Bogard that it would just create a pileup on the connector road with traffic coming from Trunk competing with traffic from Bogard. The northern route is worth the money, especially with the growth on that part of Engstrom, compared to the existing house and traffic closer to Bogard. Thanks!	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
27	Comment submitted through website	3/28/2025	FYI - I attended the road info meeting and present the following comments all in favor of the southern route: 1. This is the route presented to voters when the bond package was approved. 2. If the primary concern is the amount of traffic at the bogard intersection, the southern route will be more effective as it would encourage use by the neighborhoods south of the northern option take-off 3. Southern route is shorter and simpler to build, making it less expensive and should fit under the approved bond amount. The north route is more expensive and is not fully funded. 4. The south route goes through an area already designated for disturbance for a new gravel pit and would provide more options for relieving traffic concerns from the new operations.	Thank you for attending the public open house and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Southern Route
28	Comment submitted through website	3/28/2025	I vote for the northern route, because I think Engstrom will be congested on the southern route between the roundabout and the gravel pit. I could never have imagined the traffic on Engstrom when I moved here 30 years ago. I'm old so I know change happens.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
29	phone call	4/1/2025	Mr. Vaughn left a voice mail for HDL (Kelsey Means) and expressed his preference for the Southern route, stating that traffic has increased significantly in the past few decades, and he feels that the Southern route will best alleviate it in the shortest timeframe.	HDL returned Mr. Vaughn's call, and left him a voicemail thanking him for his input, and stating that his comment would be recorded and added to the comment log for Public Meeting 1.	Southern Route
30	phone call	4/1/2025	Mr. Hazel stated that he had attended the recent public meeting. He then expressed that he felt the design for the proposed roundabout at Engstrom and Bogard should be larger, and not include any center landscaping in order to improve the view of oncoming traffic.	HDL (Kelsey Means) thanked Mr. Hazel for his comment, and stated that it would be recorded. HDL also clarified that the Engstrom to Trunk project does not involve any intersection improvements, and that the proposed roundabout is a State project.	
31	Comment submitted through website	4/10/2025	Strongly prefer the Northern Route and strongly encourage the inclusion of bike and walking trails.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
32	Comment submitted through website	4/14/2025	I support the northern route as I believe, in the long run, it has the greater capacity to improve safety and relieve congestion than the southern route. If possible, I would like to see the southern route released so that the new gravel pit might pursue that route as egress from the new pit instead of emptying onto Engstrom.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
33	Comment submitted through website	4/17/2025	The northern route is really the only one that makes sense. Putting a route in down by Glade is just taking your Engstrom traffic problem and moving it 20 seconds up the road. Combined with the gravel pit traffic, this will be a nightmare and does not take into account the needs of the ever-expanding neighborhoods farther up Engstrom. Please give us the northern connector so we have easy bypass and don't simply stack existing and future traffic from Bogard/Engstrom a few block up the road. Thanks.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
34	Comment submitted through website	4/22/2025	We definitely believe the Northern route is the best option.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route
35	Comment emailed to Cole Branham	4/25/2025	I am writing to voice my strong support for the south Engstrom to Trunk road connector. A quicker built road to provide relief at the Bogard/Engstrom intersection would be incredible!!! Please!! I have had more near misses there than I care to keep reliving. Once again please and thank you.	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Southern Route
36	Comment emailed to Cole Branham	4/25/2025	I would like to express my support for the northern route option for Engstrom. This route seems to provide better future access as the area around it develops. Adding this road route would help to reduce the load on the east portion of the Tex-Al Drive extension. Although there are environmental concerns, I believe that with proper planning and oversight by the Borough, the project can be completed with minimal long-term impacts. It's great to see funds being allocated to projects like this one, as the area needs more traffic capacity to continue to grow. Building the north route before the area is developed allows developers to plan around the route's design, maximizing land use rather than disrupting the established neighborhood along the south route. I also hope that a connection to the Tex-Al Drive extension can be made, as it would improve the Borough's traffic-triangle dead zone (Wasilla-Fishhook-Palmer).	Thank you for your interest in this project and for taking the time to send us your thoughts. Your comment has been logged with the project team.	Northern Route

MATANUSKA-SUSITNA BOROUGH
TRANSPORTATION ADVISORY BOARD
RESOLUTION SERIAL NO. TAB 26-01

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH TRANSPORTATION ADVISORY BOARD SUPPORTING THE ENGSTROM ROAD TO TRUNK ROAD CORRIDOR PROJECT AND RECOMMENDING NORTH ROUTE 1 AS THE PREFERRED ALIGNMENT IDENTIFIED IN THE OCTOBER 2025 DRAFT ROUTE SELECTION REPORT.

WHEREAS, the Matanuska-Susitna Borough Transportation Advisory Board advises the Assembly on transportation-related issues; and

WHEREAS, Matanuska-Susitna Borough voters approved the 2021 Transportation Infrastructure Program (TIP21), a package of projects that included the Engstrom Road to Trunk Road Corridor project; and

WHEREAS, sustained growth within the Fishhook Triangle has increased traffic demand on a poorly connected roadway network, resulting in congestion and elevated safety issues at the Engstrom Road and Bogard Road intersection, and the Borough has identified the need for a new major collector connection between Engstrom Road and Trunk Road to improve safety, relieve congestion, and provide alternative access for residents and emergency services; and

WHEREAS, the Matanuska-Susitna Borough's 2035 Long Range Transportation Plan (LRTP) identifies a project to relieve congestion on Engstrom Road and provide secondary access to Trunk Road or Palmer-Fishhook Road; and

WHEREAS, the Matanuska-Susitna Borough's Official Streets and Highways Plan (OSHP) identifies a conceptual corridor between Engstrom Road and Trunk Road designated as a future major collector roadway; and

WHEREAS, a Reconnaissance Engineering Study was completed in July 2023 to evaluate route alternatives for a connector between Engstrom Road and Trunk Road, including preliminary desktop geotechnical and hydrologic analyses, review of prior planning documents, coordination with Alaska Department of Transportation and Public Facilities (DOT&PF), and development of a rough order of magnitude cost estimate to support comparison of alternatives; and

WHEREAS, the Transportation Advisory Board acknowledges that the rough order of magnitude cost estimates indicates the Northern Route alternatives are approximately double the estimated cost of the Southern Route alternative; and

WHEREAS, an open house was held on March 26, 2025, to introduce the project, summarize its history and purpose, and present initial considerations for an east-west connection between Engstrom Road and Trunk Road, with 114 members of the public signing in; and

WHEREAS, public input received by staff and their consultant at the March 26, 2025, open house reflects majority support for a

Northern Route; and

WHEREAS, a Route Selection Report was prepared to evaluate the identified routes based on connectivity and access, mobility and use, environmental considerations, engineering feasibility and constructability, and public engagement; and

WHEREAS, the draft Route Selection Report was made available for public review beginning November 14, 2025, and notification was provided to identified stakeholders and individuals who registered through the project website and public open house; and

WHEREAS, four potential alignments, including the Southern Route, Northern Route 1, Northern Route 2, and the Stone Creek to Aspen Ridge Route, along with a No Build alternative, were identified and evaluated through preliminary planning, reconnaissance engineering, and public input; and

WHEREAS, Borough staff presented the Route Selection Report to the Transportation Advisory Board on February 13, 2026; and

WHEREAS, the report recommended that either Northern Route 1 or 2 be further developed in design to connect Engstrom Road to Trunk Road; and

WHEREAS, the Northern Routes meet the project's purpose and need and perform at a fair to good level across the evaluation criteria, scoring highest in connectivity and access, and mobility and use, enhancing network resiliency and integration with existing and planned streets; and

WHEREAS, Northern Route 1 provides a direct connection for a dense residential area to Trunk Road, aligns with adopted planning documents, addresses the unsafe turning movement on Engstrom Road, provides an alternative route for emergency response, and balances mobility, connectivity, and overall impacts within the proposed corridors.

NOW, THEREFORE, BE IT RESOLVED, that the Transportation Advisory Board supports Northern Route 1 as the preferred alignment based on the presentation and documentation provided.

BE IT FURTHER RESOLVED, that the Transportation Advisory Board recommends the Assembly continue to support advancement of the Engstrom Road to Trunk Road Corridor project into preliminary design, environmental review and right-of-way analysis and acquisition as funding allows, in order to address the connectivity gap, congestion, safety concerns, and access needs within the Fishhook Triangle area before continued development significantly increases project costs and constraints.

ADOPTED by the Matanuska-Susitna Borough Transportation Advisory Board this 13th day of February, 2026.

Jesse Peterson, Chair

ATTEST:

Ashley Stick, Staff Member

By:
Introduced:
Public Hearing:
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 26-13

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION SUPPORTING THE ENGSTROM ROAD TO TRUNK ROAD CORRIDOR PROJECT AND RECOMMENDING NORTH ROUTE 1 AS THE PREFERRED ALIGNMENT IDENTIFIED IN THE JULY 2026 ROUTE SELECTION REPORT.

WHEREAS, the Matanuska-Susitna Borough Planning Commission has authority to investigate and make recommendations regarding the location and design of public facilities, including roads; and

WHEREAS, Matanuska-Susitna Borough voters approved the 2021 Transportation Infrastructure Program (TIP21), which included funding for the Engstrom Road to Trunk Road Corridor Project; and

WHEREAS, continued growth within the Fishhook Triangle has increased traffic demand, resulting in congestion and safety concerns, and the Borough has identified the need for a new major collector roadway connecting Engstrom Road to Trunk Road or Palmer-Fishhook Road to improve connectivity, reduce congestion, improve safety, and provide alternative access for residents and emergency services; and

WHEREAS, the Matanuska-Susitna Borough's 2035 Long Range Transportation Plan and 2022 Official Streets and Highways Plan identify a future major collector corridor connecting Engstrom Road with Trunk Road to improve regional mobility, accommodate

future growth, and strengthen the Borough's transportation network;

WHEREAS, a Reconnaissance Engineering Study completed in July 2023 evaluated feasible corridor alternatives and provided technical information to support route evaluation and future project development; and

WHEREAS, a Route Selection Report subsequently evaluated the Southern Route, Northern Route 1, Northern Route 2, Stone Creek to Aspen Ridge Route, and the No Build Alternative using engineering, transportation, environmental, and public input criteria; and

WHEREAS, the Route Selection Report recommends Northern Route 1 as the preferred alignment because it provides the best overall balance of connectivity, mobility, engineering feasibility, environmental considerations, community impacts, and consistency with adopted Borough transportation plans; and

WHEREAS, Northern Route 1 provides a new major collector connection that improves network resiliency, supports emergency response and future development, reduces traffic demand at the Engstrom Road and Bogard Road intersection, and provides a transportation corridor consistent with the Borough's long-range planning objectives; and

WHEREAS, the Planning Commission finds that Northern Route 1 is consistent with the Borough's adopted transportation planning documents and is in the best interest of the public by supporting

a safe, connected, and resilient transportation network.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission recommends Northern Route 1 as the preferred alignment for the Engstrom Road to Trunk Road Corridor Project and recommends that the Matanuska-Susitna Borough Assembly adopt Northern Route 1 as the preferred corridor for advancement into preliminary design, right-of-way planning and acquisition, environmental permitting, and future project development, subject to the availability of funding.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this 3rd day of August, 2026.

_____
Richard Allen, Chair

ATTEST:

_____
Lacie Olivieri, Planning Clerk

(SEAL)

YES:

NO:

INTRODUCTION FOR PUBLIC HEARING LEGISLATIVE

Resolution No. 26-14

A Resolution Of The Matanuska-Susitna Borough Planning Commission Recommending Approval Of The Areawide Power To Acquire Public Rights-Of-Way And Design And Construct Roads, Streets, Sidewalks, And Related Drainage Facilities, And To Submit The Question To The Qualified Areawide Voters At The November 3, 2026 Regular Election.

Staff: Alex Strawn, Planning and Land Use Director

Public Hearing Date: August 3, 2026

SUBJECT: AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY ADOPTING THE AREAWIDE POWER TO ACQUIRE PUBLIC RIGHTS-OF-WAY, DESIGN, AND CONSTRUCT ROADS, STREETS, SIDEWALKS, AND RELATED DRAINAGE FACILITIES; AND TO SUBMIT THE QUESTION TO THE QUALIFIED AREAWIDE VOTERS AT THE NOVEMBER 3, 2026, REGULAR ELECTION.

AGENDA OF: July 21, 2026

ASSEMBLY ACTION:

AGENDA ACTION REQUESTED: Introduce and set for public hearing.

Route To	Signatures
Originator	7/6/2026 X Nicholas Spiropoulos Signed by: Nicholas Spiropoulos
Department Director	7/6/2026 X Tom Adams, PE Signed by: Tom Adams
Department Director	7/6/2026 X Alex Strawn Signed by: Alex Strawn
Borough Attorney	7/6/2026 X Nicholas Spiropoulos Signed by: Nicholas Spiropoulos
Borough Manager	7/7/2026 X Michael Brown Signed by: Mike Brown
Borough Clerk	7/7/2026 X Estelle M. Wiese for LM Signed by: Estelle Wiese

ATTACHMENT(S): Ordinance Serial No. 26-080 (2 pp)

SUMMARY STATEMENT: This ordinance is sponsored by Borough Manager Mike Brown for the Borough to adopt the areawide power to acquire public rights-of-way, design, and construct roads, streets, sidewalks, and related drainage facilitates. To take effect, the proposal must be ratified by the areawide voters. Therefore, this ordinance will also place the question before the qualified areawide voters at the November 3, 2026, regular Borough election.

Right-of-way ("ROW") acquisition authority will allow the Borough to use areawide revenues to identify, secure, and preserve land needed for future transportation corridors before development occurs. This supports long-term transportation planning and helps

ensure that future roadway corridors remain viable. The purpose of this authority is to preserve and acquire rights-of-way necessary to implement adopted transportation plans, improve connectivity, enhance public safety, and reduce future public infrastructure costs. Acquiring ROW is significantly less expensive before parcels are developed or improved. Securing ROW early can substantially reduce future acquisition costs and may eliminate the need to purchase fully developed properties later at significantly higher cost.

Without early ROW acquisition, future projects may require moving driveways, buildings, wells, septic systems, utilities, or rerouting the road entirely. These changes dramatically increase construction and acquisition costs. Acquiring or accepting ROW prior to or in conjunction with a subdivision plat is one of the most economical and efficient times to secure it. Surveying, lot configuration, and infrastructure planning are already in progress, minimizing the burden on both the public and property owners. Securing ROW in advance can significantly shorten project timelines by avoiding prolonged negotiations, condemnation proceedings, or redesign work.

Early ROW acquisition also allows the Borough to complete design and corridor planning well in advance of construction. Conducting design early helps identify the most efficient road alignment, evaluate environmental and drainage considerations, and coordinate with utilities and adjacent land uses. It also provides more reliable preliminary cost estimates for future construction. Completing this work before development occurs can prevent costly redesigns. Early planning and associated design will reduce long-term project costs and help ensure that future transportation improvements can be delivered efficiently.

In addition to acquiring ROW, the power to be approved by voters here will enable the Borough to design and construct roads, streets, sidewalks, and related drainage facilities. This phrase “roads, street, sidewalks, and related drainage facilities” is the exact same phrase as used in the Road Service Areas (“RSAs”) in MSB 5.25. Road Service Areas currently have the power to design and construct any type of road from a small muddy one-lane pioneer road, all the way to an interstate highway. This includes transportation corridors, bridges, intersections, traffic safety improvements, drainage improvements associated with transportation projects, pedestrian facilities, and related transportation infrastructure.

Under current Borough code, these powers are only exercised through RSAs which often deal with budget constraints and time-critical needs, with less funding and flexibility to adequately address future needs. Under rules of statutory construction, this exact

phrase is being used here so there is no difference, and it is clear that the power under this ordinance is to design and construct any type of road and all necessary appurtenances on an areawide basis.

The authority proposed in this ordinance will allow the Borough to use areawide funds to acquire, design, and construct the Borough's transportation network on an areawide basis across all geographic areas of the Borough. RSAs will still operate and will remain the mechanism by which the Borough maintains its transportation network. RSAs may still construct roads as well and continue the current practice of developing needed improvement projects in their areas.

RECOMMENDATION OF ADMINISTRATION: Adopt legislation.

CODE ORDINANCE

Sponsored by: Borough Manager
Introduced:
Public Hearing:
Action:

MATANUSKA-SUSITNA BOROUGH
ORDINANCE SERIAL NO. 26-080

AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY ADOPTING THE AREAWIDE POWER TO ACQUIRE PUBLIC RIGHTS-OF-WAY, DESIGN AND CONSTRUCT ROADS, STREETS, SIDEWALKS, AND RELATED DRAINAGE FACILITIES; AND TO SUBMIT THE QUESTION TO THE QUALIFIED AREAWIDE VOTERS AT THE NOVEMBER 3, 2026 REGULAR ELECTION.

WHEREAS, the rationale and intent of this ordinance are contained in the attached Informational Memorandum No. 26-126.

BE IT ENACTED:

Section 1. Classification. Section 2 of this ordinance is of a general and permanent nature and shall become part of the Borough Code. All other sections are noncode.

Section 2. Adoption of Section. MSB 1.10.136 is hereby adopted to read as follows:

MSB 1.10.136 PUBLIC RIGHTS OF WAY AND DESIGN.

The borough may exercise the areawide power to acquire public rights-of-way, design, and construct roads, streets, sidewalks, and related drainage facilities as approved by the voters at the November 3, 2026 regular borough election.

Section 3. Submission to voters. A proposition ratifying the authorization to adopt areawide power to acquire public rights-of-way, design, and construct roads, streets, sidewalks, and related drainage facilities shall be submitted to the qualified

voters of the Borough at the regular Borough election to be held on November 3, 2026 in substantially the following form:

PROPOSITION NO. ___

AREAWIDE POWER TO ACQUIRE PUBLIC RIGHTS-OF-WAY, DESIGN, AND CONSTRUCT ROADS, STREETS, SIDEWALKS, AND RELATED DRAINAGE FACILITIES

Shall the Matanuska-Susitna Borough adopt and exercise the areawide power to acquire public rights-of-way, design, and construct roads, streets, sidewalks, and related drainage facilities?

Yes _____ No _____

Section 3. Effective date. Section 2 of this ordinance shall take effect upon certification of the results of the regular Borough election of November 3, 2026 only if the ballot proposition contained in Section 3 of this ordinance is approved by a majority of the qualified voters voting on the proposition at the regular Borough election on November 3, 2026. All other sections of this ordinance take effect upon adoption by the Matanuska-Susitna Borough Assembly.

ADOPTED by the Matanuska-Susitna Borough Assembly this - day of -, 2026.

_____
EDNA DeVRIES, Borough Mayor

ATTEST:

_____
LONNIE R. McKECHNIE, CMC, Borough Clerk
(SEAL)

By:
Introduced:
Public Hearing:
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 26-14

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RECOMMENDING ADOPTION OF AREAWIDE ROAD POWERS TO ACQUIRE PUBLIC RIGHTS-OF-WAY, DESIGN, AND CONSTRUCT ROADS, STREETS, SIDEWALKS, AND RELATED DRAINAGE FACILITIES AND PLACING THE QUESTION BEFORE QUALIFIED AREAWIDE VOTERS.

WHEREAS, the Matanuska-Susitna Borough is experiencing continued growth and development, creating increasing demand for a safe, connected, and efficient transportation network that serves residents, businesses, emergency responders, and the traveling public; and

WHEREAS, a goal of the Borough-wide Comprehensive plan is to develop an integrated surface transportation network that facilitates the efficient movement of people, goods, and services throughout the Borough and region; and

WHEREAS, early right-of-way acquisition allows the Borough to identify, secure, and preserve land needed for future transportation corridors before development occurs, supporting long-term transportation planning and helping ensure that future transportation corridors remain viable; and

WHEREAS, preserving right-of-way in advance can reduce future public infrastructure costs by avoiding the need to purchase developed properties, move driveways, buildings, wells, septic systems, or

utilities, or redesign and reroute road projects after development has occurred; and

WHEREAS, areawide road powers would facilitate and strengthen the Borough's ability to provide local match to state or federally funded projects within the Borough; and

WHEREAS, providing local match and project design increases competitiveness for discretionary grants, potentially unlocking vital external funding for infrastructure needs; and

WHEREAS, areawide road powers would provide the Borough with greater flexibility to plan, fund, design, and construct transportation corridors, bridges, intersections, traffic safety improvements, active transportation facilities, and drainage improvements associated with transportation projects; and

WHEREAS, use of areawide authority for right-of-way acquisition, design, and construction would help implement adopted transportation plans, improve connectivity, enhance public safety, reduce long-term project costs, and shorten future project delivery timelines; and

WHEREAS, Road Service Areas will continue to perform their established role in maintaining the Borough's transportation network and continue developing needed improvement projects within their areas, while areawide authority would provide an additional tool to address transportation needs that cross service area boundaries or affect the Borough as a whole.

DRAFT

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission supports placing before the qualified areawide voters of the Matanuska-Susitna Borough the question of whether the Borough should adopt areawide powers to acquire public rights-of-way, design, and construct roads, streets, sidewalks, and related drainage facilities.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this 3rd day of August, 2026.

_____
Richard Allen, Chair

ATTEST

_____
Lacie Olivieri, Planning Clerk

(SEAL)

YES:

NO:

DRAFT

LAND USE CLASSIFICATION

Resolution No. 26-15

A Resolution Of The Matanuska-Susitna Borough Planning Commission Recommending Approval Of An Ordinance Classifying A Portion Of 27N05W18A001 As Reserved Use Land For The Purpose Of A Shooting Range (MSB008307).

Staff: Peter Burton, Land Management Specialist

MATANUSKA-SUSITNA BOROUGH
Community Development Department
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7869 • Fax (907) 861-8635
E-mail: lmb@matsu.gov
https://matsu.gov

MEMORANDUM

DATE: July 8, 2026

TO: Matanuska-Susitna Borough Planning Commission

FROM: Peter Burton, Land Management Specialist

SUBJECT: Planning Commission Agenda of July 20, 2026 / Resolution 26-15 MSB008307

SUBJECT:

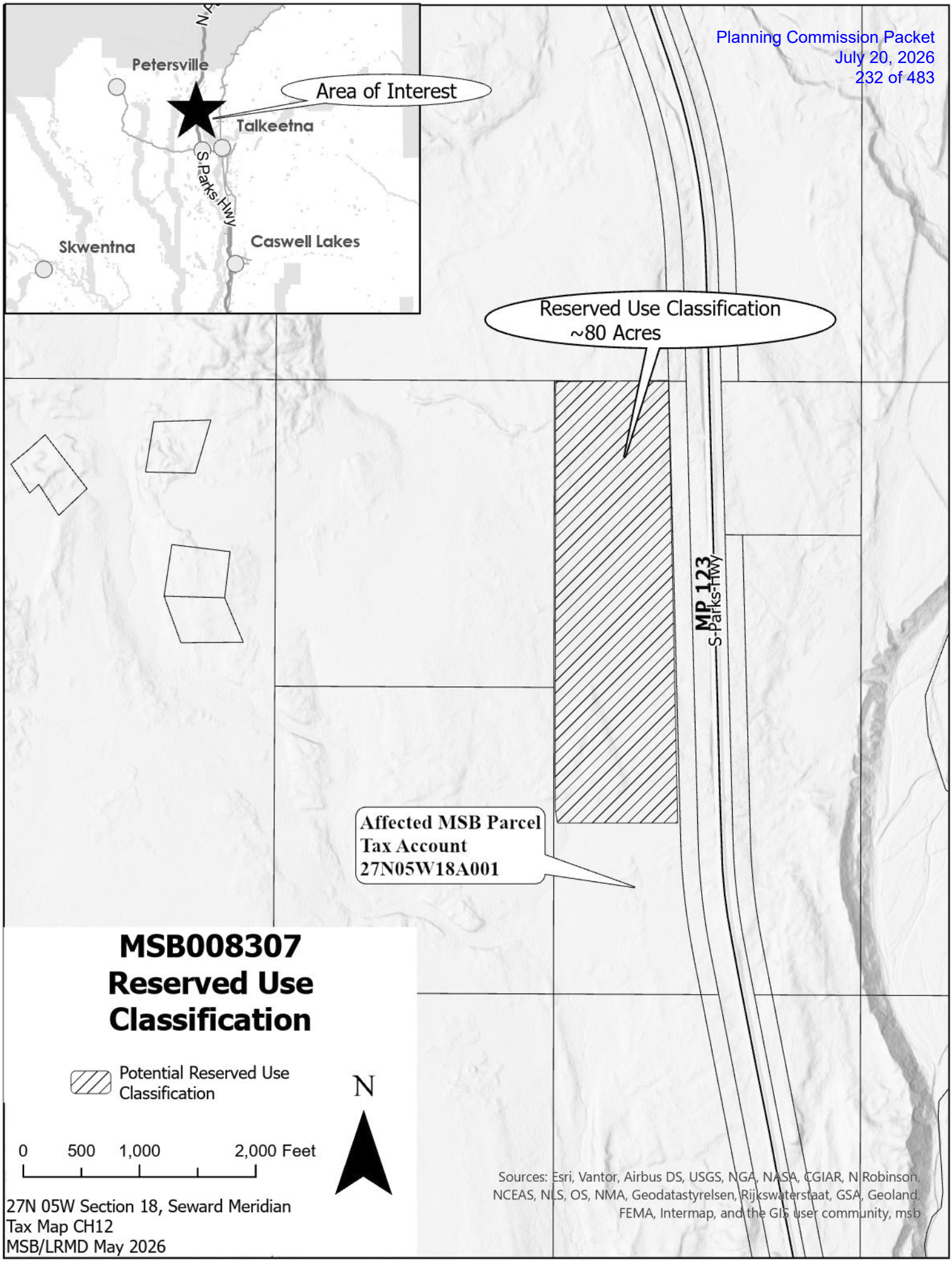
Classification of Reserved Use Land – Shooting Range for future site in the Matanuska-Susitna Borough

SUMMARY:

The accompanying resolution is at the request of Assemblymember Bernier.

The Community Development Department has identified the land in Resolution 26-15 for classification as Reserved Use for the purpose of a shooting range.

The Preliminary Best Interest Finding is attached. In addition, the resolution, the public notice and vicinity map, and the public comments received are attached.


Petersville
Area of Interest
Talkeetna
S Parks Hwy
Skwentna
Caswell Lakes
Reserved Use Classification
~80 Acres
MP 123
S Parks Hwy
Affected MSB Parcel
Tax Account
27N05W18A001
MSB008307
Reserved Use
Classification
Potential Reserved Use
Classification
N
0 500 1,000 2,000 Feet
27N 05W Section 18, Seward Meridian
Tax Map CH12
MSB/LRMD May 2026
Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, msb

PRELIMINARY BEST INTEREST FINDING
For the
Classification of Borough-owned Land

I. Summary of Proposed Action

In response to Assembly direction, the MSB Land & Resource Management Division (LRMD) has identified a Borough-owned parcel for classification as Reserved Use - Shooting Range.

The 129-acre subject parcel, being Tax ID 27N05W18A001, is located on the west side of Parks Hwy at approximately mile post 123. LRMD proposes to classify a portion of this parcel as Reserved Use Lands for future potential development as a shooting range. A vicinity map is attached to assist with the location of the parcel.

II. Property Site Factors

A. Location: The subject parcel (Tax ID 27N05W18A001) is located west side of Parks Hwy at approximately mile post 123. The subject parcel is located in the Trapper Creek Community Council.

B. Legal Descriptions: 27 North, 05 West, Section 18, Tract A ASCS 89-9, Plat 96-24

C. Land Status: Acquired by Patent 15575, Book 160, Page 139, 11/25/1996, Talkeetna Recording District.

D. Restrictions:

1. Land Classification – Currently Classified as Resource Management and Watershed

2. Land Use Plans – The property lies within the boundaries of the Chultina River NRMU

3. Title Restrictions – State of Alaska reserved all oil, gas, and mineral rights.

4. Covenants – None

5. Zoning – None

6. Easements & Other Reservations – None

E. Current Land Use: Currently limited use, used for remote property access.

F. Surrounding Land Use: Surrounding properties are public lands. Chultina Bluff Trail located on the east side of Parks Hwy meandering as close as 1500’ feet from parcel. Four private remote properties that access their property from this parcel exist approximately ½ mile to the west.

G. Existing Infrastructure: None

H. **Soils & Terrain:** The majority of the parcel is composed of Strandline-Spenard-Kroto complex.

I. **Resources:** There is no specific data on resources for this parcel.

J. **Assessment:** The 2026 assessed value of the entire 129-acre parcel is $52,100.00.

III. Review and Comments

The parcel has undergone departmental review. Such review includes historical data, topography, access, adopted Borough plans, desirability of location, land value, and highest and best use of land. Inter-department review revealed no objection to the proposed classification.

Public notice was conducted in accordance with MSB 23.05.025. Public comments were received from three individuals in response to the public notice. Public comment highlighted concerns with the ability to continue to use this parcel to access remote properties, as well as concerns with a shooting range being disruptive due to noise or lead pollution. Public comment is attached to this document.

IV. Analysis & Discussion

The parcel is within the South Subunit of Chulitna River Natural Resource Management Unit(NRMU), adopted October 2019. Under the Chulitna River NRMU, upland areas, except those designated as a water resource, are classified as Resource Management Lands. LRMD proposes to classify an approximately 80-acre portion of the subject parcel as Reserved Use Land – Shooting Range to allow for the potential development of a future shooting range that will not impact existing recreation and remote property access.

Classification of Borough lands for reserved use is consistent with the Borough's Policy to create an asset management plan. Classification of this land will inform the public that this land could be the location for a future shooting range. The land classification will require Assembly approval.

The classification for the parcel is a portion of the parent parcel. Surveying and subdividing the parcel by a plat or waiver subdivision prior to development may be desirable but is not required while the Borough owns the parent parcels.

V. Administrative Recommendation

The Community Development Department, Land & Resource Management Division respectfully requests Planning Commission recommendation for Assembly approval of the classification of a portion of Tax ID 27N05W18A001 as Reserved Use Land – Shooting Range as shown on the attached Vicinity Map.

MSB 23.05.100(A)(13) defines "Reserved Use Lands" are those lands which have been transferred assigned, or designated for present or future public use, or for use by a government or quasi-

government agency, or for future development of new town sites, or for future expansion of existing public uses.

Authority: Classify land MSB 23.05.005, 23.05.100

Peter Burton

From: Land Management
Sent: Monday, June 1, 2026 7:59 AM
To: Peter Burton
Subject: FW: MSB008307

From: John <jhenryw36@yahoo.com>
Sent: Sunday, May 31, 2026 10:57 AM
To: Land Management <lmb@matsugov.us>
Cc: Tricia Perrozzi <triciaperrozzi@hotmail.com>
Subject: MSB008307

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

Matsu,

Concerning MSB008307, my family and I are strongly opposed to this location. This has been our summer access to 4 properties just due west of that location only 3/4 of a mile, for many years. The safety concerns of an east to west range are a huge concern for my family's safety and other property owners, and the highway. A north to south, or south to north range is also concerning, seeing how there's a public parking lot just north, and the East and West recreational trail is south at mile 121. Much of that area north of east / west trail is heavily used for hunting and spotting wildlife. There are multiple gravel locations on the east side of the Parks Hwy all within that realm of area that would be a better location and are already mostly cleared if a range is even needed in that area at all. There is minimal parking in that area as it is for the amount of property owner's due west of those 2 parking spots. There are additional 30+ owners just west on the lakes that must use those minimal areas to park. The paved parking lot at just north, marker 124, is always overflowing with truck/trailers too close to the highway. Especially in winter. (again, not enough parking for property/recreational usage) If this shooting range gets green lit at this location, this will substrate less parking for property owners / recreational usage, add to public safety issues, take away parking and create a noise issues. Hard to enjoy the quiet great outdoors with a shooting range cracking off rounds. Please advise with future information / plans concerning this "proposal".

Regards,

West Property Owners 907-301-4277

Virus-free.www.avast.com

Peter Burton

From: Land Management
Sent: Monday, June 1, 2026 7:58 AM
To: Peter Burton
Subject: FW: MSB008307

From: chris larson <chris_in_ak@yahoo.com>
Sent: Sunday, May 31, 2026 12:17 AM
To: Land Management <lmb@matsugov.us>
Subject: MSB008307

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

This is concerning the proposed shooting range at MP 123.5 of the parks. There are four properties that use the access at the that location. We would like more information regarding orientation of the shooting range and what our access would look like. Any information would be appreciated.

Thanks,
Chris Larson
(907)2236728

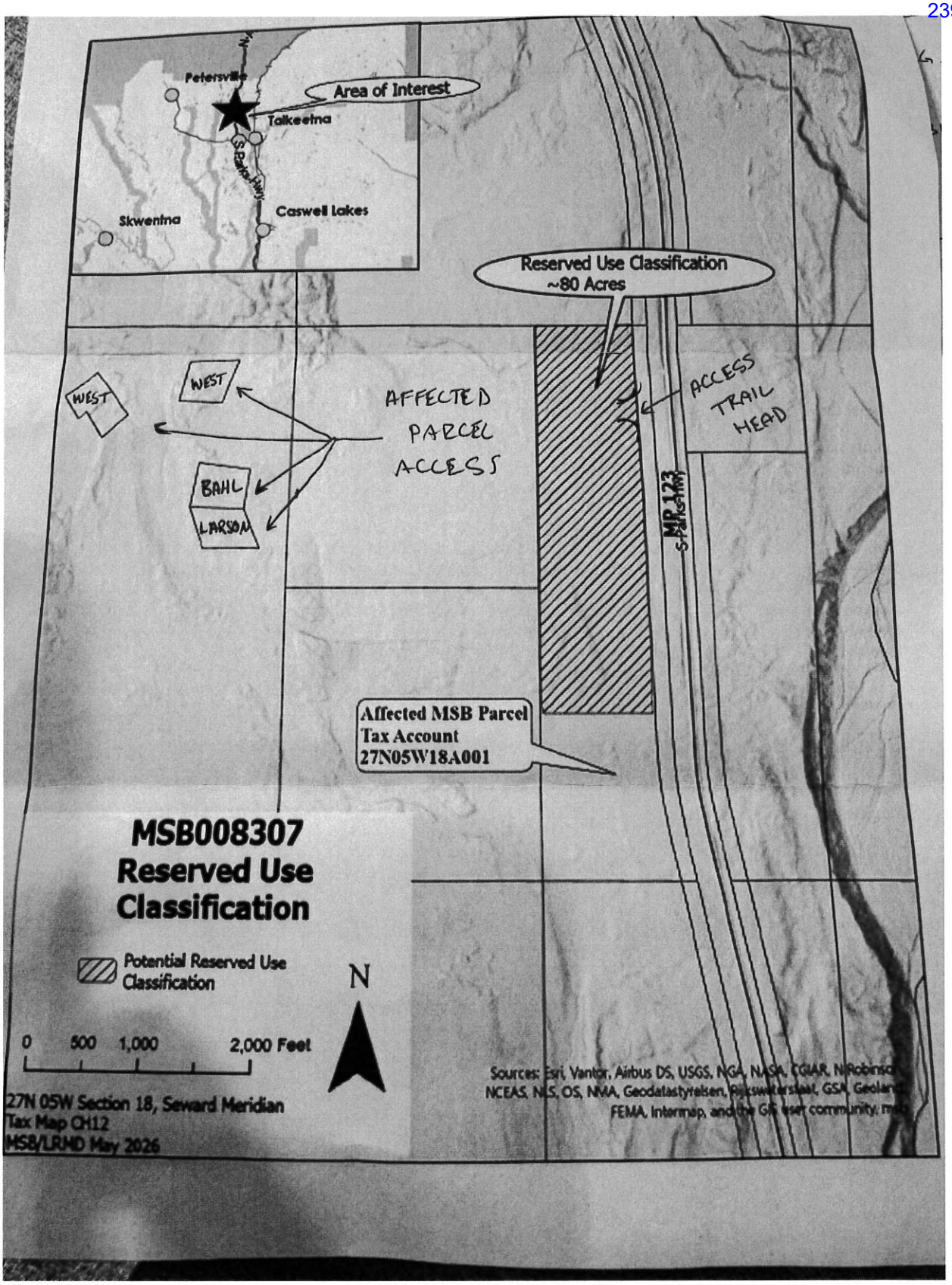
Sent from Yahoo Mail for iPhone

Peter Burton

From: Land Management
Sent: Monday, June 1, 2026 7:58 AM
To: Peter Burton
Subject: FW: MSB008307

From: chris larson <chris_in_ak@yahoo.com>
Sent: Sunday, May 31, 2026 12:22 AM
To: Land Management <lmb@matsugov.us>
Subject: Re: MSB008307

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


Petersville
Area of Interest
Talkeetna
S Parks Hwy
Skwentna
Caswell Lakes
Reserved Use Classification
~80 Acres
WEST
WEST
AFFECTED
PARCEL
ACCESS
ACCESS
TRAIL
HEAD
BAHL
LARSON
S Parks Hwy
MP 123
Affected MSB Parcel
Tax Account
27N05W18A001
MSB008307
Reserved Use
Classification
Potential Reserved Use
Classification
N
0 500 1,000 2,000 Feet
27N 05W Section 18, Seward Meridian
Tax Map CH12
MSB/LRMD May 2026
Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson
NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland
FEMA, Intermap, and the GIS user community

Peter Burton

From: Land Management
Sent: Monday, June 8, 2026 9:10 AM
To: Peter Burton
Subject: FW: MSB008307

From: chris larson <chris_in_ak@yahoo.com>
Sent: Friday, June 5, 2026 9:11 PM
To: Land Management <lmb@matsugov.us>
Subject: Re: MSB008307

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
This is concerning that I have received no response from the MSB in almost a week and the comment period is very short. I will try to make it to Palmer in person and see if that is a better way to get a response.

Sent from Yahoo Mail for iPhone

On Sunday, May 31, 2026, 12:16 AM, chris larson <chris_in_ak@yahoo.com> wrote:

> This is concerning the proposed shooting range at MP 123.5 of the parks. There are four properties that use the access at the that location. We would like more information regarding orientation of the shooting range and what our access would look like. Any information would be appreciated.
>
> Thanks,
> Chris Larson
> (907)2236728
>
> Sent from Yahoo Mail for iPhone

Peter Burton

From: Sarah Thomas
Sent: Wednesday, July 1, 2026 8:49 AM
To: Peter Burton
Subject: Fw: MSB008307
Attachments: To who it may concern.docx

~Sarah Thomas
Administrative Specialist
Recreation & Library Services

Matanuska-Susitna Borough
350 E Dahlia Ave
Palmer, AK 99645
(907) 861-7631

From: Klaus Lerch <klerch@mtaonline.net>
Sent: Monday, June 29, 2026 11:56 PM
To: Land Management <LMB@matsugov.us>
Subject: MSB008307

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

Klaus Lerch
Trapper Creek

To who it may concern,

MSB008307

I am writing about the planned proposal of the use of the Bourgh property on mile 123.5 Parks Highway.

Legal Tax ID 27N05W18A001, as a shooting Range.

This property is just a short distance north of the Town Trapper Creek and is also located at the heart of highly frequented recreational area. Lots of cabins and folks live or enjoy they spare time in a natural surrounding away from noise polluted areas.

A shooting range would totally interrupt this experience with obnoxious noise and interrupting sounds

of the gun fire.

- Uncontrol of time frames and intensity of shooting.
- Lead concentration in water ways, swamp, creeks and ponds.
- Disrupt the peace and character of this natural environment
- Disturbing of game populations and their life cycle.

There is already a existing Shooting Range south of this MatSu property. Only 23 miles away, below sunshine.

This planned shooting range is a ill setup for the Trapper Creek area.

Please consider to make a better use of this MAtSu Borough property.

Thanks for your considerations.

Sincerely

Klaus Lerch

Trapper Creek resident

By: P. Burton
Public Hearing: July 20,2026
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 26-15

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RECOMMENDING APPROVAL OF AN ORDINANCE CLASSIFYING A PORTION OF 27N05W18A001 AS RESERVED USE LAND FOR THE PURPOSE OF A SHOOTING RANGE (MSB008307).

WHEREAS, a portion of tax parcel 27N05W18A001, lying west of Parks Hwy is proposed for land classification for purpose of reserving land for a future shooting range site; and

WHEREAS, the attached Best Interest Finding provides information specific to the parcel to include proposed purpose, land classification, map, and public comments; and

WHEREAS, a Borough inter-departmental review was conducted, along with a 30-day public notice in accordance with Title 23 and Land and Resource Management Policy and Procedures adopted by the Matanuska-Susitna Borough; and

WHEREAS, through land classification, the parcel identified for specific future purpose which cannot be changed without Assembly approval.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby recommends Assembly approval of

land classification for a portion of tax parcel 27N05W18A001, lying west of Parks Hwy as "Reserved Use Lands – Shooting Range" for purpose of future shooting range facility.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this - day of -, 2026.

_____
Richard Allen, Chair

ATTEST:

_____
Lacie Olivieri, Planning Clerk

(SEAL)

YES:

NO:

LAND USE CLASSIFICATION

Resolution No. 26-16

A Resolution Of The Matanuska-Susitna Borough Planning Commission Recommending Approval Of An Ordinance Classifying A Portion Of 20N04W08001 As Reserved Use Land For The Purpose Of A Shooting Range (MSB008308).

Staff: Peter Burton, Land Management Specialist

MATANUSKA-SUSITNA BOROUGH
Community Development Department
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7869 • Fax (907) 861-8635
E-mail: lmb@matsu.gov
https://matsu.gov

MEMORANDUM

DATE: July 8, 2026

TO: Matanuska-Susitna Borough Planning Commission

FROM: Peter Burton, Land Management Specialist

SUBJECT: Planning Commission Agenda of July 20, 2026 / Resolution 26-16 MSB008308

SUBJECT:

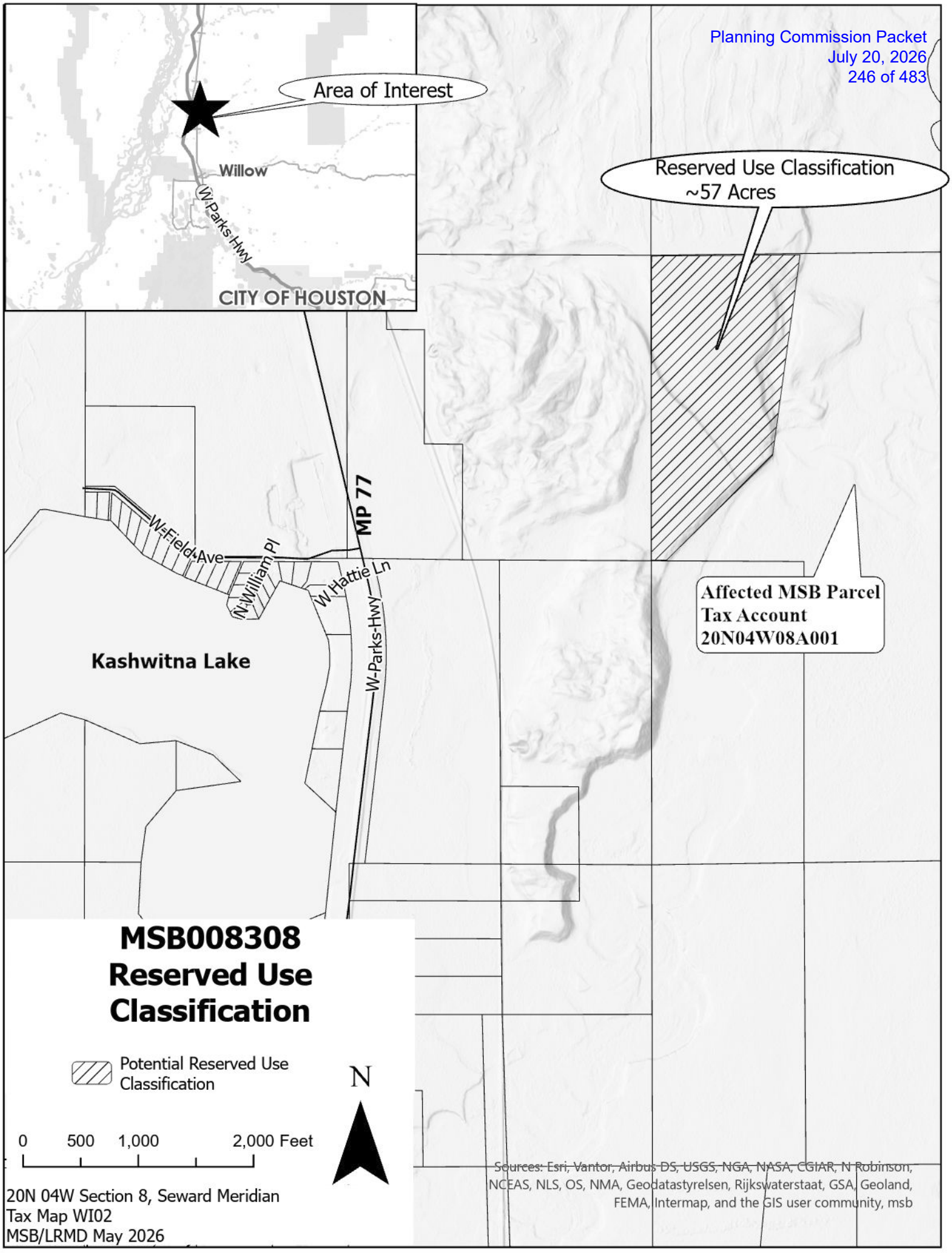
Classification of Reserved Use Land – Shooting Range for future site in the Matanuska-Susitna Borough

SUMMARY:

The accompanying resolution is at the request of Assemblymember Bernier.

The Community Development Department has identified the land in Resolution 26-16 for classification as Reserved Use for the purpose of a shooting range.

The Preliminary Best Interest Finding is attached. In addition, the resolution, the public notice and vicinity map, and the public comments received are attached.


Area of Interest
Willow
W Parks Hwy
CITY OF HOUSTON
Reserved Use Classification
~57 Acres
MP 77
W Field Ave
N William Pl
W Hattie Ln
W Parks Hwy
Kashwitna Lake
Affected MSB Parcel
Tax Account
20N04W08A001
MSB008308
Reserved Use
Classification
Potential Reserved Use
Classification
N
0 500 1,000 2,000 Feet
20N 04W Section 8, Seward Meridian
Tax Map WI02
MSB/LRMD May 2026
Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson,
NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland,
FEMA, Intermap, and the GIS user community, msb

PRELIMINARY BEST INTEREST FINDING
For the
Classification of Borough-owned Land

I. Summary of Proposed Action

In response to Assembly direction, the MSB Land & Resource Management Division (LRMD) has identified a Borough-owned parcel for classification as Reserved Use - Shooting Range.

The 564-acre subject parcel, being Tax ID 20N04W08A001, is located approximately a mile East of Parks Hwy mile post 77. LRMD proposes to classify a portion of this parcel as Reserved Use Lands for future potential development as a shooting range. A vicinity map is attached to assist with the location of the parcel.

II. Property Site Factors

A. Location: The subject parcel (Tax ID 20N04W08A001) does not have road access, but is located approximately a mile East of Parks Hwy mile post 77. The subject parcel is located in the Willow Area Community Organization, Inc. boundary.

B. Legal Descriptions: N1/2, SE ¼, and E ¼ SW 1/4 of Township 20N, Range 04W, Section 8, Seward Meridian.

C. Land Status: Acquired by Patent 5012, Book 211, Page 55, 4/22/1980, Palmer Recording District.

D. Restrictions:

1. Land Classification – Currently Classified as Resource Management, General Purpose, and Watershed

2. Land Use Plans – The property lies within the boundaries of the Willow Area Community Comprehensive Plan. The plan does not identify specific designations, restrictions, or development objectives for this parcel.

3. Title Restrictions – State of Alaska reserved all oil, gas, and mineral rights.

4. Covenants – None

5. Zoning – None

6. Easements & Other Reservations – None

E. Current Land Use: The current or near future use of the land includes Timber Harvest and the Kashwitna East Gravel Lease

F. Surrounding Land Use: Surrounding properties are primarily undeveloped public land. Adjacent Parcel to North is privately owned.

G. Existing Infrastructure: None

H. Soils & Terrain: The majority of the parcel is composed of Nancy silt loam.

I. Resources: Geotech indicates gravel resources on parcel.

J. Assessment: The 2026 assessed value of the entire 564-acre parcel is $167,700.

III. Review and Comments

The parcel has undergone departmental review. Such review includes historical data, topography, access, adopted Borough plans, desirability of location, land value, and highest and best use of land. Inter-department review revealed no objection to the proposed classification.

Public notice was conducted in accordance with MSB 23.05.025. Public comments were received from four individuals and two agency responses in response to the public notice. Two of the public comments were in support of a shooting range at this location, and two were opposed. Public comment is attached to this document.

IV. Analysis & Discussion

In 2006, the parcel was classified as Watershed by Ordinance Serial No. 06-189. In 2022 the parcel was reclassified by Ordinance Serial No. 22-074 as Resource Management, General Purpose, and Watershed for future development of a material site, future land use, and water quality protection. LRMD proposes to classify an approximately 57-acre portion of the parcel as Reserved Use Land – Shooting Range within the area that will be used as a material site.

Classification of Borough lands for reserved use is consistent with the Borough's Policy to create an asset management plan. Classification of this land will inform the public that this land could be the location for a future shooting range. The land classification will require Assembly approval.

The classification for the parcel is a portion of the parent parcel. Surveying and subdividing the parcel by a plat or waiver subdivision prior to development may be desirable but is not required while the Borough owns the parent parcels.

V. Administrative Recommendation

The Community Development Department, Land & Resource Management Division respectfully requests Planning Commission recommendation for Assembly approval of the classification of a portion of Tax ID 20N04W08A001 as Reserved Use Land – Shooting Range as shown on the attached Vicinity Map.

MSB 23.05.100(A)(13) defines "Reserved Use Lands" are those lands which have been transferred assigned, or designated for present or future public use, or for use by a government or quasi-

government agency, or for future development of new town sites, or for future expansion of existing public uses.

Authority: Classify land MSB 23.05.005, 23.05.100

Peter Burton

From: Land Management
Sent: Thursday, June 4, 2026 4:49 PM
To: Peter Burton
Subject: FW: MSB008308

-----Original Message-----
From: Richard Lyon <lyonr33@yahoo.com>
Sent: Thursday, June 4, 2026 4:42 PM
To: Land Management <lmb@matsugov.us>
Subject: MSB008308

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

A shooting range at this location is an excellent idea and I fully support moving forward.

Thanks,

Richard Lyon
907-302-1691
4727 N Baron Street Unit 3
Wasilla, AK 99654

Peter Burton

From: Sarah Thomas
Sent: Friday, June 5, 2026 12:59 PM
To: Peter Burton
Subject: Fw:

~Sarah Thomas
Administrative Specialist
Recreation & Library Services

Matanuska-Susitna Borough
350 E Dahlia Ave
Palmer, AK 99645
(907) 861-7631

From: CHARLES BOHLING <bohlingak@gmail.com>
Sent: Thursday, June 4, 2026 5:08 PM
To: Land Management <LMB@matsugov.us>
Subject:

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
In reference to MSB008308, IE; shooting range at mile 77 Parks Highway.
I am in favor of this. I would like to suggest that when the shooting bench area is built, it not be done as it was on Maud Road. That inconvenient, muddy, puddle-mess of a shooting range. This time, pave under the benches instead of making the lowest point of the range under the benches. Water flows where? To the lowest point. Also don't make people drag all their shooting gear up and down hill. Not all of us are young, and we endure over six months of ice and snow. It is down right hazardess. Get some expert range help before spending whatever funds you will have. By the way, I have emailed about the conditions of Maud Range a number of times but never received a reply.
Thanks for hearing me out.
Charles Bohling

Peter Burton

From: Land Management
Sent: Monday, June 8, 2026 9:10 AM
To: Peter Burton
Subject: FW: MSB008308

Categories: Red Category

From: Jesse Griffin <griffinjesse131@gmail.com>
Sent: Thursday, June 4, 2026 7:13 PM
To: Land Management <LMB@matsugov.us>
Subject: MSB008308

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
I just read the thing on the burrow page Saying that there has been a proposal for future shooting range. I personally would see it better as a spot for a future fire station/training grounds for the upper to sit in the area i think it would be better suited being between Willow and caswell.

To; Matanuska-Susitna Borough
Land & Resource Management Division
350 E. Dahlia Ave
Palmer, AK 99645

Re Proposed Shooting Range – MP 77 Parks Hwy
MSB008308

- My husband and I are strongly opposed to placing an unregulated shooting range at MP 77 on the Parks Highway.
- It is a dangerous and unnecessary use of those lands. There is a terrific regulated gun range less than 18 miles north; the Upper Susitna Shooters.
- An unregulated range at MP 77 would quickly turn into a garbage/trashed out area with shells, targets and household trash.
- In addition it's a dangerous scenario with folks shooting at all hours of the day/night. Perhaps inebriated. Not a good idea!!
- Like I've stated, as landowners in the MSB my husband and I strongly oppose developing a shooting range near MP 77 of the Parks Highway.

Brook Jacobs & Susan Wick

Peter Burton

From: Sarah Thomas
Sent: Monday, June 29, 2026 3:00 PM
To: Peter Burton
Subject: Fw: MSB008308 - Proposed Shooting Range
Attachments: MP 190 - 195 Diagnostic Team Study.pdf

~Sarah Thomas
Administrative Specialist
Recreation & Library Services

Matanuska-Susitna Borough
350 E Dahlia Ave
Palmer, AK 99645
(907) 861-7631

From: Kate Dueber <DueberK@akrr.com>
Sent: Monday, June 29, 2026 2:24 PM
To: Land Management <LMB@matsugov.us>
Cc: Jon Roder <RoderJ@akrr.com>; jmulhaney@colaska.com <jmulhaney@colaska.com>
Subject: MSB008308 - Proposed Shooting Range

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

ARRC has reviewed the proposed reclassification of the Mat-Su Borough-owned parcel for future development as a shooting range at MP 77 of the Parks Highway and has the following comments:

Currently, there is no public crossing of the ARRC ROW in the vicinity of this parcel from the Parks Highway. The closest public crossing to the north is Kashwitna Trail (Kichatna Ln) near Parks Hwy MP 83, and the closest to the south is Willow Fishhook Rd, near Parks Hwy MP 71.

There is a private crossing permitted to Colaska near Parks Hwy MP 77.5, which is not currently available for public use. If the Matanuska Susitna Borough is interested in this becoming a public crossing to support access to the proposed shooting range or for other public uses, then the appropriate permittee for the crossing is the Matanuska Susitna Borough. This is consistent with a Diagnostic Team Study conducted in 1996 that recommended a public crossing at this location permitted to MSB (attached). Depending on the expected use, the Diagnostic Team Study may need to be updated to account for the change in traffic expected.

ARRC appreciates the opportunity to comment on this proposed reclassification. If you have any questions, please don't hesitate to contact me at this email address.

Thanks,

LEGAL COPY

DIAGNOSTIC TEAM REPORT
Vicinity of ARRC Milepost 193

The Diagnostic Team assembled at the private road crossing at ARRC milepost 193.54 on August 15, 1996. Members of the team included the following:

Mr. Ron Martindale, State of Alaska DOT/PF
Mr. Jim Swing, Matanuska-Susitna Borough
Mr. Roy Thomas, Alaska Railroad Corporation

Also present at the meeting were:
Mr. and Mrs. Ted Berry, private land owners
Mr. Richard Butcher, Alaska Pacific Powder Co., crossing permittee milepost 193.54
Mr. Dan Lommel, Alaska Railroad Corporation

Unable to attend:
Mr. Travis Chapman, private land owner

Background:

An at-grade road crossing of the Alaska Railroad was requested by Mr. Travis Chapman, a private land owner, in June of 1996 to be located on the east-west 1/16th Section Line in the SW 1/4 of Section 6, T20N, R4W, Seward Meridian. Mr. Chapman would access this road crossing from the Parks Highway utilizing a 50-ft road and utility easement he established previously while subdividing a larger land holding. Mr. Chapman originally approached the Alaska Railroad in September of 1979 regarding a road crossing at this same location. At that time, the Railroad had no objection to construction of the crossing, and in September of 1980 advised Mr. Chapman of the anticipated cost. The road crossing was never installed.

In accordance with the Alaska Policy on Railroad/Highway Crossings, revised September 1988, a Diagnostic Team was assembled to perform an evaluation of the proposed crossing area. The evaluation process focuses on planning in an effort to minimize the need for new at-grade road crossings. All new crossings require Diagnostic Team approval. The on-site evaluation considered land ownership, proximity to existing crossings, proximity to the Parks Highway, track alignment and grade, siding extension and track maintenance concerns, geographic restrictions and adjacent landowner concerns.

Discussion/Findings:

The Diagnostic Team made a hi-rail inspection both north and south from the existing road crossing at ARRC milepost 193.54. The inspection area was geographically bounded on the south end by the Little Willow Creek drainage. The ARRC bridge over Little Willow Creek is at milepost 190.50. The north end inspection was bounded by a large wetland area both east and west of the tracks beginning at ARRC milepost 194.4.

Recommendations:

1) Allow construction of a new public road crossing along the south Section 6 boundary line.

This is a desirable location with respect to the Parks Highway and Railroad alignments. The track is near the highway, tangent with mild grade, and without obstructing geographic features. The Borough possesses a clear section line easement. The location is suitable for the anticipated future development and access requirements for State, Borough, and private lands east of the railroad tracks in this area. Crossing site triangles for an assumed vehicle speed of 30 mph extend beyond the Railroad's Right-of-Way onto adjacent private land. If site triangle easements cannot be obtained, the crossing must be protected utilizing stop sign traffic control. The Borough has expressed concerns regarding the initial cost of constructing the crossing. This cost may need to be borne by the party or parties requesting or using the crossing.

2) Eventual closing of the existing road crossing at milepost 193.54.

The existing road crossing at milepost 193.54 is used by Alaska Pacific Powder Co. in their rail to storage to distribution operation. Their property will be accessible from the proposed new crossing along the south Section 6 line. In recognition of the nature of their operation, the crossing may remain open until deemed necessary to close by the ARRC, or until any of the following:

Cease or change the nature of their operation.
Subdivide or sell their land holding.

3) Allow no additional road crossings in the area considered by the Diagnostic Team north of the Sections 7-18 line. It is apparent that crossing issues will inevitably surface in the vicinity of Little Willow Creek, ARRC milepost 190.5, where notable development and land subdividing has occurred without consideration to legal land access. A new crossing along the south Section 6 line will have only minimal immediate effect on improving the Railroad trespass problem at Little Willow Creek but will serve to stop that situation from spreading northward and may play a role in the eventual solution to gaining land access in that area.

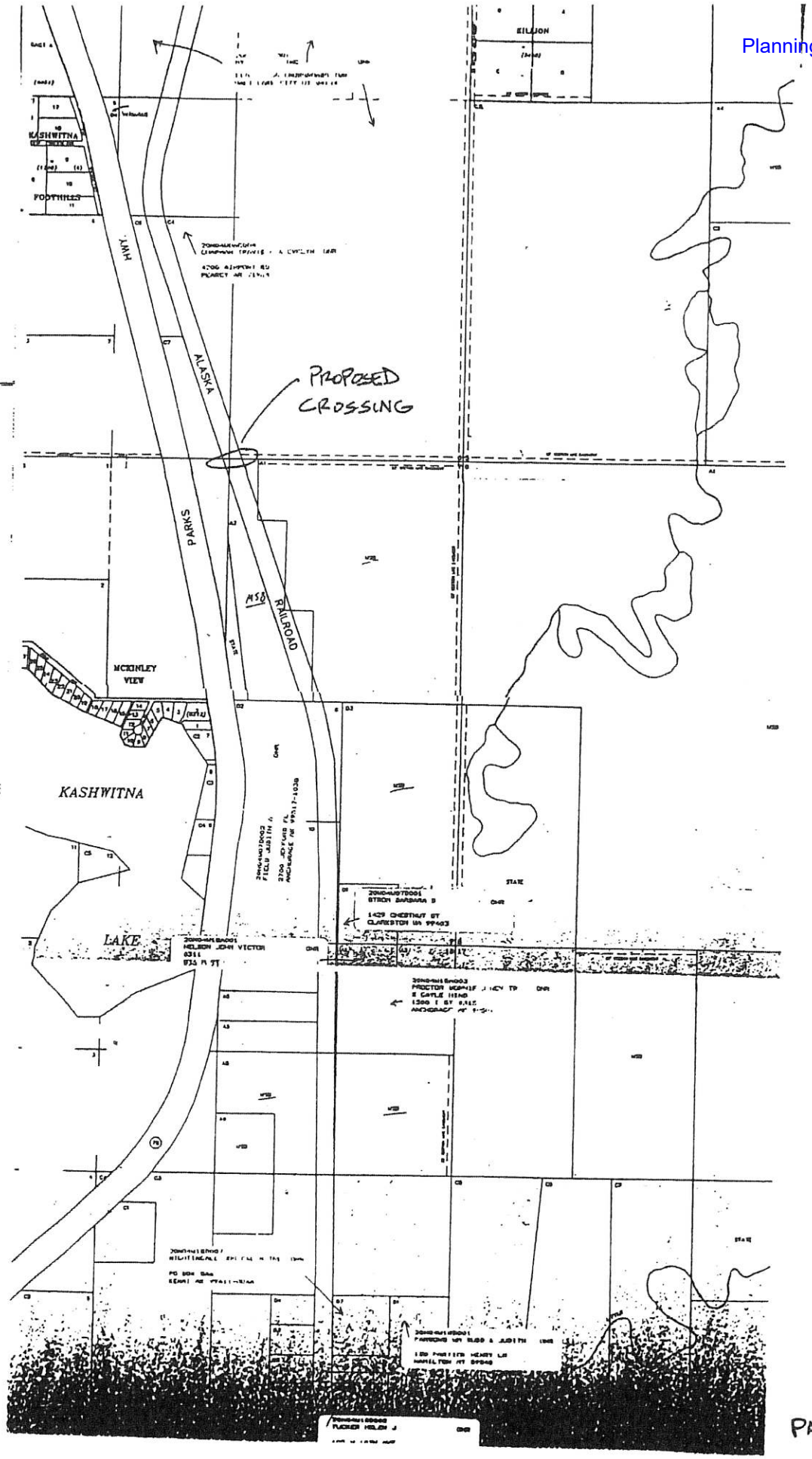
Written by: Roy Thomas, Alaska Railroad Corporation

APPROVED:

Thomas E. Brooks Chief Engineer
for Alaska Railroad Corporation

for Matanuska-Susitna Borough

for Alaska Department of Transportation and Public Facilities


KILLION
KASHWITNA
FOOTHILLS
HWY.
ALASKA
PARKS
RAILROAD
PROPOSED
CROSSING
MCKINLEY
VIEW
KASHWITNA
LAKE
STATE

Peter Burton

From: Sarah Thomas
Sent: Monday, June 29, 2026 1:50 PM
To: Peter Burton
Subject: Fw: MSB008308 comments
Attachments: MSB notice of future shooting range.pdf

~Sarah Thomas
Administrative Specialist
Recreation & Library Services

Matanuska-Susitna Borough
350 E Dahlia Ave
Palmer, AK 99645
(907) 861-7631

From: Cabrera, Corina C (DNR) <corina.cabrera@alaska.gov>
Sent: Monday, June 29, 2026 1:33 PM
To: Land Management <LMB@matsugov.us>
Subject: MSB008308 comments

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

The Department of Natural Resources, Southcentral Regional Land Office (SCRO) would like to provide the following comment(s) for this project:

Permitting Section:

Easements Section:
An authorization from this office may be required. If applicable, please submit your request to dnr.scro.alaska.gov

Leasing Section:

Additionally, SCRO thanks you for the opportunity to review this proposal and to let us know if you have any follow-up questions.

Cheers,

Corina Cabrera
Natural Resource Technician II
Southcentral Regional Land Office
Division of Mining, Land, and Water
Alaska Department of Natural Resources
550 W 7th Ave. Ste 900C | Anchorage, AK 99501

By: P. Burton
Public Hearing: July 20,2026
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 26-16

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION RECOMMENDING APPROVAL OF AN ORDINANCE CLASSIFYING A PORTION OF 20N04W08A001 AS RESERVED USE LAND FOR THE PURPOSE OF A SHOOTING RANGE (MSB008308).

WHEREAS, a portion of tax parcel 20N04W08A001, is proposed for land classification for purpose of reserving land for a future shooting range site; and

WHEREAS, the attached Best Interest Finding provides information specific to the parcel to include proposed purpose, land classification, map, and public comments; and

WHEREAS, a Borough inter-departmental review was conducted, along with a 30-day public notice in accordance with Title 23 and Land and Resource Management Policy and Procedures adopted by the Matanuska-Susitna Borough; and

WHEREAS, through land classification, the parcel identified for specific future purpose which cannot be changed without Assembly approval.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby recommends Assembly approval of

land classification for a portion of tax parcel 20N04W08A001, as "Reserved Use Lands – Shooting Range" for purpose of future shooting range facility.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this - day of -, 2026.

_____
Richard Allen, Chair

ATTEST:

_____
Lacie Olivieri, Planning Clerk

(SEAL)

YES:

NO:

QUASI-JUDICIAL
PUBLIC HEARING

Resolution No. 26-10

A Conditional Use Permit In Accordance With MSB 17.70 - Regulation Of Alcoholic Beverage Uses To Expand Operations For A Pre-Existing Alcoholic Beverage Dispensary (Bar), Located At 10204 S. Knik Goose Bay Road (Tax ID# 7186000L001), Within Township 16 North, Range 03 West, Section 24, Seward Meridian.

Applicant: Knik Landing

Property Owner: Broken Boat LLC

Staff: Wade Long, Development Services Manager

Staff Report

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Development Services Division
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822
E-mail: permitcenter@matsugov.us
www.matsu.gov

DEVELOPMENT SERVICES DIVISION STAFF REPORT

Date:	June 8, 2026
File Number:	ALC-2026-010282
Applicant:	Douglas Massie on behalf of Knik Landing
Property Owner:	BROKEN BOAT LLC
Request:	Planning Commission Resolution 26-10 Application to expand operations for Knik Bar & Liquor as it pertains to a pre-existing Alcoholic Beverage Dispensary (bar) alcohol license in accordance with MSB 17.70 – Regulation of Alcoholic Beverage Uses
Location:	10204 S Knik Goose Bay Rd, TAX ID 7186000L001; within Township 16 North, Range 3 West, Section 24, Seward Meridian.
Size of Property:	2.76 acres
Reviewed By:	Alex Strawn, Planning and Land Use Director
Staff:	Wade Long, Development Services Manager
Staff Recommendation:	Approval with conditions

EXECUTIVE SUMMARY

A conditional use permit application has been submitted for the expansion of an existing legal non-conforming status issued in 1985 (#177019850008). The applicant proposes to add a 5000 square feet event building and a 2000 square foot outdoor deck on the southern portion of the property on the corner of mile 13.4 of Knik Goose Bay Road and Northshore Drive. The proposed event building and outdoor deck are intended to function as an event space in association with the existing Knik Bar & Liquor operation, and the applicant seeks to include these areas within the scope of the authorized use and associated licensed premises for the Beverage Dispensary (bar) alcohol license. A conditional use permit is required for the proposed expansion in accordance with MSB 17.70, Regulation of Alcoholic Beverage Uses.

History

Knik Bar & Liquor has operated under a Borough issued legal non-conforming status since 1985, when the borough approved LCUP/GFR 1985-0008 for the beverage dispensary license and related operations.

Between 2011 and 2016, borough aerial imagery indicated an expansion of an enclosed area associated with the operation. Premises information submitted for alcohol licensing review later began depicting an additional area that was not clearly documented in the original 1985 approval materials.

In 2016, premises information submitted for alcohol licensing review included an expanded service area identified as a beer garden. On May 13, 2016, the borough protested the beverage dispensary license and notified the owner that a conditional use permit under MSB 17.70 was required to expand the beverage dispensary service area.

In 2023, the borough received a request associated with a restaurant designation that included a premises diagram reflecting an expanded outdoor service area. Borough staff responded that the borough could not support the request because the expanded service area had not been approved through the conditional use permit process; however, no formal protest was issued at that time.

In 2025, an alcohol licensing submission again depicted the expanded outdoor service area. The borough protested the beverage dispensary license citing that the expansion had not obtained the required borough approval under MSB 17.70 and noted an unpaid license review fee.

In 2026, the applicant submitted a conditional use permit application requesting a modification to the existing legal non-conforming status as it pertains to the beverage dispensary license transfer, removing the beer garden, and adding the event building and outdoor deck. The Borough Assembly adopted Resolution 26-018 to waive the conditional use permit application fee for this request due to prior planning department oversight related to enforcement of the expanded outdoor service area.

LAND USE

Existing Land Use:
The applicant currently holds an alcohol license issued by the State of Alaska for a Beverage Dispensary (bar) and operates Knik Bar & Liquor at the subject property. In addition to operating as a bar, the existing facility operates a grill serving patrons on-site. The business is located at 10204 S Knik Goose Bay Rd on Tax ID 7186000L001. Parking for patrons and employees is provided on-site and has historically supported the operation.

Surrounding Land Uses:
Knik Bar & Liquor is located at the corner of Knik Goose Bay Road and Northshore Drive in the Knik Lake area. The surrounding land uses consists primarily of rural residential and recreation related uses, including seasonal cabins and undeveloped parcels. Knik Goose Bay Road provides the primary regional access to the area, and Northshore Drive provides local access to the lakefront properties. Nearby land use patterns are generally characterized by dispersed development, lake oriented recreation activity, and residential.

Special Land Use District:
The subject property is located within the Knik Sled Dog and Recreation Special Land Use District. The district does not prohibit a beverage dispensary use, and borough-wide conditional uses remain eligible for consideration within the district when processed under the applicable Title 17 standards.

Lake Management Plan:
The Knik Lake Management Plan was reviewed because the subject property is adjacent to Knik Lake. The plan addresses the regulation of motorized uses on the lake. The proposed development does not include motorized use of the lake. Therefore, the plan does not directly apply to the proposed use.

COMPREHENSIVE PLANS

This property is located within the Knik-Fairview Comprehensive Plan (1997) planning area. The plan does not contain site specific policies for beverage dispensary license operations at Knik Lake; however, it provides broad land use goals and recommendations intended to guide growth, maintain rural character, and reduce land use conflicts. Some of the goals and recommendations of the plan state:

Land Use and Community Development Goals:

- Maintain the existing low density rural residential settlement pattern for most of the planning area.
- Maintain the community values of privacy, recreational opportunities, and a clean environment.
- Encourage future commercial development to occur along developed transportation corridors, while avoiding commercial strip development.
- Encourage commercial uses to cluster in existing commercialized and high traffic areas, and allow limited commercial development outside those areas when compatible with surrounding uses.
- Provide buffering between non-compatible uses and activities in order to minimize land use conflicts.

The Matanuska-Susitna Borough Comprehensive Development Plan (2005 update) also pertains to this property. The plan does not provide site specific standards for beverage dispensary license operations at Knik Lake; however, it includes general goals and policies that support compatible development and protection of public health, safety, and welfare. Some of the goals and policies of the plan state:

- Institute appropriate land use guidelines and regulations that reduce land use conflicts and protect residents and businesses.
- Protect and enhance the public safety, health, and welfare of Borough residents.
- Provide for consistent, compatible, effective, and efficient development within the Borough.
- Protect residential neighborhoods and associated property values.

- Develop and implement regulations that protect residential development by separating incompatible uses, while encouraging uses that support such residential uses including office, commercial, and other mixed-use developments that are shown to have positive cumulative impacts in the neighborhood.

REVIEW OF APPLICABLE CRITERIA AND FINDINGS

MSB 17.03 - Public Notification

Notices were mailed to all property owners within 600 feet of the subject property and to the Knik-Fairview Community Council. A total of 18 notices were mailed. 2 written comments regarding the conditional use permit request have been received to date. The public hearing notice was published in the May 15, 2026, edition of the Frontiersman. The application material was also posted on the Borough's website on May 15, 2026. The public notice, application material, and a request for comments was mailed to the Knik-Fairview Community Council on May 15, 2026. Two written comment letters were received prior to the comment deadline of May 29, 2026, and are included in the Planning Commission packet. The comments received expressed concerns regarding potential noise impacts, traffic increases, parking adequacy, light/glare, and effects on Knik Lake and surrounding residential properties. No response has been received from the Knik-Fairview Community Council.

Section 17.20.070(A) Development Standards and Requirements

Buffering for Commercial and Industrial Uses: Adequate buffering and separation shall be required between new large-scale commercial and heavy industrial development and all other land uses.

Adequate buffering shall be provided through retention of native vegetation, privacy fencing, vegetative buffers, or earthen berms. Privacy fencing shall not exceed eight feet in height. Chain link fencing with privacy slats is permitted.

A 20-foot-wide vegetative buffer shall be provided along the perimeter of the large-scale commercial and heavy industrial property along the lot lines of the property. The vegetative buffer area shall consist of primarily native vegetation, existing or proposed, and shall visually screen the area from public view. Fifty percent of the trees shall be evergreen. One tree shall be placed on center every ten feet. At planting, trees should be at least three feet in height.

Berms shall not exceed six feet in height along local streets and eight feet along collector and arterial streets or railroad rights-of-way. Berms shall not impede the natural drainage pattern or cause snow drifting in roadways. The maximum slope shall be 3:1. The crest area shall be a minimum of four feet in width. The slopes shall be protected to prevent erosion by trees, shrubs and groundcover. The toe of a berm over three feet in height shall be set back at least five feet from any property line, unless when abutting public right-of-way.

No part of the buffering shall encroach into a public right-of-way or easement.

Findings of Fact:

1. Table 1 establishes buffering requirements for new large-scale commercial and heavy industrial development.

2. "Large-scale commercial" is defined in MSB 17.125 as a commercial building with a total gross building area equal to or exceeding 25,000 square feet.

3. The proposed development consists of a 3,600 square foot restaurant, 5,000 square foot event building, and a 2,000 square foot outdoor deck.

4. The total square footage is approximately 10,600 square feet, which does not meet the definition of large-scale commercial development.

Conclusions of Law: Therefore, the buffering requirements of MSB 17.20.070(A), Table 1, are not applicable to the proposed development.

Lighting: Glare and illumination associated with exterior lighting shall be contained on the subject property and not impact adjacent properties, lands and the night sky. Exterior lighting shall be located and shielded to direct light towards the ground. Glare shall be shielded from vehicular traffic and not impair traffic safety. Street illumination and other fixtures mounted higher than 20 feet shall have downward directional shielding.

The director may allow directed exterior sources of illumination when a determination is made that personal security is an issue, special security needs exist, emergency services needs exist, or where public safety is compromised. The director may consider specific site characteristics, level of vehicle and pedestrian conflict, and special security needs in making a determination.

Findings of Fact:

1. Table 1 requires that glare and illumination associated with exterior lighting are required to be contained on the subject property and not impact adjacent properties, surrounding lands, or the night sky.

2. According to the application materials, exterior lighting associated with the proposed development will be downward-directed and shielded, which is intended to direct light toward the ground and minimize light spillover onto adjacent properties.

3. This design is consistent with the requirement to contain illumination on-site and reduce impacts to surrounding uses.

4. Glare from exterior lighting is required to be shielded from vehicular traffic and shall not impair traffic safety.

5. No information has been provided indicating that any lighting fixtures will exceed 20 feet in height.

Conclusions of Law: Based on the application materials and with conditions, the proposed exterior lighting is consistent with the requirements of MSB 17.20.070(A), Table 1.

Lot Size: Meets MSB Title 43. Minimum lot size of 40,000 square feet. Can decrease lot size below 40,000 square feet with community water or sewer.

Findings of Fact:

1. Table 1 requires a minimum lot size of 40,000 square feet, consistent with MSB Title 43, unless reduced through the provision of community water or sewer.
2. The subject property is approximately 2.76 acres in size, which exceeds the minimum 40,000 square foot requirement.

Conclusions of Law: The proposed development complies with the minimum lot size requirements of MSB 17.20.070(A), Table 1.

Setbacks: A setback of 30 feet shall be established and maintained between new large-scale commercial and heavy industrial structures and the property line of the nearest existing land uses.

Findings of Fact:

1. Table 1 requires a minimum setback of 30 feet between new large-scale commercial or heavy industrial structures and the property line of the nearest existing land uses.

2. "Large-scale commercial" development is defined in MSB 17.125 as a commercial building with a total gross building area equal to or exceeding 25,000 square feet.

3. The proposed development consists of a 3,600 square foot restaurant, 5,000 square foot event building, and a 2,000 square foot outdoor deck.

4. The total square footage is approximately 10,600 square feet, which does not meet the definition of large-scale commercial development.

Conclusions of Law: Therefore, the setback requirements of MSB 17.20.070(A), Table 1, are not applicable to the proposed development.

Section 17. 70.100 Standards

(A) A conditional use may be approved only if it meets the general requirements of this section in addition to any other standards required by this chapter:

(1) Findings. In granting a conditional use permit the planning commission must make the following findings:

(a) the conditional use is compatible with and will preserve or not materially detract from the value, character and integrity of the surrounding area.

Findings of Fact:

1. The beverage dispensary use at Knik Bar & Liquor operates under an existing legal non-conforming status issued in 1985 (LCUP/GFR #177019850008).

2. The subject property is located at the southwest corner of Northshore Drive and Knik Goose Bay Road intersection in the Knik Lake area.

3. Northshore Drive is a borough road and separates the subject property from a vacant parcel located directly to the north.

4. A property with a residential use is located northwest of the subject parcel north of Northshore Drive.

5. A vacant parcel is located directly west of the bar property, with residential properties located further west beyond that vacant parcel.

6. Knik Lake is located directly south of the subject property, and residential properties are located across the lake to the south.

7. Knik Goose Bay Road is a state road located directly east of the subject property.

8. Across Knik Goose Bay Road to the east is a tidal zone and a mix of privately owned vacant parcels, including parcels owned by individuals and a company, adjacent to the Knik Arm of Cook Inlet.

9. The closest residence is located just over 300 feet to the northwest of the subject property.

10. According to the application materials, the proposed development includes a 5,000 square foot event building and a 2,000 square foot outdoor deck located on the southern portion of the property.

11. According to the application materials, the proposed event building is proposed to operate seven days per week from 8:00 a.m. to 12:00 a.m.

12. According to the application materials, the existing bar is proposed to operate seven days per week from 12:00 p.m. to 12:00 a.m.

13. According to the application materials, the outdoor deck use aligns with the event building hours.

14. According to the application materials, amplified sound is proposed indoors only.

15. According to the site plan, 72 total parking spaces are provided on-site.

16. Based on industry-standard guidance from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, restaurant uses typically generate demand of approximately 8–12 spaces per 1,000 square feet, while assembly/venue uses generate approximately 5–10 spaces per 1,000 square feet. Applying these ranges, the combined parking demand is estimated to fall within a range that is generally consistent with the 72 spaces provided. The proposed parking supply is therefore considered adequate based on ITE industry standards.

17. The site plan indicates four ADA-accessible parking spaces, including van-accessible spaces. For a parking lot of 51–75 spaces, three accessible spaces are required; therefore, the proposal exceeds ADA requirements.

18. According to the site plan, a metal chain link fence with wood slats is proposed to extend from the northwest corner of the existing building to the lake to provide visual screening, security, and privacy.

19. The owner and/or operator must comply with the maximum permissible sound level limits per the requirements of MSB 8.52, Noise, Amplified Sound, and Vibration.

20. According to the site plan, the proposed fencing is intended to connect between the existing building and the proposed event building and then extend from the proposed event building to the lake.

21. According to the application materials, exterior lighting will be downward facing around the buildings to reduce glare.

22. A high volume driveway permit is required for access onto the borough road Northshore Drive.

Conclusions of Law: Based on the above findings, this conditional use permit with conditions is compatible with and will preserve or not materially detract from the value, character and integrity of the surrounding area (MSB 17.70.l00(A)(l)(a)).

(b) That granting the conditional use permit will not be harmful to the public health, safety, convenience and welfare.

Findings of Fact:

1. According to the application material, the applicant proposes to add a 5,000 square foot event building and a 2,000 square foot outdoor deck in association with the existing beverage dispensary operation.

2. According to the application material, the event building is proposed to operate seven days a week from 8:00 a.m. to 12:00 a.m.

3. According to the application material, the existing bar is proposed to operate seven days a week from 12:00 p.m. to 12:00 a.m.

4. According to the application material, the outdoor deck use aligns with the event building hours.

5. According to the application material, the event space is proposed to accommodate up to 200 guests for seated events and up to 300 persons for standing events.

6. The State Fire Marshal–accepted public safety plan establishes occupant load limits, emergency access, and life safety measures for indoor and outdoor event operations, ensuring compliance with applicable fire and life safety codes.

7. Implementation of the approved safety plan reduces potential risks associated with large gatherings, including emergency response, crowd management, and egress, thereby protecting public health and safety.

8. Adherence to the Fire Marshal–approved plan is required for operation of the event venue and outdoor deck, providing ongoing oversight of life safety conditions during events.

9. According to the application material, amplified sound is proposed indoors only.

10. The proposed use is accessed from Northshore Drive, a borough road, and Knik Goose Bay Road, a state road.

11. A high volume driveway permit is required for access onto the borough road Northshore Drive.

12. According to the site plan, 72 total parking spaces are provided on-site.

13. Based on industry-standard guidance from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, restaurant uses typically generate demand of approximately 8–12 spaces per 1,000 square feet, while assembly/venue uses generate approximately 5–10 spaces per 1,000 square feet. Applying these ranges, the combined parking demand is estimated to fall within a range that is generally consistent with the 72 spaces provided. The proposed parking supply is therefore considered adequate based on ITE industry standards.

14. The site plan indicates four ADA-accessible parking spaces, including van-accessible spaces. For a parking lot of 51–75 spaces, three accessible spaces are required; therefore, the proposal exceeds ADA requirements.

15. The nearest school is Joe Redington Sr./Jr. High School, which is approximately 3.6 miles from the site. Dena'ina Elementary School is approximately 3.1 miles from the site. State regulations preclude beverage dispensary licenses within 200 feet of a school.

16. Persons under the age of 21 are prohibited from being served alcoholic beverages.

17. The operator of the proposed use is required to operate in accordance with Alaska laws and statutes, which include mandatory alcohol server education.

18. Alaska Statute 04.16.030 specifically prohibits the sale of alcoholic beverages to drunken persons.

19. The owner and/or operator must comply with the maximum permissible sound level limits per the requirements of MSB 8.52, Noise, Amplified Sound, and Vibration.

20. According to the application material, exterior lighting will be downward facing around the buildings to reduce glare.

21. According to the site plan, a metal chain link fence with wood slats is proposed between the existing building and the proposed event building and extending toward the lake to reduce visual effects and provide security and privacy.

Conclusions of Law: Based on the above findings, this conditional use permit with conditions will not be harmful to the public health, safety, convenience, and welfare (MSB 17.70.100(A)(l)(b)).

(c) That sufficient setbacks, lot area, buffers or other safeguards are being provided to meet the conditions listed in subsections (A) and (B) of this section.

Findings of Fact:

1. The subject property is approximately 2.76 acres in size.

2. According to the application materials, the applicant proposes to add a 5,000 square foot event building and a 2,000 square foot outdoor deck on the southern portion of the property near Knik Lake.

3. MSB 17.55.020 requires that no structure or footing be located closer than 75 feet from the ordinary high water mark of a body of water, unless otherwise authorized through an approved land use permit.

4. The subject property is subject to an approved Mandatory Land Use Permit (MLUP-2025-010065), which authorizes a non-habitable event venue structure approximately 40 feet from the ordinary high water mark and a covered gazebo approximately 5 feet from the ordinary high water mark of Knik Lake.

5. For purposes of minimum setback distances, fences are not considered structures under MSB 17.55.004.

6. According to the site plan, a metal chain link fence with wood slats is proposed between the existing building and the proposed event building and extending toward the lake to reduce visual effects and provide security and privacy.

7. The closest residence is located just over 300 feet to the northwest.

8. According to the site plan, 72 total parking spaces are provided on-site.

9. Based on industry-standard guidance from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, restaurant uses typically generate demand of approximately 8–12 spaces per 1,000 square feet, while assembly/venue uses generate approximately 5–10 spaces per 1,000 square feet. Applying these ranges, the combined parking demand is estimated to fall within a range that is generally consistent with the 72 spaces provided. The proposed parking supply is therefore considered adequate based on ITE industry standards.

10. The site plan indicates four ADA-accessible parking spaces, including van-accessible spaces. For a parking lot of 51–75 spaces, three accessible spaces are required; therefore, the proposal exceeds ADA requirements.

11. The operation is required to comply with the maximum permissible sound level limits of MSB 8.52 – Noise, Amplified Sound, and Vibration.

12. A high volume driveway permit is required for access onto the borough road Northshore Drive.

Conclusions of Law: Based on the above findings, sufficient setbacks, lot area, buffers or other safeguards are being provided (MSB 17.70.l00(A)(l)(c)).

(2) General Standards. In considering whether the general standards are satisfied, the planning commission may weight factors contributing or detracting from the development of a safe, convenient and attractive community, including, but not limited to:

(a) Any potential negative effect upon other properties in the area due to such factors as dust, noise, obtrusive advertising and glare.

Findings of Fact:

1. The subject property is approximately 2.76 acres in size.

2. According to the application materials, the proposed development includes a 5,000 square foot event building and a 2,000 square foot outdoor deck associated with the existing beverage dispensary operation.

3. According to the application materials, the event building is proposed to operate seven days per week from 8:00 a.m. to 12:00 a.m.

4. According to the application materials, the existing bar is proposed to operate seven days per week from 12:00 p.m. to 12:00 a.m.

5. According to the application materials, the outdoor deck use aligns with the event building hours.

6. According to the application materials, amplified sound is proposed indoors only.

7. The closest residence is located just over 300 feet to the northwest of the subject property.

8. The surrounding area consists of a mix of residential and vacant parcels in proximity to the subject property.

9. According to the application materials, exterior lighting will be downward facing around the buildings to reduce glare onto adjacent properties.

10. According to the site plan, a metal chain link fence with wood slats is proposed between the existing building and the proposed event building and extending toward the lake to provide visual screening, security, and privacy.

11. Knik Lake is located directly south of the subject property. Open water areas may transmit sound and are not considered a physical noise buffer.

12. The operation is required to comply with the maximum permissible sound level limits of MSB 8.52 – Noise, Amplified Sound, and Vibration.

13. According to the application materials, signage will consist of a wood timber frame sign reading "Knik Landing," with lighting that is dim and directed downward to minimize visual impact.

Conclusions of Law: Based on the above findings and with conditions, there will not be any negative effects on the properties in the area due to such factors as dust, noise, obtrusive advertising, and glare (MSB 17.70.100(A)(2)(a))

(b) Any potential negative effect on the safe, efficient flow of traffic on any highway arterial, collector or street from which access to and from the establishment is obtained.

Findings of Fact:

1. The subject property will be accessed primarily from Knik Goose Bay Road, a roadway under the jurisdiction of the State of Alaska.

2. A driveway permit for access onto Knik Goose Bay Road has been issued by the State of Alaska.

3. A high volume driveway permit is required for access onto the borough road Northshore Drive.

4. Any future use of the Northshore Drive access will require compliance with MSB 11.12, including permitting and potential upgrades to meet applicable driveway standards based on traffic generation.

5. According to the application materials, peak traffic is anticipated between 4:00 p.m. and 8:00 p.m., with approximately 92 vehicle trips (entering and exiting) during the peak hour.

6. The projected traffic generation exceeds the threshold for a low volume driveway under MSB 11.12 and would require higher design standards if access to a borough right-of-way is pursued.

7. Based on industry-standard guidance from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, restaurant uses typically generate demand of approximately 8–12 spaces per 1,000 square feet, while assembly/venue uses generate approximately 5–10 spaces per 1,000 square feet. Applying these ranges, the combined parking demand is estimated to fall within a range that is generally consistent with the 72 spaces provided. The proposed parking supply is therefore considered adequate based on ITE industry standards.

8. The site plan indicates four ADA-accessible parking spaces, including van-accessible spaces. For a parking lot of 51–75 spaces, three accessible spaces are required; therefore, the proposal exceeds ADA requirements.

9. Internal site circulation and parking layout are designed to manage vehicle movement on site and minimize the potential for vehicles queuing onto adjacent roadways.

10. Knik Goose Bay Road functions as a primary transportation corridor and is designed to accommodate higher traffic volumes than local or collector roads.

Conclusions of Law: Based on the above findings and with conditions, the proposed use will not negatively affect the safe, efficient flow of traffic on any highway, arterial, collector, or street from which access to and from the establishment is obtained (MSB 17.70.100(A)(2)(b)).

(c) The effectiveness of any measures to reduce any negative effect upon adjacent and nearby properties by property line buffers and arterial buffers, planted berms, landscaping, reduction or elimination of obtrusive or garish signing or other features, lowered building elevation, clustering with other commercial establishments and use of frontage roads to reduce the number of entries and exists onto highways, arterials and collectors, and where the surrounding area is predominantly residential in character, site and building design features that contribute to the residential character of the development.

Findings of Fact:

1. The subject property is approximately 2.76 acres in size.

2. The subject property is developed with an existing commercial building and proposes an additional building located to the south of the existing structure.

3. Parking and circulation areas are located on the subject property surrounding the existing and proposed buildings, including areas to the south and east of the proposed building.

4. The northern boundary of the subject property is adjacent to Northshore Drive, a borough road.

5. The eastern boundary of the subject property is adjacent to Knik Goose Bay Road, a state highway.

6. Portions of the subject property include limited natural vegetation, with vegetative screening present primarily along the western portion of the site.

7. Other portions of the site, including areas adjacent to Northshore Drive and Knik Goose Bay Road, are more open in character with developed parking and circulation areas.

8. The surrounding area consists of a mix of residential and rural properties.

9. According to the application materials, the exterior of the buildings will utilize neutral earth tone colors intended to blend with the surrounding environment.

10. According to the application materials, signage will consist of a wood timber frame sign reading "Knik Landing," with lighting that is dim and directed downward to minimize visual impacts.

11. According to the application materials, exterior lighting on the site will be downward-directed and shielded to reduce glare onto adjacent properties.

12. According to the application materials, a chain link fence with wood slats is proposed along portions of the property to provide screening, privacy, and security for areas where alcohol is served.

13. The site plan consolidates buildings, parking, and circulation into a unified development pattern, limiting the spread of activity areas across the site.

14. Access to the site is primarily provided from Knik Goose Bay Road, and access from Northshore Drive will be closed as a condition of approval, resulting in a single primary access point.

Conclusions of Law: Based on the above findings, measures will be in place to reduce any negative effect upon adjacent and nearby properties (MSB 17.70.100(A)(2)(c)).

(d) Whether there are adequate parking facilities to accommodate a reasonably expected increased demand for parking created by issuing the permit.

Findings of Fact:

1. According to the application materials, there are 72 total parking spaces are provided on the subject parcel.

2. Based on industry-standard guidance from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, restaurant uses typically generate demand of approximately 8–12 spaces per 1,000 square feet, while assembly/venue uses generate approximately 5–10 spaces per 1,000 square feet. Applying these ranges, the combined parking demand is estimated to fall within a range that is generally consistent with the 72 spaces provided. The proposed parking supply is therefore considered adequate based on ITE industry standards.

3. The site plan indicates four ADA-accessible parking spaces, including van-accessible spaces. For a parking lot of 51–75 spaces, three accessible spaces are required; therefore, the proposal exceeds ADA requirements.

4. According to the site plan, parking areas are located on the subject parcel and are designed to serve both the existing and proposed uses.

5. Internal circulation and parking layout are designed to accommodate vehicle movement on-site and minimize the potential for congestion.

6. According to the application materials and site plan, all parking for employees and patrons will be located on the subject parcel.

Conclusions of Law: Based on the above findings, adequate parking is provided to accommodate a reasonably expected increased demand for parking created by issuing the permit (MSB 17.70.100(A)(2)(d)).

(e) Whether access to the premises will create an unreasonable traffic hazard.

Findings of Fact:

1. The subject property is accessed primarily from Knik Goose Bay Road, a roadway under the jurisdiction of the State of Alaska.

2. A driveway permit has been issued by the State of Alaska for access to Knik Goose Bay Road.

3. Northshore Drive is a borough road located along the northern boundary of the subject property.

4. Any future use of the Northshore Drive access will require compliance with MSB 11.12, including permitting and upgrades to meet applicable driveway standards.

5. According to the application materials, peak traffic is anticipated between 4:00 p.m. and 8:00 p.m., with approximately 92 vehicle trips (entering and exiting) during the peak hour.

6. According to the application materials and site plan, internal circulation is provided on-site to accommodate vehicle movement and reduce the potential for vehicles queuing onto adjacent roadways.

7. The surrounding area includes a mix of residential and rural uses.

Discussion: A driveway permit for access to Knik Goose Bay Road has been issued by the State of Alaska. Staff recommends as a condition of approval that access from Northshore Drive remain closed unless and until a driveway permit is obtained and upgraded to meet applicable borough standards.

Conclusions of Law: Based on the above findings and with conditions, access to the premises will not create an unreasonable traffic hazard (MSB 17.70.100(A)(2)(e)).

(f) Whether a reasonably expected increase in traffic will overtax existing road systems.

Findings of Fact:

1. Knik Goose Bay Road is a paved public roadway under the jurisdiction of the State of Alaska.

2. Access to the subject property is provided from Knik Goose Bay Road pursuant to an approved driveway permit issued by the State of Alaska.

3. The surrounding area includes a mix of residential and rural properties with relatively low-density development patterns.

4. According to the application materials, peak traffic is anticipated between 4:00 p.m. and 8:00 p.m., with approximately 92 vehicle trips (entering and exiting) during the peak hour.

5. Knik Goose Bay Road functions as a primary transportation corridor in the area and is designed to accommodate higher volumes of traffic than local or collector roads.

6. Internal circulation and on-site parking are provided to accommodate traffic demand and reduce the potential for traffic impacts extending onto adjacent roadways.

7. Access to the subject property from Knik Goose Bay Road has historically served the existing beverage dispensary use.

8. A high volume driveway permit is required for access onto the borough road Northshore Drive.

9. Any future use of the Northshore Drive access will require compliance with MSB 11.12, including permitting and potential upgrades to meet applicable driveway standards based on traffic generation.

Conclusions of Law: Based on the above findings, traffic generated by the proposed use will not overtax existing road systems (MSB 17.70.100(A)(2)(f)).

(g) Whether the use is incompatible with the character of the surrounding neighborhood.

Findings of Fact:

1. The subject property is approximately 2.76 acres in size.

2. The subject property is developed with an existing beverage dispensary (bar) use that has operated at the site under legal nonconforming status since 1985.

3. The proposed development includes an additional event building located to the south of the existing structure and associated outdoor use areas.

4. The surrounding area is characterized by a mix of residential properties, vacant parcels, and recreational uses associated with Knik Lake.

5. The closest residential structure is located approximately 300 feet to the northwest of the subject property.

6. Knik Goose Bay Road and Northshore Drive provide separation between portions of the subject property and nearby residential uses.
7. There are no complaints from the public on record regarding the subject property.

8. According to the application materials, exterior building materials and colors will consist of neutral earth tones intended to blend with the surrounding environment.

9. According to the application materials, signage will be limited to a wood timber frame sign with dim, downward-directed lighting to minimize visual impacts.

10. According to the application materials, exterior lighting will be downward-directed and shielded to reduce glare onto adjacent properties.

11. According to the application materials, a chain link fence with wood slats is proposed to provide screening, privacy, and security for portions of the site.

12. Access to the subject property from Knik Goose Bay Road has historically served the existing beverage dispensary use.

13. The site plan consolidates buildings, parking, and circulation areas on the subject property.

Conclusions of Law: Based on the above findings, the proposed use is compatible with the character of the surrounding area (MSB 17.70.100(A)(2)(g)).

(3) The commission shall deny the application if it does not meet the application standards.

17.70.110 Special Standards for Liquor Uses.

(A) In addition to the general standards, a commercial use shall only be approved if it meets the requirements of this section.

(B) An application shall be denied if the planning commission finds, based on the evidence presented, that one or more of the following are applicable.

(1) There is, or the use would tend to result in, a high crime rate or a high incidence of alcohol-related accidents in the area.

Findings of Fact:

1. The subject property currently operates as a beverage dispensary (bar) under an existing legal nonconforming status established in 1985.

2. According to the application materials, the proposed use includes expansion of the existing beverage dispensary operation through construction of an event building and associated outdoor use areas.

3. According to the application materials, the proposed use will operate in conjunction with the existing bar and is not a new standalone establishment.

4. According to the application materials, the site includes controlled access and defined areas for alcohol service.

5. The operator of the proposed use is required to operate in accordance with Alaska laws and statutes, including mandatory alcohol server education requirements.

6. Persons under the age of 21 are prohibited from being served alcoholic beverages.

7. Alaska Statute 04.16.030 prohibits the sale of alcoholic beverages to drunken persons.

8. The State Fire Marshal–accepted public safety plan establishes occupant load limits, emergency access, and life safety measures for indoor and outdoor event operations, ensuring compliance with applicable fire and life safety codes.

9. Implementation of the approved safety plan reduces potential risks associated with large gatherings, including emergency response, crowd management, and egress, thereby protecting public health and safety.

10. Adherence to the Fire Marshal–approved plan is required for operation of the event venue and outdoor deck, providing ongoing oversight of life safety conditions during events.

11. Access to the site has historically served the existing beverage dispensary use.

12. There are no complaints from the public on record regarding the subject property.

13. According to the application materials, a chain link fence with wood slats is proposed to enclose areas where alcohol is served and to provide screening, privacy, and site security.

Conclusions of Law: Based on the above findings, the proposed use will not increase the crime rate in the area or increase alcohol-related accidents (MSB 17.70.110(B)(1)).

(2) The applicant or a person with an interest in the application has had an interest in a liquor license which was suspended or revoked in the 12-month preceding the application.

Findings of Fact:

1. The Alcoholic & Marijuana Control Office (AMCO) has no record of violations by the applicant or persons with an interest in the application within the 12 months preceding the application.

Conclusions of Law: Based on the above finding, the applicant has not had a liquor license suspended or revoked in the 12 months preceding the application (MSB 17.70.110(B)(2)).

(3) The applicant or person with an interest in the application demonstrated that the person is untrustworthy or unfit to conduct the operation of a licensed business or is a potential source of harm to the public.

Finding of Fact:

1. No information has been submitted indicating that any person/party associated with this application is untrustworthy, unfit to conduct business in the borough, or is a potential source of harm to the public.

2. The Alcohol & Marijuana Control Office (AMCO) has no record of violations by the applicant or persons with interest within the prior 12 months.

Conclusions of Law: Based on the above finding, the applicant is trustworthy or fit to conduct business in the borough and the applicant is not a potential source of harm to the public (MSB 17.70.110(B)(3)).

STAFF RECOMMENDATIONS

Staff recommends approval of the conditional use permit to expand an existing beverage dispensary (bar) operation at 10204 S Knik Goose Bay Road, Tax ID 7186000L001. The proposed use meets all the standards of MSB 17.70.100 and 17.70.110. Staff also recommends the following conditions:

1. The operation shall comply with all other applicable federal, state, and local regulations.

2. All aspects of the operation shall comply with the description detailed in the application material and with the conditions of this permit. An amendment to the Conditional Use Permit shall be required prior to any expansion or substantial alteration of the conditional use.

3. Outdoor use areas, including the deck and event-related outdoor activities, shall be limited to the hours of 10:00 a.m. to 10:00 p.m. daily.

4. The operation shall comply with the maximum permissible sound level limits allowed per the requirements of MSB 8.52, Noise, Amplified Sound, and Vibration.

5. Prior to operation of the expanded service areas, provide a copy of the approved State of Alaska Beverage Dispensary license.

6. Use of access from Northshore Drive requires a driveway permit and compliance with MSB 11.12 driveway standards.

7. The driveway access onto Knik Goose Bay Road shall be maintained in accordance with the approved State of Alaska driveway permit.

If the Planning Commission chooses to deny this permit, findings for denial must be prepared by the Commission.

Maps

Matanuska-Susitna Borough, AK

Parcel Map





Legend

- Major Road
- Minor Road
- Mat-Su Borough Boundary
- Address Numbers
- Parcels
- Lot and Block Numbers
- ROW and Easements

Layer

- ROW Easement
- Lakes and Rivers
- Section Lines

RGB

- Red: Band_1
- Green: Band_2
- Blue: Band_3
- Highlighted Points
- Highlighted Points

THIS MAP IS NOT TO BE USED FOR NAVIGATION

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NAD 1983 State Plane Alaska 4 FIPS 5004 Feet

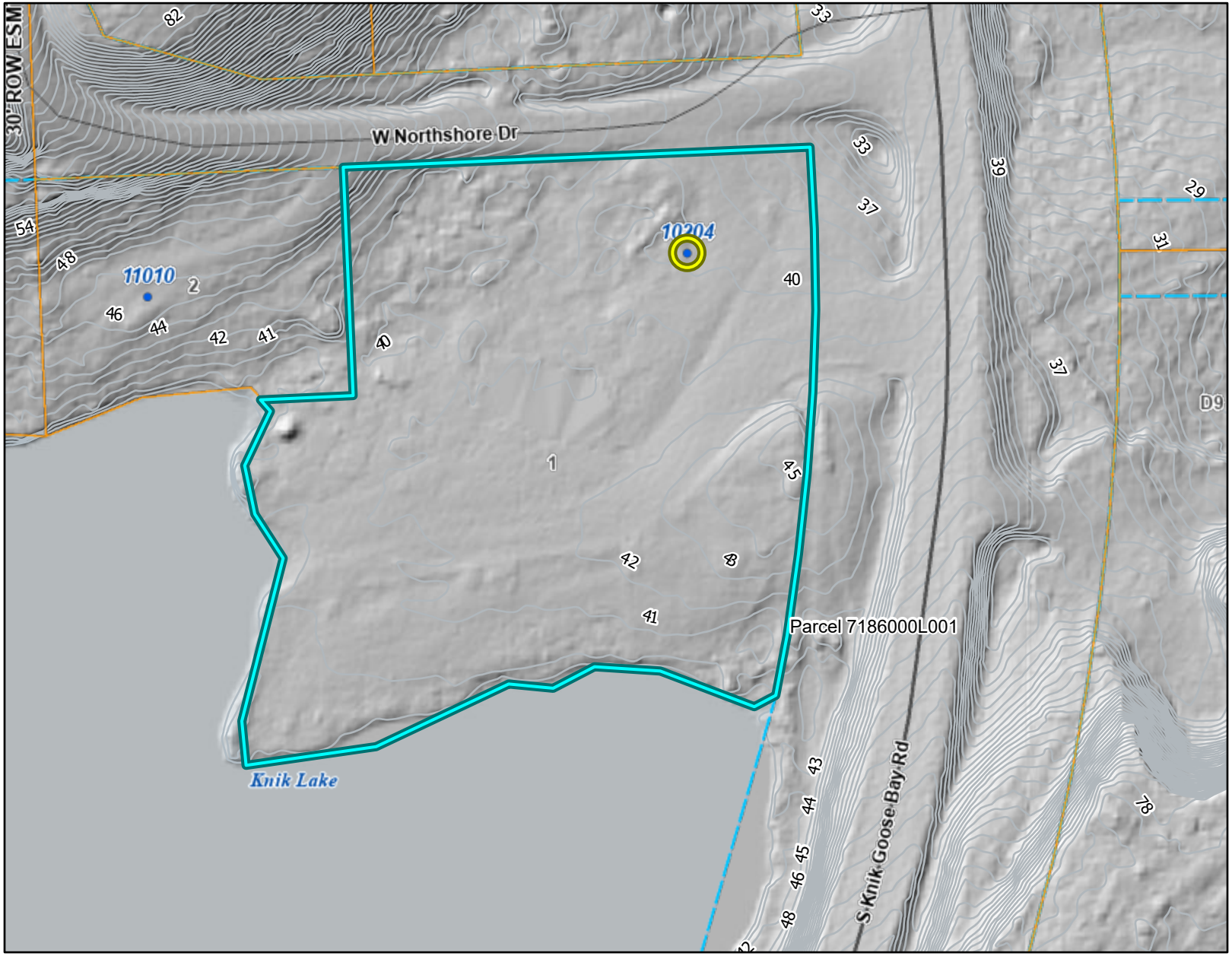
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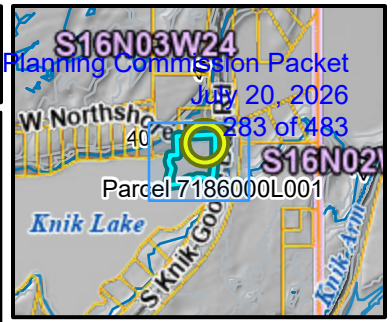
Notes

Generated on 08.06.2026 (dd/mm/yyyy)

Matanuska-Susitna Borough, AK

Parcel Map





Legend

- Major Road
- Minor Road
- Mat-Su Borough Boundary
- Address Numbers
- Parcels
- Lot and Block Numbers
- ROW and Easements

Layer

- ROW Easement
- Lakes and Rivers
- Section Lines

Value

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- Highlighted Points
- Highlighted Points

Notes

Generated on 08.06.2026 (dd/mm/yyyy)

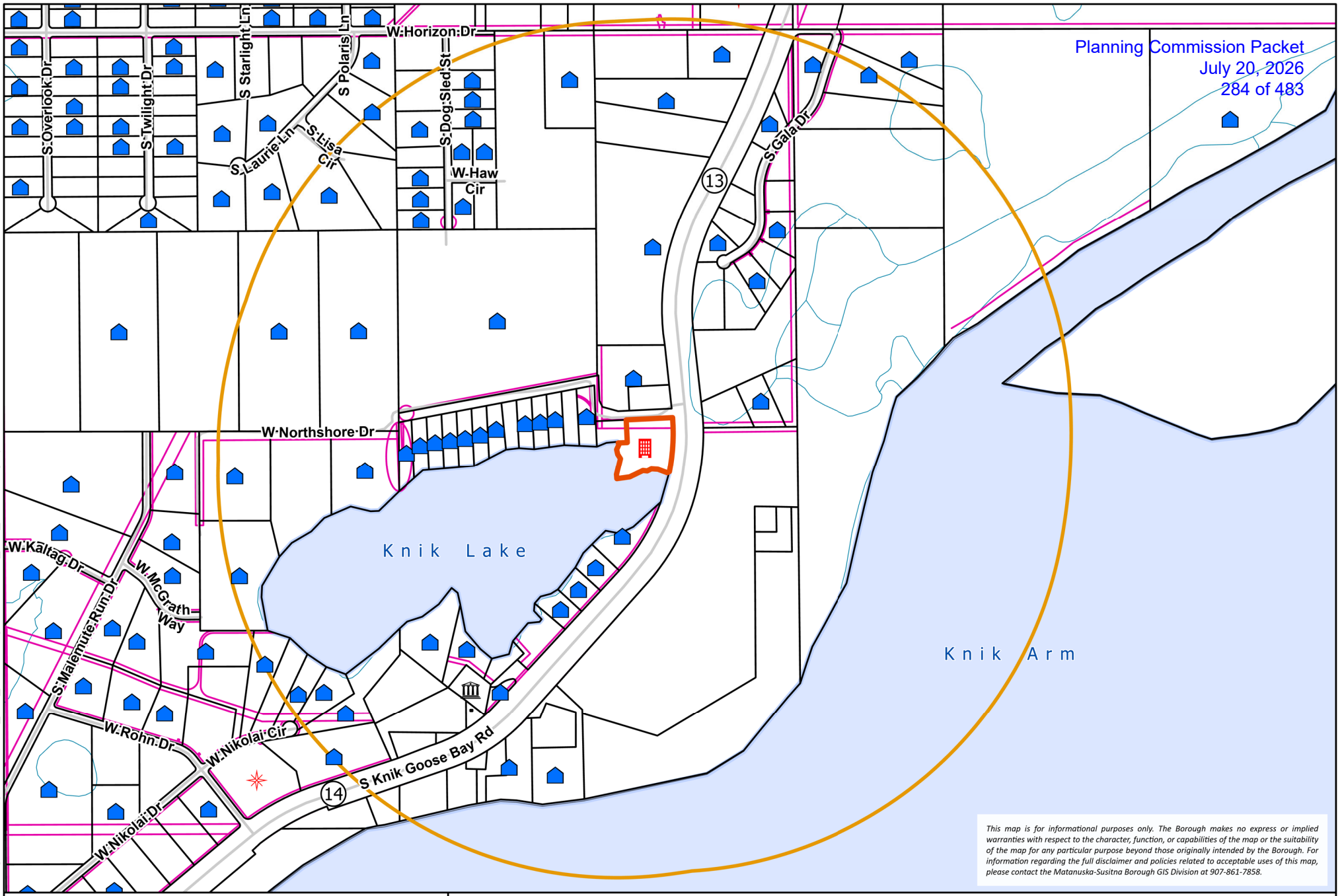
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NAD 1983 State Plane Alaska 4 FIPS 5004 Feet

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Land Use Map

Knik Landing

MSB Tax ID#7186000L001

Building Use
- Government or School Grounds
- Religous
- Residential
- Commercial

- Mileposts
- ROW and Easements
- Parcels
- Subject Parcel (ID: 7186000L001)

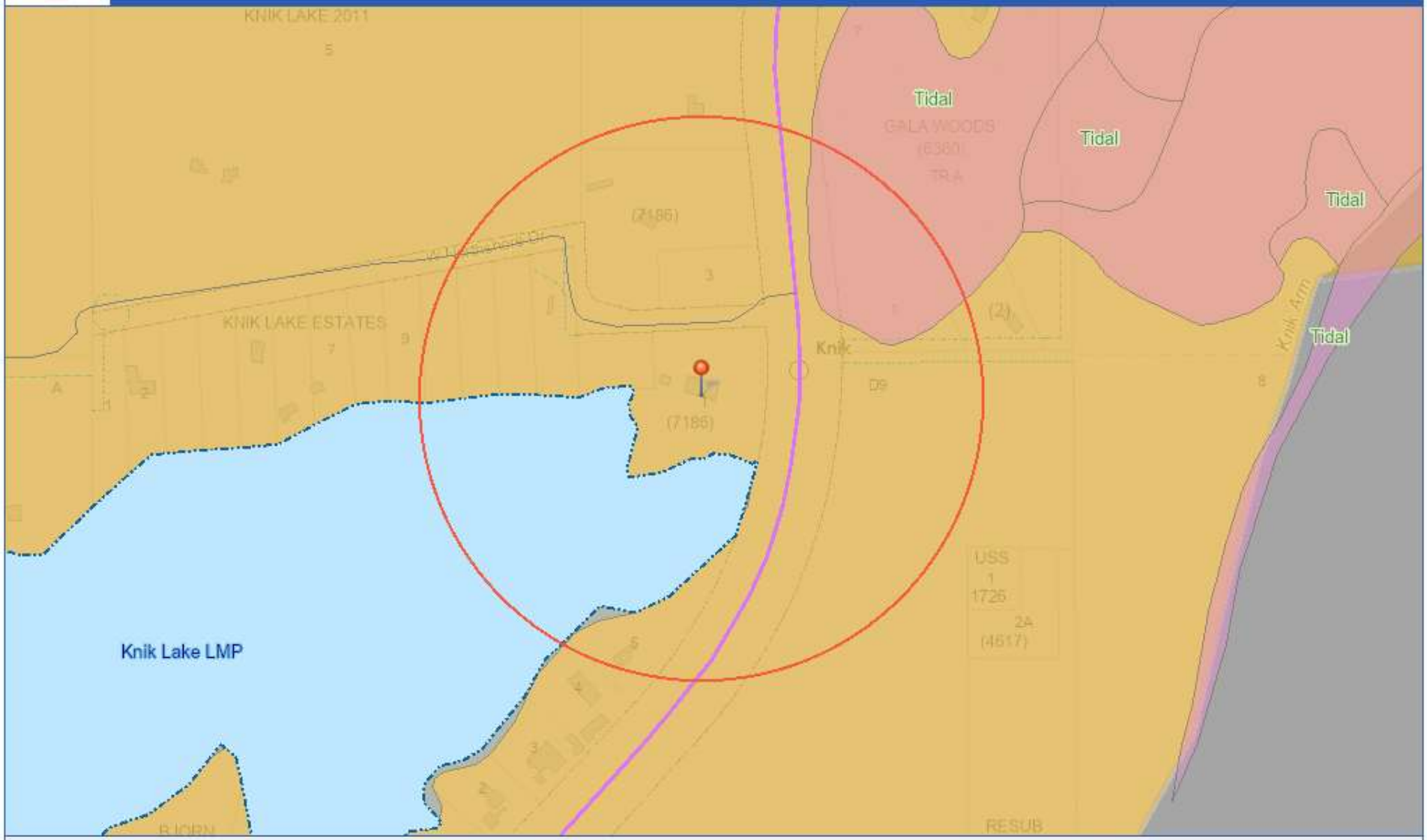
- Subject Parcel Half Mile Buffer
- Lake
- River
- Wetland

0 500 1,000
Feet

Path: M:\Product\Planning\Permitting\Conditional_Use_Permitting\Conditional_Use_Permitting.aprx

Map Produced by MSB IT/GIS Division: 6/8/2026

Planning & Land Use Map



Special Use Districts
- Other
- MSB General Use Regulations

Official Streets and Highways Plan
- Major Arterial
- Local Road

Lake Management Plans

Wetlands
- LAKE
- Tidal

Assembly Districts

Community Councils

ROW and Easements
- ROW Road
- ROW Easement
- Section line easement

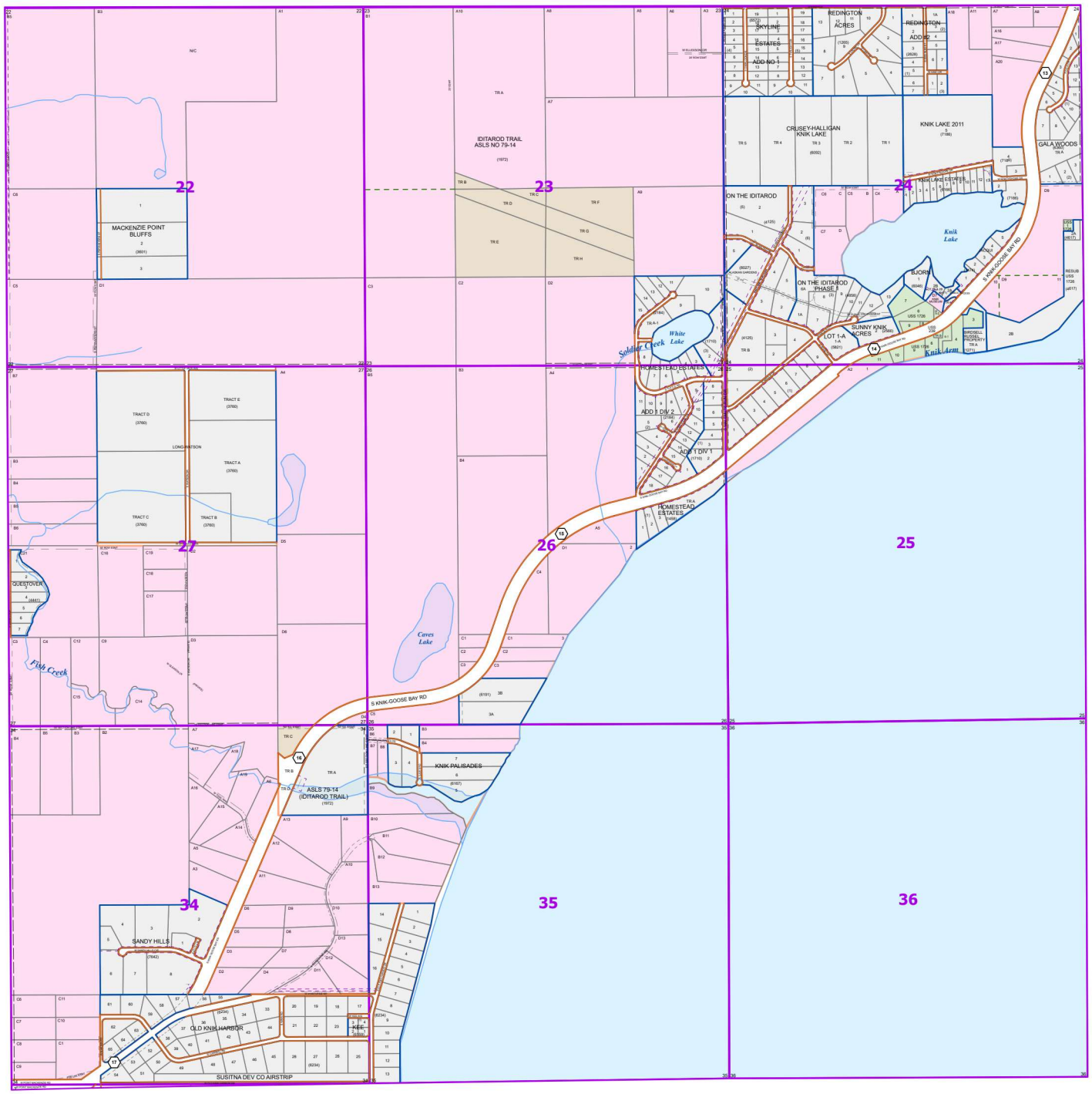
Printed on Jun 8, 2026

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0 0.04 0.08 0.16 mi


W Northshore Dr
10204
2
1

Matanuska - Susitna Borough



Legend

Section Grid	
City Boundary	
Subdivision Boundary	
ParcelType	
Subdivision Lot	
Tax Parcel	
Mineral Survey	
Multi Unit	
Surveyed	
Utility	
Agency	
Building Only	
Other	
US Survey	
Government Lot Line	
MP	Mileposts
7	Subdivision or Government Lot Number
(1	Subdivision Block Number
SUBD	Subdivision Name
(####)	Subdivision Number
A15	Tax Parcel Number
7	Section Number
N/C	Non-Conforming Parcel

Easements

Easement	
MSB Right-of-Way	
MSB Travelled Way	
Railroad	
Right-of-Way ESMT	
Section Line ESMT	
Waterbody	
Stream	

N W E S

500 0 500 1000 1500

(FEET)

Source: This map was compiled using a variety of sources including, but not limited to, Recorded Subdivision Plats, U.S. Surveys, Alaska State Land Surveys, Bureau of Land Management Survey Plats, Alaska DOT Right of Way Plats, Public Use Easements, Deeds, and other recorded documents. This map is solely an index of property records and is not intended to be used in lieu of the recorded documents or a survey prepared by a Registered Land Surveyor. All information on this map is subject to field verification.

Projection: Data is modeled in State Plane Coordinate Feet, Alaska Zone 4, using North American Datum of 1983.

Matanuska-Susitna Borough
Information Technology Dept.
Geographic Information System
350 E. Dahlia Avenue
Palmer, Alaska 99645
Phone: (907) 861-7858

E-Mail: Service.Desk@matsugov.us

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PORTION OF

GOOSE BAY

T. 16 N., R. 03 W., .M.

SEC. 22,23,24,25,26,27,34,35,36

Date : August 23, 2024

GB08


Google Earth 2023 Aerial Imagery
MSB Tax ID #7186000L001
Legend
Broken Boat dba Knik Bar & Liquor Store
Planning Commission Packet
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288 of 483
W Northshore Dr
Broken Boat dba Knik Bar & Liquor Store
S Knik Goose Bay Rd
S Knik Goose Bay Rd
Google Earth
Image © 2026 Airbus
N
200 ft

MATANUSKA-SUSITNA BOROUGH
PLAN DETAILED REPORT (ALC-2026-010282)

Plan Type:	Alcohol	**Project:**		**App Date:**	02/02/2026
Work Class:	Beverage Dispensary	**District:**	Matanuska-Susitna Borough	**Exp Date:**	NOT AVAILABLE
Status:	In Review	**Square Feet:**	0	**Completed:**	NOT COMPLETED
Valuation:	$0.00	**Assigned To:**	Rick Benedict	**Approval Expire Date:**	

Description: Existing dispensary building expansion.

Parcel:	7186000L001	Main	**Address:**	10204 S Knik Goose Bay Rd	Main

Contact Type	Contact Name	Address	Cell Phone	Home Phone	Business Phone
Applicant	Douglas A Massie	10204 S. Knik Goose Bay Road Wasilla, AK 99623	(907) 232-7072		(907) 232-7072

Note		Created By	Date and Time Created
1	Follow up to 2/26/26 in personmeeting to clarify previous RFAI items from 2/23/26	Rick Benedict	03/16/2026
2	Application submitted 2/3/2026	Rick Benedict	02/23/2026

Douglas Massie
February, 02 2026

X 

SUBJECT: A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY WAIVING THE FEE FOR A CONDITIONAL USE PERMIT FOR AN ALCOHOLIC BEVERAGE DISPENSARY (BAR).

AGENDA OF: March 3, 2026

Assembly Action: Approved under the consent agenda 03/03/26 - BJH

AGENDA ACTION REQUESTED: Present to the Assembly for consideration.

Route To	Signatures
Originator	X Alex Strawn 2/18/2026 Signed by: Alex
Department Director	X Alex Strawn 2/18/2026 Signed by: Alex
Finance Director	Recoverable Signature X Cheyenne Heindel Signed by: Cheyenne Heindel
Borough Attorney	X Nicholas Spiropoulos 2/19/2026 Signed by: Nicholas Spiropoulos
Borough Manager	X Michael Brown 2/19/2026 Signed by: Mike Brown
Borough Clerk	X Lonnie McKechnie 2/23/2026 Signed by: Lonnie McKechnie

ATTACHMENT(S): Resolution Serial No. 26-018 (2 pp)

SUMMARY STATEMENT: This resolution is sponsored by Assemblymember Gamble.

MSB 17.70, Regulation of Alcoholic Beverage Uses, was adopted in 1984 and requires a conditional use permit for establishments requiring a beverage dispensary license under AS 04.11.090.

Knik Bar and Grill operates as a pre-existing legal nonconforming use, as the establishment existed prior to the adoption of MSB 17.70. MSB 17.70.200 further requires a conditional use permit for any expansion of a nonconforming use.

The current owner purchased the business in 2021. Unbeknownst to the current owner, the establishment had previously expanded its operations without obtaining the required conditional use permit.

During the 2013 state license transfer process involving previous owners, the borough failed to recognize the unpermitted expansion.

In September 2023, the current owner submitted a request to the borough for comments regarding the state license. The borough notified the owner that the expansion required a conditional use permit but failed to protest the state license with AMCO. During the 2025 state license review, staff protested the license due to the operation's noncompliance with its legal nonconforming status, as required under MSB 8.40.

The current owner is now applying for the necessary conditional use permit, which typically requires a $1,500 application fee. Due to the oversight by Borough staff at the time of the license transfers, a waiver of the application fee is requested.

RECOMMENDATION OF ADMINISTRATION: Respectfully request approval.

Adopted: 03/03/26

MATANUSKA-SUSITNA BOROUGH
RESOLUTION SERIAL NO. 26-018

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY WAIVING THE FEE FOR A CONDITIONAL USE PERMIT FOR AN ALCOHOLIC BEVERAGE DISPENSARY (BAR).

WHEREAS, MSB 17.70 Regulation of Alcoholic Beverage Uses was adopted in 1984; and

WHEREAS, MSB 17.70 requires a conditional use permit for uses requiring a beverage dispensary license under A.S. 04.11.090; and

WHEREAS, Knik Bar and Grill obtained pre-existing legal nonconforming status, as it was in operation prior to 1984; and

WHEREAS, MSB 17.70.200 requires a conditional use permit for the expansion of a nonconforming use; and

WHEREAS, the current owner of Knik Bar and Grill purchased the business in 2021; and

WHEREAS, the Knik Bar and Grill expanded its operation without obtaining a conditional use permit at some point prior to the current owner's purchase; and

WHEREAS, an oversight error by Borough staff should have required a permit for the expansion in 2013 and 2023 when the state license was being transferred to the new owner; and

WHEREAS, as required by MSB 8.40, Borough staff are currently protesting the State license for Knik Bar and Grill, as the

operation is not in compliance with its pre-existing legal nonconforming status; and

WHEREAS, the current owner of Knik Bar and Grill has applied for a conditional use permit; and

WHEREAS, the application fee for a conditional use permit is $1,500.

NOW, THEREFORE, BE IT RESOLVED, the application fee for a conditional use permit for the expansion of the Knik Bar and Grill is hereby waived.

ADOPTED by the Matanuska-Susitna Borough Assembly this 3 day of March, 2026.

EDNA DeVRIES, Borough Mayor

ATTEST:

LONNIE R. MCKECHNIE, CMC, Borough Clerk

(SEAL)

PASSED UNANIMOUSLY: Bowles, Nowers, McKee, Sumner, Gamble, Fonov, and Bernier

MATANUSKA-SUSITNA BOROUGH

Real Property Detail for Account: 57186000L001

Site Information

Account Number	57186000L001	Subdivision	KNIK LK 2011
Parcel ID	518705	City	None
TRS	S16N03W24	Map GB08	Tax Map
Abbreviated Description (Not for Conveyance)	KNIK LK 2011 LOT 1		
Site Address	10204 S Knik Goose Bay Rd		

Ownership

Owners	BROKEN BOAT LLC	Buyers	
Primary Owner's Address	PO BOX 874893 WASILLA AK 99687	Primary Buyer's Address	

Appraisal Information

Year	Land Appraised	Bldg. Appraised	Total Appraised
2026	$193,700.00	$348,100.00	$541,800.00
2025	$168,400.00	$114,300.00	$282,700.00
2024	$168,400.00	$114,300.00	$282,700.00

Assessment

Year	Land Assessed	Bldg. Assessed	Total Assessed[1]
2026	$193,700.00	$348,100.00	$541,800.00
2025	$168,400.00	$114,300.00	$282,700.00
2024	$168,400.00	$114,300.00	$282,700.00

Building Information

Structure 0 of 2

Residential Units	0	Use	Under Construct - Non Res
Condition	Standard	Design	Commercial
Basement	None	Construction Type	Frame
Year Built	2025	Grade	None
Foundation	Poured Concrete	Well	
Septic	Septic - 1 - Septic Tank		

Structure 1 of 2

Residential Units	0	Use	Bars and Lounges
Condition	Standard	Design	Commercial
Basement	None	Construction Type	Frame
Year Built	1960	Grade	None
Foundation	Poured Concrete	Well	Well 1 - Drilled Well
Septic	Septic - 1 - Septic Tank		

Building Item Details

Building Number	Description	Area	Percent Complete

Tax/Billing Information

Year	Certified	Zone	Mill	Tax Billed
2026	No	0030	::	::
2025	Yes	0030	12.797	$3617.71
2024	Yes	0030	13.174	$3724.29

Recorded Documents

Date	Type	Recording Info (offsite link to DNR)
4/14/2021	CORRECTIVE DEED	Palmer 2021-010167-0
4/13/2021	WARRANTY DEED (ALL TYPES)	Palmer 2021-010030-0
3/11/2016	TRUSTEES DEED	Palmer 2016-004698-0

Tax Account Status [2]

Status	Tax Balance	Farm	Disabled Veteran	Senior	Total [3]	LID Exists
Current	$1,808.84	$0.00		$0.00	$0.00	$0.00 No

Land and Miscellaneous

Gross Acreage	Taxable Acreage	Assembly District	Precinct	Fire Service Area	Road Service Area
2.76	2.76	Assembly District 005	30-585	130 Central Mat-Su	017 Knik RSA

[1] Total Assessed is net of exemptions and deferments.rest, penalties, and other charges posted after Last Update Date are not reflected in balances.
[2] If account is in foreclosure, payment must be in certified funds.
[3] If you reside within the city limits of Palmer or Houston, your exemption amount may be different.

Last Updated: 2/17/2026 9:00:02 AM

Knik Landing Event Venue

Summary:

Knik Landing is a proposed 5,000-square-foot event venue located on the scenic shores of Knik Lake in Knik, Alaska, adjacent to the established Broken Boat Knik Bar and Grill. This venue will capitalize on the area's natural beauty, recreational appeal, and the existing customer base of the bar and grill to offer a premier destination for weddings, corporate events, community gatherings, and private parties. With a focus on rustic Alaskan charm, modern amenities, and year-round accessibility, Knik Landing aims to become a sought-after event space in the Matanuska-Susitna Borough. The venue will generate revenue through rentals, catering partnerships, and bar services, with an initial investment covering construction, permits, and marketing.

Company Description Name: Knik Landing/ Knik Bar and Liquor

Location: Knik Lake, Knik, Alaska, adjacent to Broken Boat Knik Bar and Grill (10204 S. Knik Goose Bay Rd, Wasilla, AK 99623).

Legal Structure: LLC (to be formed as an extension of the existing Broken Boat business or as a separate entity).

Mission: To provide a versatile, scenic event venue that celebrates Alaskan heritage and fosters memorable experiences for locals and visitors.

Vision: To be the premier event venue in the Matanuska-Susitna Borough, known for exceptional service, stunning lakefront views, and seamless integration with the Broken Boat Knik Bar and Grill.

Location: Matanuska-Susitna Borough, Anchorage, and out-of-state visitors.

Services and Offerings Venue Features Size: 5,000 sq. ft. indoor space, with an additional 2,000 sq. ft. outdoor deck overlooking Knik Lake. Capacity: Up to 200 guests (seated) or 300 (standing).

Amenities: Open floor plan with divisible rooms for smaller events. Floor-to-ceiling windows for lake views. Rustic-modern design (wood accents, Alaskan decor). Full AV system (projector, speakers, microphones). WiFi, power outlets, and climate control. Outdoor deck with seating, lighting, and heaters for year-round use. Ample parking (shared with Broken Boat Knik Bar and Grill).

Accessibility: ADA-compliant entrances and restrooms.

Operations Plan Location and Facilities Site: 5,000 sq. ft. building on Knik Lake, adjacent to Broken Boat Knik Bar and Grill.

Construction: Stick-built structure with shingle roofing for snow load.

Conclusion: Knik Landing will fill a gap in the Matanuska-Susitna Borough's event venue market by offering a 5,000+-square-foot lakefront space with modern amenities and seamless integration with the Broken Boat Knik Bar and Grill. By leveraging Knik's natural beauty, recreational appeal, and the bar and grill's established customer base, Knik Landing is poised to become a leading event destination in Alaska.

Security Plan
Knik Bar
10204 South Knik Goose Bay Road
Wasilla, Alaska 99623
907-376-3818

1. Type of services to be offered.

The Knik Bar is an establishment that provides alcoholic beverages and food to customers. Knik Bar and its staff promote a safe and secure environment to all patrons through following state and local guidelines and laws, and through consistent and reoccurring training to our employees.

Occasionally the Knik Bar host's events such as live bands/musicians, these such events and individuals are not employed by Knik Bar, however, they shall be held to the same standard as employees while performing at the Knik Bar.

2. Number/Utilization of security personnel for events.

For live events, one in-house security person for each 50 patrons shall be on duty. All security personnel shall be attired in a manner to readily identify them as such. From the time a live entertainment event ends and for 30 minutes thereafter, one-half of all security personnel shall be stationed outside the premises to assist and encourage patrons to leave safely.

No event shall ever exceed the authorized capacity of the Knik Bar.

Assigned security staff shall regularly patrol both the women's and men's bathroom facilities and outdoor seating area.

3. Control & clearance of parking lot and outdoor seating area.

Video cameras will be mounted to cover the entrance, exits and entire premises, including the outdoor seating area. Recordings will be made available upon request by the local police agency (Alaska State Troopers). Staff shall regularly patrol the immediate exterior of the building at least once every half-hour, doing so on a random basis during an event. Knik Bar shall conspicuously post in its parking lot area the following signage: "No Trespassing/Loitering. Any person who is not a patron or not there on official business with the owner or the owner's agent, will be asked to leave the parking area

immediately." Outdoor seating area perimeter secured by a 5' fence, there is one entry/exit that goes through the dining room area. The only exit in the fenced area is to be used for emergency's only, there shall be no entry through that exit. Underaged persons will not be permitted in the outdoor seating area without a legal parent or guardian over the age of 21. Bar staff will check the outdoor seating area frequently to ensure patrons are following Knik Bar rules and guidelines and all Alaska State Laws. Bar staff will check outdoor seating area at the beginning of shift f to ensure the fenced barrier is not compromised and does not allow unauthorized entry. Fence will be posted with signs every 20' stating "No Alcohol beyond this point", any patrons that violate will be asked to leave Knik Bar immediately and not allowed to return.

4. Unruly patrons.

The Knik Bar will familiarize all staff with provisions of the local laws for unruly patrons, or patrons committing acts of disorderly conduct. When a patron acts in a manner that is violent, abusive, indecent, profane, boisterous, or otherwise disorderly, staff will immediately ask that person to leave, if that person refuses to leave, the local police department (Alaska State Troopers) will be contacted to remove the person. At no time will any Knik Bar employee engage in physical contact with a patron or exercise any use of force, the only exception is self-defense.

5. Persons who are intoxicated.

Knik Bar staff may not sell, dispense, or provide alcohol to any person who is impaired or considered under the influence as defined by Alaska law, nor shall such a person be permitted on the premises. When a customer has been "cut off", the server will notify the other employees. Management will support the server's decision to terminate service to any customer. If a customer is impaired, licensee will advise the customer not to drive, and arrange a safe ride. If the customer refuses, management will notify the location Police Department (Alaska State Troopers) with a description of the person and the license plate number of the vehicle, if possible.

6. Patrons presenting false ID's.

All identification cards used to prove age must be valid (i.e., may not be expired), and must be government-issued. If the identification card is expired or appears at all questionable to the employee, the employee shall request a second form of identification. The employee shall make sure that the individual purchasing the liquor resembles the identification card. All employees are encouraged to ask purchasers questions relating to their identification in order to verify the information. If the employee checking an ID has a strong suspicion that an ID is false, altered, or belongs to someone other than the person presenting the ID, he/she shall confiscate the ID and turn it over to management, to be presented to the police and the person will be asked to leave immediately.

7. Control/Supervision of patrons Under 21.

Knik Bar staff **will** request proof of identification and age from any customer who orders or drinks alcoholic beverages. Knik Bar employees **will** refuse service to any customer who cannot produce adequate ID. When selling pitchers, ID's **will** be requested for each person receiving a glass. Separate types of glassware will be used to distinguish alcohol drinks from non-alcohol drinks. Patrons under the age of 21 are not permitted in the bar area. Patrons under the age of 21 shall be seated in the dining room only. The staff member serving any person under 21 shall notify all other staff members of the

under-age person as to ensure no alcoholic beverages are served to them. Underaged persons will not be permitted in the outdoor seating area without a legal parent or guardian over the age of 21.

8. Circumstances under which the police will be called.

The local police (Alaska State Troopers) **will** be called, in a timely manner, anytime management or staff has information to believe a crime has been or is about to be committed and/or whenever a threat of or act of violence occurs on the premises or off premises in areas that would be considered in view or earshot of the establishment.

9. Handling of physical disturbances, including fights.

Staff or management will ask anyone who is fighting to leave. If necessary, staff or management will call the local law enforcement agency for assistance. The Knik Bar will permanently refuse admittance to any chronic problem encounter. At no time will any Knik Bar employee engage in physical contact with a patron or exercise any use of force, the only exception is self-defense.

10. Incident Log.

The Knik Bar and its staff will keep and maintain an incident log for any of the aforementioned incidents or encounters. Any incident such as fights, unruly patrons, suspicious activity, patrons being cut off, attempts by underage persons to be served, intoxicated persons, fake ID presentation, or any other abnormal or suspect activity that should be documented.

The Knik Bar's incident log will include the date time of incident, type of incident, location of incident (Bar, bathroom, dining room, parking lot, outside seating, etc.), persons involved, action taken, and will be brought to the attention of any staff during a shift change.

All Knik Bar staff are required to review and initial the incident log prior to the beginning of their shift to ensure compliance with any action taken as the result of an incident, and for situational awareness and safety.

The Knik Bar's incident log will be posted on the wall near the employee schedule.

All Knik Bar employees will sign a document agreeing that they have read and understand the procedures designated in the security plan.

Knik Landing Conditional Use Permit Application
Response to Request for Additional Information (RFAI)

Date: 4/8/2026

In response to the request for additional information for the conditional use permit application related to alcoholic beverage uses under MSB 17.70, the applicant provides the following narrative. The AMCO application for expansion of the licensed beverage dispensary areas is currently in process and includes approximately 13,000 square feet of licensed area. The site provides a total of 72 parking spaces, including four ADA-compliant spaces, with all parking areas constructed of compacted gravel. The hours of operation are proposed as 8:00 AM to 12:00 AM daily for the wedding venue and 12:00 PM to 12:00 AM daily for the bar.

Peak traffic is anticipated between 4:00 PM and 8:00 PM, with an estimated 92 vehicles entering and exiting the site during those hours. The exterior of the operation will utilize neutral earth tones, specifically tan and brown, to blend with the surrounding environment. Signage will consist of a wood timber frame sign reading “Knik Landing,” located south of the driveway off Knik Goose Bay Road, with lighting that is dim and directed downward to minimize visual impact.

Exterior lighting across the site will consist of downward-directed and shielded disk lighting installed in soffits at approximately 15 feet in height, along with flood lights mounted at approximately 20 feet on each gabled end. No additional parking lot lighting is proposed. Access to the site is primarily from Knik Goose Bay Road; coordination with the State of Alaska is ongoing regarding driveway permitting, as no existing permit is currently on file. Access from the borough road will be blocked, though the physical size of the driveway will be maintained for potential future use.

The subject parcel has no known flooding issues. A sewer excavation to a depth of approximately 17 feet did not encounter groundwater, and prior grading work by the former owner directs drainage to the northeast into a state culvert system. A drainage plan, including contours and flow direction, will be provided as part of the updated site plans.

To mitigate potential impacts to surrounding properties consistent with MSB 17.70.100, the operation will continue in a manner consistent with its longstanding history of over 65 years while implementing additional improvements. A chain link fence with wood slats will be installed along the western boundary extending toward the lake to enclose areas where alcohol is served and to reduce visibility from the public. The operation will observe normal quiet hours, maintain modest and consistent signage without obtrusive features, and remove dilapidated outbuildings. Landscaping enhancements will be implemented to improve site appearance, including removal of weeds and overall site cleanup.

Date: 4/8/2026

The fencing proposed on the site will serve multiple purposes, including privacy, security, and reduction of visual impacts to adjacent properties. Updated site plans will be submitted to include a drainage plan, circulation patterns for vehicles and pedestrians, fencing details, signage and lighting locations, and designated ADA parking spaces, ensuring compliance with application requirements and borough code.

STATE OF ALASKA - ALCOHOLIC BEVERAGE CONTROL BOARD
ALCOHOLIC BEVERAGE LICENSE

2025-2026

License Number: **597**
Issued Date: **9/26/2025**
Type of License: **BEVERAGE DISPENSARY LICENSE(BDL)**

D/B/A: **KNIK BAR & LIQUOR STORE**

Premises Address:
10204 S KNIK GOOSE BAY ROAD, WASILLA, AK, 99654, USA

Name/Mailing Address:
BROKEN BOAT LLC
P.O. BOX 874893, WASILLA, AK, 99687, USA

Enforcement Conditions:
N/A

LICENSE RENEWAL APPLICATION DUE
DECEMBER 31, 2026
THIS LICENSE EXPIRES MIDNIGHT
FEBRUARY 28, 2027, UNLESS DATED BELOW

CITY/BOROUGH:
Matanuska-Susitna Borough

This license cannot be transferred without permission of the Alcoholic Beverage Control Board

ISSUED BY ORDER OF THE
ALCOHOLIC BEVERAGE CONTROL BOARD

DIRECTOR

THIS LICENSE MUST BE POSTED IN A VISIBLE PLACE ON THE PREMISES
AND AVAILABLE FOR INSPECTION 3 AAC 305.630(c)

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Planning Commission Packet
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Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

This transfer license application form is required for all individuals or entities seeking to apply for the transfer of ownership and/or location of an existing liquor license. Applicants should review **Title 04** of **Alaska Statutes** and **Chapter 305** of the **Alaska Administrative Code**. All fields of this form must be completed, per AS 04.11.260, AS 04.11.280, AS 04.11.290, 3 AAC 305.045 and 3 AAC 305.060.

This form must be completed and submitted to AMCO's Anchorage office, along with all other required forms and documents before any license application will be considered complete.

Section 1 – Transferor Information

Enter information for the ***current*** licensee and licensed establishment.

Licensee:	Broken Boat LLC			**License #:**	597
License Type:	Beverage Dispensary			**Statutory Reference:**	
Doing Business As:	Knik Bar and Liquor Store				
Premises Address:	10204 S Knik Goose Bay Rd				
City:	Wasilla	**State:**	AK	**ZIP:**	99623
Local Governing Body/Bodies:	Mat-Su Borough				

Transfer Type:

- [ ] Regular transfer
- [ ] Transfer with security interest
- [ ] Involuntary retransfer
- [X] Controlling interest transfer
- [ ] Location transfer

OFFICE USE ONLY			
Complete Date:		***Transaction #:***	
Board Meeting Date:		***License Years:***	
Issue Date:		***Examiner:***	

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

Section 2 – Transferee Information

Enter information for the ***new*** applicant and/or location seeking to be licensed.

Licensee:	Broken Boat LLC				
Doing Business As:	Knik Bar and Liquor Store				
Premises Address:	10204 S Knik Goose Bay Rd				
City:	Wasilla	**State:**	AK	**ZIP:**	99623
Community Council, (If applicable):	Knik-Fairview Community Council				

Mailing Address:	PO Box 874893				
City:	Wasilla	**State:**	AK	**ZIP:**	99687
Email:	mmassiebbllc@gmail.com	**Phone:**	907-232-1063		

Designated Licensee:	Misty Massie		
Contact Phone:	907-232-1063	**Business Phone:**	907-376-3818
Contact Email:	mmassiebbllc@gmail.com		

Seasonal License? Yes ☐ No ☒ **If "Yes", write your six-month operating period:** _____

Section 3 – Premises Information

Premises to be licensed is:

☒ an existing facility ☐ a new building ☐ a proposed building

The next two questions must be completed by beverage dispensary (including tourism) and package store applicants only:

What is the distance of the shortest pedestrian route from the public entrance of the building of your proposed premises to the outer boundaries of the nearest school grounds? Include the unit of measurement in your answer (Must be in feet).

3 Miles from Dena'ina Elementary School.

What is the distance of the shortest pedestrian route from the public entrance of the building of your proposed premises to the public entrance of the nearest church building? Include the unit of measurement in your answer (Must be in feet.)

0.6 Miles from the Knik LDS Church

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Planning Commission Packet
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Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

Section 4 – Sole Proprietor Ownership Information

This section must be completed by any sole proprietor who is applying for a license. Entities should skip to Section 5.
If more space is needed, please attach a separate sheet with the required information.
The following information must be completed for each licensee and each affiliate (spouse).

This individual is an: ☐ applicant ☐ affiliate

Name:					
Address:					
City:		**State:**		**ZIP:**	
Email:		**Phone:**			

This individual is an: ☐ applicant ☐ affiliate

Name:					
Address:					
City:		**State:**		**ZIP:**	
Email:		**Phone:**			

Section 5 – Entity Ownership Information

This section must be completed by any entity, including a corporation, limited liability company (LLC), partnership, or limited partnership, that is applying for a license. Sole proprietors should skip to Section 6.
If more space is needed, please attach a separate sheet with the required information.

- If the applicant is a **corporation**, the application shall be executed by an authorized officer of the Corporation. Information must be completed below for each ***stockholder who owns 10% or more*** of the stock in the corporation, and for each ***president, vice-president, secretary***, and ***managing officer***.
- If the applicant is a **limited liability organization**, whether manager managed or member managed, the following information must be completed for each ***member with an ownership interest of 10% or more*** and for each ***manager regardless of ownership share***.
- If the applicant is a **partnership**, including a **limited partnership**, the following information must be completed for each ***partner with an interest of 10% or more***, and for each ***general partner***.
- For **any entity**, identify all affiliates for your organization as defined at 3 AAC 305.950.

Entity Official:	Misty Massie				
Title(s):	Managing Member	**Phone:**	907-232-1063	**% Owned:**	50
Address:	PO Box 874893				
City:	Wasilla	**State:**	AK	**ZIP:**	99687
Email:	mmassiebbllc@gmail.com	**Phone:**	907-232-1063		

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

Entity Official:	Douglas Massie				
Title(s):	Member	**Phone:**	907-232-7072	**% Owned:**	50
Address:	PO Box 874893				
City:	Wasilla	**State:**	AK	**ZIP:**	99687
Email:	massman76@hotmail.com	**Phone:**	907-232-7072		

Entity Official:					
Title(s):		**Phone:**		**% Owned:**	
Address:					
City:		**State:**		**ZIP:**	
Email:		**Phone:**			

Entity Official:					
Title(s):		**Phone:**		**% Owned:**	
Address:					
City:		**State:**		**ZIP:**	
Email:		**Phone:**			

This subsection must be completed by any applicant that is a corporation or LLC. Corporations and LLCs are required to be in good standing with the Alaska Division of Corporations (DOC). The registered agent is either an individual resident of the state or domestic corporation authorized to transact business in the state and whose business office is the same as the registered office.

CBPL Entity #:	10137962	**AK Formed Date:**	07/18/2020	**Home State:**	Alaska
Registered Agent:	Misty Massie		**Agent's Phone:**	907-232-1063	
Agent's Mailing Address:	PO Box 874893				
City:	Wasilla	**State:**	AK	**ZIP:**	99687
Email:	mmassiebbllc@gmail.com		**Phone:**	907-232-1063	

Residency of Agent:	Yes	No
Does your registered agent satisfy the requirement of AS 04.11.430?	X	☐

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

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Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

Section 6 – Other Licenses

Ownership and financial interest in other alcoholic beverage businesses:	Yes	No
Does any representative or owner named as a transferee in this application have any direct or indirect financial interest in any other alcoholic beverage business that does business in or is licensed in Alaska?	X	

If "Yes", disclose which individual(s) has the financial interest, what the type of business is, and if licensed in Alaska, which license number(s) and license type(s):

License # 596 - Broken Boat LLC, same entity, Package Store License.

Section 7 – Authorization

Communication with AMCO staff:	Yes	No
Does any person other than a licensee named in this application have authority to discuss this license with AMCO staff?		X

If "Yes", disclose the name of the individual and the reason for this authorization:

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Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

Section 8 – Transferor Certifications

Additional copies of this page may be attached, as needed, for the controlling interest of the current licensee to be represented.

I declare under penalty of perjury that the undersigned represents a **controlling interest** of the current licensee. I additionally certify that I, as the current licensee (either the sole proprietor or the controlling interest of the currently licensed entity) have examined this application, approve of the transfer of this license, and find the information on this application to be true, correct, and complete.

Misty Massie
Signature of transferor

Misty Massie
Printed name of transferor

Subscribed and sworn to before me this 9th day of January, 2026.

Danielle Howard
Signature of Notary Public

DANIELLE HOWARD My Commission Expires NOTARY PUBLIC Mar 18, 2027 STATE OF ALASKA

Notary Public in and for the State of Alaska.

My commission expires: 3-18-27

Alice Massie
Signature of transferor

Alice Massie
Printed name of transferor

Subscribed and sworn to before me this 9th day of January, 2026.

Danielle Howard
Signature of Notary Public

DANIELLE HOWARD My Commission Expires NOTARY PUBLIC Mar 18, 2027 STATE OF ALASKA

Notary Public in and for the State of Alaska.

My commission expires: 3-18-27

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Alaska Alcoholic Beverage Control Board

Form AB-01: Transfer License Application

Section 9 – Transferee Certifications

Read each line below, and then sign your initials in the box to the right of each statement: Initials

I certify that all proposed licensees (as defined in AS 04.11.260) and affiliates have been listed on this application.

I certify that all proposed licensees have been listed with the Division of Corporations.

I certify that I understand that providing a false statement on this form or any other form provided by AMCO is grounds for rejection or denial of this application or revocation of any license issued.

I certify that all licensees, agents, and employees who sell or serve alcoholic beverages or check the identification of a patron will complete an approved alcohol server education course, if required by AS 04.21.025, and, while selling or serving alcoholic beverages, will carry or have available to show a current course card or a photocopy of the card certifying completion of approved alcohol server education course, if required by 3 AAC 305.700.

I agree to provide all information required by the Alcoholic Beverage Control Board in support of this application.

I hereby certify that I am the person herein named and subscribing to this application and that I have read the complete application, and I know the full content thereof. I declare that all the information contained herein, and evidence or other documents submitted are true and correct. I understand that any falsification or misrepresentation of any item or response in this application, or any attachment, or documents to support this application, is sufficient grounds for denying or revoking a license/permit. I further understand that it is a Class A misdemeanor under Alaska Statute 11.56.210 to falsify an application and commit the crime of unsworn falsification.

I certify that I and any individual identified in the business entity ownership section of this application, has, or will read AS 04 and its implementing regulations.

Misty D Massie
Signature of transferee

Misty Massie
Printed name

DANIELLE HOWARD
My Commission Expires
NOTARY PUBLIC
Mar 18, 2027
STATE OF ALASKA

Danielle Howard
Signature of Notary Public

Notary Public in and for the State of Alaska.

My commission expires: 3-18-27

Subscribed and sworn to before me this 9th day of January, 2026.

Outlook

Your affidavit for Controlling Interest Transfer Application

From Column Support <support@column.us>
Date Mon 2/2/2026 7:00 AM
To mmassiebbllc@gmail.com <mmassiebbllc@gmail.com>

1 attachment (555 KB)
column_affidavit_goh7GBytTZilnG94VrqN.pdf;

Hi Misty,

The affidavit for Controlling Interest Transfer Application is now available. **Please find a copy of the affidavit attached to this email.**

Notice Name: Controlling Interest Transfer Application
Notice ID: goh7GBytTZilnG94VrqN
Publisher: Mat-Su Valley Frontiersman
Publication Dates: 01/16/26, 01/23/26, 01/30/26

To review the uploaded affidavit in Column, click **View Notice.**

Supported by Column

If you'd like to unsubscribe from any emails from Column, you can do so in your user settings.

FRONTIERSMAN

AFFIDAVIT OF PUBLICATION

State of Florida, County of Broward, ss

Anjana Bhadoriya, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Mat-Su Valley Frontiersman, a newspaper printed and published at Wasilla and circulated through out Matanuska Susitna Borough, in said division three and state of Alaska and that the advertisement, of which the annexed is a true copy, and that the rate charged therein is not in excess of the rate charged private individuals, was published on the following days

PUBLICATION DATES:
Jan. 16, 2026, Jan. 23, 2026, Jan. 30, 2026

NOTICE ID: goh7GBytTZilnG94VrqN
PUBLISHER ID: MSV000719
NOTICE NAME: Controlling Interest Transfer Application
Publication Fee: 321.75

I certify under penalty of perjury that the foregoing is true.

Anjana Bhadoriya

(Signature)

SHERI SMITH
Notary Public - State of Florida
Commission # HH259383
Expires on May 31, 2026

VERIFICATION

State of Florida
County of Broward

Subscribed in my presence and sworn to before me on this 02/02/2026

S Smith

Notary Public
Notarized remotely online using communication technology via Proof.

Controlling Interest Transfer License Application

Broken Boat LLC, dba Knik Bar & Liquor Store located at 10204 S Knik Goose Bay Road in Wasilla is applying for a transfer of a Beverage Dispensary License AS 04.09.200 and Package Store License AS.09.230 to Broken Boat LLC. The change in ownership involves the ownership interest transfer from Misty Massie 66.67% and Alice Massie 33.33% to Misty Massie 50% and Douglas Massie 50%. Interested persons should submit written comment to their governing body, the applicant, and to the Alcohol Beverage Control Board at 550 West 7 th Ave. Suite 1600 Anchorage AK 99501 or alcohol.licensing@alaska.gov. Date: January 16, 23, 30, 2026
MSV000719

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Alcoholic Beverage Control Board

Form AB-02: Premises Diagram

Why is this form needed?

A detailed diagram of the proposed licensed premises is required for all alcohol license applications, per AS 04.11.260, 3 AAC 305.630 and 3 AAC 305.660. Your diagram must include dimensions and must show all entrances and boundaries of the premises, walls, bars, fixtures, and areas of storage, service, consumption, and manufacturing.

This form must be completed and submitted to AMCO's Anchorage office before any license application will be considered complete. You may attach blueprints or other detailed drawings that meet the requirements of this form.

The diagram MUST include:

- You must use a **solid, contiguous red line** to outline the outer perimeter of your premises with no breaks or separations.
  - The red outline is required to follow a physical barrier (wall, fence and even across doorways).
  - There should be no red lines within the perimeter
- Each area should be clearly labeled in any color other than red where alcohol is:
  - Stored
  - Served/Sold
  - Manufactured
  - Consumed
- All diagrams must include:
  - Dimensions (AMCO does not accept diagrams drawn to scale)
  - Cross streets
  - Points of reference, such as a compass rose indicating True North
  - All entrances, exits, walls, bars, and fixtures
- If your premises include multiple floors, please include a separate diagram of each floor.
  - You must identify the stairs between each floor, and each hallway/corridor that leads to each set of stairs.
- If your premises includes multiple floors, please include a separate diagram of each floor. You must identify the stairs between each floor, and each hallway/corridor that leads to each set of stairs.
- If your proposed premises is located within a building or building complex that contains multiple businesses and/or tenants, please provide an additional page that clearly shows the location of your proposed premises within the building or building complex, along with the addresses and/or suite numbers of the other businesses and/or tenants within the building or building complex.
- **Any license applications that include outdoor space** are required to submit a security plan that includes information about the barriers, practices, and personnel that are to be used to ensure that alcohol is not introduced or removed from the permitted premises and to prevent the access of alcohol by a minor during the permitted event. A security plan may be requested for other proposed locations on a case-by-case basis.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Broken Boat LLC	**License Number:**	597		
License Type:	Beverage Dispensary				
Doing Business As:	Knik Bar & Liquor Store				
Premises Address:	10204 S Knik Goose Bay Road				
City:	Wasilla	**State:**	AK	**ZIP:**	99623

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550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Alcoholic Beverage Control Board

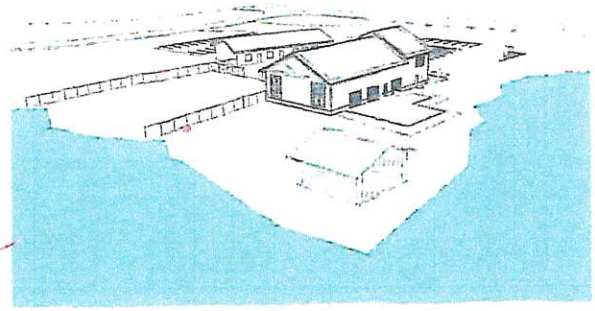
Form AB-02: Premises Diagram

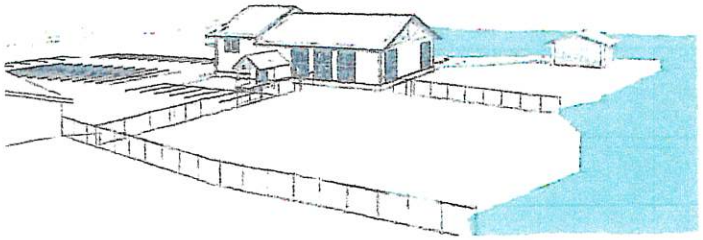
Section 2 – Detailed Premises Diagram

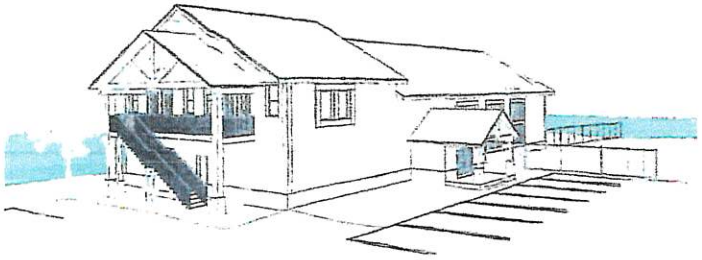
Clearly indicate the boundaries of the premises and the proposed licensed area within that property. See above for detailed instructions.

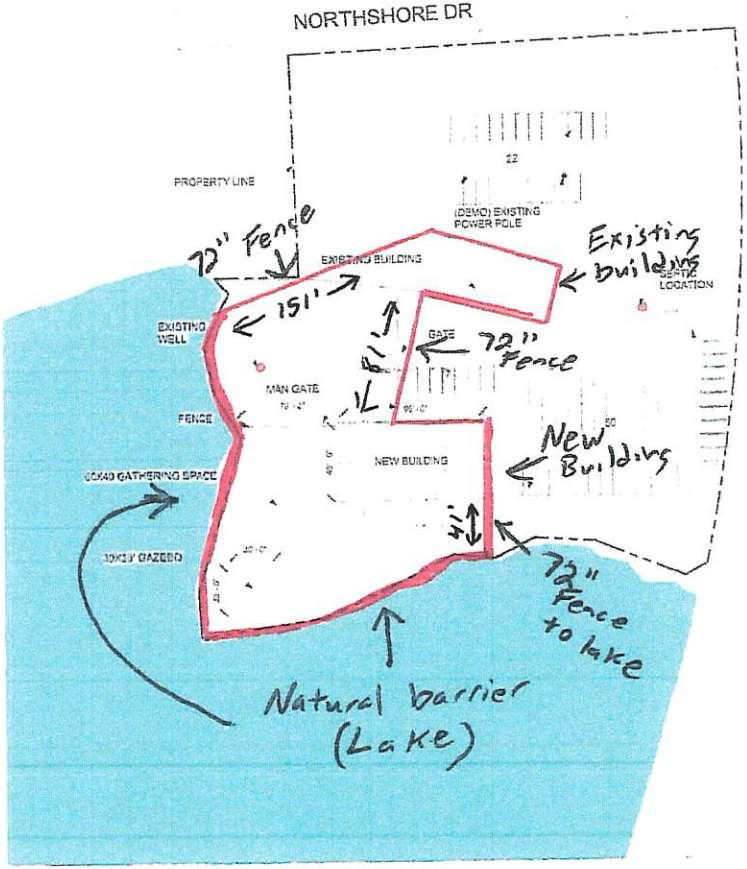
Please see attached premises diagram and map.

Knik Landing









1 Site
1" = 40'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

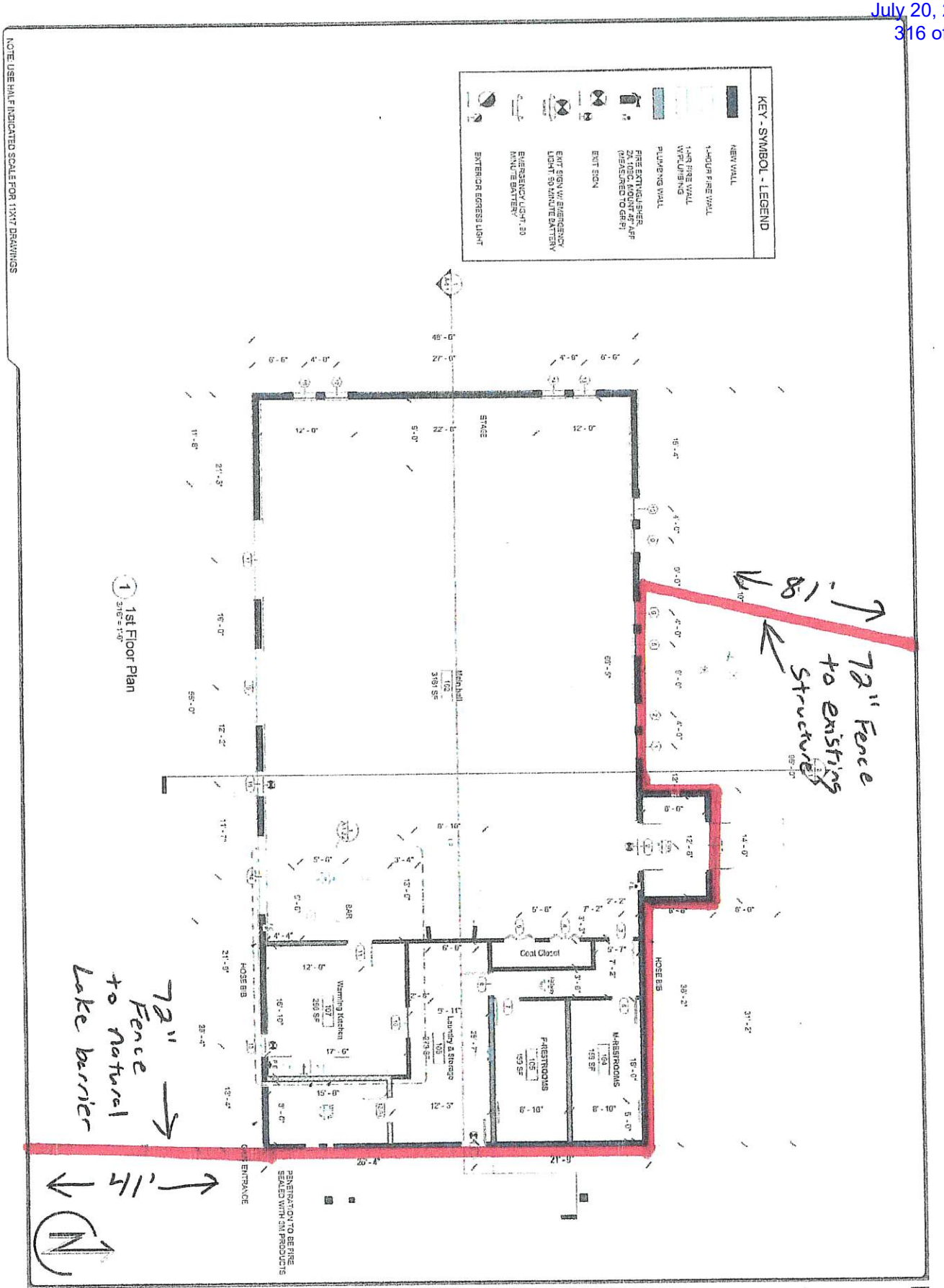
Determine

Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dana@determinesdesign.com

Sheet Issue Date:
8/8/2025 2:50:05 PM
Drawn by: MB
Checked by: DHC

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Site Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.0



A-1.2

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: 1st Floor Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@determinedesign.com

Drawn by: MD
Checked by: DHG
Sheet Issue Date: 6/5/2023 2:50:14 PM

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

KEY - SYMBOL - LEGEND

NEW WALL
1-HOUR FIRE WALL
1-HR FIRE WALL W/PLUMBING
PLUMBING WALL
EXIT SIGN
FIRE EXTINGUISHER 2A 10BC, MOUNT 40" AFF (MEASURED TO GRIP)
EXIT SIGN W/ EMERGENCY LIGHT, 90 MINUTE BATTERY
EMERGENCY LIGHT, 90 MINUTE BATTERY
EXTERIOR EGRESS LIGHT

1 Mezzanine
3/16" = 1'-0"

8'

72" Fence to existing structure

72" Fence to Natural tree barrier

4'

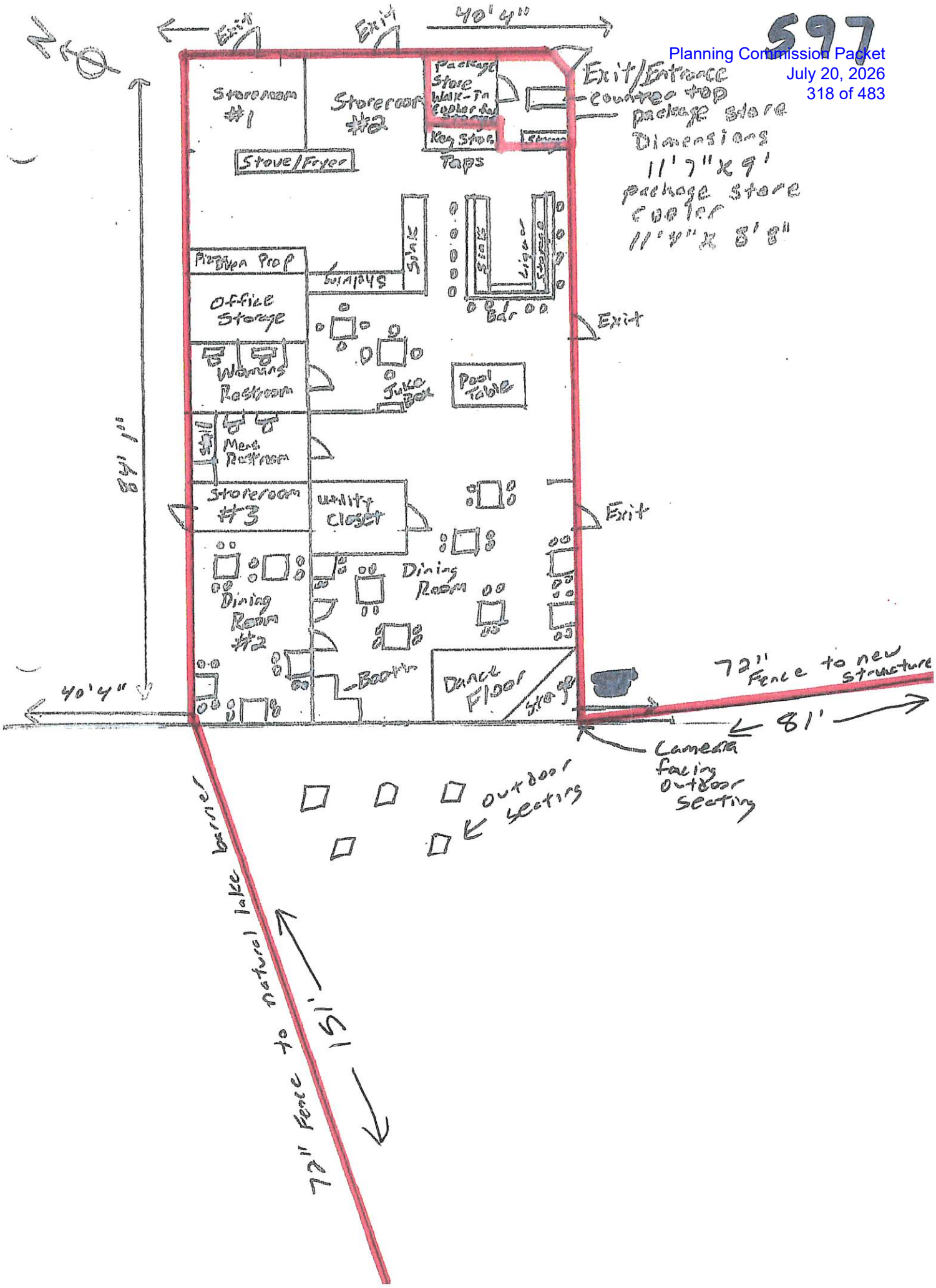
N

Project Title:	Knik Landing
Prepared for:	Doug Massie
Sheet Title:	Mezzanine Floor Plan
Address:	10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.3

Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@determinedesign.com

S97


Exit
Exit
40'4"
Storeroom #1
Storeroom #2
Package Store Walk-in Refrigerated Room
Key Stock
Taps
Stove/Fryer
Exit/Entrance
counter top
package store
Dimensions
11'7" x 9'
package store
counter
11'9" x 8'8"
Sink
Pizza Prep
Shelves
Sink
Liquor
Storage
Bar
Office Storage
Exit
Warmers
Restroom
Juke Box
Pool Table
Shelf
Mens Restroom
Storeroom #3
Utility Closet
Exit
Dining Room
Dining Room #2
Booth
Dance Floor
Step
72" Fence to new structure
81'
40'4"
84'1"
Camera facing outdoor seating
outdoor seating
72" Fence to natural lake barrier
151'

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Phone: 907.269.0350

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Form AB-07: Public Notice Posting Affidavit

Why is this form needed?

A public notice posting affidavit is required for all liquor license applications. An applicant must give notice of a liquor license application to the public by posting a true copy of the **Form AB-00** (new licenses) or **Form AB-01** (license transfers) for ten (10) days at the location of the proposed licensed premises and one other conspicuous location in the area of the proposed premises, per AS 04.11.310 and 3 AAC 305.075. The public notice must be given within the 90 days immediately preceding filing of the application.

This form must be completed and submitted to AMCO's Anchorage office before any license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Broken Boat LLC				
License Type:	Beverage Dispensary				
Doing Business As:	Knik Bar & Liquor Store				
Premises Address:	10204 S Knik Goose Bay Rd				
City:	Wasilla	**State:**	AK	**ZIP:**	99623

Section 2 – Certification

I certify that I have met the public notice requirement set forth under AS 04.11.310 by posting a copy of my application for the following 10-day period at the location of the proposed licensed premises and at the following conspicuous location in the area of the proposed premises:

Start Date: 01/20/2026 End Date: 01/30/2026

Other conspicuous location: Three Bears - Knik Goose Bay Rd

Read the statement below, and then sign your initials in the box to the right of the statement: **Initials**

I hereby certify that I am the person herein named and subscribing to this application and that I have read the complete application, and I know the full content thereof. I declare that all of the information contained herein, and evidence or other documents submitted are true and correct. I understand that any falsification or misrepresentation of any item or response in this application, or any attachment, or documents to support this application, is sufficient grounds for denying or revoking a license/permit. I further understand that it is a Class A misdemeanor under Alaska Statute 11.56.210 to falsify an application and commit the crime of unsworn falsification.

Misty Massie
Printed name of licensee

Misty Massie
Signature of licensee

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
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Phone: 907.269.0350

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Form AB-09: Statement of Financial Interest

Why is this form needed?

A statement of financial interest is required for all alcoholic beverage license applications, per 3 AAC 305.045(c). A person other than a licensee may not have a direct or indirect financial interest (as defined in AS 04.11.450(f)) in the business for which a liquor license is issued, per AS 04.11.450.

This form must be completed and submitted to AMCO's Anchorage office before any license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Broken Boat LLC				
License Type:	Beverage Dispensary	**EIN:**	85-2093809		
Doing Business As:	Knik Bar & Liquor Store				
Premises Address:	10204 S Knik Goose Bay Road				
City:	Wasilla	**State:**	AK	**ZIP:**	99623
Email:	mmassiebbllc@gmail.com	**Phone:**	907-376-3818		

Section 2 – Certifications

Read each statement below, and then sign your initials in the box to the right of the statements:

Initials

The sole proprietor or entity listed above certifies that no person other than a proposed licensee listed on the alcoholic license application has a direct or indirect financial interest, as defined in AS 04.11.450(f), in the business for which a liquor license is being applied for.

The sole proprietor or entity listed above additionally certifies that any ownership change shall be reported to the board as required under AS 04.11.040, AS 04.11.045, AS 04.11.050, and AS 04.11.055.

I hereby certify that I am the person herein named and subscribing to this application and that I have read the complete application, and I know the full content thereof. I declare that all of the information contained herein, and evidence or other documents submitted are true and correct. I understand that any falsification or misrepresentation of any item or response in this application, or any attachment, or documents to support this application, is sufficient grounds for denying or revoking a license/permit. I further understand that it is a Class A misdemeanor under Alaska Statute 11.56.210 to falsify an application and commit the crime of unsworn falsification.

Misty Massie

Printed name of licensee

Signature of licensee

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Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Alcoholic Beverage Control Board

Form AB-11: Creditors Affidavit

Why is this form needed?

This form must be completed by the transferor of a liquor license in order to report all debts of and taxes owed by the business, as required by AS 04.11.280(b). The Alcoholic Beverage Control Board will deny an application for transfer of a license to another person if the Board finds that the transferor has not paid all debts or taxes arising from the conduct of the licensed business, unless the transferor gives security for the payment of the debts or taxes satisfactory to the creditor or taxing authority, per AS 04.11.360(4)(A).

This form must be completed and submitted to AMCO's Anchorage office before any application to transfer the ownership, including the controlling interest, of a license will be considered complete.

Section 1 – Transferor Information

Enter information for the ***current*** licensee and licensed establishment.

Licensee:	Broken Boat LLC	**License Number:**	597		
License Type:	Beverage Dispensary				
Doing Business As:	Kink Bar & Liquor Store				
Premises Address:	10204 S Knik Goose Bay Road				
City:	Wasilla	**State:**	Alaska	**ZIP:**	99623
Federal Tax ID # / EIN:	85-2093809				

Section 2 – Debts and Taxes Owed

Enter information for each creditor or taxing authority to which debts or taxes are owed. If there are no debts or taxes owed by the business, write "None" in the first field. You will be required to correct this form if a response of "N/A" is written in any field. Attach additional pages or documentation as necessary.

Creditor / Taxing Authority	Current Valid Email or Mailing Address of Creditor	Amount Owed
Northrim Bank	PO Box 241489, Anchorage, AK 99524, timothy.breeden@nrim.com	1,100,000

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
alcohol.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

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Alaska Alcoholic Beverage Control Board

Form AB-11: Creditors Affidavit

Section 3 – Transferor Certifications

Read the statements below, and then sign your initials in the box to the right of the statements: Initials

I certify that all debts of the business and all taxes the business owes are listed on Page 1 of this form, and that the contact information provided for each creditor is current. MM

I hereby certify that I am the person herein named and subscribing to this application and that I have read the complete application, and I know the full content thereof. I declare that all of the information contained herein, and evidence or other documents submitted are true and correct. I understand that any falsification or misrepresentation of any item or response in this application, or any attachment, or documents to support this application, is sufficient grounds for denying or revoking a license/permit. I further understand that it is a Class A misdemeanor under Alaska Statute 11.56.210 to falsify an application and commit the crime of unsworn falsification. MM

Misty Massie
Printed name of transferor

Misty Massie
Signature of transferor

DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
P.O. BOX 6898
JBER, AK 99506-0898

October 2, 2025

Regulatory Division
POA-2025-00404

Office of History and Archaeology
Attention: Ms. Sarah Meitl, Deputy SHPO
550 W. 7th Avenue, Suite 1380
Anchorage, Alaska 99501-3561

Dear Ms. Meitl:

This letter is in regard to Douglas Massie's application for a Department of the Army (DA) permit to fill 500 feet of shoreline with armoring rock below the ordinary high-water mark for bank stabilization within Knik Lake. This work is to prevent further erosion to the shoreline. It has been assigned file number POA-2025-00404, Knik Lake which should be referred to in all future correspondence with this office. The project site is located within Section 36, T. 17 N., R. 3 W., Seward Meridian; Latitude 61.4619° N., Longitude 149.7241° W.; Matanuska-Susitna Borough, in Knik, Alaska. All work would be performed in accordance with the enclosed plan (sheets 1-6), dated September.

This letter constitutes consultation pursuant to Section 106 of the National Historic Preservation Act and 33 CFR 325 Appendix C. The U.S. Army Corps of Engineers (USACE) has defined the undertaking as all portions of the project described above, which require DA authorization. USACE has defined the permit area as the shoreline where the bank stabilization is occurring in Knik Lake and the immediate area around the proposed work, as shown on the enclosed map.

Based on the information provided by the Alaska Historic Resources Survey (AHRS) and Google Earth, ANC 00003 (Knik Site), which is listed on the NHR, is about 350 feet from the permit area. ANC-02855 is an historic town originally used by the Tanaina where in 1915 held about 500 residents with 200 homesteads. With the establishment of Wasilla in 1917 the town dissipated leaving only two structures by 1973. The site is impacted with road construction and development of gravel. The proposed project would not disrupt this site further due to the distance from the historic town and since the site is already impacted.

Therefore, we have determined that the proposed undertaking would result in a No Adverse Effect determination. We are hereby seeking your concurrence with our determination of No Adverse Effect for the proposed undertaking. Please provide your response within 30 days from the date of this letter.

Please contact me via email at leah.barrett@usace.army.mil, by mail at the address above, or by phone at (907) 753-2760.

Sincerely,

Leah Barrett

Leah Barrett
Regulatory Specialist

Enclosures

Print Form Save As

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved
OMB No. 0710-0003
Expires: 02-28-2022

The public reporting burden for this collection of information, 0MB Control Number 0710-0003, is estimated to average 11 hours per response including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid 0MB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers, Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested informat on is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN): The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: htti.../di..cld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.asi. x

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Douglas Middle - A. Last- Massie	First - Middle - Last-
Company- Broken Boat LLC	Company- Same
E-mail Address - Massman76@hotmail.com	E-mail Address -
6. APPLICANT'S ADDRESS:	**9. AGENT'S ADDRESS:**
Address- PO Box 874893	Address-
City- Wasilla State - AK Zip - 99687 Country- USA	City- State - Zip - Country-
7. APPLICANT'S PHONE NOs. w/AREA CODE	**10. AGENTS PHONE NOs. w/AREA CODE**
a. Residence b. Business 907-232-7072 c. Fax	a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT DATE 8/22/25

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Knik Landing

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
Knik Lake	Address 10204 S. Knik Goose Bay Rd.
15. LOCATION OF PROJECT	City- Wasilla State- AK Zip- 99623
Latitude: N Longitude: W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID 518705 Municipality Matanuska Susitna Borough

Section - 5 16N03W24 Township - Range -

17. DIRECTIONS TO THE SITE

Mile 13.5 Knik Goose Bay Rd.

18. Nature of Activity (Description of project, include all features)

Add armoring rock to 500' of shoreline on west end of property. (See attachment)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

To prevent further erosion to my land and provide bank stabilization.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Fill rock to be placed below ordinary high water for bank stabilization.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Less than 1 cubic yard/foot		

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres
or
Linear Feet 500' Linear feet.

23. Description of Avoidance, Minimization, and Compensation (see instructions)

By using armoring rock, we will minimize ~~turbidity~~ turbidity in the Lake.

Print Form Save As

24. Is Any Portion of the Work Already Complete? Yes (No) IF YES, DESCRIBE THE COMPLETED WORK

No.

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list)

a. Address- 11010 Northshore Drive

City- Wasilla, AK 99654 State - AK Zip - 99654

b. Address- 10328 S. Knik Goose Bay Rd.

City- Wasilla, AK State - AK Zip - 99623

c. Address-

City- State - Zip -

d. Address-

City- State - Zip -

e. Address-

City- State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
None					

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

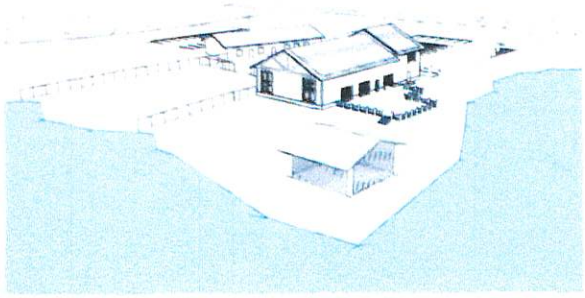
SIGNATURE OF APPLICANT 8/22/25 DATE SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

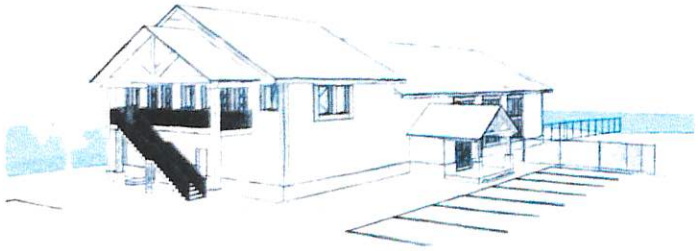
18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

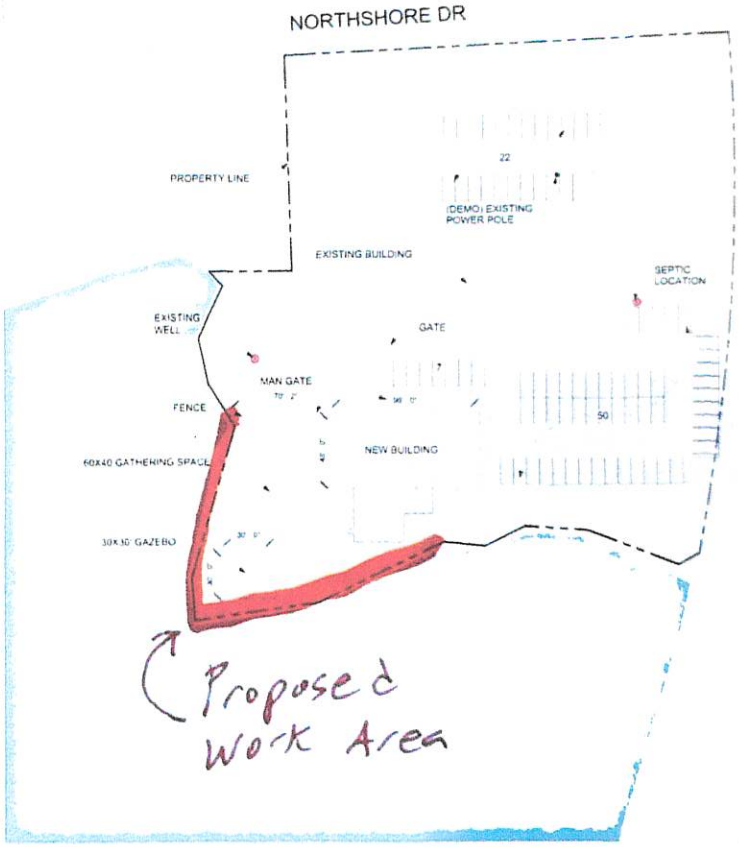
File No.: POA-2025-0047

Knik Landing









1 Site

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

Determine

Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@determinesdesign.com

Sheet Issue Date: 9/12/2025 12:59:04 PM
Drawn by: MO
Checked by: DHC

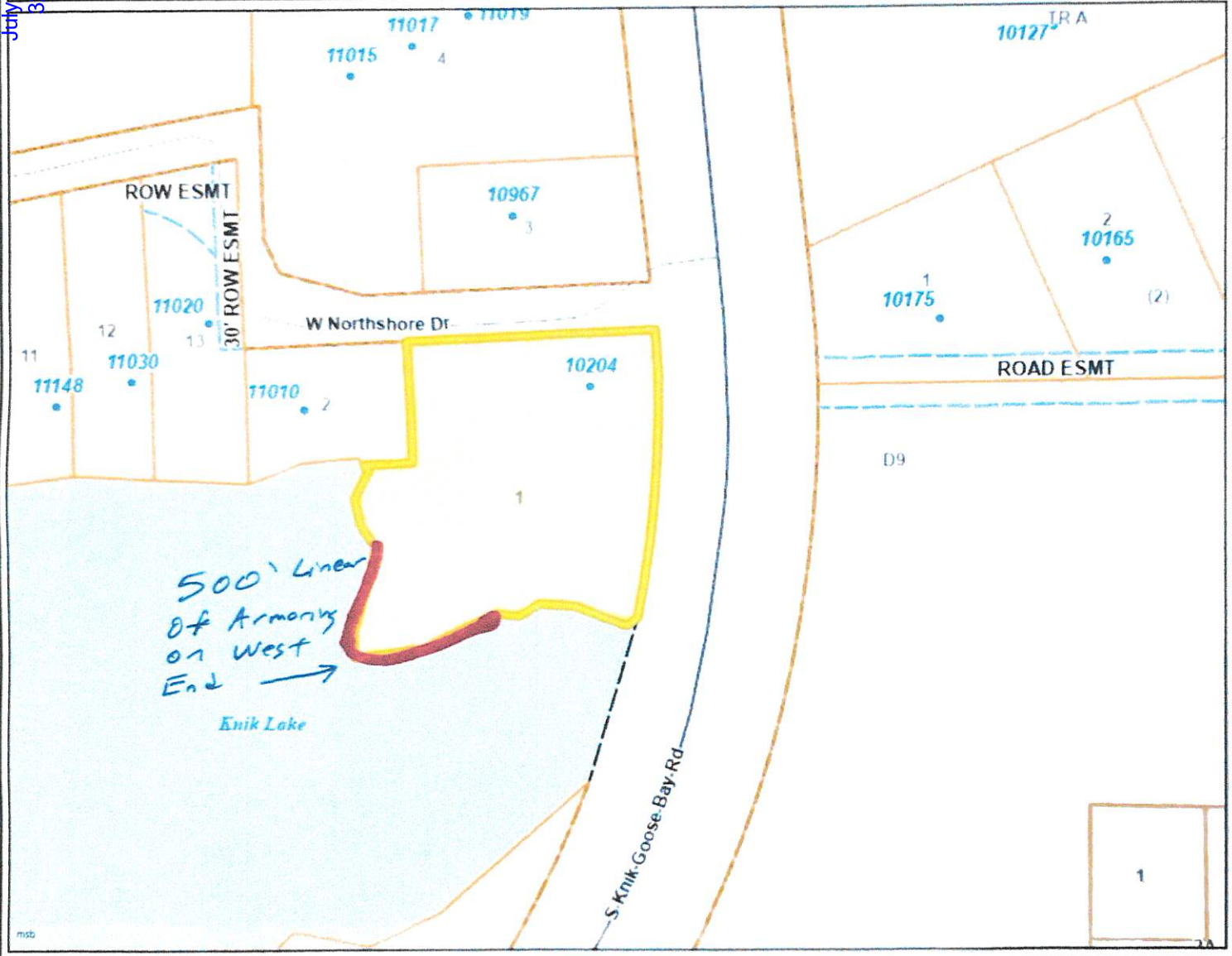
SCHEMATIC DEVELOPMENT PHASE

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Site Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.0

Page 1

Matanuska-Susitna Borough



Legend

ParcelViewer

Roads

Major Road

Minor Road

Mat-Su Borough Boundary

Address Numbers

Parcels

ROW and Easements

ROW Road

ROW Easement

Section Lines

1 : 4514

THIS MAP IS NOT TO BE USED FOR NAVIGATION

0 350 700 ft

WGS_1984_Web_Mercator_Auxiliary_Sphere

Date: 08/22/25

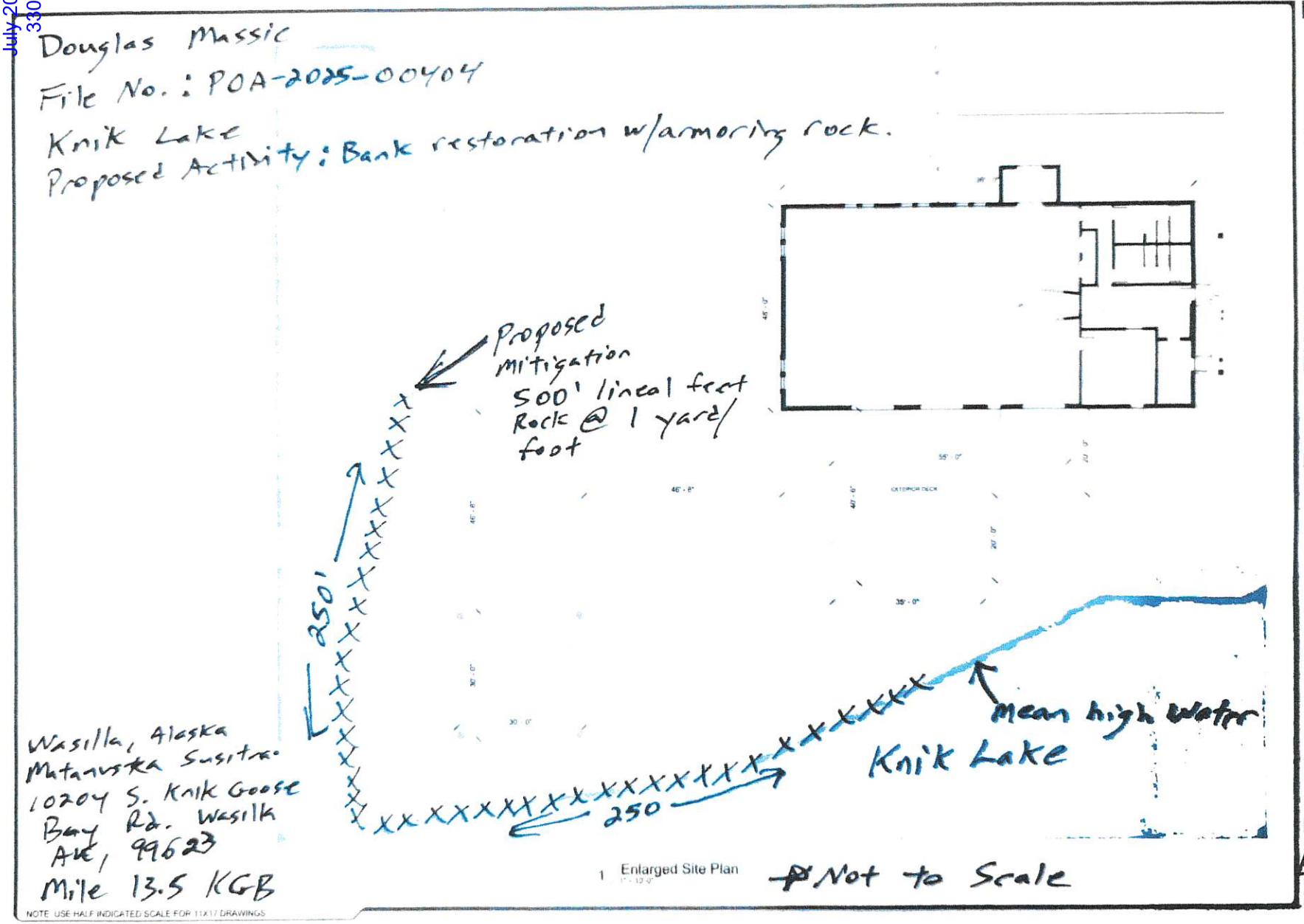
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Notes

Knik Landing Plan View

North

Douglas Massic
File No.: POA-2025-00404
Knik Lake
Proposed Activity: Bank restoration w/armoring rock.



Determine

Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@gdeterminesdesign.com

Sheet Issue Date: 5/12/2025 12:59:07 PM
Drawn by: MO
Checked by: DHC

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Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Enlarged Site Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

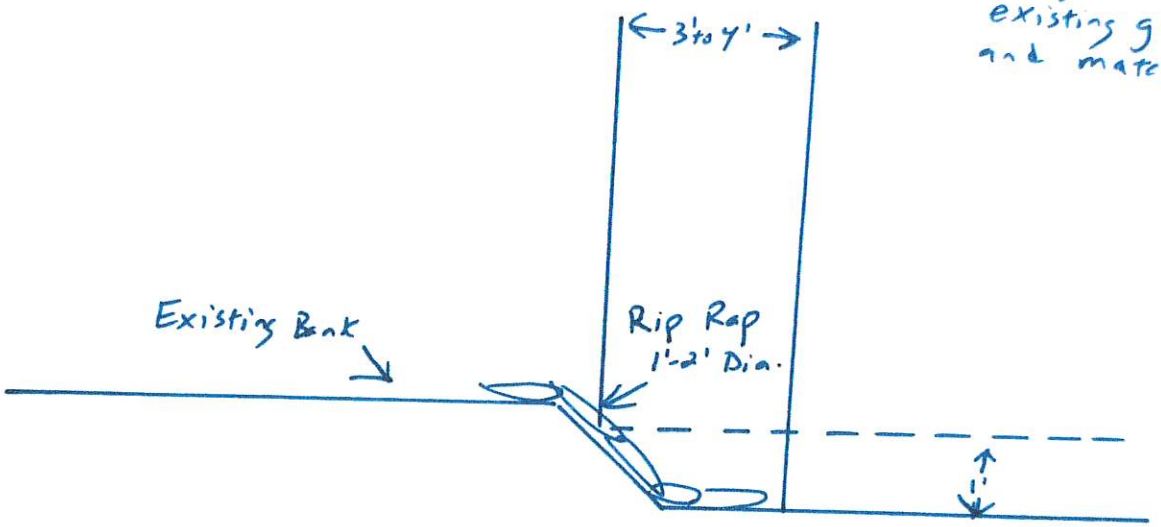
A-1.1

Bank Stabilization (Riprap) Cross Section

* Estimate 1/2 yard of stone per running foot of shoreline needed.

*500' of shoreline to be armored, 250 yards of material total.

*Rip Rap to go above existing grade and match.



*Not to scale

Wasilla, AK Matanuska Susitna Borough
Mile 13.5 Knik Goose Bay Rd.
Knik Lake

Douglas A. Massie
File No.: POA-2025-00404
Knik Lake
Proposed Activity: Bank restoration w/armoring rock
Page 3 of 6

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved
0MB No. 0710-0003
Expires: 02-28-2022

The public reporting burden for this collection of information, 0MB Control Number 0710-0003, is estimated to average 11 hours per response, including the lime for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if ii does not display a currently valid 0MB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: htli;,://di;,cld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.asi;,x

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Douglas Middle - A. Last- Massie	First - Middle - Last-
Company- Broken Boat LLC	Company- Same
E-mail Address - Massman76@hotmail.com	E-mail Address -
6. APPLICANT'S ADDRESS:	**9. AGENT'S ADDRESS:**
Address- PO Box 874893	Address-
City- Wasilla State - AK Zip - 99687 Country- USA	City- State - Zip - Country-
7. APPLICANT'S PHONE NOs. w/AREA CODE	**10. AGENTS PHONE NOs. w/AREA CODE**
a. Residence b. Business 907-232-7072 c. Fax	a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

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SIGNATURE OF APPLICANT DATE 8/22/25

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Knik Landing

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
Knik Lake	Address 10204 S. Knik Goose Bay Rd.
15. LOCATION OF PROJECT	City- Wasilla State- AK Zip- 99623
Latitude: N Longitude: W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID 518705 Municipality Matanuska Susitna Borough

Section - S16N03W24 Township - Range -

17. DIRECTIONS TO THE SITE

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18. Nature of Activity (Description of project, include all features)

Add armoring rock to 500' of shoreline on west end of property. (See attachment)

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20. Reason(s) for Discharge

Fill rock to be placed below ordinary high water for bank stabilization.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Less than 1 cubic yard/foot		

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Acres
or
Linear Feet 500' Linear feet.

23. Description of Avoidance, Minimization, and Compensation (see instructions)

By using armoring rock, we will minimize ~~turbility~~ turbidity in the Lake.

24. Is Any Portion of the Work .AJready Complete? Yes (No) IF YES, DESCRIBE THE COMPLETED WORK

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25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list)

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City- Wasilla, AK State - AK Zip - 99623

c. Address-

City- State - Zip -

d. Address-

City- State - Zip -

e. Address-

City- State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
None					

• Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

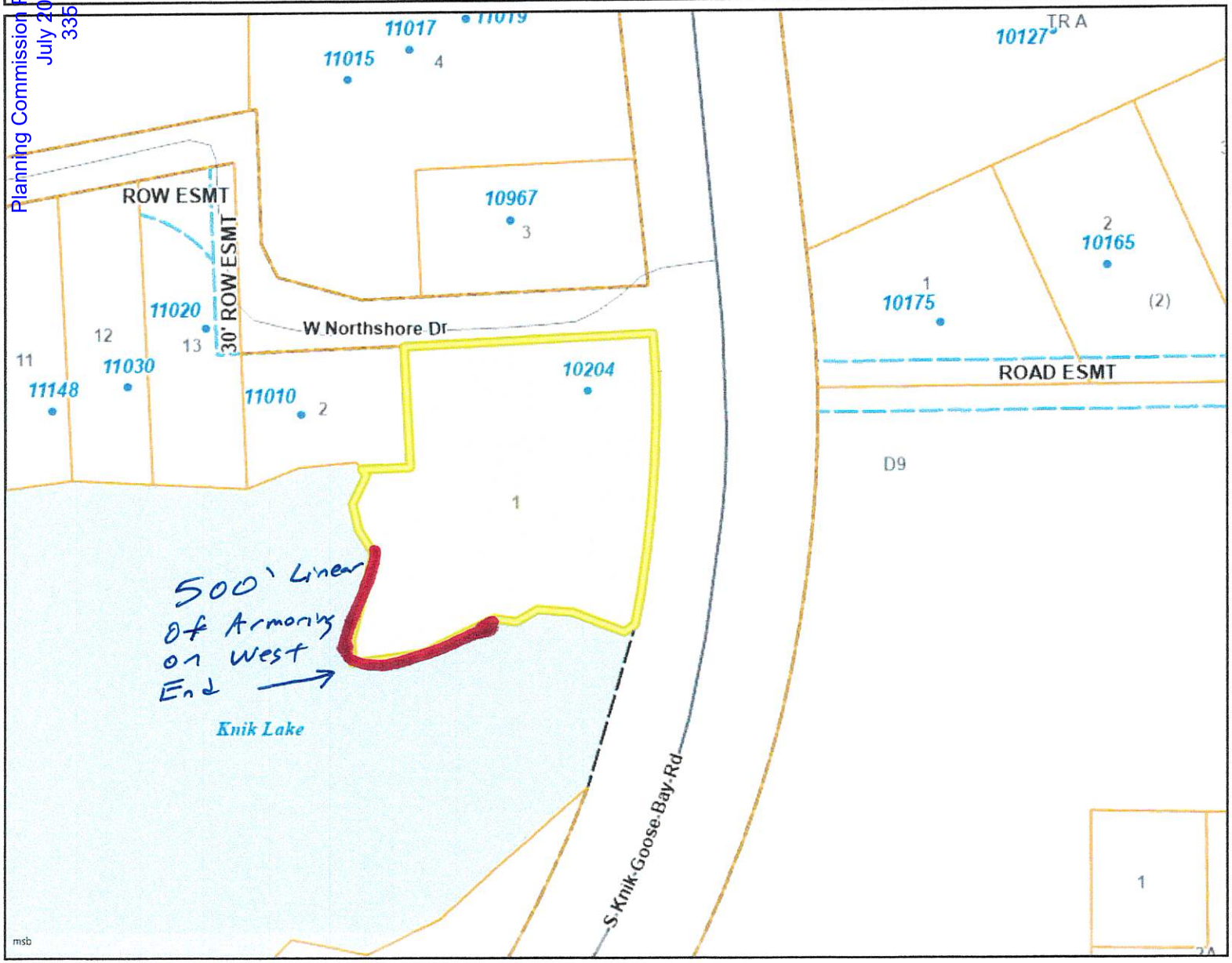
SIGNATURE OF APPLICANT 8/22/25 DATE SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Planning Commission Packet
July 20, 2026
335 of 483

Matanuska-Susitna Borough



Legend

ParcelViewer

Roads
- Major Road
- Minor Road

Mat-Su Borough Boundary

Address Numbers

Parcels

ROW and Easements
- ROW Road
- ROW Easement

Section Lines

1 : 4514

THIS MAP IS NOT TO BE USED FOR NAVIGATION

0 350 700 ft

WGS_1984_Web_Mercator_Auxiliary_Sphere

Date: 08/22/25

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Notes

Doug Massie
Knik Bar Event Center

Design Wastewater Flow

Source	Qty	Flow	Total
Gathering Space			
Atttendees (per person)	200	3	600
Warming Kitchen			
Customer (per person)	200	2	400
Employee (per person)	6	15	90
Clothes Washer (Per cycle)	4	20	80
		TOTAL	**1170 GPD**

SEPTIC TANK SIZING

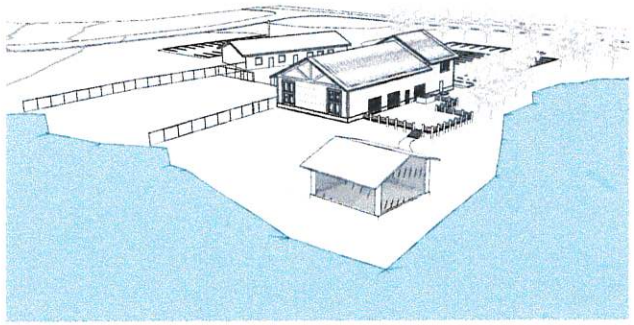
Per ADEC Onsite Wastewater System Installation Manual - OWSIM (April 2024)
Minimum Septic Tank Size (Design Flow 1,001 - 1,250 gpd) = 2,000 Gallons (with Manhole Risers)

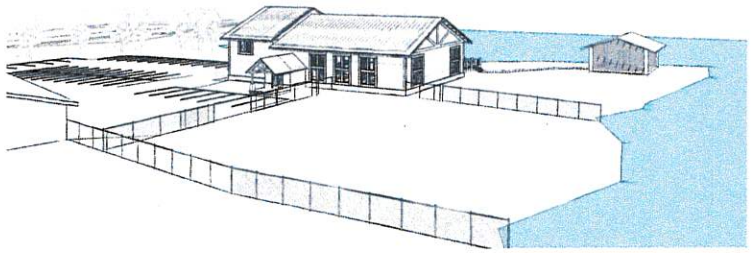
SAS DESIGN

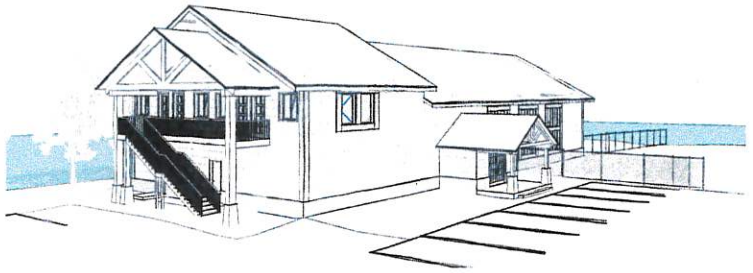
Subsurface soils in test hole were visually graded as poorly graded sands (SP)

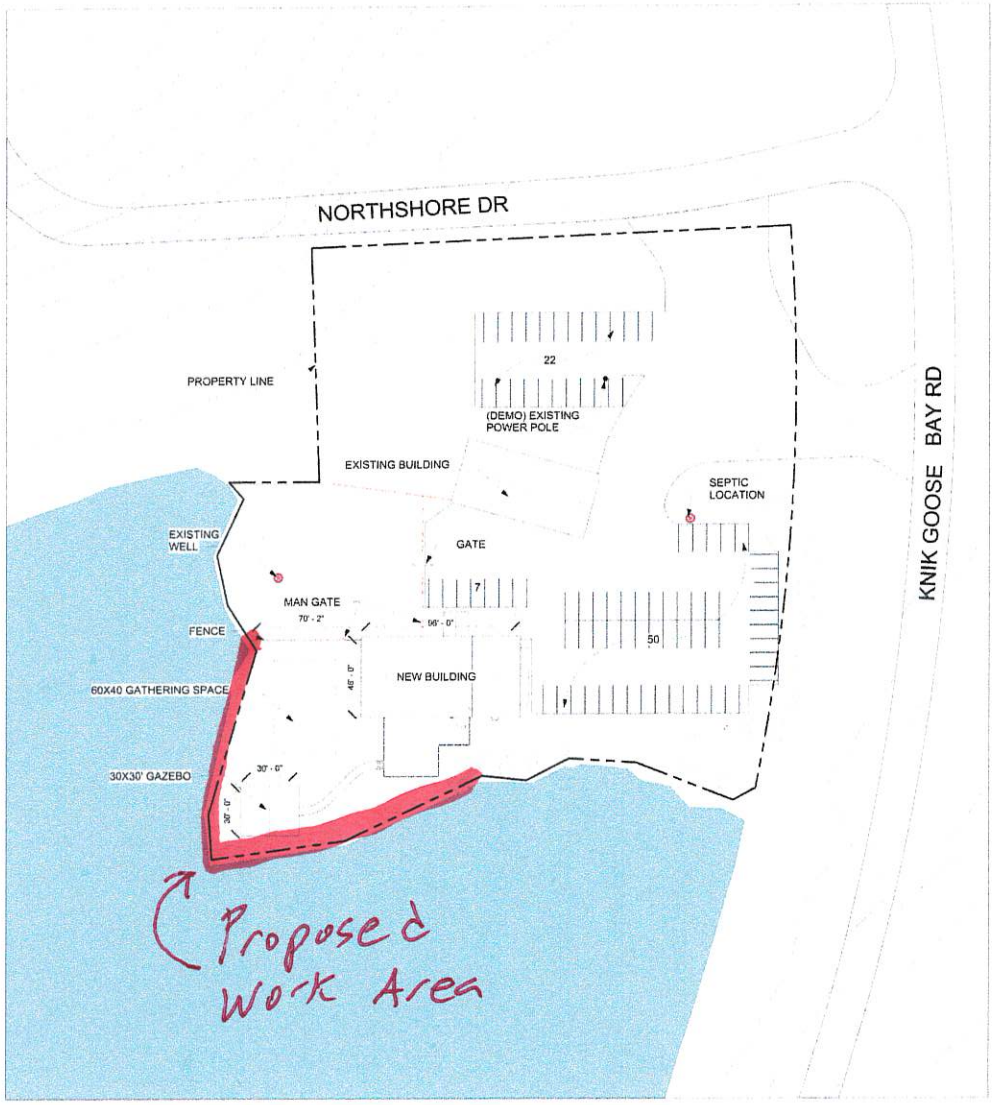
Soil Rating = 1.0 gpd/sq ft (Per OWSIM)
Min. SAS Area = 1,170 gpd/(1.0 gpd/sq ft) = 1,170 sq ft
Tentative Design -- Deep Trench, 8' Eff. Depth x 73' Long

Knik Landing









1 Site
1" = 40'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

Determine DESIGN

Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@determinedesign.com

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Sheet Issue Date:
8/12/2025 12:59:04 PM
Drawn by: MO
Checked by: DHC

SCHEMATIC DEVELOPMENT PHASE

NOT FOR CONSTRUCTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Site Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

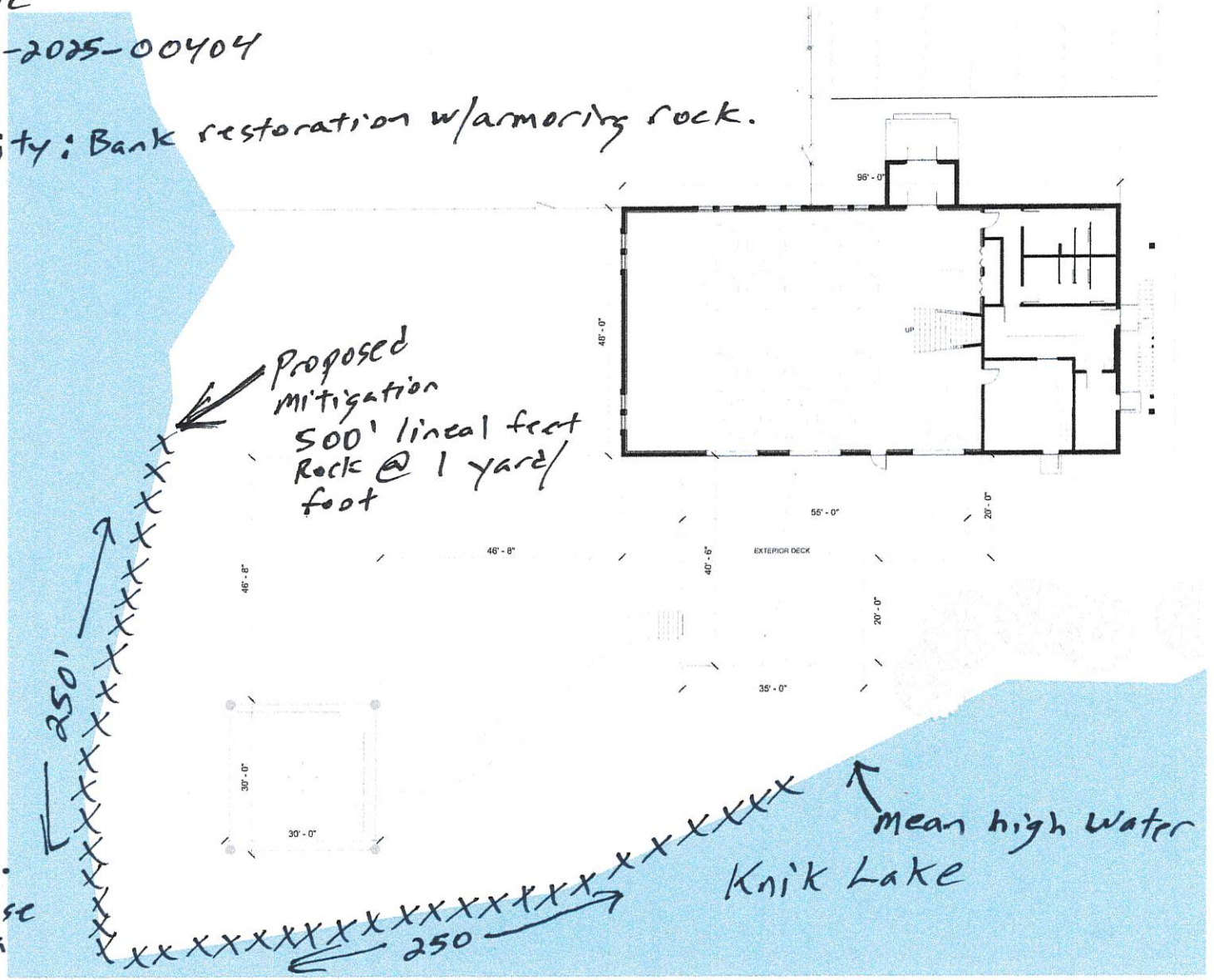
A-1.0

Planning Commission Packet
July 20, 2026
338 of 483

Knik Landing Plan View

North

Douglas Massie
File No.: POA-2025-00404
Knik Lake
Proposed Activity: Bank restoration w/armoring rock.



Wasilla, Alaska
Matanuska Susitna
10204 S. Knik Goose Bay Rd. Wasilla AK, 99623
Mile 13.5 KGB

1 Enlarged Site Plan
1" = 10'-0"

Not to Scale

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

Determine DESIGN
Determine DESIGN LLC AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
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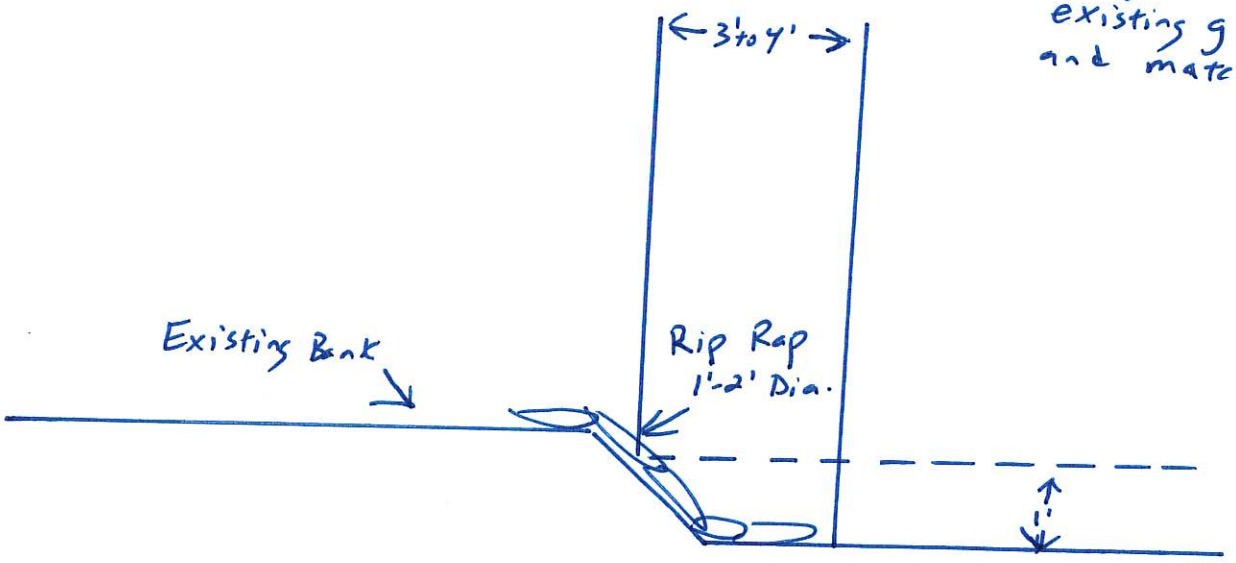
A-1.1

Bank Stabilization (Riprap) cross-Section.

* Estimate 1/2 yard of stone per running ~~foot~~ of shoreline needed.

*500' of shoreline to be armored, 250 yards of material total.

*Rip Rap to go above existing grade and match.



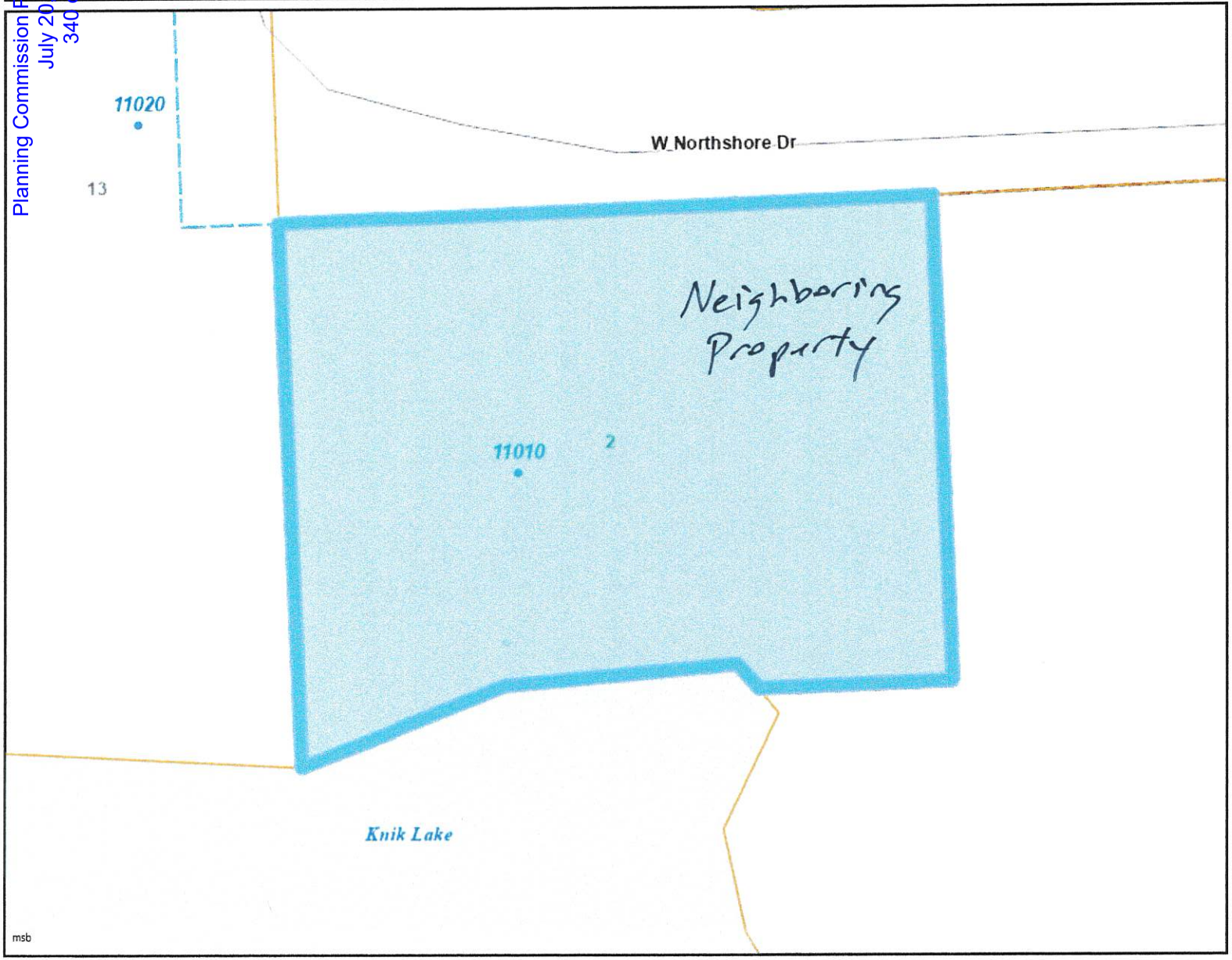
*Not to scale

Wasilla, AK Matanuska Susitna Borough
mile 13.5 Knik Goose Bay Rd.
Knik Lake

Douglas A. Massie
File No.: POA-2025-00404
Knik Lake
Proposed Activity: Bank restoration w/armoring rock

Planning Commission Packet
July 20, 2026
340 of 483

Matanuska-Susitna Borough



Legend

ParcelViewer

Roads

Minor Road

Mat-Su Borough Boundary

Address Numbers

Parcels

ROW and Easements

ROW Road

ROW Easement

Section Lines

1 : 1128

THIS MAP IS NOT TO BE USED FOR NAVIGATION

0 50 100 ft

WGS_1984_Web_Mercator_Auxiliary_Sphere

Date: 09/06/25

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Notes

Planning Commission Packet
July 20, 2026
341 of 483

MATANUSKA-SUSITNA BOROUGH

* Subject Property Information

Real Property Detail for Account: 57186000L001

Site Information

Account Number	57186000L001	Subdivision	KNIK LK 2011
Parcel ID	518705	City	None
TRS	S16N03W24	Map GB08	Tax Map
Abbreviated Description (Not for Conveyance)	KNIK LK 2011 LOT 1		
Site Address	10204 S Knik Goose Bay Rd		

Ownership

Owners	BROKEN BOAT LLC	Buyers	
Primary Owner's Address	PO BOX 874893 WASILLA AK 99687	Primary Buyer's Address	

Appraisal Information

Year	Land Appraised	Bldg. Appraised	Total Appraised
2025	$168,400.00	$114,300.00	$282,700.00
2024	$168,400.00	$114,300.00	$282,700.00
2023	$168,400.00	$109,900.00	$278,300.00

Assessment

Year	Land Assessed	Bldg. Assessed	Total Assessed
2025	$168,400.00	$114,300.00	$282,700.00
2024	$168,400.00	$114,300.00	$282,700.00
2023	$168,400.00	$109,900.00	$278,300.00

Building Information

Structure 1 of 3

Residential Units	0	Use	Bars and Lounges
Condition	Standard	Design	Commercial
Basement	None	Construction Type	Frame
Year Built	1960	Grade	None
Foundation	Poured Concrete	Well	Well 1 - Drilled Well
Septic	Septic - 1 - Septic Tank		

Structure 2 of 3

Residential Units	1	Use	Residential Building
Condition	Standard	Design	Cabin
Basement	None	Construction Type	Frame
Year Built	1999	Grade	1215 - Cabin
Foundation	Concrete Piers	Well	
Septic			

Structure 3 of 3

Residential Units	1	Use	Residential Building
Condition	Standard	Design	Cabin
Basement	None	Construction Type	Frame
Year Built	1999	Grade	1215 - Cabin
Foundation	Concrete Piers	Well	

Page 5 of 6

Planning Commission Packet
July 20, 2026
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MATANUSKA-SUSITNA BOROUGH

X Neighboring Property Owner

Real Property Detail for Account: 57186000L002

Site Information

Account Number	57186000L002	Subdivision	KNIK LK 2011
Parcel ID	518706	City	None
PLSS	S16N03W24	Map GB08	
Abbreviated Description (Not for Conveyance)	KNIK LK 2011 LOT 2	Tax Map	
Site Address	11010 W Northshore Dr		

Ownership

Owners	MARQUEZ DAWN L	Buyers	
Primary Owner's Address	STE B PMB 975 2521 E MOUNTAIN VILLAGE D WASILLA AK 99654	Primary Buyer's Address	

Appraisal Information

Year	Land Appraised	Bldg. Appraised	Total Appraised
2025	$65,800.00	$1,000.00	$66,800.00
2024	$65,800.00	$1,000.00	$66,800.00
2023	$65,800.00	$1,000.00	$66,800.00

Assessment

Year	Land Assessed	Bldg. Assessed	Total Assessed[1]
2025	$65,800.00	$1,000.00	$66,800.00
2024	$65,800.00	$1,000.00	$66,800.00
2023	$65,800.00	$1,000.00	$66,800.00

Building Information

Building Item Details

Building Number	Description	Area	Percent Complete

Tax/Billing Information

Year	Certified	Zone	Mill	Tax Billed
2025	Yes	0030	12.797	$854.83
2024	Yes	0030	13.174	$880.02
2023	Yes	0030	12.883	$860.58

Recorded Documents

Date	Type	Recording Info (offsite link to DNR)
1/31/2024	QUITCLAIM DEED (ALL TYPE)	Palmer 2024-001483-0
7/25/2014	PERSONAL REPRESENTATIVE	Palmer 2014-014013-0
3/7/2013	QUITCLAIM DEED (ALL TYPE)	Palmer 2013-004710-0

Tax Account Status [2]

Status	Tax Balance	Farm	Disabled Veteran	Senior	Total [3]	LID Exists
Current	$427.41	$0.00	$0.00	$0.00	$0.00	No

Land and Miscellaneous

Gross Acreage	Taxable Acreage	Assembly District	Precinct	Fire Service Area	Road Service Area
0.70	0.70	Assembly District 005	30-585	130 Central Mat-Su	017 Knik RSA

[1] Total Assessed is net of exemptions and deferments.rest, penalties, and other charges posted after Last Update Date are not reflected in balances.
[2] If account is in foreclosure, payment must be in certified funds.
[3] If you reside within the city limits of Palmer or Houston, your exemption amount may be different.

Last Updated: 9/6/2025 12:00:00 PM

Page 6 of 6

MSB • Department of Emergency Services • Central Mat-Su Fire Department

Fire & Life Safety Division

Physical: Station 51 – 1911 S Terrace Court, Palmer
Mailing: 101 W Swanson Avenue • Wasilla, AK 99654
Office (907) 861-8383 • Fax (907) 861-8157 • E-mail: FireCode@matsugov.us

October 23, 2025

Douglas Massie
Broken Boat LLC
massman76@hotmail.com
10204 S. Knik Goose Bay Road
Wasilla, AK 99623

SUBJECT:	Knik Landing - Commercial Event Venue
FIRE SERVICE AREA:	Central Mat-Su FSA
PLAN REVIEW:	F&LS 2025-000116
TYPE OF CONSTRUCTION:	VB
OCCUPANCY TYPE:	A-3

2021 INTERNATIONAL BUILDING AND FIRE CODE

Dear Douglas Massie:

Plans for the subject facility have been reviewed by this office for conformity with the State Fire Safety Regulations and are hereby approved as submitted. Enclosed is a certificate of approval that must be posted on the premises until completion of the above facility. Any changes to the approved plans must be submitted to this office for review and approval. **You are prohibited to occupy this building until construction is completed for which plans have been examined and approved.** After completion of the construction, you must schedule a certificate of occupancy inspection prior to opening.

It must be understood that the inclusion of and compliance with State Fire Safety Regulations does not preclude the necessity of compliance with the requirements of local codes and ordinances. Also understand that approval of submitted plans is not approval of omissions or oversights by this office or noncompliance with any applicable regulations. The plans have not been reviewed for compliance with the Federal Americans with Disabilities Act or structural requirements.

If we can be of further assistance in this matter, please contact us at the address above.

Sincerely,

Tyler E. Buff
Deputy Fire Marshal

Fire and Life Safety Division

Central Mat-Su Fire Service Area No. 130 - District 1
Department of Emergency Services, Matanuska-Susitna Borough

Plan Review #F&LS 2025-000116

Knik Landing - Commercial Event Venue

New Construction/Addition Approval

This is to certify that the plans for this building were reviewed by CMSFD's Fire & Life Safety Division on 10/23/2025, for conformance with AS 18.70.010–100; 13 AAC 50.027. This certificate becomes invalid 180 days after the work on the site is commenced within 180 days after issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the time work is commenced. An extension may be requested at the above mentioned address.

This certificate shall be posted in a conspicuous place on the premises listed above and shall remain posted until construction is completed. **Notice:** *Any changes or modifications to the approved plans must be resubmitted for review by the Central Mat-Su Fire Department.*

Authority: AS 18.70.080, 13 AAC 50.075 & MSB RS 06-054

Tyler E. Buff

by Tyler E. Buff, Deputy Fire Marshal

State of Alaska

Department of Transportation and Public Facilities

Driveway Permit 35051

This permit allows the owner to construct and maintain a driveway within a State owned highway Right of Way.

Owner:	Doug Massie/ Kink Bar
Mailing Address:	P.O. Box 874893, Wasilla, AK 99687

Driveway location (highway, address, subdivision, legal description milepost, etc.)

Existing DOT constructed driveway located at approx. MP 13.5 Knik Goose bay Road.

In Process

Design Criteria

A.	Driveway width	34	Feet
B.	Left edge clearance	50	Feet
C.	Right edge clearance	50	Feet
D.	Left return radius	40	Feet
E.	Right return radius	40	Feet
F.	Shoulder width	4	Feet
G.	Approach angle	90	Degrees
H.	Curb type	None	
I.	Curb to sidewalk distance	0	
J.	Left driveway foreslope	4:1	Or match existing
K.	Right driveway foreslope	4:1	Or match existing
L.	Culvert length	68	Feet (field fit)
M.	Landing grade	-2	Percent
N.	Landing length	48	Feet
O.	Culvert size	18	Inches
P.	Culvert type	CMP	
Q.	Ditch depth	3	Feet
R.	Shoulder type	Gravel	
S.	Road surface type	Paved	
T.	Driveway surface type	Asphalt	

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 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 is at the sole expense of those lands served.

The Department is not obligated to change its maintenance practices to accommodate a driveway constructed under a permit, or to incur any additional expense removing snow berms or other obstructions from a driveway within a right of way resulting from the Department's activities, or activities under a permit issued under 17 AAC 15.

Owner is responsible for adjusting, relocating or removing the driveway without cost or liability to the Department if the use or safety of the highway requires.

In Process

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 Owner.

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 Owner 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 Owner 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. 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.

Owner will 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 Owner'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. Owner is responsible for contractor's actions concerning placement of snow from Owner'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.

Owner is responsible for sight distance clearing of brush and obstructions adjacent to their property

In Process

Contact the Department for information about acceptable driveway markers (i.e., size, materials, distance, etc.) for placement within the right of way.

Attachments included as part of this permit are:

- Construction table (D10) and project sheet (F50) for built driveway

I, Douglas Massie, acknowledge and accept that (I or Corp. – Company LLC, etc.) will comply with all the provisions and conditions that the Department of Transportation and Public Facilities has included as a condition of issuing this permit.

Signed by:
Douglas Massie
380E675EAD814A4...
Owner Signature

5/14/2026
Date

DOT&PF Signature

Date

DW 35051
Planning Commission Packet
July 20, 2026
348 of 483

REVISIONS			STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
No.	DATE	DESCRIPTION	ALASKA	CA-0525(11)/53922	2003	D10	D10

639(1), 639(2)

DRIVEWAYS

STATION	COM.	RES.	OFFSET	LT. RAD.	RT. RAD.	WIDTH	REMARKS
530+00		**X**	**LT.**	**20**	**20**		**NEW**
547+10	X		RT.	40	40	23.91	S. KNIKKNACKMUDSHACK ROAD
558+60		X	LT.	20	20	13.91	
~~558+70~~		~~X~~	~~RT.~~	~~20~~	~~20~~	~~16.46~~	
564+10		X	LT.	20	20	13.99	
582+25		**X**	**LT.**	**20**	**20**		**NEW**
588+70	X		RT.	40	40	23.25	S. ROYAL LANE
588+70	X		LT.	40	40	23.01	S. ROYAL LANE
597+60		X	LT.	20	20	18.32	S. BROPHY CIRCLE
600+30	X		RT.	40	40	23.02	S. ALIX DRIVE
619+00		X	LT.	20	20	15.13	
601+00	**X**		**LT.**	**40**	**40**		**NEW SUBDIVISION**
620+80		X	RT.	20	20	19.90	S. A STREET
625+65		X	LT.	20	20	13.01	
627+40	X		RT.	40	40	24.30	S. FOXWORTH DRIVE
642+60		X	LT.	20	20	13.10	
643+10		X	RT.	20	20	15.79	
659+70		X	RT.	20	20	19.97	
660+00		X	LT.	20	20	14.82	
671+40		X	RT.	20	20	14.24	
677+20		X	RT.	20	20	16.75	
678+00		X	LT.	20	20	13.00	
681+50		X	RT.	20	20	18.76	GRAVEL PIT ACCESS
688+20	X		LT.	40	40	23.03	S. GALA DRIVE
688+40	X		RT.	40	40	23.02	W. HORIZON DRIVE
696+80		X	RT.	20	20	19.83	
699+95		X	RT.	20	20	20	
701+50		**X**	**LT.**	**20**	**20**		**NEW**
714+50	X		RT.	40	40	23.17	W. NORTHSHORE DRIVE
716+60	X		RT.	40	40	31.96	KNIK LAKE BAR
						14.60	
						17.35	**RALPH'S**
						18.00	BUS PULLOUT / RESIDENCE
735+58	X	~~X~~	RT.	NONE	~~20~~ 40	13.00	BUS PULLOUT / RESIDENCE
735+75	X		LT.	40	40	34	GRAVEL PIT ACCESS
737+95		X	RT.	20	20	20.00	**IDITAROD MUSEUM**
738+00		X	LT.	20	20	13.36	
754+00		X	RT.	20	20	16.93	**SUNNY KNIK CHAPEL, DOG LOT**
778+55	**X**		**LT.**	**20**	**20**		**NEW**
758+00		X	RT.	20	20	19.97	W. ROHN DRIVE
779+00	X		RT.	40	40	18.00	S. MALAMUTE RUN ROAD
783+90		X	LT.	20	20	13.12	
791+00		X	LT.	20	20	14.34	
793+50		X	LT.	20	20	13.28	
795+42		**X**	**LT.**	**20**	**20**		**NEW**
793+90	X		RT.	40	40	24.00	S. HOMESTEAD DRIVE
802+90		X	LT.	20	20	14.67	
824+80		X	LT.	20	20	18.68	
831+10		X	LT.	20	20	13.09	
857+80		X	LT.	20	20	13.10	
834+85		**X**	**LT.**	**20**	**20**		**NEW**
780+85	**X**		**LT.**	**40**	**40**		**NEW SCENIC OVERLOOK**

639(1), 639(2)

DRIVEWAYS

STATION	COM.	RES.	OFFSET	LT. RAD.	RT. RAD.	WIDTH	REMARKS
903+50		**X**	**RT.**	**20**	**20**		**NEW**
858+00		X	RT.	20	20	14.70	
861+60		X	RT.	20	20	19.96	
868+10		X	RT.	20	20	17.11	
868+50		X	LT.	20	20	13.19	**FISH CREEK CAMPGROUND, PRIVATE**
875+20		X	RT.	20	20	18.15	
878+10		**X**	**RT.**	**20**	**20**		
889+80		X	LT.	20	20	13.11	
889+90		X	RT.	20	20	14.27	
894+10		X	LT.	20	20	15.41	
900+00		X	RT.	20	20	13.41	W. MARTEN ROAD
901+60		X	LT.	20	20	17.98	W. PORCUPINE ROAD
904+60		**X**	**LT.**	**20**	**20**		**NEW**
907+90		X	LT.	20	20	13.56	
907+90		X	RT.	20	20	13.14	
916+90		X	RT.	20	20	13.99	
921+10	X		RT.	40	40	27.08	W. POINT MACKENZIE ROAD
922+80		X	LT.	20	20	19.93	S. ROSEBERRY LOOP
920+15		**X**	**LT.**	**20**	**20**		**REINSTALLED, PAVED**
929+70		X	RT.	20	20	19.61	SUBSTATION ACCESS ROAD
932+60		X	LT.	20	20	19.92	S. ROSEBERRY LOOP
941+00		X	RT.	20	20	13.99	
960+40		X	RT.	20	20	13.13	
982+10		X	RT.	20	20	14.11	
958+55		**X**	**RT.**	**20**	**20**		**CULVERT, NOT PAVED**
989+80	X		LT.	40	40	33.00	BAR AND DINER
992+40		X	LT.	20	20	13.13	
998+40		X	RT.	20	20	13.06	
999+40		X	LT.	20	20	13.54	**1ST CIRCLE APPROACH**
1000+20		X	LT.	20	20	13.54	**1ST CIRCLE APPROACH**
967+50		**X**	**LT.**	**20**	**20**		**NOT OBLITERATED**
1004+40		X	LT.	20	20	13.14	**2ND CIRCLE APPROACH**
1008+90		X	LT.	20	20	13.07	
1013+50		X	LT.	20	20	13.09	
1018+20		X	LT.	20	20	13.13	
959+60		**X**	**LT.**	**20**	**20**		**NOT OBLITERATED, PAVED, HAS CULVERT**
1023+00		X	LT.	20	20	15.73	
1043+60	X		RT.	40	40	23.84	ROAD TO THE BOAT LAUNCH
1052+10	X		LT.	40	40	23.07	MAINTENANCE ACCESS
1057+20	X		℄	42	52	52	42'x52' RECTANGLE PAD
550+00		**X**	**RT.**	**20**	**20**		**NEW**
550+90		**X**	**RT.**	**20**	**20**		**NEW**
582+35		**X**	**RT.**	**20**	**20**		**NEW**
759+70		**X**					**OBLITERATED, REINSTALLED UNDER IWA# 16**

Page 5 of 6

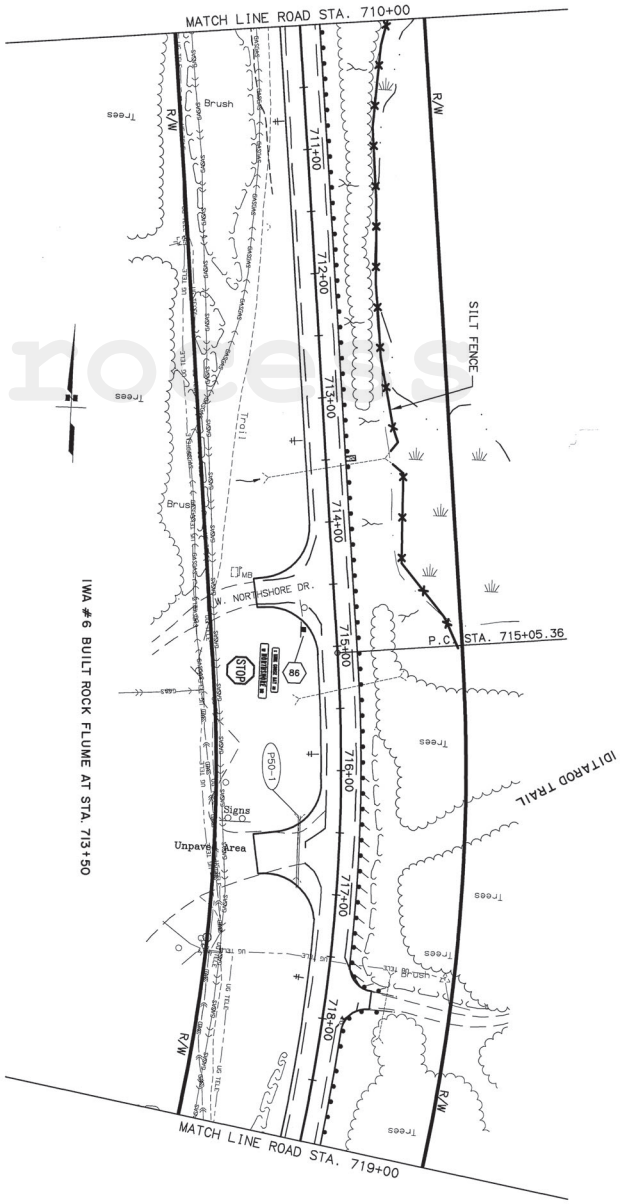
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND
PUBLIC FACILITIES

THOMAS P. MOLL
CE 3494
9/25/03
REGISTERED PROFESSIONAL ENGINEER

KNIK-GOOSE BAY ROAD
REHABILITATION AND PATHWAY

SUMMARY SHEET

SPECIFICATIONS		DESIGNED BY	
SCALE 1=50	XREFS: BASE_KGB.DWG, PROF_KGB.DWG, MAP_SIDE.DWG	CHECKED BY	
COMPUTER DESIGNATION	AUTOCAD-PATTI/VANESSA-53922R3\PANDP_KGB.DWG VIEW= F50	DRAFTED BY	PL/VS 04/11/2003



In Process

NO.	DATE	REVISIONS DESCRIPTION

ATTACHMENT NO.

ADDENDUM NO.

PROJECT DESIGNATION
CA-0525(11)/53922

STATE	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	2003	F50	F65

GOOSE BAY AIRPORT — W. POINT MACKENZIE RD. — W. HORIZON DR. — S. SETTLER'S BAY DR. — S. VINE RD. — W. FAIRVIEW LOOP — W. EDLUND RD. — GLENWOOD DR. — PARKS HIGHWAY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KNIK-GOOSE BAY ROAD
REHABILITATION
AND PATHWAY

PATHWAY
PLAN AND PROFILE

Certificate Of Completion

Envelope Id: E146EA44-851B-8E97-83AB-47A19B8CD9E6
Status: Sent
Subject: Complete with Docusign: 35051 Permit.pdf
Source Envelope:
Document Pages: 5
Signatures: 1
Envelope Originator:
Certificate Pages: 4
Initials: 0
Nick Hann
AutoNav: Enabled
PO Box 110206
EnvelopeId Stamping: Disabled
Juneau, AK 99811
Time Zone: (UTC-09:00) Alaska
nick.hann@alaska.gov
IP Address: 158.145.14.55

Record Tracking

Status: Original
5/14/2026 12:10:52 PM
Holder: Nick Hann
nick.hann@alaska.gov
Location: DocuSign
Security Appliance Status: Connected
Pool: StateLocal

Signer Events	Signature	Timestamp
Kutcher, Gabe gabe.kutcher@alaska.gov State of Alaska Security Level: Email, Account Authentication (None)	**Completed** Using IP Address: 136.226.57.3	Sent: 5/14/2026 12:35:31 PM Viewed: 5/14/2026 12:48:13 PM Signed: 5/14/2026 12:49:12 PM
Electronic Record and Signature Disclosure: Accepted: 5/14/2026 12:48:13 PM ID: 6e405726-205f-4cfb-9af3-80baf881ffdc Company Name: State of Alaska		
Douglas Massie massman76@hotmail.com Security Level: Email, Account Authentication (None)	Signed by: Douglas Massie 380E675EAD814A4... Signature Adoption: Pre-selected Style Using IP Address: 2600:387:15:80e::38 Signed using mobile	Sent: 5/14/2026 12:49:15 PM Viewed: 5/14/2026 1:20:40 PM Signed: 5/14/2026 1:22:11 PM
Electronic Record and Signature Disclosure: Accepted: 5/14/2026 1:20:40 PM ID: 56d3b222-1d44-4f8a-81bd-ed398cf31a33 Company Name: State of Alaska		
Arnolds, Melanie melanie.arnolds@alaska.gov CR ROW Chief State of Alaska, DOT&PF Security Level: Email, Account Authentication (None)		Sent: 5/14/2026 1:22:12 PM
Electronic Record and Signature Disclosure: Accepted: 2/10/2022 10:44:54 AM ID: f4482ac8-b847-4a05-a0c9-4b1aa8964367 Company Name: State of Alaska		

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

In Process

Carbon Copy Events	Status	Timestamp
Douglas Massie massman76@hotmail.com Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign		

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	5/14/2026 12:35:31 PM

Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

In Process

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

Please read this Electronic Records and Signature Disclosure (ERSD). It concerns your rights regarding electronically undertaking, and the conditions under which you and the State of Alaska agree to electronically undertake, the transaction to which it relates (the "TRANSACTION").

Consent to Electronically Undertake the TRANSACTION

You can electronically undertake the TRANSACTION only if you confirm that you meet the following requirements by selecting the box next to "I agree to use electronic records and signature" (the "AGREE BOX"):

1. you can fully access and have read this ERSD;
2. you can fully access all of the information in the other TRANSACTION records;
3. you can retain all of the TRANSACTION records in a form that you will be able to fully access for later reference;
4. you consent to undertake the TRANSACTION electronically; and
5. you are authorized to undertake the TRANSACTION. (Please note that falsely undertaking the TRANSACTION may subject you to civil liabilities and penalties and/or to criminal penalties.)

If you cannot or are not willing to confirm each of these five things, do not select the AGREE BOX.

Withdrawing Consent

If you select the AGREE BOX, you can withdraw your consent to electronically undertake the TRANSACTION at any time before you complete the TRANSACTION: simply do not finalize it. The only consequence of withdrawing your consent is that you will not finalize the TRANSACTION.

If you select the AGREE BOX, your consent will apply only to this TRANSACTION. You must separately consent to electronically undertake any other transaction with the State of Alaska.

Paper Option for Undertaking the TRANSACTION

You may undertake the TRANSACTION with the State of Alaska using paper records. (State of Alaska employees who want to undertake the TRANSACTION in paper should contact the agency responsible for the TRANSACTION.) Print the paper records on the website of the State of Alaska agency responsible for the TRANSACTION, or request them from the agency. The State of Alaska homepage is at http://alaska.gov/.

Copies of TRANSACTION Records

After completing the TRANSACTION but before closing your web browser, you should download the TRANSACTION records. Or you can download the records within 30 days after

completing the TRANSACTION using the link in the DocuSign email sent to the email address you used to complete the TRANSACTION. The State of Alaska will not provide a paper copy of the TRANSACTION records as part of the TRANSACTION. Under the Alaska Public Records Act (APRA), AS 40.25.100–.295, you can request a copy from the agency responsible for the TRANSACTION, but if too much time has passed, the agency may no longer have the records when you make your request. If required under the APRA, the agency will charge a fee.

Required Hardware and Software

For the minimum system requirements to electronically undertake the TRANSACTION, including accessing and thereby retaining the TRANSACTION records, visit https://support.docusign.com/guides/signer-guide-signing-system-requirements. These requirements may change. In addition, you need access to an email account.

How to Contact the State of Alaska

To ask a question on this ERSD or the DocuSign document generated after you complete the TRANSACTION or on using DocuSign to electronically undertake the TRANSACTION, contact the Alaska Department of Administration at either of the following addresses:

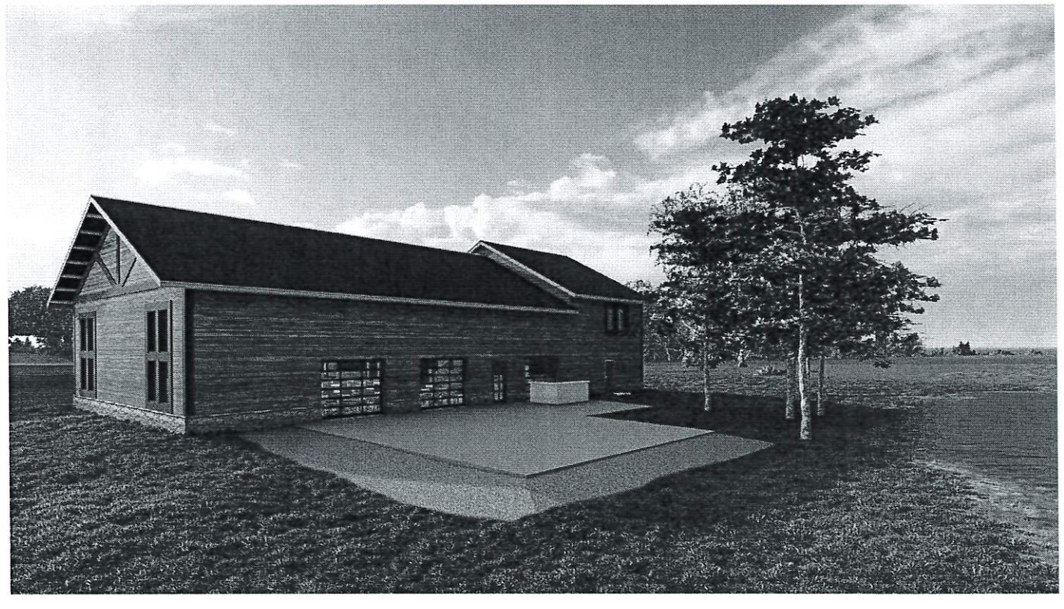
State of Alaska
Department of Administration
550 West 7th Avenue
Suite 1970
Anchorage, AK 99501
Reference: DocuSign

doa.commissioner@alaska.gov
Subject: DocuSign

To ask any other question on the TRANSACTION records or to update the information for contacting you electronically, contact the State of Alaska agency responsible for the TRANSACTION using the contact information in the TRANSACTION records or, if those records contain no contact information, using the contact information on the agency's website. Again, the State of Alaska homepage is at http://alaska.gov/.



KNIK LANDING
EVENT CENTER



NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

Determine DESIGN

Determine **DESIGN LLC** AECL1613
506 E FIREWEED LN, STE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@determinedesign.com

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Drawn by: MO
Checked by: DHC

STATE OF ALASKA
DANIEL H. CLIFT
14104
REGISTERED PROFESSIONAL ARCHITECT

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Title Sheet
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

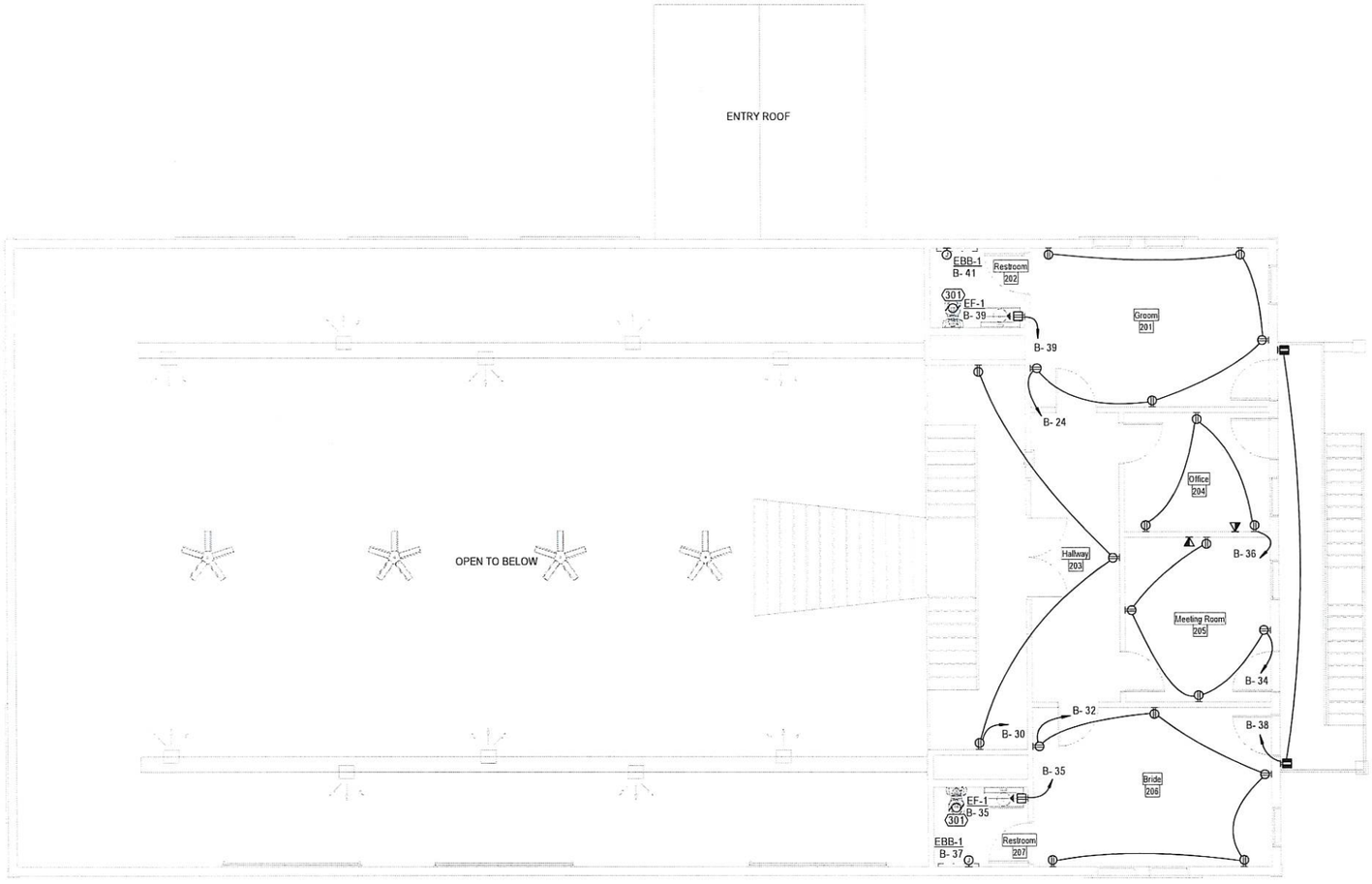
CVR

GENERAL NOTES

1. BASED ON THE A3 GREATER THAN 100 OCCUPANCY ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

(#) REFERENCED SHEET NOTES

REF	NOTE
301	EXHAUST FAN CONTROLLED BY SWITCH SHOWN ON LIGHTING PLAN.



1 E3.2 LEVEL 2 POWER AND SIGNAL PLAN
SCALE: 3/16" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

Determine DESIGN

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STATE OF ALASKA 49TH ERIC D. COWLING EE - 9773 6/9/25 REGISTERED PROFESSIONAL ENGINEER

NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: 2ND FLOOR POWER AND SIGNAL PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla. AK 99623

E3.2

TRUE NORTH

EIC ENGINEERS, INC
ELECTRICAL ENGINEERS
EIC JOB NO: E25-4831
CORP. #AECC1105
6927 OLD SEWARD HWY
SUITE 200
ANCHORAGE, AK 99518
T 907.349.9712
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9/9/2025 10:20:15 AM C:\Users\EricCowling\EIC Engineers\Design - Files\Projects\E25\E25-4831 Knik Landing\DES\E25-4831_ESht25_KnikLanding.rvt
9/09/2025 09:04:21 - fc-2 - abudbil - pichd : 0,5,5,8,6,3/5151

DISTRIBUTION SCCR SCHEDULE
EQUIPMENT SHALL HAVE AN SCCR EXCEEDING THE SHORT CIRCUIT AMPS "SCA" OR MINIMUM SCCR, WHICH EVER IS GREATER. EQUIPMENT SHALL BE FULLY RATED. BRANCH CIRCUIT PANELS RATED 225 AMPS OR LESS MAY USE MANUFACTURER TESTED COMBINATIONS PER NEC 240.86(B) WHERE THE MOTOR LOAD DO NOT EXCEED 1% OF THE LOWEST AIC RATED DEVICE IN THE PANEL PER NEC 240.86(C).
CONTRACTOR TO VERIFY EQUIPMENT TO BE PROVIDED WITH SERVING UTILITY PRIOR TO PROCUREMENT. ANY DECREASE OF TRANSFORMER %Z, CONDUCTOR LENGTHS, OR INCREASE IN TRANSFORMER KVA OR CABLE SIZES TO BE REPORTED TO CONTRACT OFFICER FOR RECALCULATION OF SCA PRIOR TO PROCUREMENT.
THE "MIN FT" COLUMN DENOTES DISTANCE USED FOR 'SCA' CALCULATION. ACTUAL DISTANCE IS EXPECTED TO BE LONGER. IF CONDUCTOR LENGTH IS LESS THAN "MIN FT", CONTRACTOR SHALL SUBMIT A VARIATION REQUEST FOR RECALCULATION. THIS MAY REQUIRE ASSOCIATATED EQUIPMENT MODIFICATIONS.

ASSUMED UTILITY SYSTEM CONFIGURATION (BASIS FOR CALCULATION)

SERVICE TRANSFORMER

KVA	%Z	SCA SECONDARY LINE-LINE	SCA SECONDARY LINE-NEUTRAL
50	1.40	14,877	23,803

AMPS	- FOR CALCULATION ONLY - SERVICE LATERAL	MIN FT
200	(3)3/0 AWG	22

EQUIP ID	OPD	SCA	MIN SCCR	XR	MIN FT
A	200 A	6,741	10,000	1.55	5
BD	200 A	7,022	10,000	1.64	188
MCD	200 A	16,690	19,000	4.15	22
TS	200 A	6,856	10,000	1.58	7
B	100 A	6,670	10,000	1.51	2

LOAD CLASSIFICATIONS SCHEDULE		
NOTES		
(A)	NOT ALL LOAD CLASSIFICATIONS ARE NECESSARILY USED. ONLY CLASSIFICATIONS FROM LOADS THAT ARE CONNECTED TO EACH PANEL ARE SHOWN IN THE SUMMARY SECTION OF THE PANEL SCHEDULES.	
(B)	PANELBOARD BUS RATINGS TO EQUAL OR EXCEED OPD RATINGS SHOWN IN PANEL SCHEDULES UNLESS OTHERWISE NOTED.	
(C)	THE NEC DEMAND PERCENTAGE VALUES SHOWN IN THE PANEL SCHEDULE ARE A WEIGHTED AVERAGE. EXAMPLE 100VA @ 125% PLUS 100VA @100% IS A WEIGHTED AVERAGE OF 112.5% RESULTING IN 225VA NEC COMPUTED DEMAND AND 200VA CONNECTED.	
SCHEDULE		
CLASS.	NEC 2020	DESCRIPTION
CONT	210.20(A)	125% OF THE CONTINUOUS LOAD.
KTCH	220.56	TABLE 220.56 - DEMAND FACTORS FOR KITCHEN EQUIPMENT.
LTG	210.20(A)	LIGHTING LOADS CONSIDERED TO BE CONTINUOUS. 125% OF THE CONTINOUS LOAD.
LTGE	210.20(A)	CALCULATED SAME AS 'LTG' BUT EXCLUDED FROM ENERGY LIGHTING POWER DENSITY CALCULATIONS.
MTR	430.24	125% OF THE FULL-LOAD CURRENT RATING OF THE HIGHTEST RATED MOTOR PLUS THE SUM OF THE FULL-LOAD CURRENT RATINGS OF ALL OTHER MOTORS.
NCDN	220.60	NONCOINCIDENT LOADS: WHERE TWO OR MORE LOAD ARE UNLIKELY TO BE IN USE SIMULTANEOUSLY, THE LARGEST LOAD WILL BE USED. LOADS CLASSIFIED AS NCDN WILL HAVE ZERO LOAD.
NCNT	210.20(A)	100% OF THE NON-CONTINUOUS LOAD.
REC	220.44	NON-DWELLING GENERAL USE RECEPTACLES = FIRST 10KVA OR LESS AT 100% PLUS REMAINDER AT 50%.
MCA	(SEE MTR)	THE LOAD IS BASED ON THE GIVEN MCA (MINIMUM CIRCUIT AMPACITY) WHICH INCLUDES 125% OF THE LARGEST MOTOR OF THE UNIT. 100% OF THE MCA LOAD.

PANEL SCHEDULE NOTES (COLUMN 'N' OF PANEL SCHEDULE)	
'KEY'	DEFINITION OF REQUIREMENT - NOT ALL KEY NOTES ARE NECESSARILY REFERENCED
A	PROVIDE COMBINATION-TYPE AFCI CIRCUIT BREAKER.
B	PROVIDE CIRCUIT BREAKER RATED FOR "BACKFEED" USE.
C	CONTROL CIRCUIT VIA CONTACTOR.
D	PROVIDE DUAL FUNCTION AFCI AND GFCI CIRCUIT BREAKER.
E	PROVIDE GFPE CIRCUIT BREAKER.
G	PROVIDE GFCI CIRCUIT BREAKER.
L	PROVIDE CIRCUIT BREAKER WITH OEM LOCK-OFF DEVICE FOR USE AS DISCONNECT PER NEC.
N	PROVIDE NEW CIRCUIT BREAKER MATCHING EXISTING BREAKER AIC RATINGS.
O	PROVIDE CIRCUIT BREAKER WITH OEM LOCK ON DEVICE IDENTIFIED WITH RED MARKINGS.
S	PROVIDE SHUNT TRIP CIRCUIT BREAKER CONTROLLED BY ASSOCIATED SYSTEM.

SERVICE EQUIPMENT SCHEDULE				
NOTES				
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE.			
(A)	'MB' DENOTES ELECTRICAL SERVICE METERBASE PER UTILITY STANDARDS.			
1	METER/MAIN TO BE COMMERCIAL TYPE WITH SAFETY TEST BY-PASS PROVISIONS.			
SCHEDULE				
ID	FUNCTION	OPD	VOLTAGE CONFIG	ENCLOSURE
MCD	METER COMBINATION DISCONNECT	200 A	240/120V, 1PH, 3W	NEMA 3R
BD	BUILDING DISCONNECT	200 A	240/120V, 1PH, 3W	NEMA 3R

TRANSFER SWITCH SCHEDULE					
NOTES					
(A)	PROVIDE LABEL DENOTING "SYSTEM CONFIGURED FOR NON-SEPARETLY DERIVED PORTABLE GENERATOR (NO N-G BOND IN GENERATOR)".				
ID	SYSTEM RATING	POLES	AMP	WITHSTAND	ENCLOSURE
TS	240/120V, 1PH, 3W	2 POLE	200 A	6,856	NEMA 3R

UTILITY SERVICE DEMAND KW ESTIMATE			
TOTAL CONNECTED	POWER FACTOR	DIVERSITY FACTOR	ESTIMATED DEMAND KW
37.57 kVA	0.9	0.7	23.67

FEEDER SCHEDULE		
ID	OPD	FEEDER (MINIMUM) CU UON
A	200	2"C, (3)3/0 AWG, (1)6 AWG EGC
BD	200	2.5"C, (3)300 KCMIL, (1)3 AWG EGC
TS	200	2"C, (3)3/0 AWG, (1)6 AWG EGC
B	100	1.25"C, (3)2 AWG, (1)6 AWG EGC

PANEL 'A' SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W
OPD RATING: 200 A
LOAD CENTER
LOCATION: Mech. 108
ENCLOSURE: NEMA 1
MOUNTING: SURFACE

#	N	LOAD DESCRIPTION	AMP	P	A		B		P	AMP	LOAD DESCRIPTION	N	#
1		B	100	2	11.96	0.20			1	20	LTG: RM 102 CL		2
3	--	-	--	--			9.13	0.09	1	20	LTG/LTGE: RM 102		4
5		LTG/LTGE: RM 108	20	1	0.08	0.05			1	20	LTG:		6
7		LTG/LTGE: RM 203-205	20	1			0.22	0.10	1	20	LTG/LTGE: RM 201		8
9	S	MTR/NCNT: RM 108 CP-1,WH-1	20	1	0.56	0.18			1	20	REC:		10
11		LTG/LTGE: RM 103,105	20	1			0.31	0.26	1	20	LTG/LTGE: RM 107		12
13		LTG/LTGE: RM 205	20	1	0.10	0.38			1	20	KTCH: RM 107 RF-2	G	14
15		REC: RM 102	20	1			0.18	0.36	1	20	REC: RM 107		16
17	G	KTCH: RM 107 FR-1	20	1	1.00	1.06			1	20	MTR: RM 108 AHU-1		18
19		MTR: RM 108 AHU-2	20	1			1.38	1.20	1	20	NCNT: RM 107 DW	G	20
21	G	NCNT: RM 107 MW	20	1	1.55	0.36			1	20	REC: RM 108		22
23		REC: RM 105 WASHER	20	1			0.18	0.54	1	20	REC: RM 106		24
25		REC: RM 106 DRYER	20	1	0.18	0.18			1	20	REC: RM 102 KEG-1		26
27		REC: RM 107	20	1			0.36	1.44	2	15	NCNT: RM 102 GW-1	G	28
29		REC: RM 102	20	1	0.36	1.44			--	--	-	--	30
31		REC: RM 106	20	1			0.72	0.00	1	20	SPARE	--	32
33	G	REC: RM 107 ICE	20	1	1.27	0.00			1	20	SPARE	--	34
35		MCA: RM 107 HOOD	20	1			0.20	0.00	1	20	SPARE	--	36
37	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	38
39	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	40
41	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	42
43	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	44
45	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	46
47	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	48
49	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	50
51	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	52
53	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	54
		TOTAL KVA/PHASE:			20.9		16.7						
		TOTAL AMPS/PHASE:			174.3		138.8						

SUMMARY BY LOAD TYPE

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
CONT	3.750 kVA	125.00%	4.688 kVA
KTCH	1.380 kVA	100.00%	1.380 kVA
LTG	3.099 kVA	125.00%	3.874 kVA
LTGE	0.106 kVA	125.00%	0.133 kVA
MCA	0.200 kVA	100.00%	0.200 kVA
MTR	5.432 kVA	106.35%	5.777 kVA
NCNT	7.930 kVA	100.00%	7.930 kVA
REC	15.672 kVA	81.90%	12.836 kVA

PANEL TOTALS
CONNECTED KVA: 37.569 kVA
NEC CALCULATED KVA: 36.817 kVA
CONNECTED AMPS: 157 A
NEC CALCULATED AMPS: 153 A

PANEL 'B' SCHEDULE

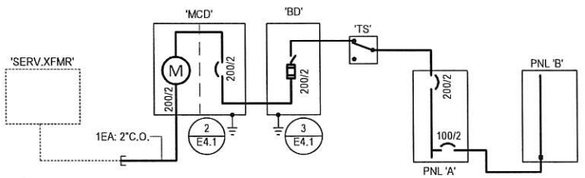
VOLTAGE: 240/120V, 1PH, 3W
OPD RATING: 100 A
LOAD CENTER
LOCATION: Mech. 108
ENCLOSURE: NEMA 1
MOUNTING: SURFACE

#	N	LOAD DESCRIPTION	AMP	P	A		B		P	AMP	LOAD DESCRIPTION	N	#
1		LTG/LTGE:	20	1	0.07	0.36			1	20	REC:		2
3		LTG: RM 102	20	1			0.13	0.24	1	20	LTG:		4
5	L	CONT: RM 105 EBB-2	20	1	1.00	0.18			1	20	LTG: RM 102		6
7		LTG MAIN HALL 102	20	1			0.26	0.30	1	20	LTG/LTGE: RM 102		8
9		MTR/LTG: RM 102 ,CF-1	20	1	0.20	0.54			1	20	REC: RM 102		10
11		LTG/LTGE: RM 102	20	1			0.30	0.20	1	20	MTR/LTG: RM 102 ,CF-1		12
13	L	NCNT: ECUH-1	30	1	2.00	0.36			1	20	REC: RM 102	S	14
15	S	MTR: RM 108 B-1,CP-2	20	1			0.30	0.36	1	20	REC: RM 102	S	16
17		MTR/LTG: RM 102 ,CF-1	20	1	0.20	0.36			1	20	REC: RM 102		18
19	L	CONT: RM 104 EBB-3	20	1			1.25	0.20	1	20	MTR/LTG: RM 102 ,CF-1		20
21	S	REC: RM 102	20	1	0.36	0.70			1	15	MTR: RM 108 EF-3		22
23	S	REC: RM 102	20	1			0.36	0.90	1	20	REC: RM 201		24
25		REC: RM 102	20	1	0.54	0.54			1	20	REC: RM 102		26
27		REC:	20	1			0.36	0.36	1	20	REC: RM 108		28
29		REC:	20	1	0.72	0.54			1	20	REC: RM 203		30
31		MTR/RECL/LTG/LTGE: RM 103- EF-2	20	1			1.49	0.90	1	20	REC: RM 206		32
33		REC: RM 102	20	1	0.72	0.72			1	20	REC: RM 205		34
35		MTR/RECL/LTG: RM 207 EF-1	20	1			0.34	0.54	1	20	REC: RM 204		36
37	L	CONT: RM 207 EBB-1	20	1	0.75	0.36			1	20	REC: EXT UPPER DECK		38
39		MTR/RECL/LTG: RM 202 EF-1	20	1			0.34	0.00	1	20	SPARE	--	40
41	L	CONT: RM 202 EBB-1	20	1	0.75	0.00			1	20	SPARE	--	42
		TOTAL KVA/PHASE:			12.0		9.1						
		TOTAL AMPS/PHASE:			99.7		76.1						

SUMMARY BY LOAD TYPE

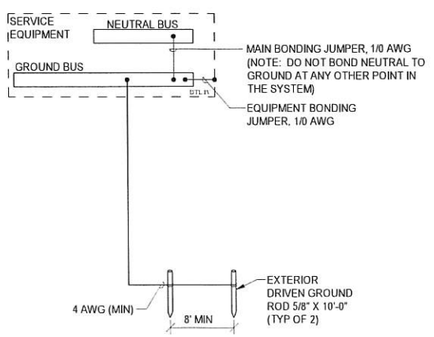
LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
CONT	3.750 kVA	125.00%	4.688 kVA
LTG	1.771 kVA	125.00%	2.214 kVA
LTGE	0.036 kVA	125.00%	0.045 kVA
MTR	2.732 kVA	106.37%	2.906 kVA
NCNT	2.000 kVA	100.00%	2.000 kVA
REC	10.800 kVA	96.30%	10.400 kVA

PANEL TOTALS
CONNECTED KVA: 21.089 kVA
NEC CALCULATED KVA: 22.252 kVA
CONNECTED AMPS: 88 A
NEC CALCULATED AMPS: 93 A

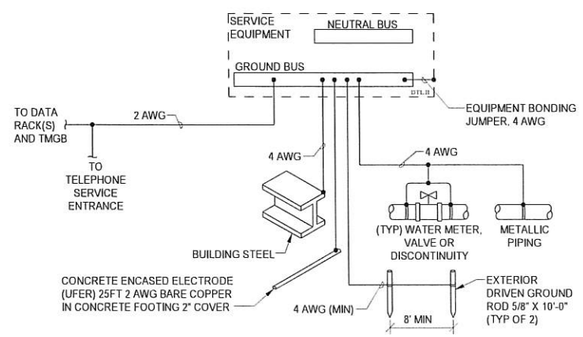


1 E4.1 POWER ONE-LINE
SCALE: NONE

NOTES:
1. BOND ALL BUILDING STEEL AND METALLIC PIPING TO PROVIDE ELECTRICALLY CONTINUOUS SYSTEMS.
2. PROVIDE RACEWAY FOR ALL ELECTRODE AND BOND CONDUCTORS. RACEWAY TO BE METALLIC IN PLENUM AIR SPACES. BOND METALLIC RACEWAY TO EACH END OF CONDUCTOR.
3. COMBINE GROUNDING ELECTRODE CONDUCTORS PER NEC.



2 E4.1 SERVICE GROUNDING SYSTEM ONE-LINE DIAGRAM
SCALE: NONE



3 E4.1 BUILDING GROUNDING SYSTEM ONE-LINE DIAGRAM
SCALE: NONE

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

EIC ENGINEERS, INC
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STATE OF ALASKA 49TH ERIC D. COWLING EE - 9773 6/4/25 REGISTERED PROFESSIONAL ENGINEER

NUM	DESCRIPTION

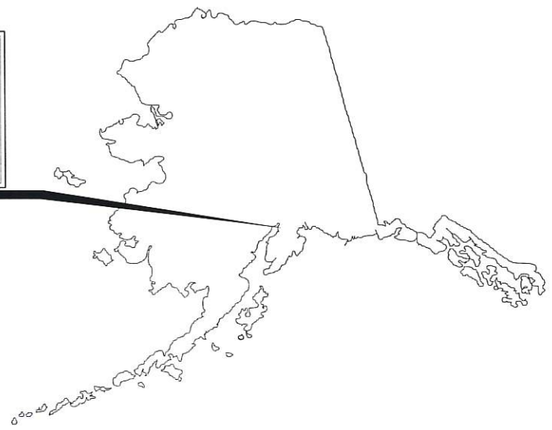
Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: DIAGRAMS, DETAILS, AND SCHEDULES
Address: 10204 S Knik Goose Bay Rd. Wasilla. AK 99623

E4.1

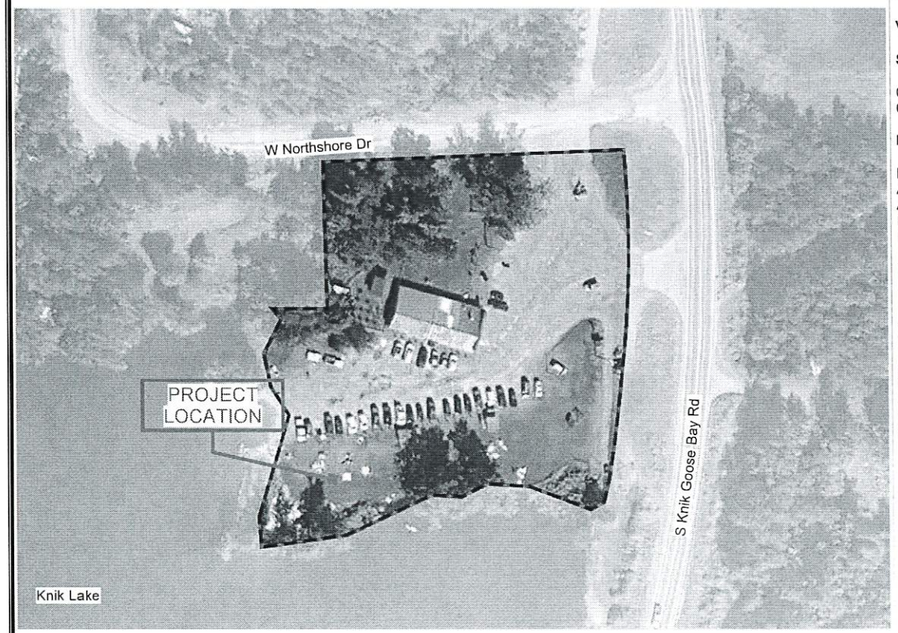
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qc:09/09/2025 09:04:21 : rc-2 : abudbil : pschd : 0.5;5.8;6.3/5151

VICINITY MAP - ANCHORAGE, ALASKA

Site Data:
LEGAL: **KNIK LK 2011 LOT 1**
ADDRESS: 10204 S KNIK GOOSE BAY RD
CITY, STATE: WASILLA, AK 99623
TRS: S16N03W24
SUBDIVISION : KNIK LK 2011
GROSS ACREAGE : 2.76
PARCEL: 518705
OWNER : BROKEN BOAT LLC



SITE VICINITY



CODE REVIEW

I. CODE: 2021 INTERNATIONAL BUILDING CODE, 2021 INTERNATIONAL FIRE CODE, 2021 EXISTING BUILDING CODE, & 2021 INTERNATIONAL ENERGY CONSERVATION CODE AS ADOPTED BY THE STATE OF ALASKA TITLE 13.

II. SCOPE: NEW CONSTRUCTION
CONSTRUCT A NEW 4,608 SF EVENT CENTER PRIMARILY DESIGNED FOR WEDDINGS, WITH FLEXIBILITY TO ACCOMMODATE A VARIETY OF OTHER EVENTS.

III. OCCUPANT CLASSIFICATION:

LEVEL	AREA	FUNCTION	OCC
GROUND	4,608 SF	EVENT CENTER	A-3
MEZZANINE	1,280 SF	EVENT CENTER	A-3

IV. SPECIAL DETAILED OCCUPANCY REQUIREMENTS
N/A

V. GENERAL HEIGHTS AND AREAS

ADDRESS IDENTIFICATION: 20" TALL x 10" WIDE NUMBERS SIGNS SHALL BE PERMITTED SEPARATELY

BASIC ALLOWABLE (MOST RESTRICTIVE IBC T503): V-B (40 FT HEIGHT / 1 STORY / 6,000 SF)

MEZZANINE IN COMPLIANCE WITH SECTION 505 IBC
THE AGGREGATE AREA OF A MEZZANINE WITHIN A ROOM SHALL NOT EXCEED ONE-THIRD (1/3) OF THE FLOOR AREA

505.2.3 EXCEPTION
THE MEZZANINE IS PERMITTED TO BE ENCLOSED, AS ALL ROOMS HAVE TWO MEANS OF EGRESS

ACTUAL HEIGHT/STORY/AREA: (33) FT / 1 STORY / 4,608 SF

VI. TYPES OF CONSTRUCTION

TYPE OF CONSTRUCTION REQUIRED: VB
OCCUPANT GROUP CLASSIFICATION (RESTRICTIVE):A-3

EXTERIOR WALL REQUIRED RATING (IBC T602)

DISTANCE		RATING(MOST RESTRICTIVE)
X<5'	-	1-HOUR
5'<X<10'	-	1-HOUR
10'<X<30'	-	NO RATING

VII. FIRE RESISTANCE REQ'D
N/A

VIII. INTERIOR FINISHES TABLE 803.9 & 804.4

SPRINKLER (NO)

CLASS C WALL/CEILING FINISHES REQUIRED
CLASS II FLOORS COMPLYING WITH DOC FF-1 'PILL TEST'

IX: FIRE PROTECTION SYSTEMS

IFC 506.1: PROVIDE KNOX BOX:"KEY BOX SHALL BE OF AN APPROVED TYPE LISTED IN ACCORDANCE WITH UL 1037, AND SHALL CONTAIN KEYS TO GAIN ACCESS AS REQUIRED BY THE CODE OFFICIAL."
MOUNT KNOX BOX AT 66" AFG

IFC 503: FIRE APPARATUS ROAD WITHIN 150' OF ALL EXTERIOR WALLS MEASURED BY WALKING DISTANCE.

IFC 903 NFPA 13 SPRINKLER: NOT REQUIRED.
SINGLE LEVEL BELOW 300 OCCUPANTS

IFC 906.1: PORTABLE FIRE EXTINGUISHERS REQUIRED: EVERY 75'

IFC 907: MANUAL PULL FIRE ALARM: NOT REQUIRED
OCCUPANT LOAD BELOW 300

X. MEANS OF EGRESS

OCCUPANT LOAD:
230 PERSON

AREA:
CORRIDOR WIDTH SHALL NOT BE LESS THAN: 36" (IBC T1020.3)
DOORS SHALL NOT PROJECT MORE THAN 7" INTO WIDTH.

EXIT SIGNS REQUIRED WHERE MULTIPLE EXIT REQUIRED
EXIT SHALL BE ILLUMINATED, 90 MIN BATTERY BACKUP

MAX DEAD END: 20 FT (IBC 1020.5)
DISTANCE TO EXIT WHERE MULTIPLE: 200 FT(IBC T1017.2)

EGRESS PATH SHALL BE ILLUMINATED BY WITH 1 FOOT-CANDLE AT ALL TIMES WITH 90 MINUTE BATTERY BACKUP

1008.1.10 - PANIC AND FIRE EXIT HARDWARE
EXCEPTION: A MAIN EXIT OF A GROUP A OCCUPANCY IN COMPLIANCE WITH SECTION 1008.1.9.3, ITEM2. & 1010.2.4, ITEM 3

THE KIND OF LATCHES AND LOCKS ALLOWED A STATEMENT THAT EACH DOOR NEEDS TO SERVE A MINIMUM OF 50% OF THE OCCUPANT LOAD AND 36" DOOR IS SUFFICIENT

STAIRS:
4-7" RISE & 11" TREAD MINIMUM. MINIMUM WIDTH 44", UNLESS SERVING 50 OR FEWER PERSONS, IN WHICH CASE THE REQUIRED WIDTH IS 36". ONE LANDING REQ'D FOR EVERY 12' OF OVERALL RISE AND BE MINIMUM DEPTH EQUAL TO WIDTH, CLEAR OF DOOR SWING.

RAMPS: N/A

XI: ACCESSIBILITY
NEW CONSTRUCTION & ALTERATIONS REQUIRE COMPLIANCE WITH ACCESSIBILITY WITH REGARD TO TOILET FACILITIES, DRINKING FOUNTAINS, AND PRIMARY FUNCTION.-PER ICC/ANSI A117.1-2009

XII: INTERIOR ENVIRONMENT

LIGHTING & TEMPERATURE MEP OR NATURAL VENTILATION
IF VENTILATION TO BE NATURAL, OPENABLE PORTION NOT LESS THAN 4%

MINIMUM ROOM HEIGHT NOT LESS THAN 7'-6"
EXCEPTION: STORAGE, RESTROOM, KITCHEN & MEZZANINE AREAS PERMITTED MINIMUM HEIGHT OF 7'-0"
MINIMUM WIDTH IN ALL OCCUPIED AREAS NOT LESS THAN 3' EXCEPT TO ACCESS MEP, 2'

UNOCCUPIED SPACES CRAWLSPACE OR ATTIC (YES):

ATTIC ACCESS: AN OPENING NOT LESS THAN 20"X30" SHALL BE PROVIDED TO ANY ATTIC AREA HAVING A CLEAR HEIGHT OF OVER 30". CLEAR HEADROOM OF NOT LESS THAN 30" SHALL BE PROVIDED IN THE ATTIC SPACE AT OR ABOVE THE ACCESS OPENING. **(22"x30" IN IRC)**

XXIX: PLUMBING FACILITIES
(IBC T2902.1)

URINALS MAY BE SUBSTITUTED FOR 50% OF W.C. IN MALE

REQUIRED FIXTURES
2 TOILET FOR MALE
3 TOILETS FOR FEMALE
2 LAVATORY
1 SERVICE SINK

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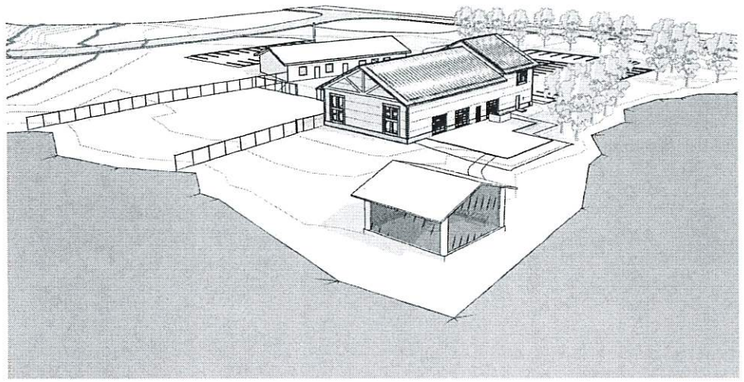
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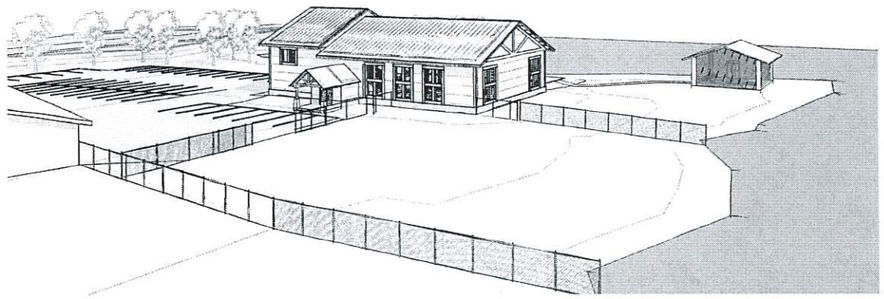
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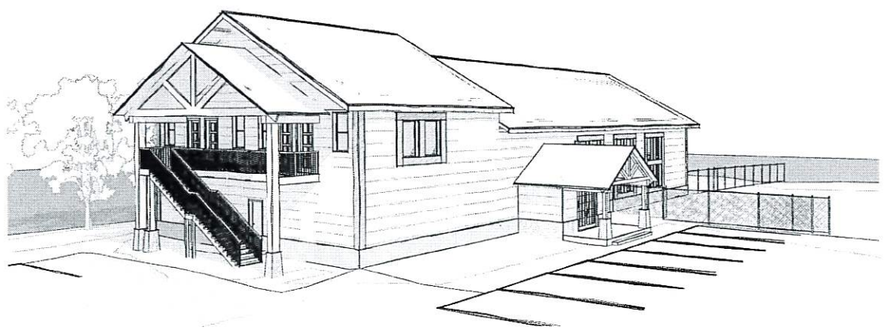
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Prepared for: Doug Massie
Sheet Title: Vicinity, Index & Code Review
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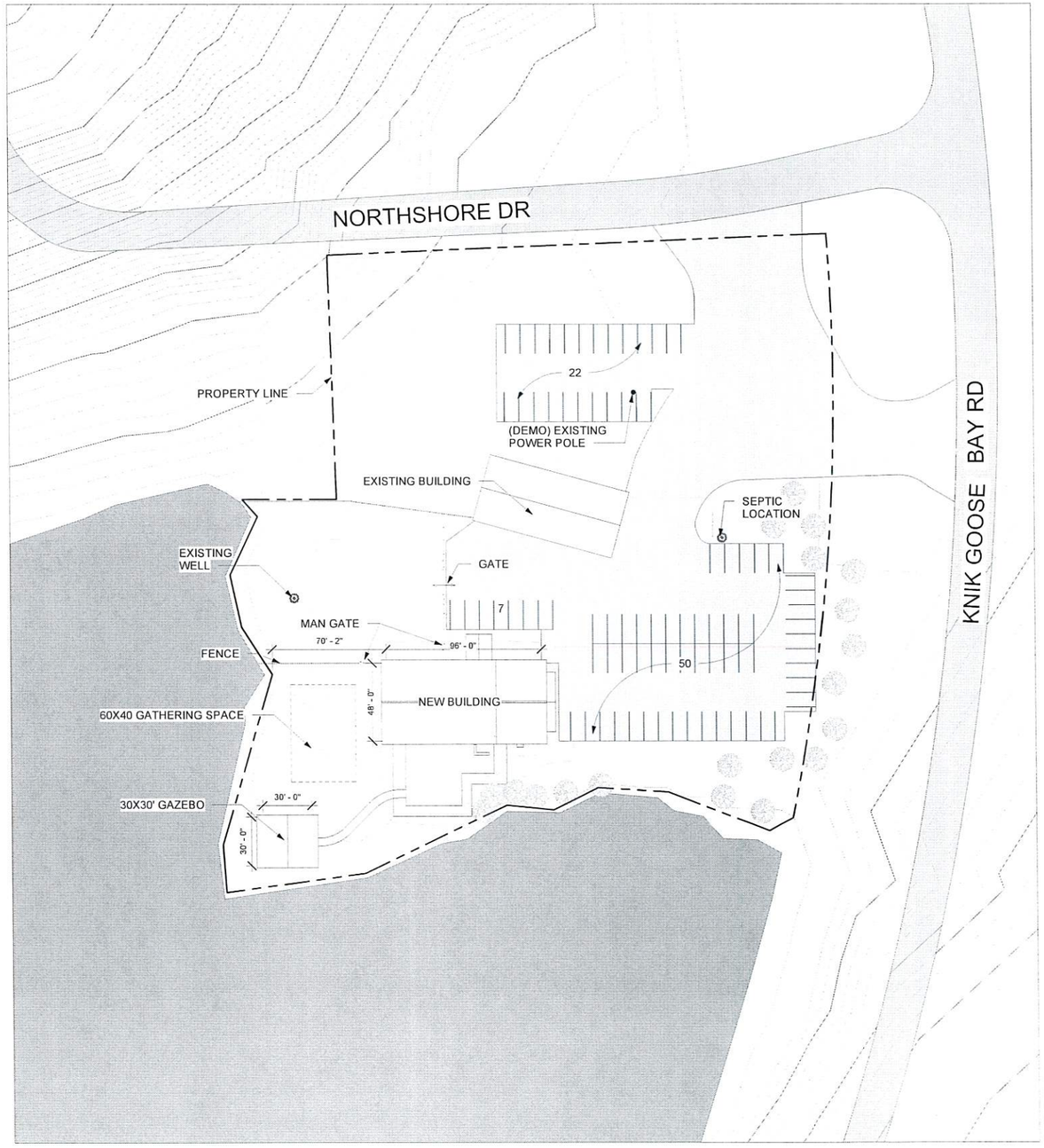
G-1

Knik Landing









1 Site
1" = 40'-0"

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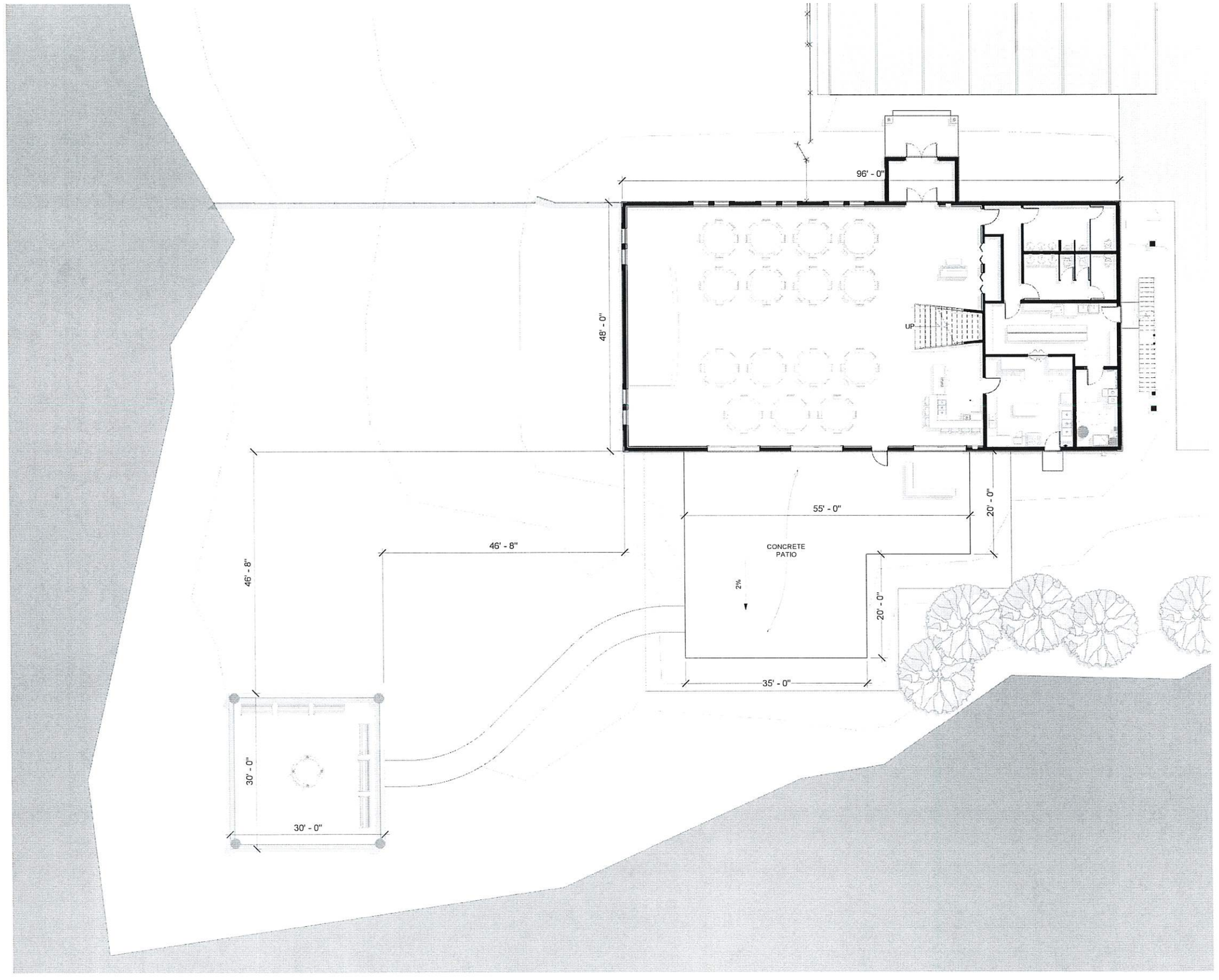
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A-1.0



1 Enlarged Site Plan
1" = 10'-0"

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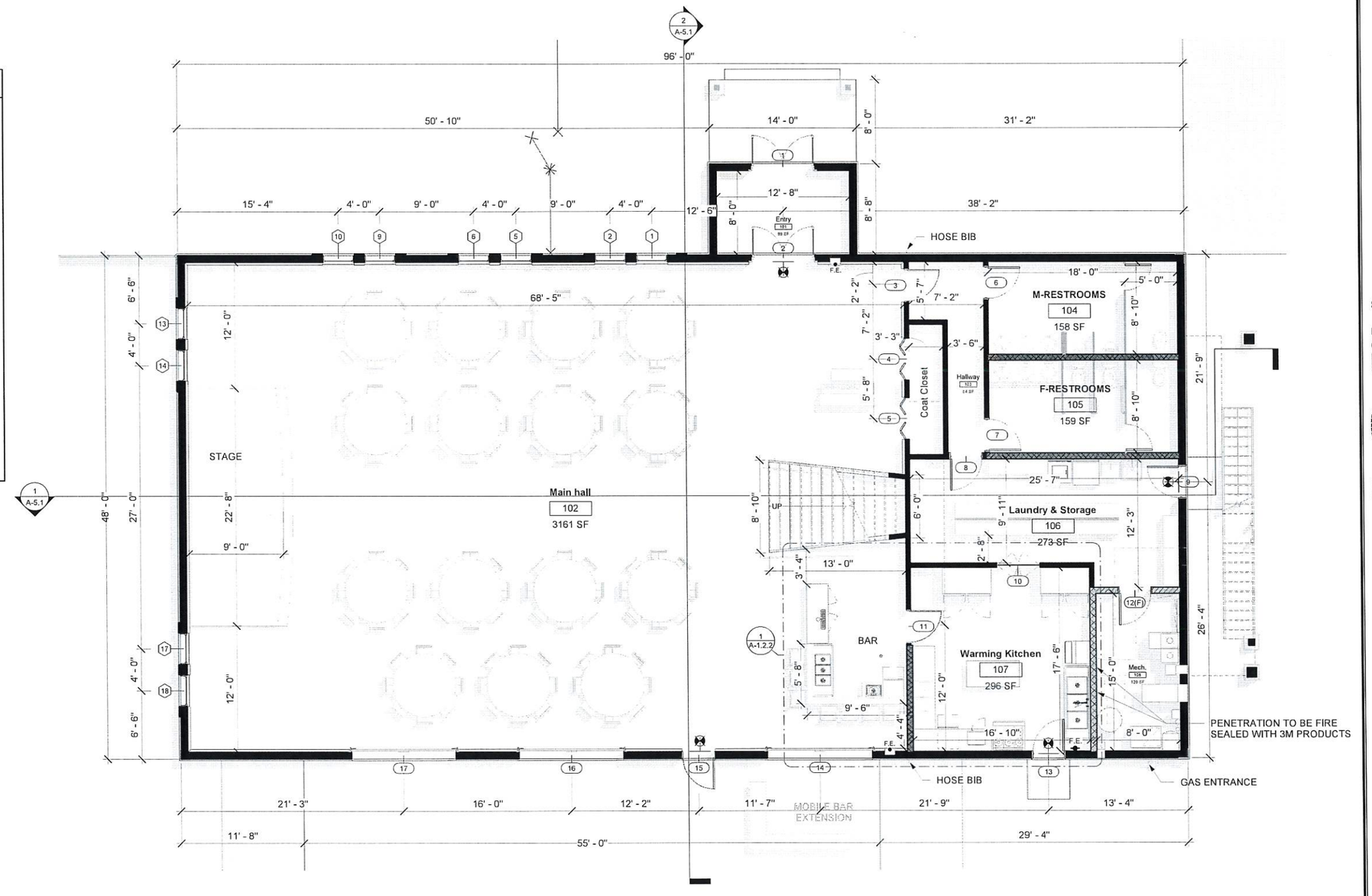
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Prepared for: Doug Massie
Sheet Title: Enlarged Site Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.1

KEY - SYMBOL - LEGEND

- NEW WALL
- 1-HOUR FIRE WALL
- 1-HR FIRE WALL W/PLUMBING
- PLUMBING WALL
- F.E. — FIRE EXTINGUISHER, 2A:10BC, MOUNT 48" AFF (MEASURED TO GRIP)
- EXIT SIGN
- EXIT SIGN W/ EMERGENCY LIGHT, 90 MINUTE BATTERY
- EMERGENCY LIGHT, 90 MINUTE BATTERY
- EXTERIOR EGRESS LIGHT



1 1st Floor Plan
3/16" = 1'-0"

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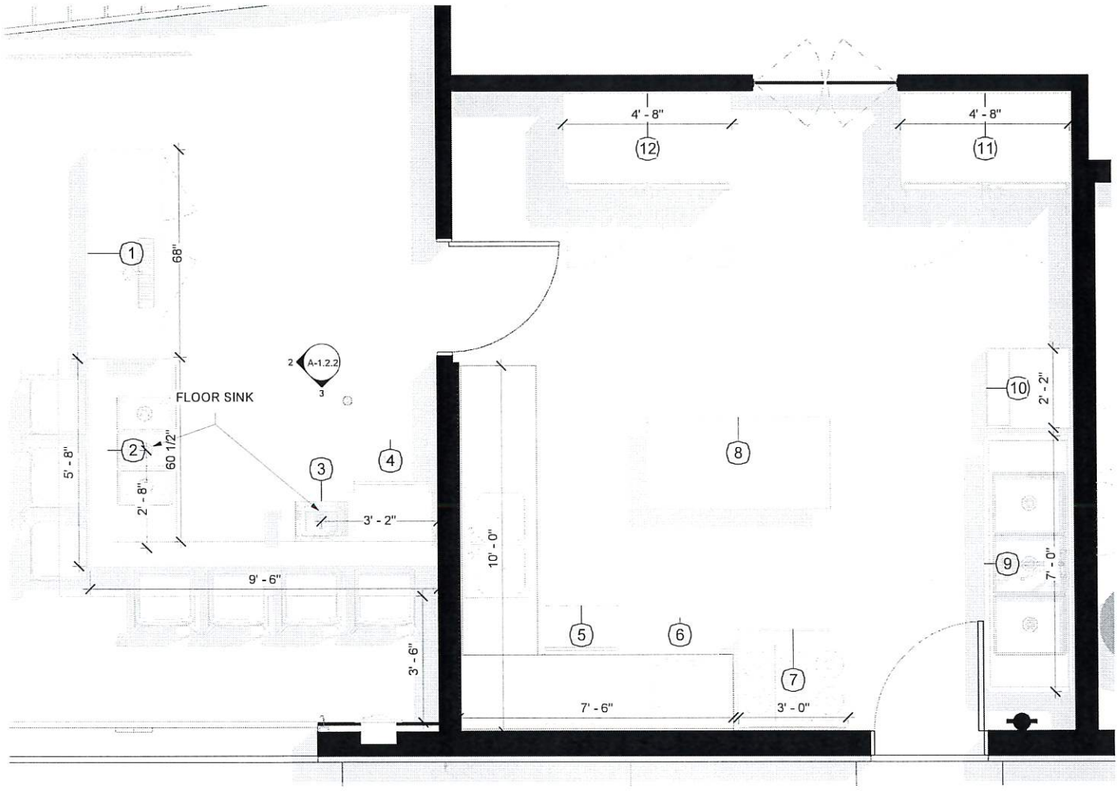
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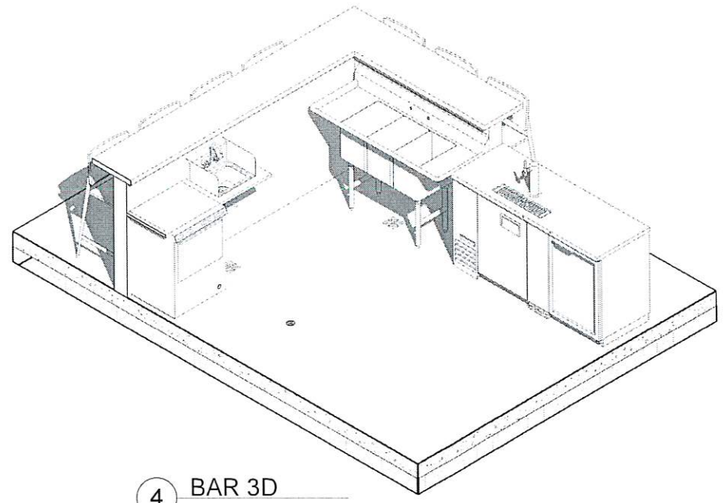
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Prepared for: Doug Massie
Sheet Title: 1st Floor Plan
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A-1.2

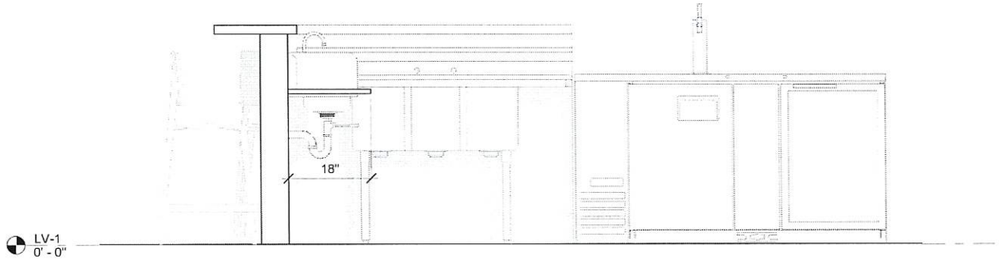
Equipment Schedule			
EQ.ID	Count	Description	Size
1	1	Beer dispenser	
2	1	3-bay sink & speed well	
3	1	Hand sink	
4	1	Glass washer	
5	1	Dishwasher	
6	1	Microwave	
7	1	Range	
8	1	Prep table	
9	1	3-Compartment sink	
10	1	Ice machine	
11	1	Freezer	
12	1	Refrigerator	



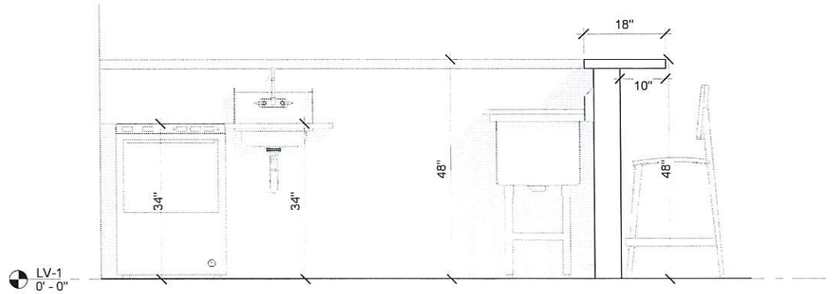
1 Enlarged Bar & Kitchen
1/2" = 1'-0"



4 BAR 3D



2 Elevation A
3/4" = 1'-0"



3 Elevation B
3/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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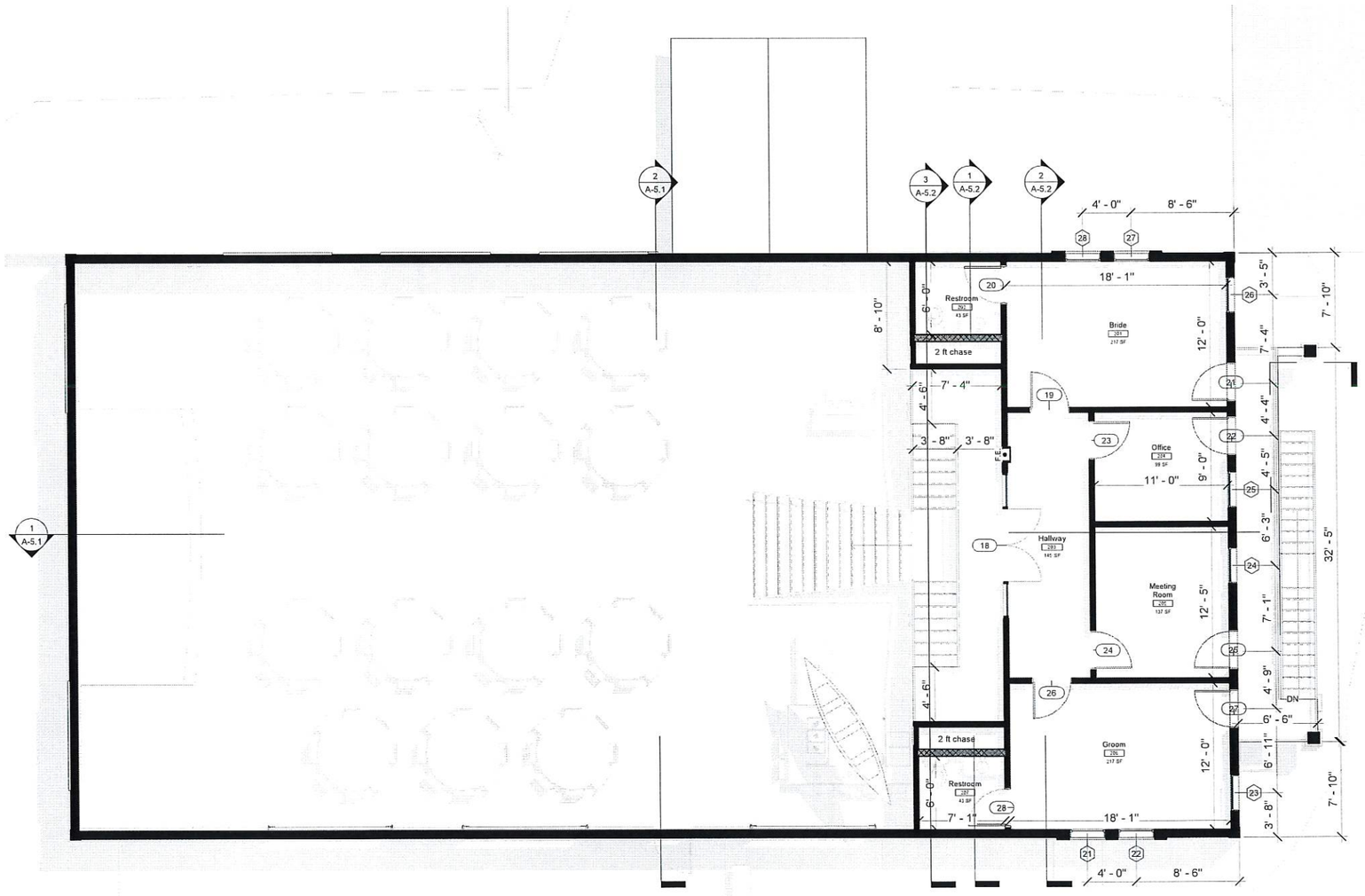
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Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Enlarged Bar & Kitchen
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.2.2

KEY - SYMBOL - LEGEND

- NEW WALL
- 1-HOUR FIRE WALL
- 1-HR FIRE WALL W/PLUMBING
- PLUMBING WALL
- FIRE EXTINGUISHER, 2A:10BC, MOUNT 48" AFF (MEASURED TO GRIP) — F.E.
- EXIT SIGN
- EXIT SIGN W/ EMERGENCY LIGHT, 90 MINUTE BATTERY
- EMERGENCY LIGHT, 90 MINUTE BATTERY
- EXTERIOR EGRESS LIGHT



1 Mezzanine
3/16" = 1'-0"

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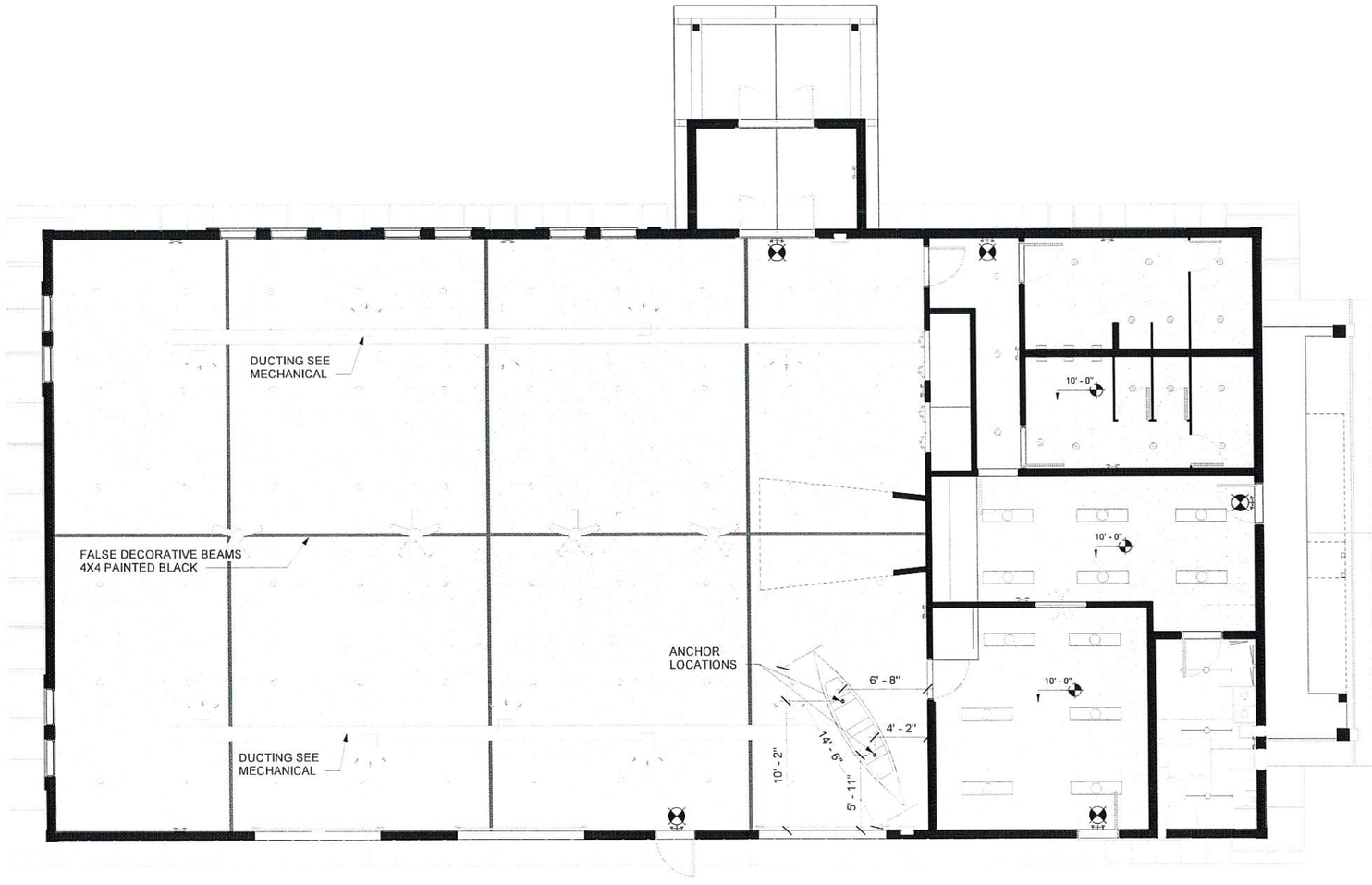
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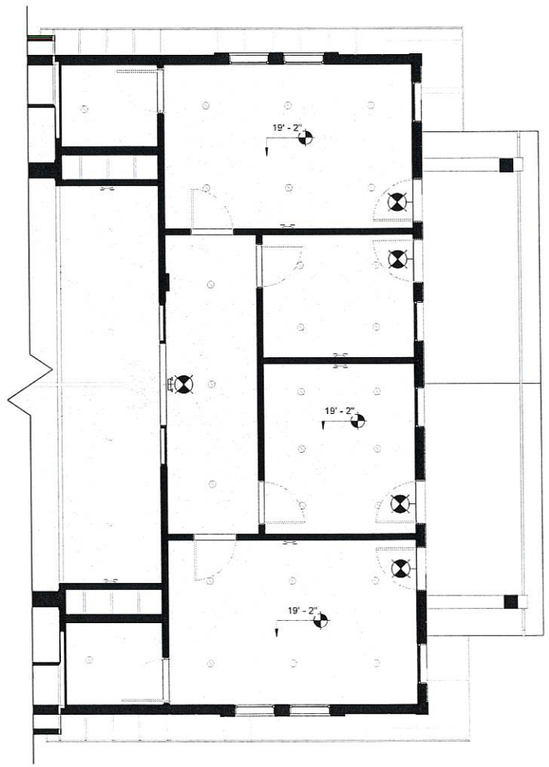
Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Mezzanine Floor Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.3

KEY - SYMBOL - LEGEND		KEY - SYMBOL - LEGEND	
	GYPSUM HARD LID		1' X 4' LED FLAT PANEL ADJUSTABLE OUTPUT
	EXIT SIGN		4FT LED STRIP WITH DROPPED LENS WHITE FINISH
	EXTERIOR EGRESS LIGHT		4" OPEN LED DOWNLIGHT
	90-MINUTE EMERGENCY LIGHT		13" SURFACE LED DOWNLIGHT



1 LV-1 Reflected Ceiling Plan
3/16" = 1'-0"



2 Mezzanine Reflected Ceiling Plan
3/16" = 1'-0"

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Sheet Title: Reflected Ceiling Plans
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A-2.1

ROOFING NOTES:

SLOPE = 6" IN 12" MINIMUM

MATERIAL: ASPHALT ROOFING SHINGLES

FURNISH COMPLETE SYSTEM

ICE SHIELD WITHIN 3' OF EXTERIOR WALL

INSTALL PER MANUFACTURER'S RECOMMENDATIONS FOR 10 YEAR WARRANTY

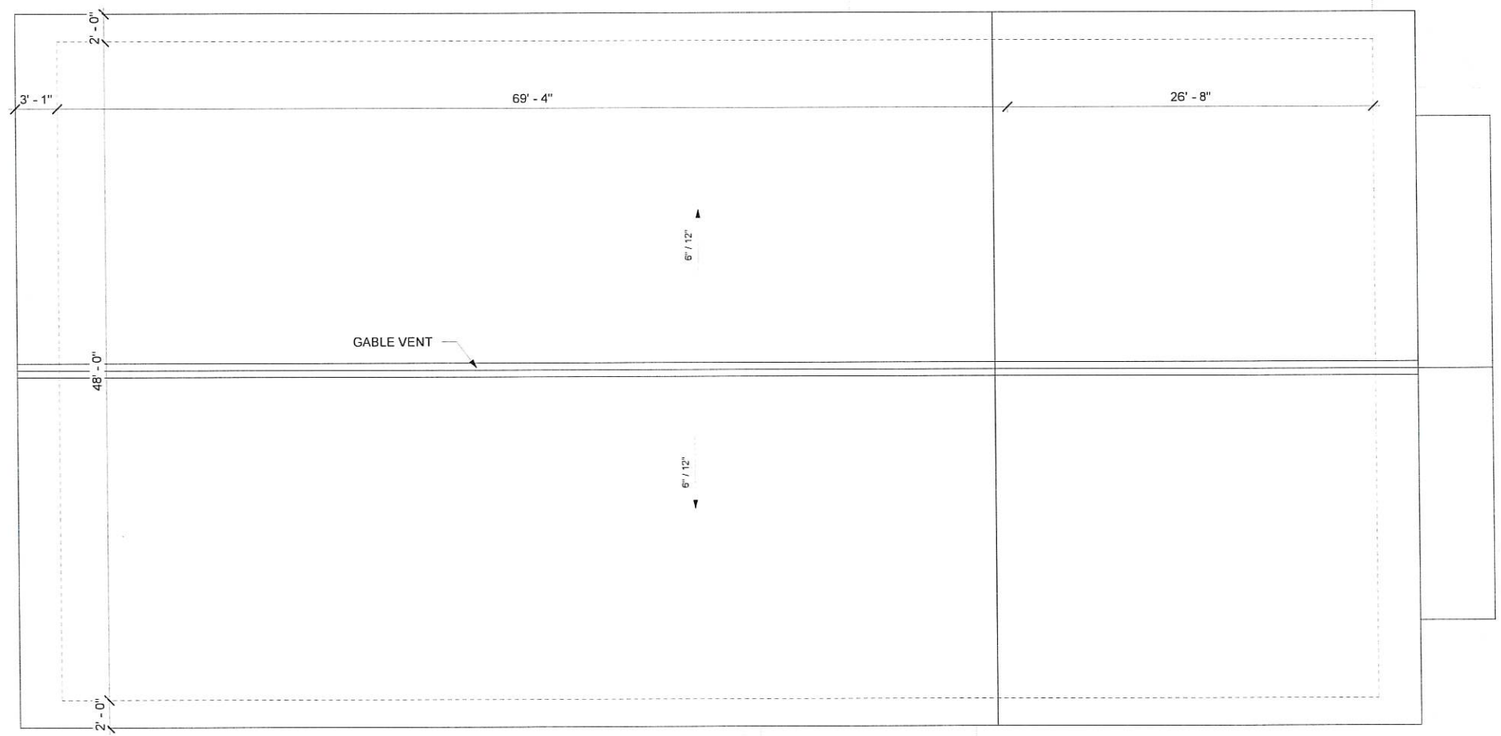
FLASH ALL PENETRATIONS AND WALL INTERSECTIONS

DRAFT-STOPS IN ATTIC SPACES EXCEEDING 3,000 SF

REQUIRED VENTING = 1/300 DUE TO VAPOR RETARDER UNDER INSULATION
ROOF = 4,608 SF
REQUIRED VENTING = 15.36 SF OR 2,212 SI
96' LENGTH (EACH SIDE)
REQUIRED EAVE VENTING = 1,106 SI OR 5.5 SI PER LF, EACH SIDE
REQUIRED RIDGE VENTING = 1,106 SI OR 5.5 SI PER LF, EACH SIDE

PROVIDE (5) HOLES 2"Ø PER 2' TRUSS BLOCK FOR 15.7 SI, (7.8 SI PER LF)
PROVIDE 3/4" RIDGE VENT FOR 9 SI PER LF

SUBMITTAL PACKAGE REQUIRED



1 Roof Plan
3/16" = 1'-0"

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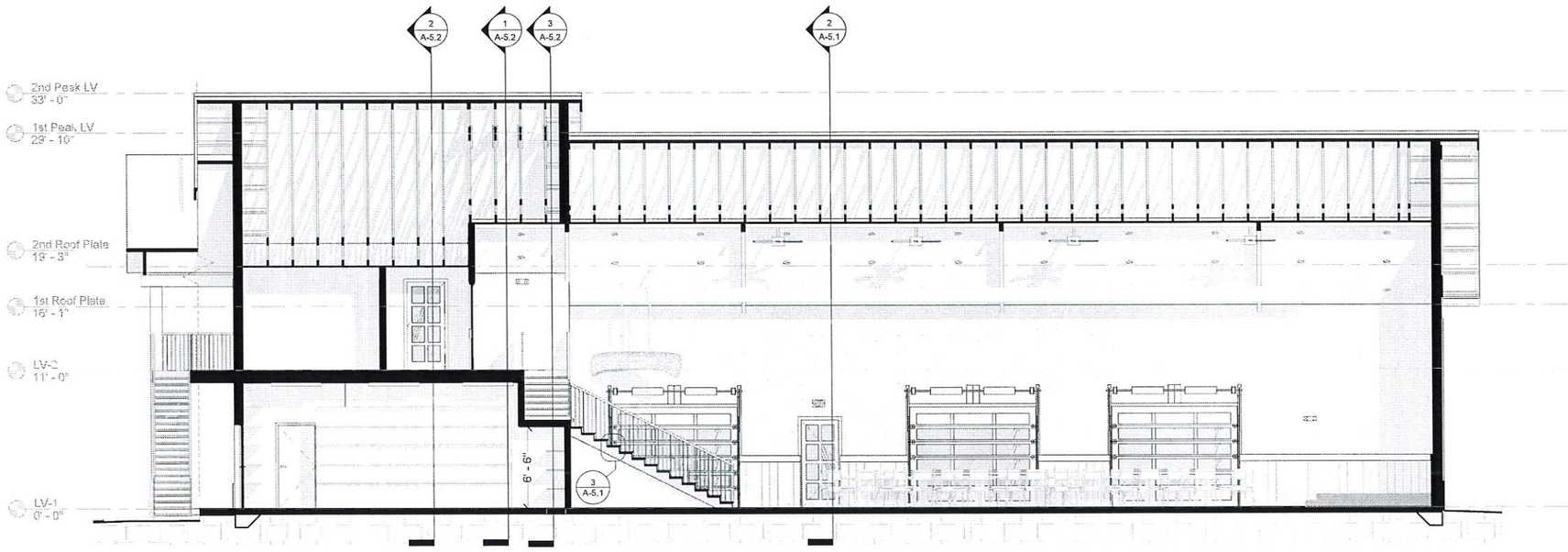
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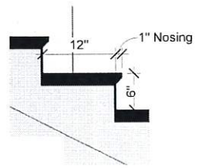
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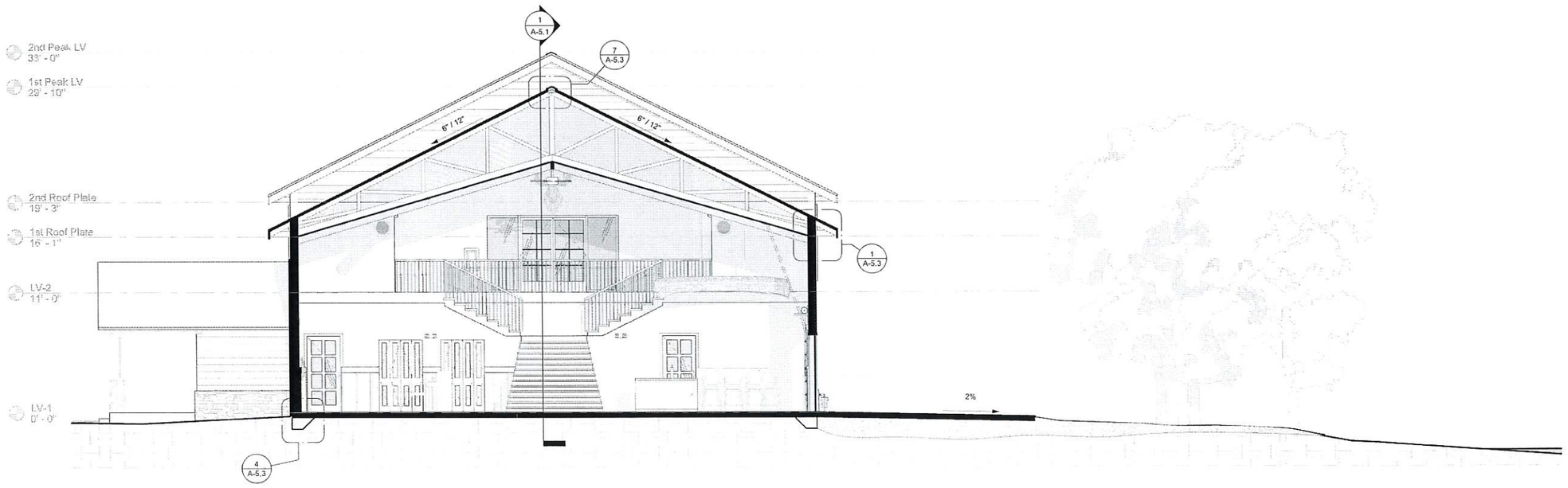
A-4.1



1 Section A
3/16" = 1'-0"



3 Riser & Tread
1" = 1'-0"



2 Section B
3/16" = 1'-0"

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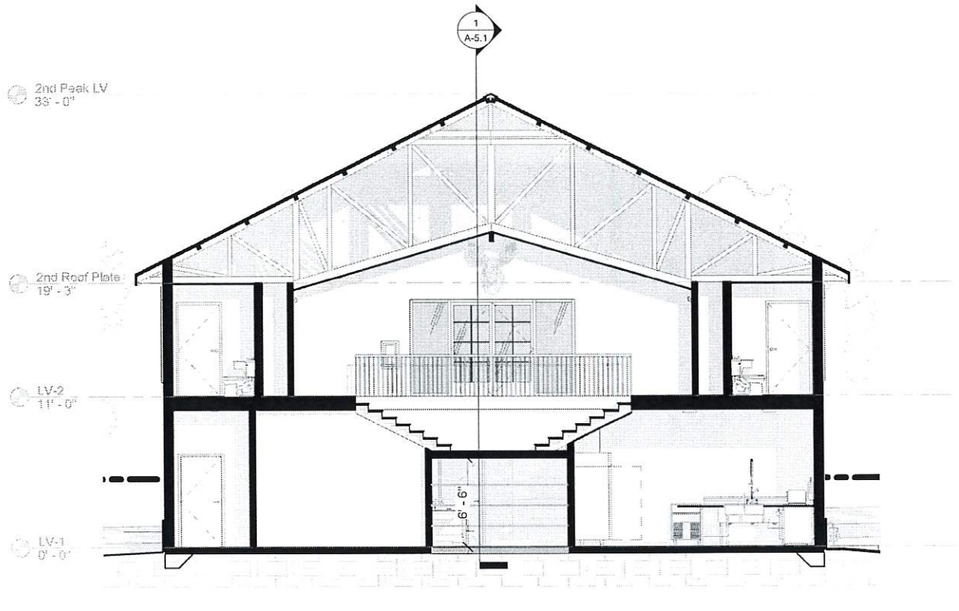
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Sheet Title: Sections
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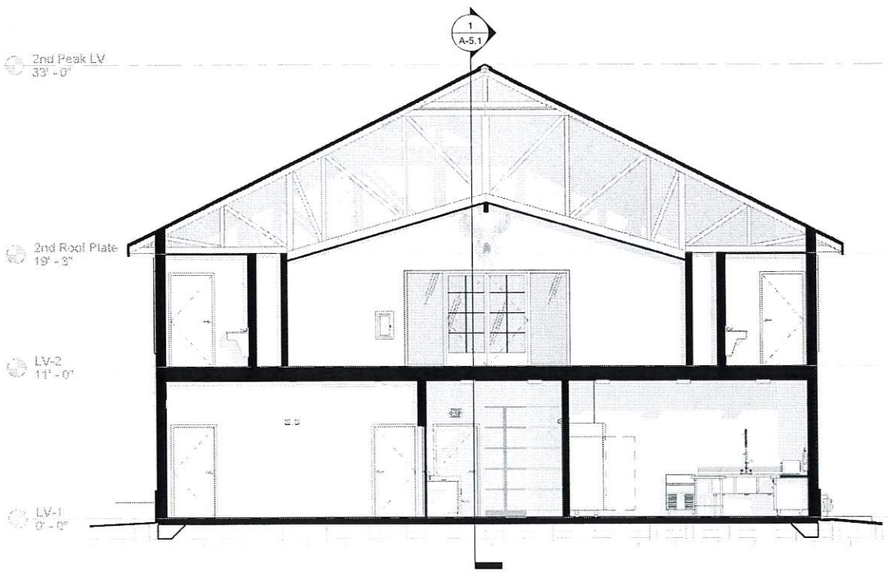
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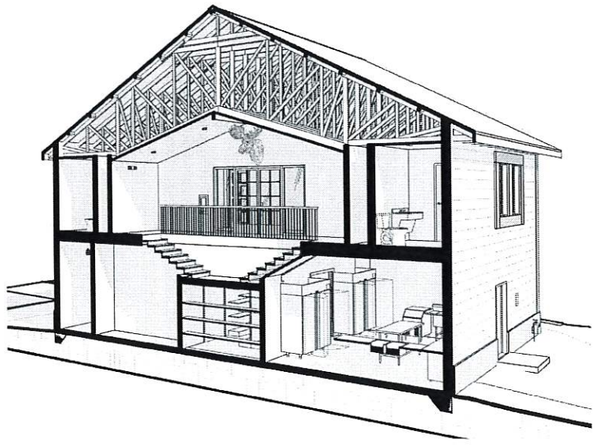
2 Section C
3/16" = 1'-0"



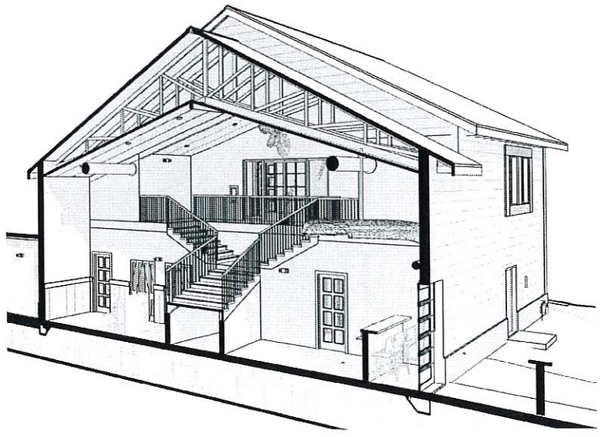
3 Section E
3/16" = 1'-0"



1 Section D
3/16" = 1'-0"



4 3D View Interior section



5 3D View Interior section 2

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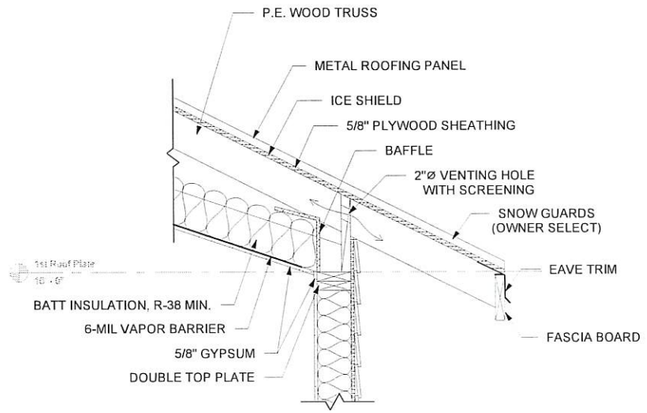
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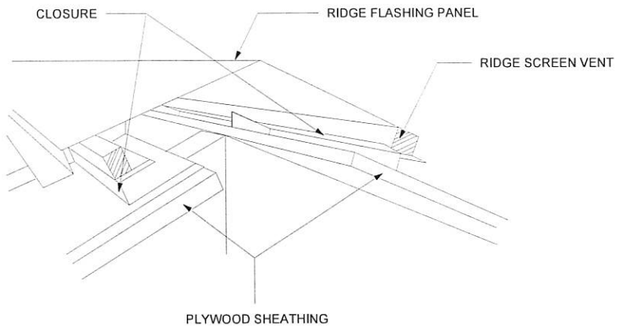
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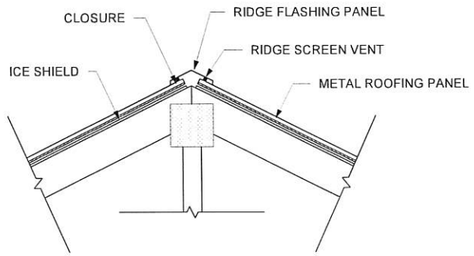
Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Sections
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-5.2

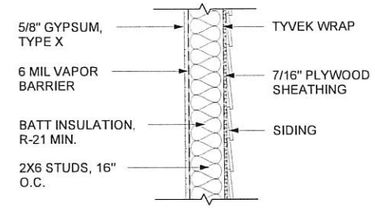


1 Eave
1" = 1'-0"

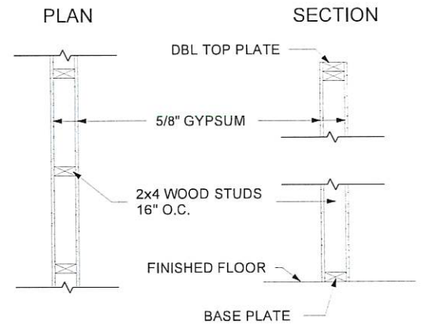




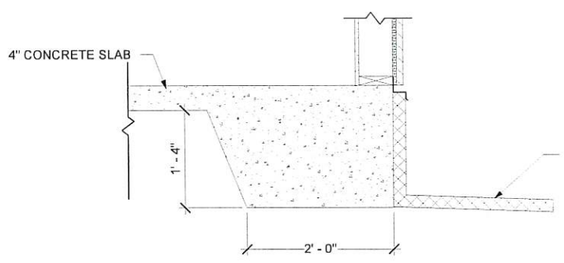
7 Ridge
1" = 1'-0"



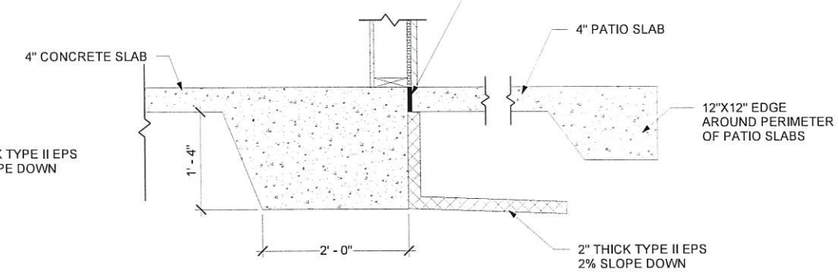
2 Typical Exterior Wall
1" = 1'-0"



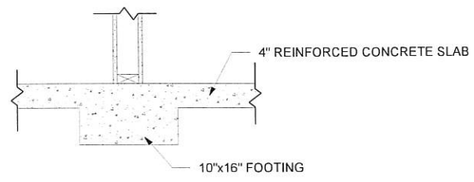
3 Typical Interior Wall
1" = 1'-0"



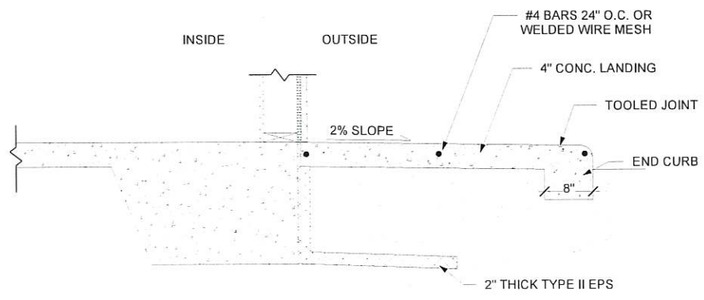
4 Perimeter Footing
1" = 1'-0"



5 Perimeter Footing @ Patio
1" = 1'-0"



6 Interior Footing
1" = 1'-0"



9 Landing Detail
1" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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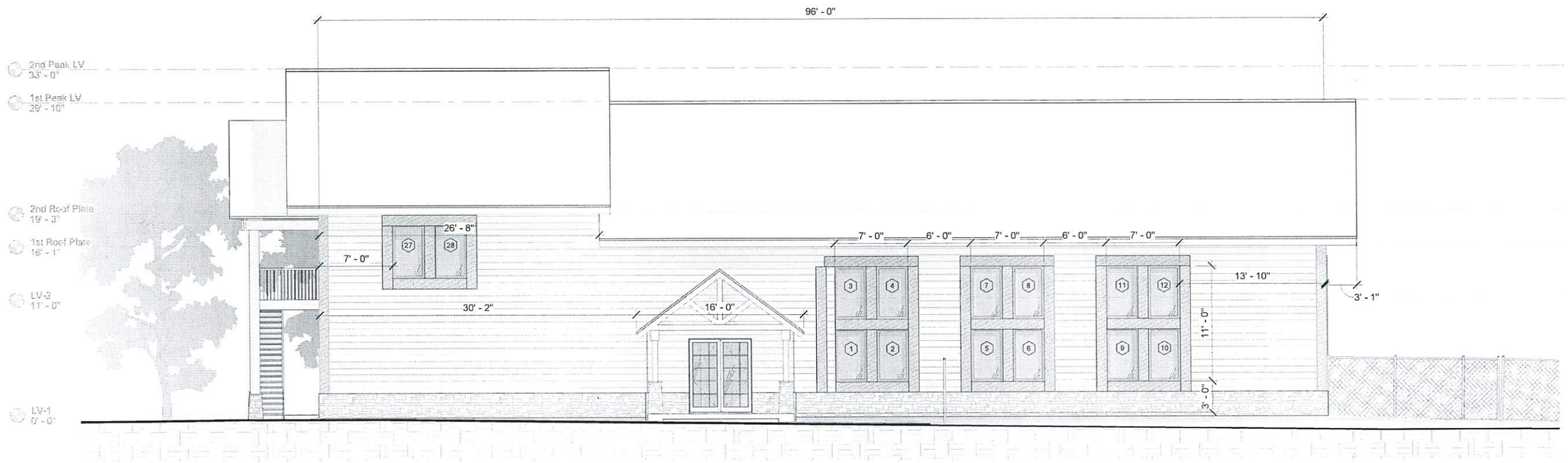
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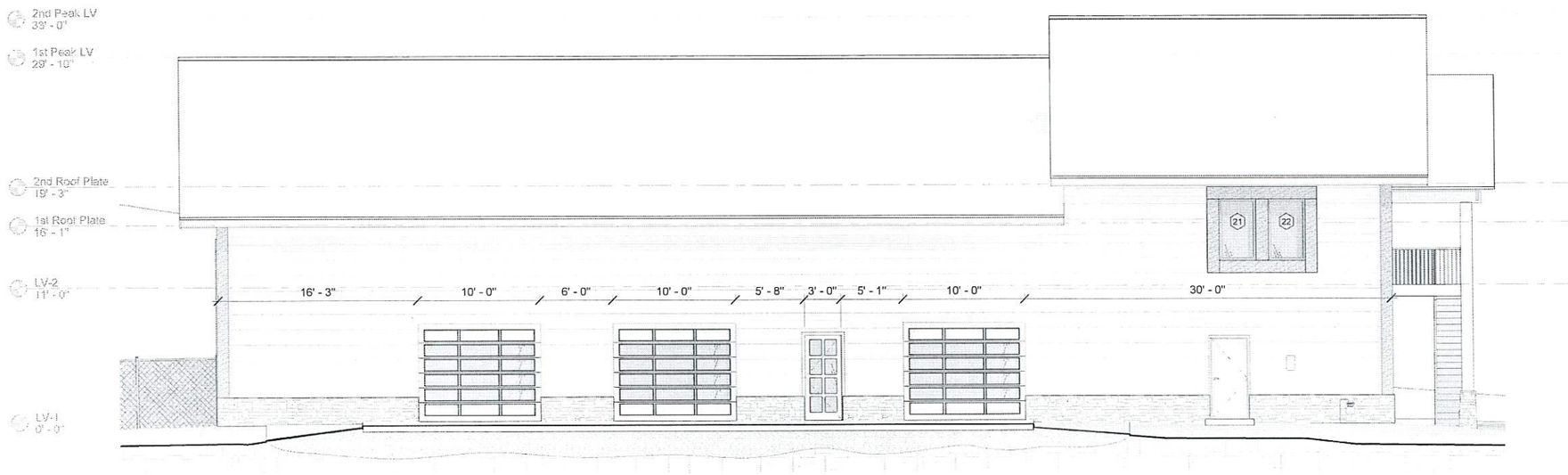
STATE OF ALASKA
DANIEL H. CLIFT
14104
REGISTERED PROFESSIONAL ARCHITECT

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Details
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-5.3



1 North
3/16" = 1'-0"



2 South
3/16" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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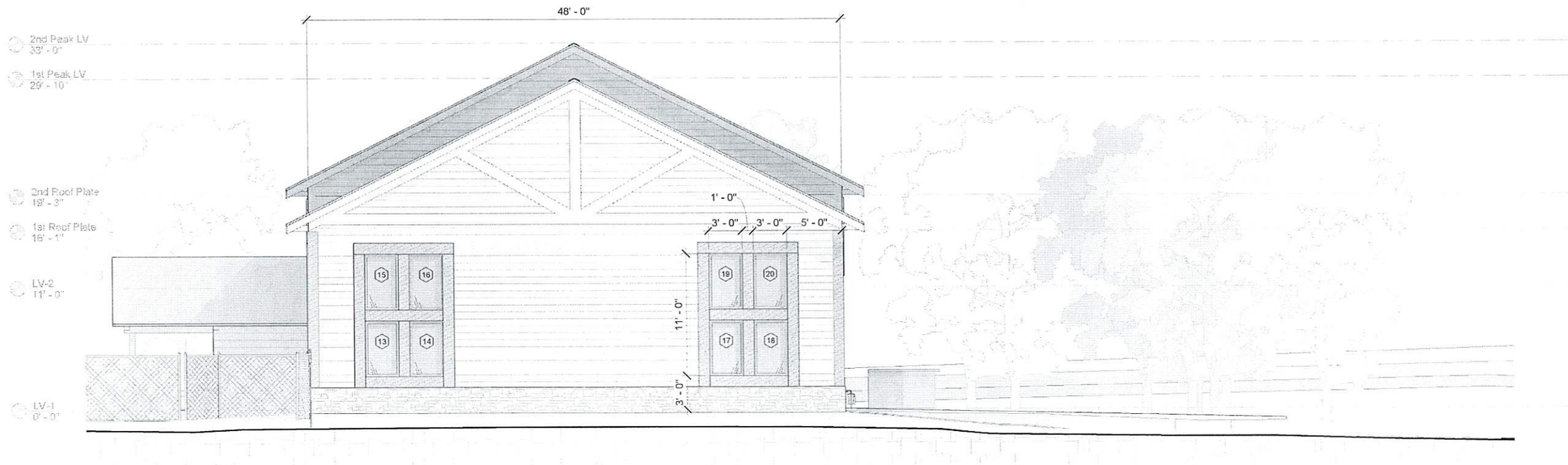
STATE OF ALASKA
DANIEL H. CLIFT
14104
REGISTERED PROFESSIONAL ARCHITECT

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Elevations
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-6.1



1 East
3/16" = 1'-0"



2 West
3/16" = 1'-0"

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Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Elevations
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-6.2

Room Schedule

#	Name	Area	Wall Finish	Ceiling Finish	Base Finish	Floor Finish	Comments
101	Entry	99 SF	GYP/P1	GYP	RB	C	
102	Main hall	3161 SF	GYP/P1/ W	GYP	RB	C	
103	Hallway	84 SF	GYP/P1	GYP	RB	C	
104	M-RESTROOMS	158 SF	GYP/P2	GYP	RB	C	
105	F-RESTROOMS	159 SF	GYP/P2	GYP	RB	C	
106	Laundry & Storage	273 SF	GYP/P1	GYP	RB	C	
107	Warming Kitchen	296 SF	GYP/P2	GYP	RB	C	
108	Mech.	120 SF	GYP/P1	GYP	RB	C	
201	Bride	217 SF	GYP/P1	GYP	RB	LVT	
202	Restroom	43 SF	GYP/P2	GYP	RB	LVT	
203	Hallway	145 SF	GYP/P1	GYP	RB	LVT	
204	Office	99 SF	GYP/P1	GYP	RB	LVT	
205	Meeting Room	137 SF	GYP/P1	GYP	RB	LVT	
206	Groom	217 SF	GYP/P1	GYP	RB	LVT	
207	Restroom	43 SF	GYP/P2	GYP	RB	LVT	

DOOR HARDWARE SCHEDULE LEGEND

PT-1 : PAINT
PT-2 : MOISTURE RESISTANT PAINT
GYP : GYPSUM BOARD
W: WAINSCOT AND CHAIR RAIL
RB : 4" BLACK RUBBER BASE
CPT : CARPET
LVT : LUXURY VINYL TILE FLOORING
CN : CONCRETE

Door Schedule

Door #	Width x Height	Type	Door Material	Frame Material	Hardware Group	Comments
1	72"x86"	A	WD/GL	WD	L	
2	72"x86"	A	WD/GL	WD	E	EGRESS
3	36"x84"	B	WD/GL	WD	E	
4	48"x80"	D	WD	WD	E	
5	48"x80"	D	WD	WD	E	
6	36"x80"	C	WD	WD	E	
7	36"x80"	C	WD	WD	E	
8	36"x80"	C	WD	WD	L	
9	36"x80"	C	WD	WD	L	EGRESS
10	48"x84"	E	WD	WD	E	
11	36"x84"	B	WD/GL	WD	L	
12(F)	36"x80"	C	WD	WD	L	1,4
13	36"x80"	C	WD	WD	L	EGRESS
14	120"x96"	G	IHM/GL	IHM	-	
15	36"x84"	B	WD/GL	WD	L	EGRESS
16	120"x96"	G	IHM/GL	IHM	-	
17	120"x96"	G	IHM/GL	IHM	-	
18	72"x82"	F	WD/GL	WD	E	
19	36"x84"	B	WD/GL	WD	L	
20	36"x80"	C	WD	WD	PR	
21	36"x84"	C	WD	WD	L	
22	36"x84"	C	WD	WD	L	
23	36"x84"	B	WD/GL	WD	L	
24	36"x84"	B	WD/GL	WD	L	
25	36"x84"	C	WD	WD	L	
26	36"x84"	B	WD/GL	WD	L	
27	36"x84"	C	WD	WD	L	
28	36"x80"	C	WD	WD	PR	

DOOR SCHEDULE LEGEND

IHM: INSULATED HOLLOW METAL
HM: HOLLOW METAL
WD: SOLID CORE WOOD
GL: GLASS

1. DOOR CLOSER
2. WEATHERSTRIPPING
3. KICKPLATE
4. 20 MIN FIRE RATED

DOOR HARDWARE SCHEDULE LEGEND

L: PASSAGE LATCH, WITH COMMERCIAL LOCK
E: ENTRY LATCH, NO LOCK OPTION
PR: PRIVACY LATCH
C: KEYED LATCH, KEY ONLY OPERATION
P: PUSH / PULL
*I: PROVIDE PANIC HARDWARE

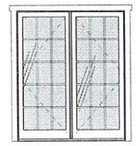
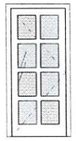
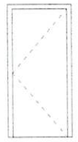
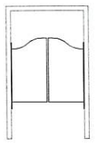
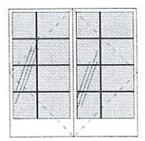
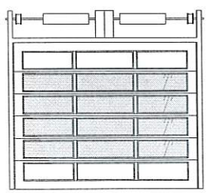
Window Schedule

Window #	Width x Height	Sill Height	Type	Comments
1	36"x60"	36"	A	
2	36"x60"	36"	A	
3	36"x60"	108"	A	
4	36"x60"	108"	A	
5	36"x60"	36"	A	
6	36"x60"	36"	A	
7	36"x60"	108"	A	
8	36"x60"	108"	A	
9	36"x60"	36"	A	
10	36"x60"	36"	A	
11	36"x60"	108"	A	
12	36"x60"	108"	A	
13	36"x60"	36"	A	
14	36"x60"	36"	A	
15	36"x60"	108"	A	
16	36"x60"	108"	A	
17	36"x60"	36"	A	
18	36"x60"	36"	A	
19	36"x60"	108"	A	
20	36"x60"	108"	A	
21	36"x60"	24"	A	
22	36"x60"	24"	A	
23	36"x60"	36"	B	
24	36"x60"	36"	B	
25	36"x60"	36"	B	
26	36"x60"	36"	B	
27	36"x60"	24"	A	
28	36"x60"	24"	A	

WINDOW TYPES

ELEVATION	PLAN	DESCRIPTION
		TYPE A FIXED
		TYPE B SLIDING

DOOR TYPES

ELEVATION	PLAN	DESCRIPTION
		TYPE A EXTERIOR FRENCH DOOR DOUBLE LEAF, HINGED
		TYPE B FRENCH DOOR SINGLE LEAF, HINGED
		TYPE C FLUSH SINGLE LEAF, HINGED
		TYPE D BI-FOLD, 4-PANEL
		TYPE E SALOON DOOR
		TYPE F INTERIOR FRENCH DOOR DOUBLE LEAF, HINGED
		TYPE G OVERHEAD GARAGE DOOR

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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DESIGN

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STATE OF ALASKA
DANIEL H. CLIFT
14104
REGISTERED PROFESSIONAL ARCHITECT

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Schedules
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-7.1

GENERAL FRAMING NOTES AND SCHEDULES

1.0 GENERAL LOADING CONDITIONS

1.1 BUILDING CODES: INTERNATIONAL BUILDING CODE (IBC) 2021

1.2 DESIGN LOADS:

	LL	SL	DL
ROOF	20 PSF	40 PSF	15 PSF
FLOOR	60 PSF	N/A	15 PSF

1.3 DESIGN WIND SPEED (3-SECOND GUST): 120 MPH EXPOSURE C

1.4 DESIGN GROUND SNOW LOAD: 60 PSF
DESIGN ROOF SNOW LOAD: 42 PSF

1.5 SEISMIC ZONE: D
Ss = 1.5, S1 = .686
Sds = 1.0, Sd1 = 1.29
V = Cs X W = 12.9 KIPS
(EQUIVALENT LATERAL FORCE PROCEDURE)

2.0 GENERAL CONDITIONS

2.1 THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO THE FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.

2.2 THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORTS THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.

2.3 THE PROJECT SPECIFICATIONS SHALL BE CONSIDERED AN INTEGRAL PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW THE SPECIFICATIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ARCHITECT OR ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

2.4 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REQUIREMENTS AND PUBLIC AGENCIES SAFETY ORDINANCES.

2.5 AN APPROVED AGENCY OR INDIVIDUAL SHALL INSPECT THE FRAMING INCLUDING WALL FRAMING, SHEAR WALLS, TRUSSES, DECKING, MATERIALS AND CONNECTIONS PER THE OWNER'S DIRECTION AND LOCAL ADMINISTRATION.

3.0 MATERIALS

3.1 WOOD

1. DIMENSIONAL LUMBER SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATIONS (NDS), LATEST EDITION, AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. INSTALLATION SHALL ALSO CONFORM TO THE WOOD FRAME CONSTRUCTION MANUAL (WFCM), PUBLISHED BY THE AMERICAN FOREST & PAPER ASSOCIATION (AF&PA).
2. ALL LUMBER TO BE #2 GRADE DOUGLAS FIR - LARCH (DF-L) OR SPRUCE PINE FIR (SPF), UNLESS NOTED OTHERWISE. STUDS CAN BE HEM-FIR, U.N.O. ON SHEAR PLANS.
3. ALL WOOD FRAMING MEMBERS TO HAVE 19% OR LESS MOISTURE CONTENT.
4. ALL SILLS ON SLABS SHALL BE TREATED WOOD.
5. POSTS AND COLUMNS LOCATED ON CONCRETE, MASONRY OR EXPOSED TO WEATHER SHALL BE TREATED WOOD.
6. WALL STUD MATERIAL SHALL BE STUD GRADE OR BETTER. 3X STUDS ARE REQUIRED AT HOLDDOWNS AND SHEAR PANEL SPLICE LOCATIONS.
7. FINGER-JOINTED STUDS SHALL NOT BE USED AT HOLD DOWN LOCATIONS AT ENDS OF SHEAR WALLS. FINGER-JOINTED STUDS SHALL NOT BE USED IN BALLOON FRAMING CONSTRUCTION.
8. ALL GLULAM BEAMS TO BE BOISE CASCADE 24F, 1.8E OR BETTER GRADE
9. ALL LVL SHALL BE MICROLLAM 1.9E OR BETTER. CONNECT PER MANUFACTURER.

3.2 STEEL
STRUCTURAL STEEL COMPONENTS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS AND STANDARDS:
GENERAL: AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTON, 13TH EDITION
STRUCTURAL STEEL ROLLED SHAPES: ASTM A992
STRUCTURAL STEEL TUBES: ASTM A500 GRADE B
ANCHOR BOLTS: ASTM F1554
ALL WELDS TO BE COMPLETED PER AWS D1.1 BY A QUALIFIED WELDER

3.3 CONCRETE
1. STRUCTURAL CONCRETE SHALL COMPLY WITH AMERICAN CONCRETE INSTITUTE (ACI) CODES 318 AND 530, LATEST EDITION
2. WALL CONCRETE SHALL HAVE 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
3. DECK CONCRETE SHALL HAVE 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
4. SLAB CONCRETE SHALL HAVE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
5. REBAR: ASTM A615 GRADE 60
6. SLAB REBAR TO BE #4 BAR @ 18" O.C. EACH WAY.
7. CONCRETE TO HAVE 3" COVER WHEN EXPOSED TO EARTH, AND 2" COVER ELSEWHERE.
8. GROUT: ASTM C476 (COMPRESSIVE STRENGTH OF GROUT, F' G, SHALL NOT BE LESS THAN 5000 PSI.)
9. CONTROL JOINTS SHALL BE INSTALLED AS REQUIRED TO LIMIT COSMETIC CRACKING. MAX SPACING BETWEEN JOINTS SHOULD NOT EXCEED 12 FT.

3.4 CONNECTORS
3. ALL NAILS SPECIFIED ON THESE PLANS SHALL BE COMMON NAILS, UNLESS NOTED OTHERWISE. (8D - 2.5X.131, 10D - 3X.148, 16D - 3.5X.162) PNEUMATIC CONNECTORS ARE PERMITTED, PROVIDED THEY HAVE EQUIVALENT CAPACITY.
4. SPECIFIED HOLD-DOWNS, HANGERS, STRAPS, ETC., ARE BY SIMPSON STRONG-TIE. PRODUCTS BY OTHER MANUFACTURERS MAY BE USED, PROVIDED THEY HAVE EQUAL OR GREATER STRUCTURAL CAPACITY. ALL HOLD-DOWNS, HANGERS, STRAPS, ETC., SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. ALL CONNECTORS EXPOSED TO WEATHER OR USED IN CONJUNCTION WITH FIRE-RETARDANT LUMBER SHALL BE GALVANIZED OR OTHERWISE PROTECTED FROM CORROSION.

Sill Plate Anchorage Schedule

SILL PLATE ANCHORAGE		
ATTACHMENT ANCHOR TYPE	EMBED.	LOAD BEARING WALLS
5/8" Ø ANCHOR BOLTS	7"	32" O.C.

NOTES:
1. THIS SCHEDULE APPLIES TO BASIC ANCHORAGE OF THE BOTTOM SILL PLATE TO THE FOUNDATION. ADDITIONAL CONNECTIONS MAY BE REQUIRED FOR LATERAL OR UPLIFT FORCES ON THE BUILDING. SEE THE PLANS OR THE SHEATHING SCHEDULE FOR ADDITIONAL REQUIREMENTS.
2. SHEAR WALLS MAY REQUIRE ADDITIONAL INSTALLATION INSTRUCTIONS.

4.0 Conventional Wood Framing

4.1 THE MAIN WIND FORCE RESISTING SYSTEM (MWFRS) AND COMPONENTS AND CLADDING (C&C) HAVE BEEN DESIGNED IN ACCORDANCE WITH THE IRC, IBC, AND/OR WFCM.

4.2 FOR THE MWFRS, SEE THE PLAN FOR REQUIRED SHEATHING AND HOLD DOWNS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHEATHING SCHEDULE AND ACCOMPANYING DETAILS.

4.3 FOR C&C, SEE THE SHEATHING AND CLADDING ATTACHMENT SCHEDULE.

SHEATHING AND CLADDING ATTACHMENT SCHEDULE

	Framing Spacing	Sheathing Thickness	Interior Zone		Perimeter Edge Zone	
			Panel Edge	Panel Field	Panel Edge	Panel Field
ROOF SHEATHING	24" O.C.	5/8"	6"	12"	6"	6"
ENDWALL RAKE					6"	6"
WALL SHEATHING	16" O.C.	7/16"	6"	12"	6"	6"
TOP PLATE	16" O.C.	7/16"	3" (2) rows staggered	N/A	3" (2) rows staggered	N/A

4.4 TOP PLATE SPLICES SHALL BE 48" WITH 2-16D NAILS EVERY 6 INCHES.

4.5 ROOF SHEATHING SHALL BE A MIN. OF 5/8" ORIENTED STRAND BOARD (OSB), THICK APA RATED SHEATHING (CDX) OR PLYWOOD, EXTERIOR GRADE. USE BLOCKING OR APPROVED "H" CLIPS TO SECURE UNSUPPORTED EDGES. NAIL WITH 8D COMMON NAILS @ 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

4.6 STUDS SHALL BE 2X6 @ 16" O.C. WALLS BELOW 12 FEET, 2X6 @ 12" OR 2X8 @ 16" O.C. FOR TALL WALLS.

4.7 FLOOR JOISTS TO BE PER PLAN W/ ¾" T&G SHEATHING W/ 10D 6" EDGE, 12" FIELD.

4.8 HOLES AND NOTCHES SHALL BE IN COMPLIANCE WITH APPLICABLE DETAILS OR MANUFACTURER'S SPECIFICATIONS.

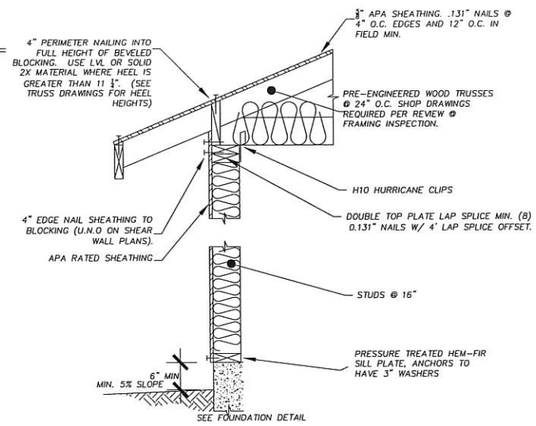
5.0 Nailing Schedule

CONNECTION	QUANTITY / SIZE / METHOD	SPACING
Roof Framing		
Blocking to Truss		Each End
Rimboard to Truss	(3) - 10d (Facenail)	6" O.C.
Wall Framing	(2) - 10d (Toenail)	
Stud to Sole Plate	(4) - 10d (Toenail) or (2) - 16d (Endnail)	Each End
Double Studs	16d (Facenail)	24" O.C.
Double Top Plates	16d (Facenail)	24" O.C.
Top Plate Laps and Intersections	(2) - 16d (Facenail)	Every 6" for 36" Splice
Continuous Header, Two Pieces	16d	16" O.C. Along Each Edge
Ceiling Framing		
1/2" Gypsum Wallboard	5d cooler	6" Edge / 10" Field
Floor Framing		
Joist to Sill or Girder	(4) - 10d	Per Joist
Blocking to Joist	(2) - 10d	Per End
Blocking to Plate	(4) - 16d	Each Block
Build-Up Sections		
Build-Up Wood Columns	(2 Rows) - 16d	8" O.C.
Build-Up Girder and Beams	20d (Facenail) @ Top & Bottom and Staggered (2) - 20d (Facenail) @ Ends & at Each Splice	32" O.C. (Facenail) @ Top & Bottom and Staggered @ 32" O.C. @ Ends & at Each Splice

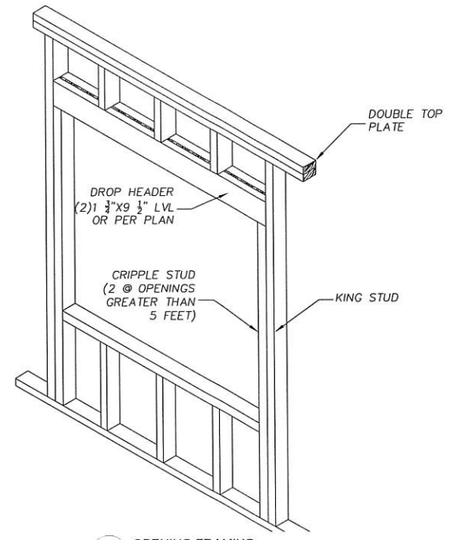
NOTES:
1. SUPPLY RATED CLIPS OR STRAPS FOR UPLIFT FORCES AT RAFTERS TO PLATE CONNECTIONS AS NOTED ON PLAN SHEETS.
2. ON SHEAR WALLS AND DIAPHRAGMS NAILS SHALL BE PLACED NOT LESS THAN 3/8 INCH FROM THE PANEL EDGE.
3. REFERENCE IBC TABLE 2304.9.1 and WFCM.

6.0 Site Preparation

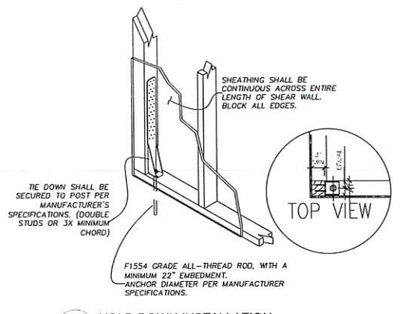
NOTES:
1. SITE WILL BE CLEARED OF ALL DEBRIS AND ORGANIC MATERIAL PRIOR TO PLACING ANY FOUNDATION COMPONENTS.
2. WHERE FILL IS REQUIRED, 95% COMPACTION IS REQUIRED WITH A MAXIMUM LIFT OF 8".
3. DRAINAGE DURING CONSTRUCTION AND AT PROJECT COMPLETION SHOULD DRAIN AWAY FROM THE SITE.
4. NO SOIL REPORT WAS AVAILABLE FOR THIS SITE. THE CONTRACTOR SHALL VERIFY SOIL CONDITIONS PRIOR TO CONSTRUCTION.



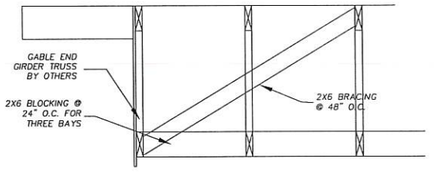
A S0.0 WALL FRAMING NTS



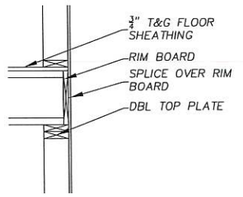
B S0.0 OPENING FRAMING NTS



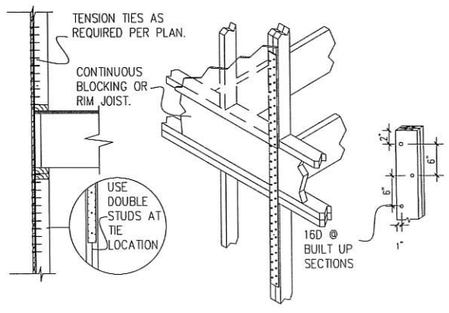
C S0.0 HOLD DOWN INSTALLATION NTS



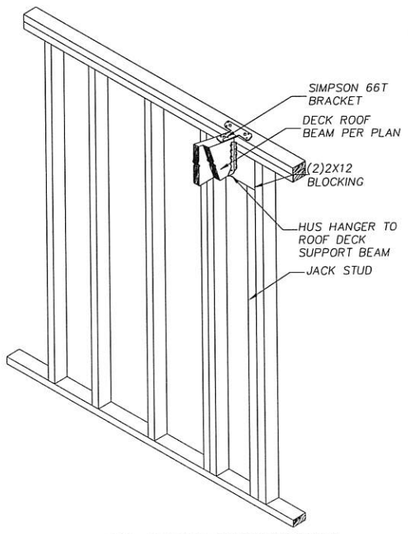
D S0.0 GABLE END BRACING NTS



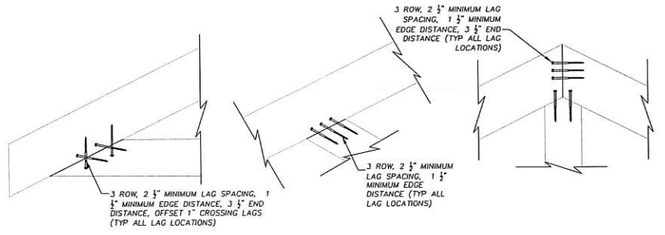
E S0.0 SHEAR TRANSFER BETWEEN FLOORS NTS



F S0.0 UPPER FLOOR STRAP NTS

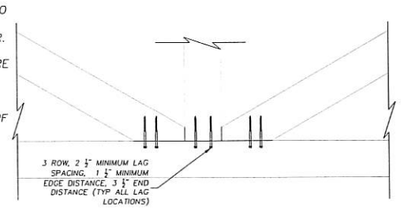


G S0.0 EXTERIOR BEAM CONNECTION NTS

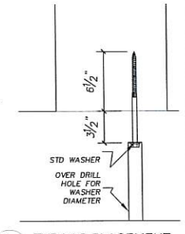


ALL LAGS ASSUMED TO BE ¾"X10" MINIMUM TIMBERLOK OR SIMILAR. HOLES TO BE PREDRILLED TO ENSURE 6 ½" EMBED.

ALL TIMBERS TO BE 12"X12" SEASONED SPF OR DFL.



H S0.0 TIMBER TRUSS CONNECTIONS NTS



I S0.0 TYP LAG PLACEMENT NTS

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

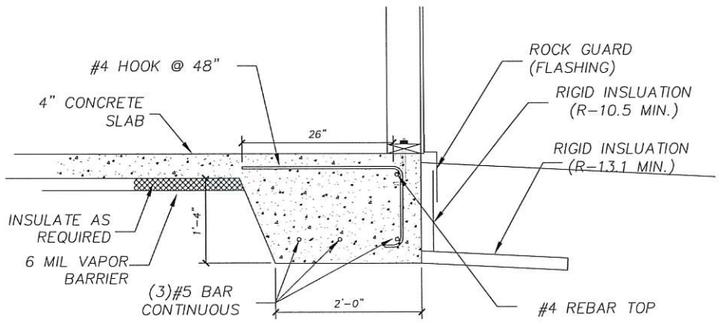
ANDREW P. ADAMS, PE
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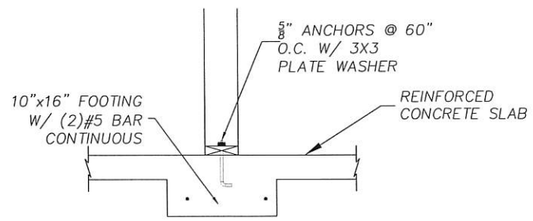
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Drawn by: AA
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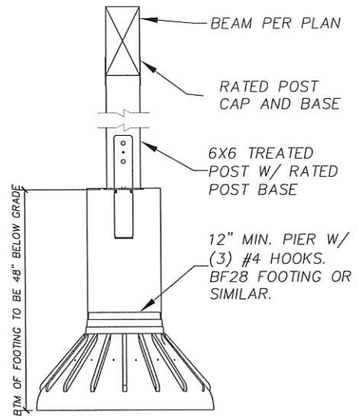
STATE OF ALASKA
49TH
Andrew P. Adams
No. SE13603
REGISTERED PROFESSIONAL ENGINEER
9/8/2025
FOR CONSTRUCTION

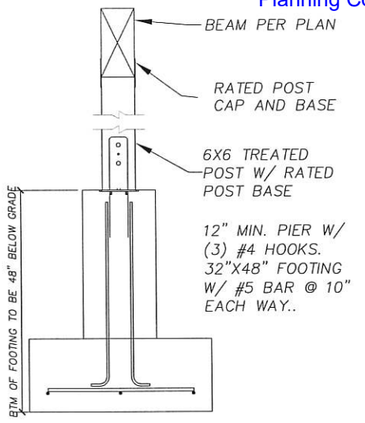
Project Title: KNIK LANDING
Prepared for: DOUG MASSIE
Sheet Title: NOTES & DETAILS
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

S0.0

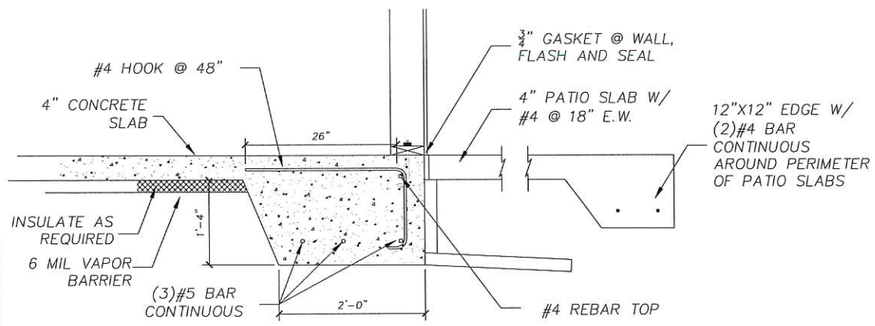




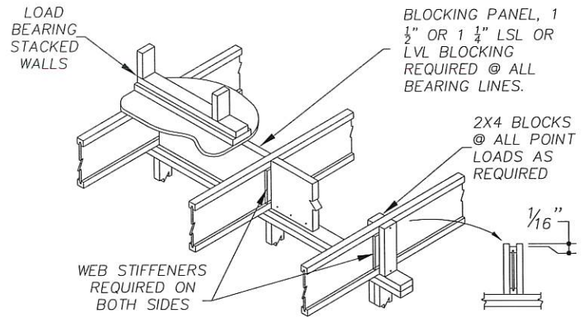




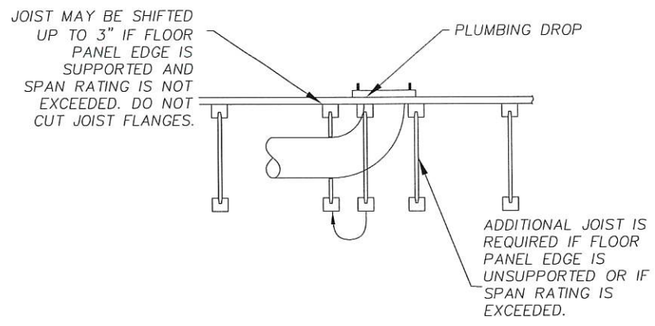
A S0.1 PERIMETER FOOTING
NTS



B S0.1 INTERIOR FOOTING
NTS



C S0.1 POST FOOTING
NTS

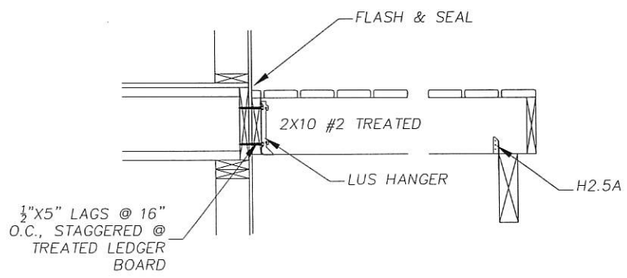


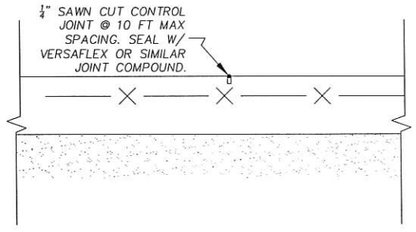
D S0.1 POST FOOTING
NTS

E S0.1 PERIMETER FOOTING @ PATIO
NTS

F S0.1 BLOCKING @ BEARING
NTS

G S0.1 PLUMBING DROP
NTS





H S0.1 DECK ATTCHMENTS
NTS

I S0.1 CONTROL JOINT
NTS

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

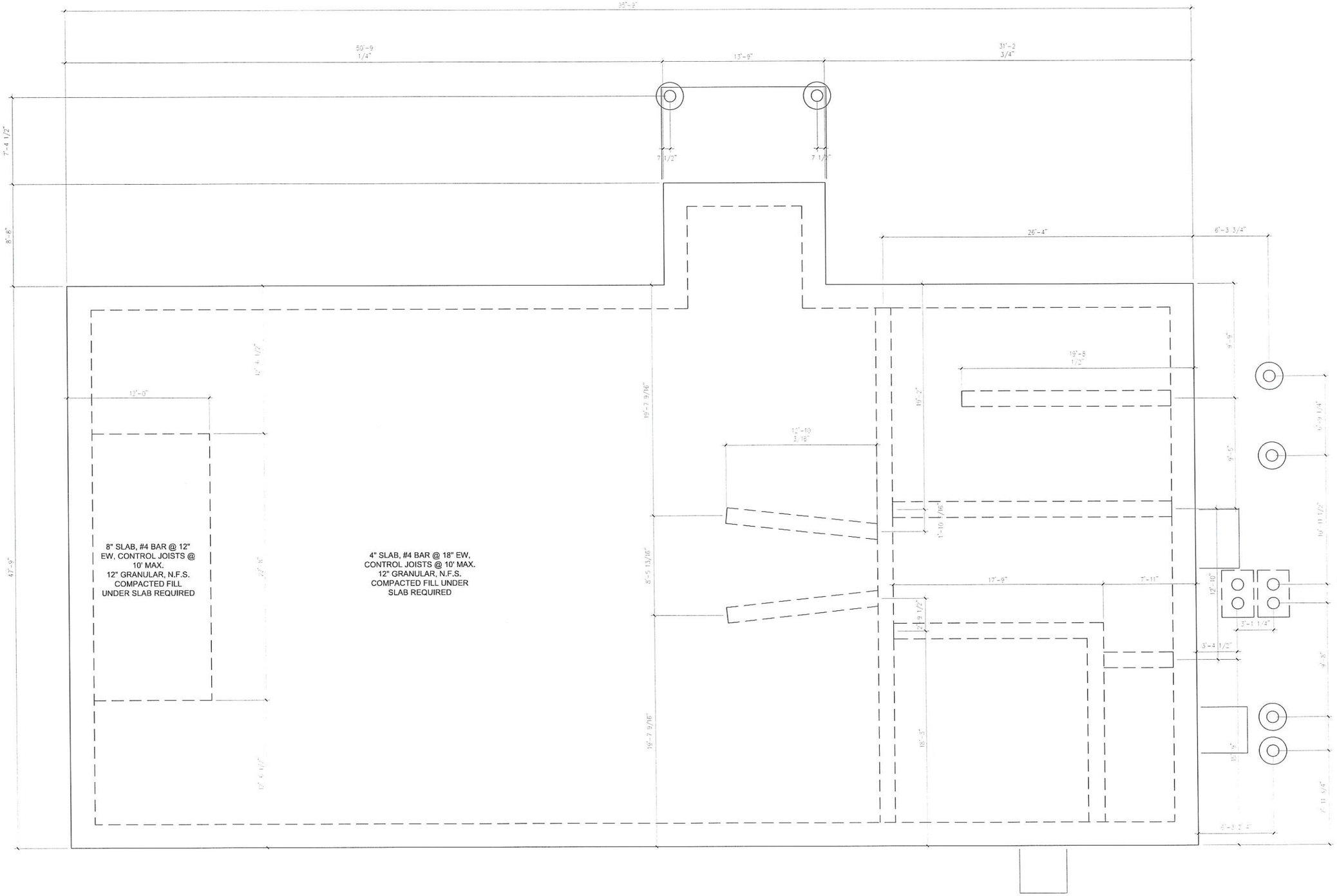
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9/8/2025
FOR CONSTRUCTION

Project Title: KNIK LANDING
Prepared for: DOUG MASSIE
Sheet Title: DETAILS
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

S0.1



1 S1.0 FOUNDATION PLAN
1/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

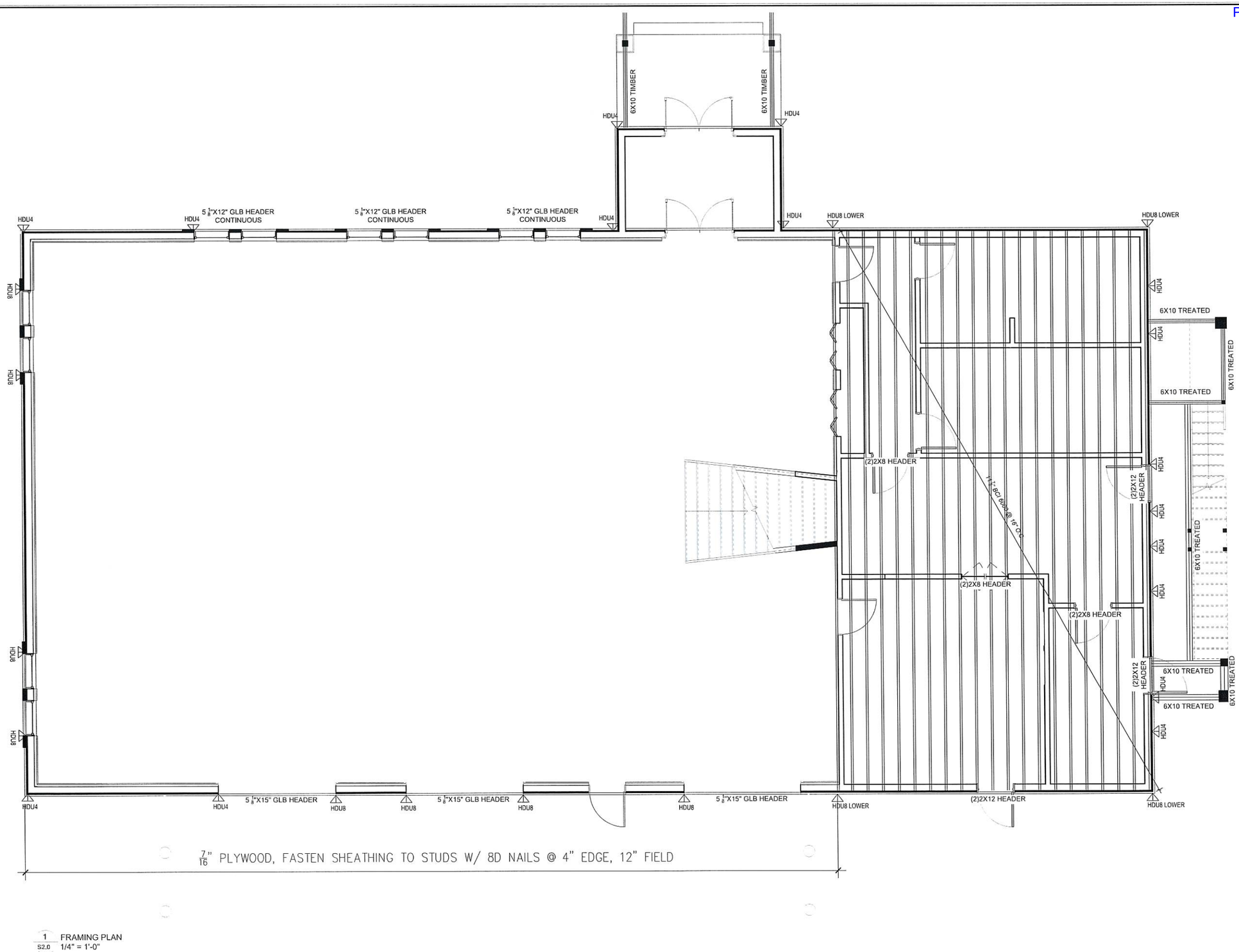
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9/8/2025
FOR CONSTRUCTION

Project Title: KNIK LANDING
Prepared for: DOUG MASSIE
Sheet Title: FOUNDATION
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

S1.0



1 S2.0 FRAMING PLAN
1/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

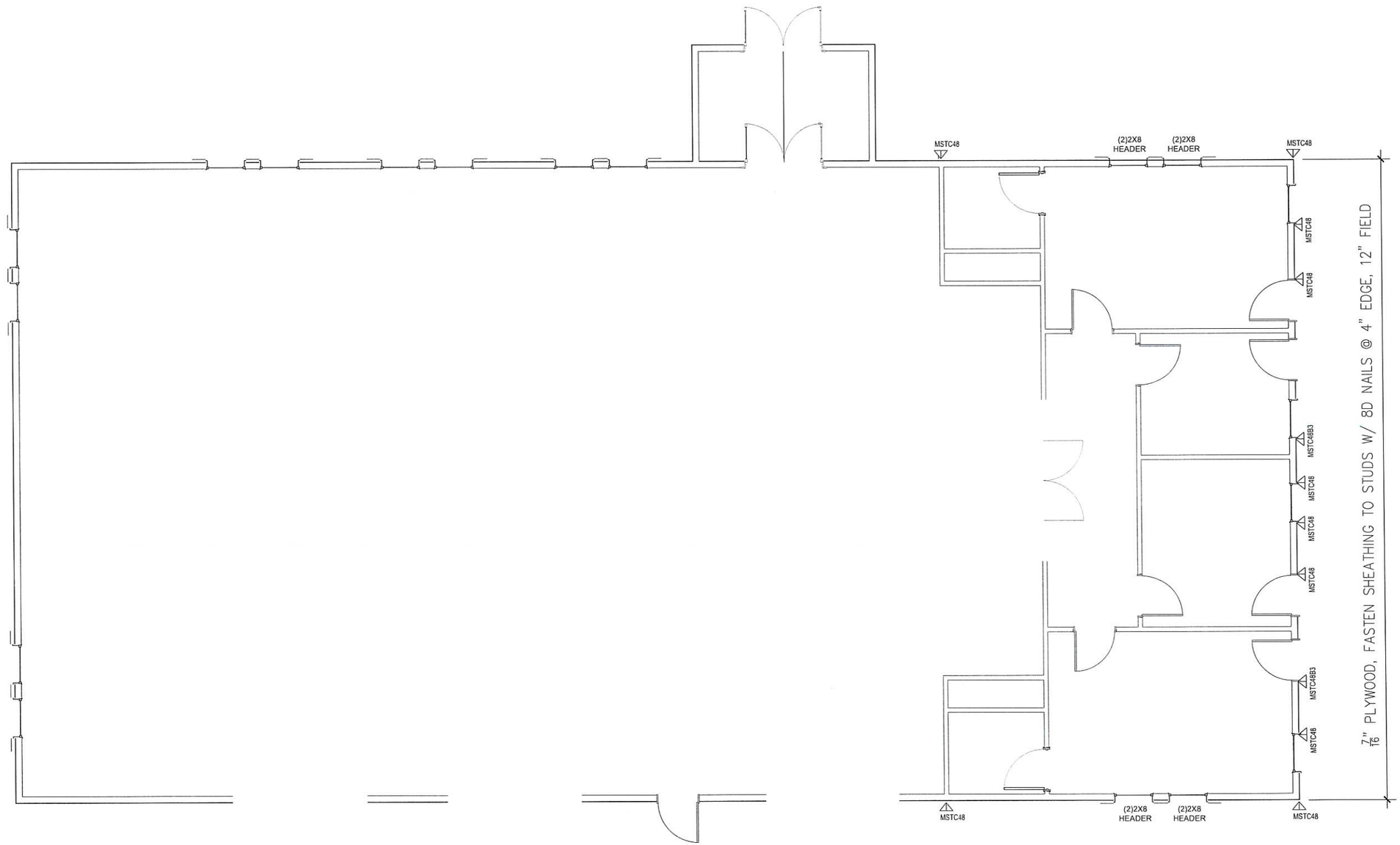
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9/8/2025
FOR CONSTRUCTION

Project Title: KNIK LANDING
Prepared for: DOUG MASSIE
Sheet Title: LOWER FLOOR FRAMING
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

S2.0



1 S2.0 FRAMING PLAN
1/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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No. SE13603
REGISTERED PROFESSIONAL ENGINEER
9/8/2025
FOR CONSTRUCTION

Project Title: KNIK LANDING
Prepared for: DOUG MASSIE
Sheet Title: UPPER FLOOR FRAMING
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

S2.1



1 S3.0 ROOF PLAN
1/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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Project Title: KNIK LANDING
Prepared for: DOUG MASSIE
Sheet Title: ROOF PLAN
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S3.0

MECHANICAL SYMBOL LEGEND

PIPING SYMBOLS

SYMBOL	ABBR.	DESCRIPTION
———	W	WASTE
- - - - - -	V	VENT
—— — ——	CW	COLD WATER
—— — — ——	HW	HOT WATER
—— — — ——	HWC	HOT WATER RECIRCULATION
— — GHR — —	GHR	GLYCOL HEATING RETURN
—— GHS ——	GHS	GLYCOL HEATING SUPPLY
— — SMR — —	SMR	SNOW MELT RETURN
—— SMS ——	SMS	SNOW MELT SUPPLY
——— G ———	G	LOW PRESSURE GAS
———○		DEEP SEAL TRAP
———⊃		PIPE ELBOW DOWN
———○		PIPE ELBOW UP
———⊪———		UNION
———⋈———	GV/SOV	GATE VALVE/SHUT-OFF VALVE
———⋔———		PLUG VALVE
———⋔———		GAS COCK
———⋈———		GLOBE VALVE
———⋈———	MOV	MOTOR OPERATED VALVE 2-WAY
———⋈———	MOV	MOTOR OPERATED VALVE 3-WAY
———⋈———	PRV	PRESSURE REDUCING VALVE
———⋈———	RV	RELIEF VALVE
———⋈———	CV	CHECK VALVE
———⋈———		BALL VALVE (FULL PORT)
———⋈———		STRAINER
———⋈———		THERMOMETER
———⋈———		PRESSURE GAUGE W/ISO. VALVE
———⋈———		SOLENOID VALVE
———⋈———	BV	BALANCING VALVE
———⋈———		BUTTERFLY VALVE
———⋈———		FLEX CONNECTION
———□ Y	WHA	WATER HAMER ARRESTER (Y=SIZE)
———⋈———		AUTOMATIC FLOW CONTROL
———⊪———	CO	CLEAN-OUT
———⊪———	WCO	WALL CLEAN-OUT
———⊗———	FCO	FLOOR CLEAN-OUT
———◎———	FD	FLOOR DRAIN
———⋈———		PIPE ANCHOR
———⋈———		PIPE GUIDE

HVAC SYMBOLS

SYMBOL	ABBR.	DESCRIPTION
		NEW DUCTWORK
	S.L.	ACOUSTICALLY LINED DUCT
		THERMALLY INSULATED DUCT
UP		DUCTWORK UP
DN		DUCTWORK DOWN
		TURNING VANES
		AIR EXTRACTOR
	S/A	SUPPLY REG., GRILLE OR DIFFUSER
	R/A	RETURN/EXHAUST REG. OR GRILLE
		SUPPLY
		RETURN OR EXHAUST
		SUPPLY AIR SLOT WITH FLEX DUCT
		RETURN AIR SLOT
		FLEXIBLE DUCT
		FLEXIBLE CONNECTION
VD	VD,BD	VOLUME DAMPER
FD	FD	FIRE DAMPER
FSD	FSD	FIRE/SMOKE DAMPER
M M	MOD	MOTOR OPERATED DAMPER
20"X12"		DUCT SIZE
	HC	HEATING COIL
	S/A	SUPPLY AIR
	R/A	RETURN/RELIEF AIR
	E/A	EXHAUST AIR
	O/A	OUTSIDE AIR
DD	DD	DUCT DETECTOR
		ACCESS PANEL
T T	T'STAT	THERMOSTAT,& W/INS. BASE
SP		STATIC PRESSURE SENSOR
S		SWITCH

ABBREVIATIONS

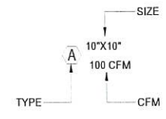
ABBR.	DESCRIPTION
EAT	ENTERING AIR TEMPERATURE
LAT	LEAVING AIR TEMPERATURE
EWT	ENTERING WATER (GLYCOL) TEMP.
LWT	LEAVING WATER (GLYCOL) TEMP.
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BDD	BACK DRAFT DAMPER
BG	BELOW GRADE
SS	STAINLESS STEEL
TP	TRAP PRIMER
VTR	VENT THRU ROOF
OADB	OUTSIDE AIR DRY BULB
AAV	AUTOMATIC AIR VENT

SYMBOLS DO NOT NECESSARILY APPEAR ON PLANS IN SAME SIZE AND PROPORTION AS SHOWN HERE.

PLANS DO NOT NECESSARILY USE ALL OF THE SYMBOLS SHOWN HERE.

DIFFUSER KEY

DIFFUSERS, GRILLES, AND REGISTERS SYMBOL:



MECHANICAL SPECIFICATIONS

GENERAL

1. THESE DRAWINGS ARE DIAGRAMATICAL IN NATURE AND DO NOT SHOW ALL FITTINGS AND/OR ACCESSORIES NECESSARY FOR A COMPLETE, FUNCTIONAL AND COORDINATED INSTALLATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THEIR WORK WITH OTHER TRADES AND WITH FIELD CONDITIONS.
2. ALL PLUMBING PIPING SHALL BE PER THE UNIFORM PLUMBING CODE, LATEST ADOPTED EDITION AND ALL LOCAL AMENDMENTS.
3. ALL MECHANICAL WORK SHALL BE PER THE INTERNATIONAL MECHANICAL CODE, LATEST ADOPTED EDITION AND ALL LOCAL AMENDMENTS.
4. ALL PENETRATIONS THROUGH FIRE RATED CONSTRUCTION (FIRE BARRIERS, SHAFTS AND HORIZONTAL ASSEMBLIES) MUST COMPLY WITH INTERNATIONAL BUILDING CODE, LATEST ADOPTED EDITION.
5. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND FEES.
6. THE CONTRACTOR SHALL PROVIDE SUBMITTAL DATA ON ALL PLUMBING AND MECHANICAL SYSTEMS. THIS INFORMATION SHALL BE BOUND IN A THREE RING BINDER, PROPERLY MARKED AND TAGGED. DATA SUBMITTED SHALL BE COMPLETE AND SUBMITTED AT ONE TIME AS PARTIAL SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. SUBMITTALS SHALL BE CLEARLY MARKED TO INDICATE EXACT ITEM TO BE SUPPLIED.
7. NO SUBSTITUTION OF MATERIALS WILL BE ALLOWED WITHOUT OWNERS APPROVAL.
8. AT THE END OF THE PROJECT PROVIDE THE OWNER WITH THREE COPIES OF AN OPERATION AND MAINTENANCE MANUAL ASSEMBLED SPECIFICALLY FOR THIS PROJECT FOR ALL MECHANICAL EQUIPMENT FURNISHED UNDER THIS CONTRACT. INFORMATION SHALL BE COMPLETE AND SHALL PROVIDE SPECIFICATION, OPERATION AND MAINTENANCE INFORMATION, WARRANTY INFORMATION, AS WELL AS SOURCES OF REPLACEMENT PARTS.
9. PROVIDE A COMPLETE SET OF AS-BUILT DRAWING AT THE END OF THE PROJECT, DRAWINGS SHALL SHOW ALL CHANGES MADE TO THE PROJECT DURING CONSTRUCTION. AS-BUILT OF CONTROL DRAWINGS SHALL ALSO BE INCLUDED.
10. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS FOR A PERIOD ON ONE YEAR AFTER ACCEPTANCE OF THE PROJECT BY THE OWNER. THIS SHALL INCLUDE MATERIALS, EQUIPMENT AND WORKMANSHIP. ALL DEFECTS SHALL BE REPLACED OR REPAIRED TO THE OWNERS SATISFACTION.
11. PROVIDE MANUFACTURERS RECOMMENDED CLEARANCE AND ACCESS TO ALL EQUIPMENT.
12. ALL PIPING, DUCT WORK, AND EQUIPMENT SHALL BE SEISMICALLY RESTRAINED IN ACCORDANCE WITH THE SMACNA SEISMIC RESTRAINT MANUAL FOR MECHANICAL SYSTEMS.

PIPING

1. DOMESTIC HOT AND COLD WATER PIPING SHALL BE TYPE "L" HARD DRAWN COPPER TUBING (ASTM-B-88), WROUGHT SOLDER TYPE FITTINGS, 95/5 TIN-ANTIMONY OR LEAD FREE SILVER BEARING SOLDER. PRO-PRESS FIITINGS MAY BE USED WITH COPPER PIPE. PROVIDE WATER HAMMER ARRESTORS FOR ALL BATTERIES OF FIXTURES. PEX TUBING MAY BE USED WHERE ALLOWED BY CODE. NSF-61 CERTIFIED.
2. WASTE, AND VENT PIPE SHALL BE CAST IRON HUBLESS PIPE WITH S.S. BANDS OR "ABS" PIPING (ASTM D-3965). FITTINGS SHALL BE DRAIN, WASTE AND VENT AND SHALL BE INSTALLED AND TESTED PER THE REQUIREMENTS OF THE LATEST ADOPTED EDITION OF THE UNIFORM PLUMBING CODE.
3. PROVIDE BACKFLOW PREVENTERS WHERE REQUIRED BY THE UPC AND OR THE LOCAL AUTHORITIES.
4. VALVES FOR PLUMBING SYSTEMS SHALL BE BALL VALVES. PROVIDE ISOLATION VALVES FOR EACH FIXTURE BATTERY AND WHERE INDICATED ON DRAWINGS.
5. NATURAL GAS PIPING SHALL BE SCHEDULE 40 STEEL PIPE WITH THREADED FITTINGS. GAS VALVES SHALL BE AGA APPROVED.

VALVES

1. BALL VALVES UP TO 2" SHALL BE TWO PIECE, FULL PORT BRONZE, CLASS 150 VALVES WITH TEFLON SEATS.
2. BALL VALVES 2" AND LARGER SHALL BE FULL PORT STEEL, CLASS 150 WITH TEFLON SEATS.
3. CHECK VALVES SHALL BE CLASS 125, BRONZE WITH SWEAT OR THREADED FITTINGS.
4. BALANCE VALVES ARE BASED ON TACO ACCU-FLOW OR B&G CIRCUIT SETTERS. BALBNCE VALVE SIZES ARE BASED ON THE BELOW CHART.

VALVE SIZE	RANGE (GPM)
1/2"	< - 1.5
3/4"	1.5 - 3.0
1"	3.0 - 6.0
1-1/4"	6.0 - 11.0
1-1/2"	11.0 - 17.0
2"	17.0 - 37.0
2-1/2"	37.0 - 66.0

PLUMBING

1. PLUMBING FIXTURES SHALL BE COMMERCIAL GRADE COMPLETE WITH ALL TRIM. FOR FIXTURE MANUFACTURER, MODEL ETC, SEE THE PLUMBING FIXTURE SCHEDULE.
2. PLUMBING EQUIPMENT SHALL BE COMMERCIAL GRADE COMPLETE WITH ALL SAFETIES AND TRIM. FOR INFORMATION ON MODEL ETC., SEE EQUIPMENT SCHEDULES.

HEATING

1. HEATING EQUIPMENT SHALL BE COMMERCIAL GRADE COMPLETE WITH ALL SAFETIES AND TRIM. FOR INFORMATION ON MODEL ETC., SEE EQUIPMENT SCHEDULES.

SHEET METAL

1. DUCTWORK SHALL BE FABRICATED SHEET METAL AND INSTALLED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
2. DIMENSIONS SHOWN FOR DUCTWORK ARE THE INSIDE CLEAR DIMENSIONS. CONTRACTOR SHALL ADD TO THE DUCT ALLOWANCES FOR SOUND LINING.
3. PAINT INTERIOR OF ALL DUCTWORK VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS FLAT BLACK. FLEX DUCT SHALL ONLY BE USED AT DIFFUSER CONNECTIONS AND SHALL BE THE SAME DIAMETER AS THE DIFFUSER NECK.
4. FLEX DUCT LENGTH SHALL NOT EXCEED 5 FEET, AND SHALL NOT BE INSTALLED WITH MORE THAN ONE (1) 90° FULL RADIUS BEND.

INSULATION

1. INSULATE ALL COLD PIPES WITH 1" FIBERGLASS INSULATION, WITH VAPOR BARRIER JACKET. (FIBERGLASS 25ASJ/SSL-II).
2. INSULATE ALL HOT PIPES, UP TO 2", WITH 1" FIBERGLASS INSULATION, PIPES 2-1/2" OR LARGER, INSULATE WITH 1-1/2" FIBERGLASS INSULATION. (FIBERGLASS 25ASJ/SSL-II).
3. INSULATE EXHAUST DUCT WORK FROM FAN TO THE EXTERIOR.
4. 2" INSULATION ON ALL OSA, AND RELIEF AIR DUCTWORK.
5. INSULATE ALL ABS & PVC PIPING IN CEILING PLENUM WITH 1" FIBERGLASS INSULATION (FIBERGLASS 25ASJ/SSL-II), WHEN APPROVED BY AUTHORITY HAVING JURISIDICTION.

CONTROLS

1. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROL SYSTEM AS REQUIRED TO PROVIDE EQUIPMENT CONTROL.

BALANCING

1. BALANCE HVAC & PLUMBING SYSTEMS USING NATIONAL ENVIROMENTAL BALANCING BUREAU (NEBB) RECOMMENDED PROCEDURES.

SAI CONSULTING ENGINEERS
SPURLOCK & ASSOCIATES, INC.
3705 ARCTIC BLVD. #1657 ANCHORAGE, AK. 995503
1150 S. COLONY WAY ST.3, PMB 370 PALMER, AK 99645
TEL: (907) 344-8222 TEL: (907) 745-8325
AECC 734

KNIK LANDING
10204 S. Knik Goose Bay Road, Wasilla, AK

DATE:	09/09/25
DRAWN:	BKS
CHECKED:	TWS
JOB NO:	25982

REV.	DATE	DESCRIPTION

SHEET TITLE:
LEGENDS, ABBREVIATIONS & SCHEDULES

SHEET NUMBER:
M1.1

Permit Drawings

FILENAME: Users\jm\OneDrive - SAI Alaska\Projects\25-Projects\25982\Architect\5982Mechanical.rvt
DATE 9/9/2025 9:07:08 AM

Planning Commission Packet
July 20, 2026
378 of 483

FIXTURE CONECTION SCHEDULE

TAG	FIXTURE	WASTE SIZE	VENT SIZE	HW SIZE	CW SIZE	REMARKS (1)
P1-1	WATER CLOSET	3"	2"	—	1/2"	FLOOR MOUNTED TANK TYPE WATER CLOSET WITH TRIM.
P1-2	WATER CLOSET "ADA"	3"	2"	—	1/2"	FLOOR MOUNTED TANK TYPE WATER CLOSET WITH TRIM. "ADA" APPROVED.
P2-1	URINAL	2"	2"	—	3/4"	WALL MOUNTED URINAL WITH FLUSHVALVE, CARRIER AND ALL REQUIRED TRIM.
P3-1	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	COUNTER SET LAVATORY WITH FAUCET AND TRIM. (2)
P3-2	LAVATORY "ADA"	1-1/2"	1-1/2"	1/2"	1/2"	COUNTER SET LAVATORY WITH FAUCET AND TRIM. "ADA" APPROVED. (2)
P4-1	KITCHEN SINK	2"	1-1/2"	1/2"	1/2"	COUNTER SET TWO COMPARTMENT SINK WITH FAUCET AND TRIM.
P4-2	3-COMPARTMENT SINK	2"	1-1/2"	1/2"	1/2"	FREE STANDING THREE COMPARTMENT SINK WITH FAUCET AND TRIM.
P4-3	MOP SINK	2"	1-1/2"	1/2"	1/2"	FLOOR SET MOP SINK WITH FAUCET AND TRIM.
P4-4	UTILITY SINK	2"	1-1/2"	1/2"	1/2"	FREE STANDING SINGLE COMPARTMENT UTILITY SINK WITH FAUCET AND TRIM.
P5-1	WASHER BOX	2"	2"	1/2"	1/2"	GUY GRAY WASHER BOX WITH ALL REQUIRED TRIM
FD-1	FLOOR DRAIN	2"	1-1/2"	—	—	J.R. SMITH FLOOR DRAIN WITH TRAP PRIMER.
FS-1	FLOOR SINK	2"	1-1/2"	—	—	J.R. SMITH FLOOR SINK WITH TRIM.
HB-1	HOSE BIBB	—	—	—	1/2"	J.R. SMITH FROST FREE HOSE BIBB.

(1) PLUMBING FIXTURES TO BE SELECTED BY ARCHITECT AND OWNER.

(2) PROVIDE WITH ASSE 1070 POINT OF USE VALVE.

EQUIPMENT SCHEDULE

WH-1

WATER HEATER: BRADFORD WHITE GAS FIRED WATER HEATER MODEL "EF-60T-150-3N". 150,000 BTU/HR. 169 GALLONS PER HOUR RECOVERY WITH 100 DEGREE RISE. 60 GALLONS STORAGE. 120 VOLT, 1.8 AMPS. PROVIDE WITH EXPANSION TANK.

B-1

BOILER: LOCHINVAR KNIGHT GAS FIRED BOILER, MODEL "WHN111". 110 MBH INPUT, 102 MBH OUTPUT. FURNISH COMPLETE WITH ALL REQUIRED TRIM TO INCLUDE BUT NOT LIMITED TO CONDENSATE NEUTRALIZATION KIT, REQUIRED CONTROLS AND SAFETIES. 120 VOLT. PROVIDE MANUFACTURERS VENT TERMINATION KIT.

GMT-1

GLYCOL TANK: AXIOM MF200 PRESSURE PAL MINI SYSEM FEEDER, 6.0 GALLONS, WALL MOUNTED, 120 VOLT, 50 WATTS.

HYDRONIC HEATING SCHEDULE

TAG	DISCRIPTION	SCFM	EWT	LWT	GPM	FLUID	MOTOR HP /VOLTS/ PH	REMARKS
HC-1	HEATING COIL	1,150	180	160	11.07	50/50% P.G.	--/---/--	TRANE HEATING COIL, 24"x24" WITH THREE-WAY MODULATING CONTROL VALVE. PROVIDE COMPLETE WITH ALL REQUIRED TRIM (1)

(1) FURNISH COMPLETE WITH ALL REQUIRED TRIM.

PUMP SCHEDULE

TAG	LOCATION	SERVICE	FLUID	FLUID TEMP.	GPM	HEAD FT.	MOTOR HP /VOLTS/ PH	REMARKS
CP-1	MECH. ROOM	HOT WATER RE-CIRC.	WATER	120	3.0	15'	1/12/120/1	GRUNDFOS UP 15-42B7
CP-2	MECH. ROOM	HEATING CIRCULATION	50/50% P.G.	180	12.0	15'	107.7W/120/1	GRUNDFOS MAGNA3 32-100

ELECTRIC HEATING SCHEDULE

TAG	DISCRIPTION	SCFM	KW	NOM. SIZE	MOTOR HP /VOLTS/ PH	REMARKS
EBB-1	ELECTRIC BASEBOARD	—	0.75	36"	--/120/1	REZNOR ELECTRIC BASEBOARD HEATER MODEL "EBHB-08-AK1E". FURNISH COMPLETE WITH ALL REQUIRED TRIM.
EBB-2	ELECTRIC BASEBOARD	---	1.0	48"	--/120/1	REZNOR ELECTRIC BASEBOARD HEATER MODEL "EBHB-10-AK1E". FURNISH COMPLETE WITH ALL REQUIRED TRIM.
EBB-3	ELECTRIC BASEBOARD	---	1.2	60"	--/120/1	REZNOR ELECTRIC BASEBOARD HEATER MODEL "EBHB-60-AK1E". FURNISH COMPLETE WITH ALL REQUIRED TRIM.
ECUH-1	ELECTRIC CABINET UNIT HEATER	—	2.0	—	--/120/1	REZNOR ELECTRIC CABINET UNIT HEATER MODEL "EMC-02-AK3E-HG5". FURNISH COMPLETE WITH ALL REQUIRED TRIM.

(1) FURNISH COMPLETE WITH ALL REQUIRED TRIM.

Permit Drawings

SAI CONSULTING ENGINEERS
SPURLOCK & ASSOCIATES, INC.
3705 ARCTIC BLVD. #1657 ANCHORAGE, AK. 995503 TEL: (907) 344-8222
1150 S. COLONY WAY ST.3, PMB 370 PALMER, AK 99645 TEL: (907) 745-8325
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KNIK LANDING

10204 S. Knik Goose Bay Road, Wasilla, AK

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REV.	DATE	DESCRIPTION

SHEET TITLE: MECHANICAL SCHEDULES

SHEET NUMBER: M1.2

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AIR HANDLER UNIT SCHEDULE

TAG	LOCATION	SCFM	RPM	E.S.P.	COOLING TONS	GAS INPUT MBH	HEATING OUTPUT MBH	USE	DISC.	MOTOR HP /VOLTS/ PH	REMARKS
AHU-1	MECH. ROOM	1,200	—	1.5"	—	60.0	58.0	S/A	HORIZ.	3/4/120/1	(2) SEE SPEC. BELOW (FLA 8.8) (3)
AHU-2	MECH. ROOM	2,000	—	1.5"	—	120.0	117.0	S/A	HORIZ.	1/120/1	(2) SEE SPEC. BELOW (FLA 11.5) (3)

(1) 120 VOLT/1/60

(2) PACKAGED GAS/ELECTRICAL AIR HANDLING UNIT.

(3) SET MINIMUM OUTSIDE AIR AT 15%.

(4) CONTRACTOR SHALL ENLIST THE SERVICES OF A STRUCTURAL ENGINEER FOR FINALLOCATION OF RTU'S AND SHALL PROVIDE ANY MODIFICATIONS TO SSTRUCTURE REQUIRED FOR THE NEW UNITS.

(5) STRUCTURAL AND SEISMIC CALCULATIONS FOR UNITS SHALL BE PROVIDED BY OTHERS.

AHU-1

FURNISH A INTERNATIONAL COMFORT PRODUCTS (ICP) MODEL"IG 96BTN060 1716B" UNIT OR EQUIVALENT IN ACCORDANCE WITH THE PERFORMANCE DESCRIBED ABOVE. PACKAGED UNIT SHALL BE DESIGNED FOR OUTDOOR INSTALLATION AND SHALL BE MOUNTED INDOOR.

THE HEATING SECTION SHALL BE INDIRECT NATURAL GAS WITH CLAM SHELL HEAT EXCHANGER. INTERMITTENT SPARK IGNITION WITH PROVEN PILOT. TWO-STAGE FIRING, POWER VENTED AND WITH ELECTRIC IGNITION CONTROL WITH FLAME SENSOR TO LOCK-OUT GAS VALVE ON IGNITION FAILURE.

THE FAN SECTION SHALL CONSIST OF A BELT DRIVEN BLOWER AND A FILTER SECTION WITH 1" THROW AWAY FILTERS.

OPTIONS SHALL INCLUDE AN ECONOMIZER PACKAGE WITH ENTHALPY HIGH LIMIT AND CO2 OVERRIDE, A BAROMETRIC RELIEF DAMPER PACKAGE, AND AN ELECTRONIC PROGRAMMABLE THERMOSTAT, WITH AUTOMATIC HEAT/COOL CHANGE OVER.

ELECTRICAL REQUIREMENTS: UNIT SHALL BE FURNISHED WITH HIGH EFFICIENCY MOTORS AND MAGNETIC STARTERS. THERMOSTAT HONEY WELL TB-8220.

AHU-2

FURNISH A INTERNATIONAL COMFORT PRODUCTS (ICP) MODEL"IG 96BTN120 2422B" UNIT OR EQUIVALENT IN ACCORDANCE WITH THE PERFORMANCE DESCRIBED ABOVE. PACKAGED UNIT SHALL BE DESIGNED FOR OUTDOOR INSTALLATION AND SHALL BE MOUNTED INDOOR.

THE HEATING SECTION SHALL BE INDIRECT NATURAL GAS WITH CLAM SHELL HEAT EXCHANGER. INTERMITTENT SPARK IGNITION WITH PROVEN PILOT. TWO-STAGE FIRING, POWER VENTED AND WITH ELECTRIC IGNITION CONTROL WITH FLAME SENSOR TO LOCK-OUT GAS VALVE ON IGNITION FAILURE.

THE FAN SECTION SHALL CONSIST OF A BELT DRIVEN BLOWER AND A FILTER SECTION WITH 1" THROW AWAY FILTERS.

OPTIONS SHALL INCLUDE AN ECONOMIZER PACKAGE WITH ENTHALPY HIGH LIMIT AND CO2 OVERRIDE, A BAROMETRIC RELIEF DAMPER PACKAGE, AND AN ELECTRONIC PROGRAMMABLE THERMOSTAT, WITH AUTOMATIC HEAT/COOL CHANGE OVER.

ELECTRICAL REQUIREMENTS: UNIT SHALL BE FURNISHED WITH HIGH EFFICIENCY MOTORS AND MAGNETIC STARTERS. THERMOSTAT HONEY WELL TB-8220.

AIR OUTLET SCHEDULE

TAG	UNIT SIZE	SCFM	FINISH	USE	REMARKS (1)
A	12"x4"	AS NOTED	----	S/A	TITUS "DL" DUCT MOUNTED DRUM DIFFUSER WITH O.B.D.
B	4"x 10"	AS NOTED	----	S/A	SHOEMAKER "TMS" CEILING DIFFUSER WITH O.B.D.
C	12"x12"	AS NOTED	----	S/A	TITUS "TMS" CEILING DIFFUSER WITH O.B.D.
J	8"x8"	AS NOTED	----	R/A	TITUS "50-F" DUCT MOUNTED RETURN GRILLE WITH O.B.D.
Q	12" x 12"	AS NOTED	----	R/A	TITUS "50-F" CEILING RETURN GRILLE
R	12" x 12"	AS NOTED	----	R/A	TITUS "350-RL" WALL RETURN GRILLE
U	36" x 12"	AS NOTED	----	R/A	TITUS "50-F" WALL RETURN GRILLE

(1) DIFFUSER NECK SIZE TO MATCH DUCT SIZE ON DRAWINGS..

(2) CONFIRM BORDER TYPE BEFORE ORDERING DIFFUSERS.

FAN SCHEDULE

TAG	LOCATION	SCFM	RPM	E.S.P.	TYPE	NOM. SIZE	USE	DISC.	MOTOR HP /VOLTS/ PH	REMARKS
EF-1	TOILET ROOM	150	—	0.25"	CENTR.	—	E/A	HORIZ.	FR/120/1	PANASONIC "FV 20VQ3" WITH TRIM (1)
EF-2	TOILET ROOM	450	—	0.375"	CENTR.	—	E/A	HORIZ.	1/4/120/1	GREENHECK "SQ 90" WITH DISCHARGE DAMPER, AND ALL REQUIRED TRIM
EF-3	MECH. ROOM	200	—	0.25"	CENTR.	—	E/A	HORIZ.	1/4/120/1	GREENHECK "SQ 75" WITH DISCHARGE DAMPER, AND ALL REQUIRED TRIM
CF-1	MAIN HALL	—	—	—	PADDLE	—	—	HORIZ.	FR/120/1	BIGASS "HAIKU" 52" INDOOR, UNIVERSAL WHITE FINISH, CEILING FAN 120 VOLT, 20.1 WATTS. FURNISH COMPLETE WITH ALL REQUIRED TRIM

(1) FURNISH WITH SPEED CONTROLLER, BACKFRAFT DAMPER, TIME DELAY WALL SWITCH AND WALL OR ROOF CAP.

(2) FURNISH WITH SPEED CONTROLLER, BACKFRAFT DAMPER, WALL MOUNTED REVERSE ACTING THERMOSTAT, AND INLET GUARD.

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09/09/25

KNIK LANDING

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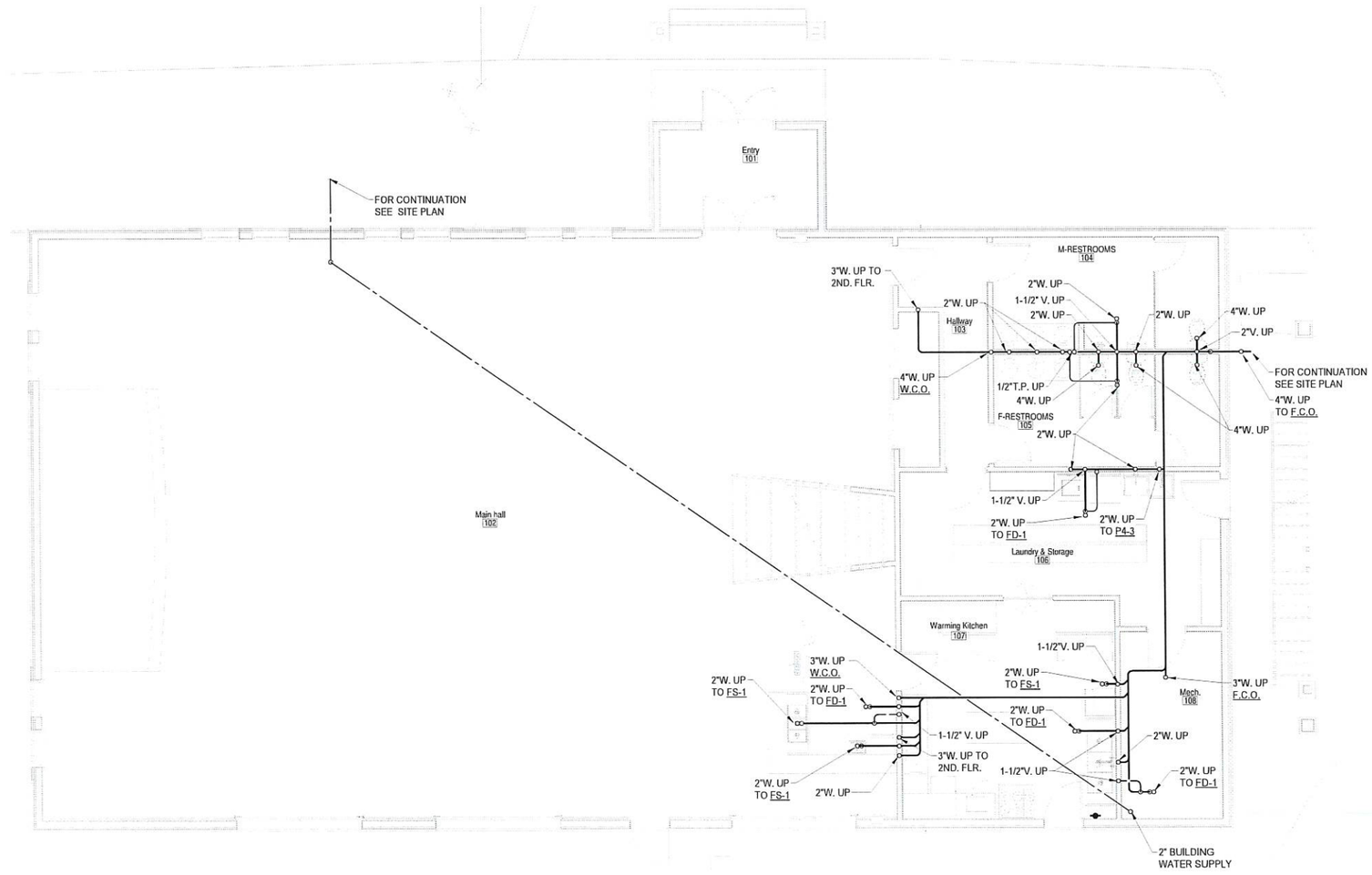
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SHEET TITLE: MECHANICAL SCHEDULES

SHEET NUMBER: **M1.3**

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1 Underground Plumbing - Plan
3/16" = 1'-0"

Permit Drawings

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KNIK LANDING

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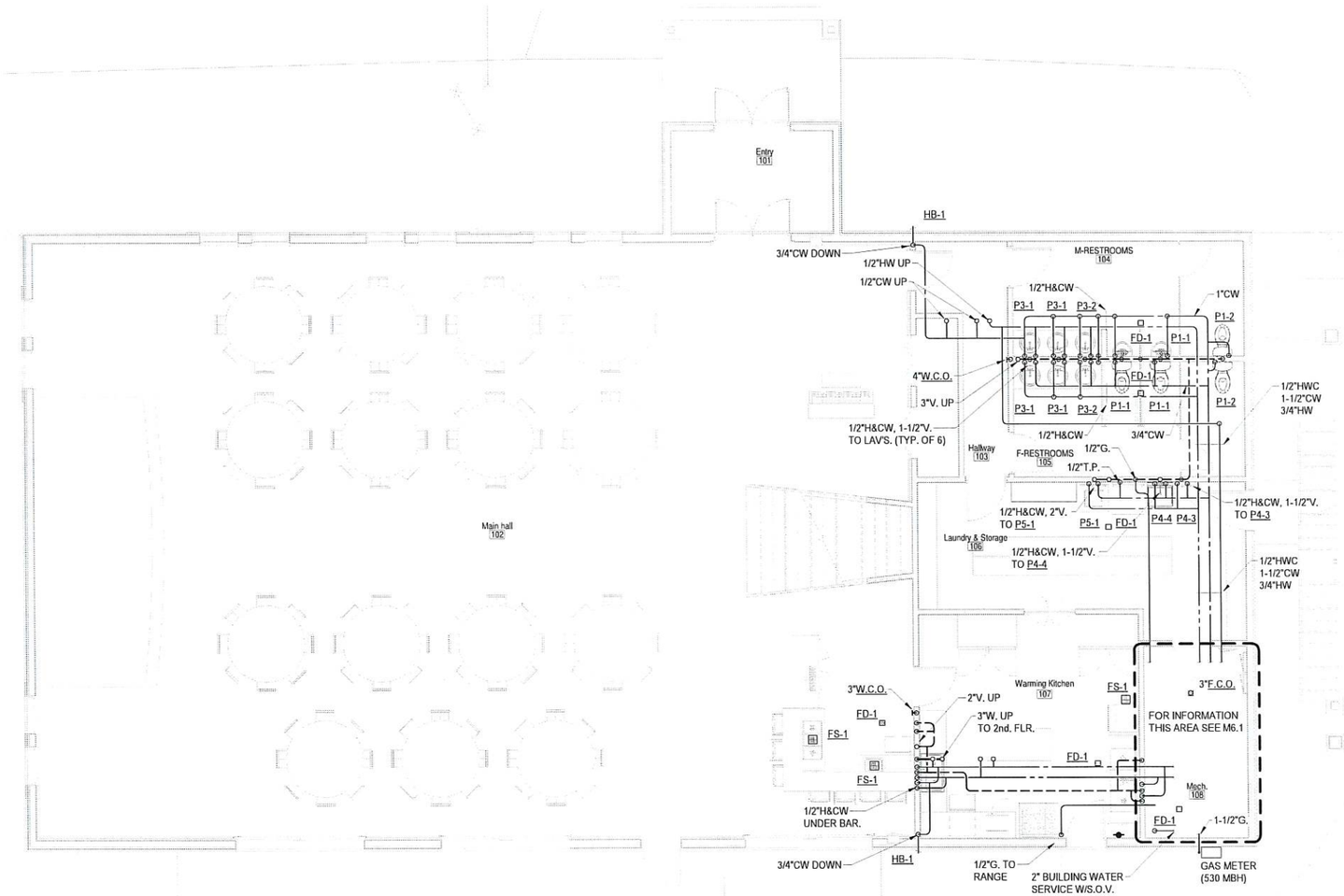
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SHEET TITLE:
Underground Plumbing - Plan

SHEET NUMBER:
M2.0

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1 1st. FLR. Plumbing - Plan
3/16" = 1'-0"

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KNIK LANDING

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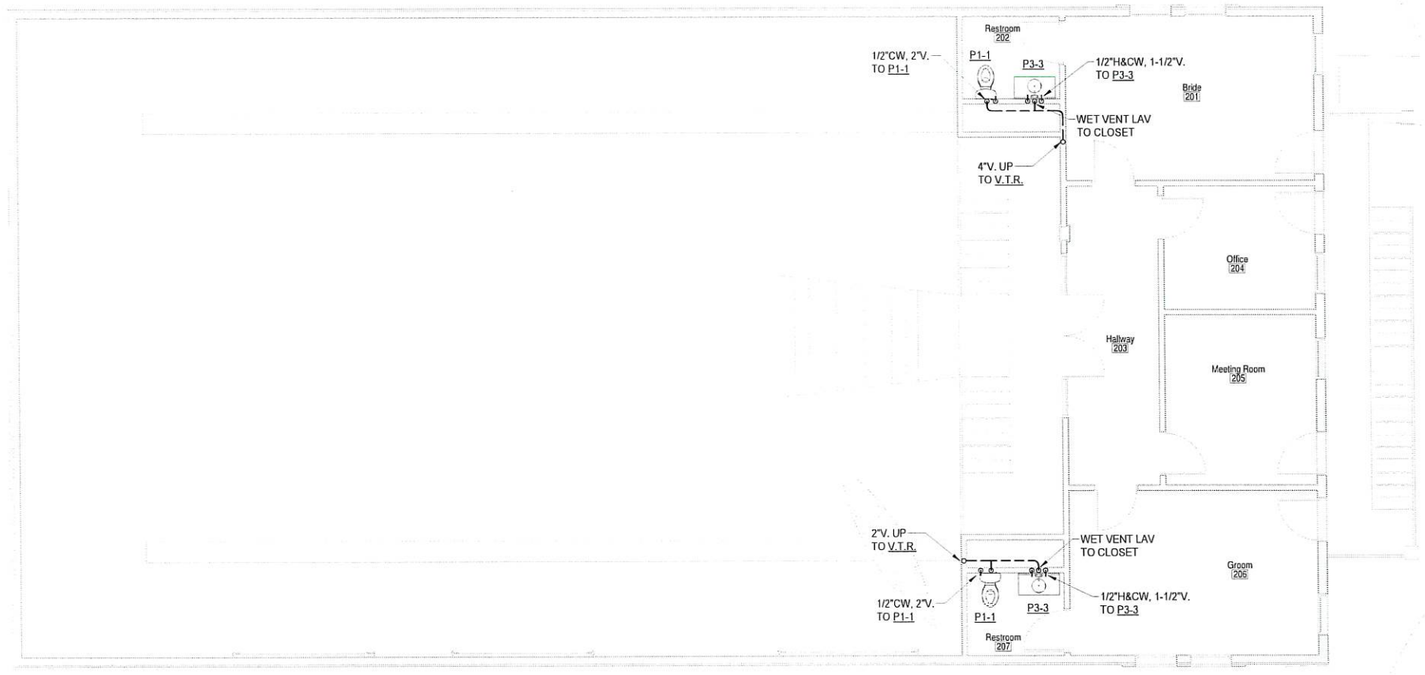
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SHEET TITLE:
1st. Flr. Plumbing - Plan

SHEET NUMBER:
M2.1

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1 2nd. Floor Plumbing - Plan
3/16" = 1'-0"

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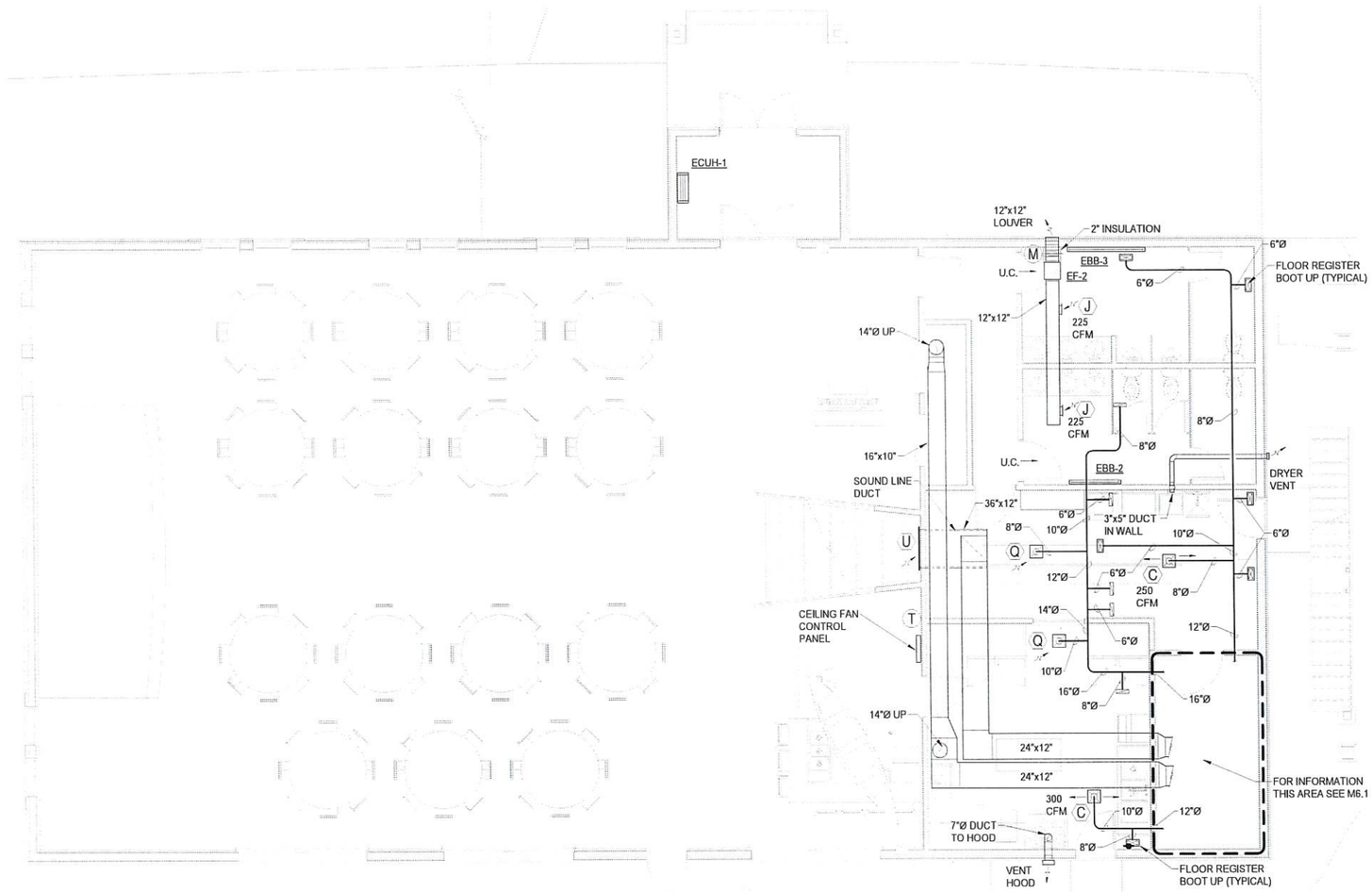
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REV.	DATE	DESCRIPTION

SHEET TITLE:
2nd. Flr. Plumbing - Plan

SHEET NUMBER:
M2.2

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1 1st. Flr. HVAC - Plan
3/16" = 1'-0"

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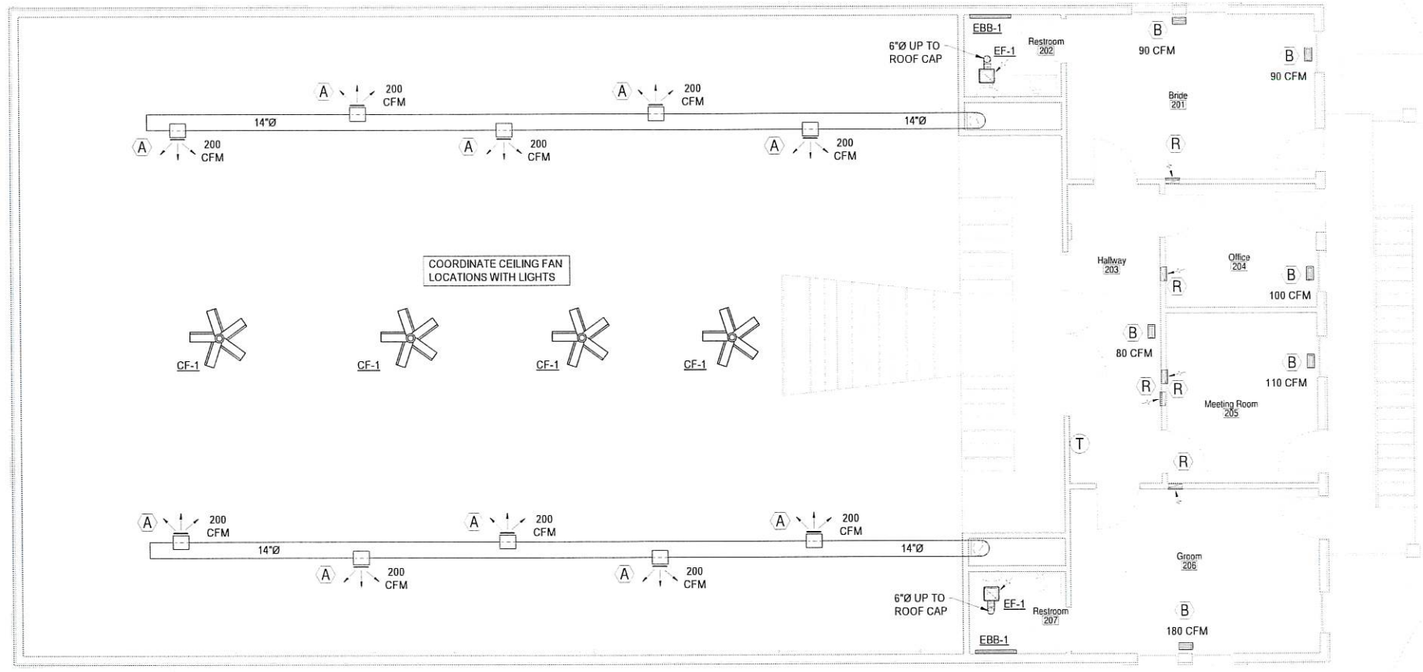
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REV.	DATE	DESCRIPTION

SHEET TITLE:
1st, Flr. HVAC - Plan

SHEET NUMBER:
M3.1

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1 2nd. Flr. HVAC - Plan
3/16" = 1'-0"

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KNIK LANDING
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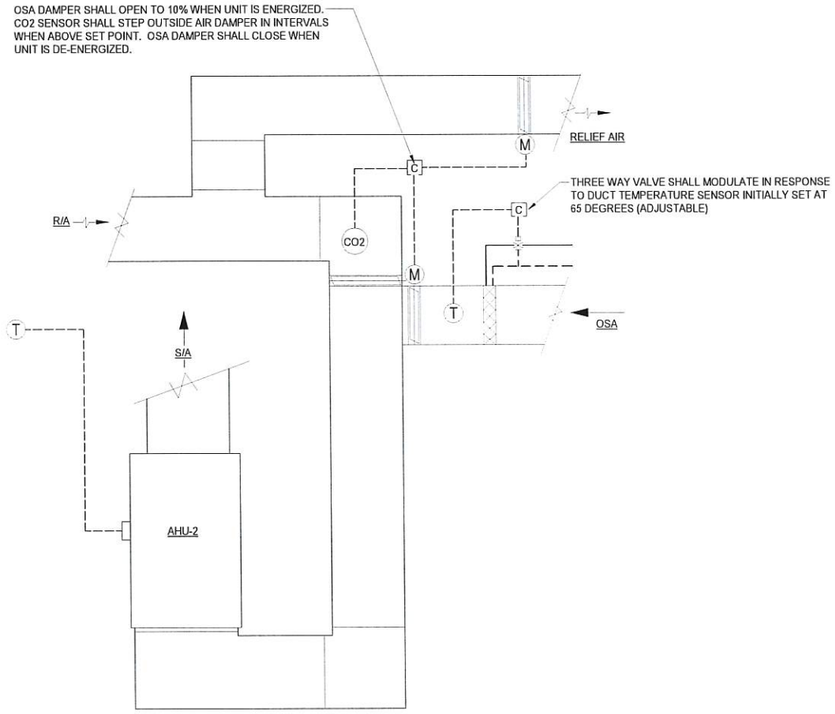
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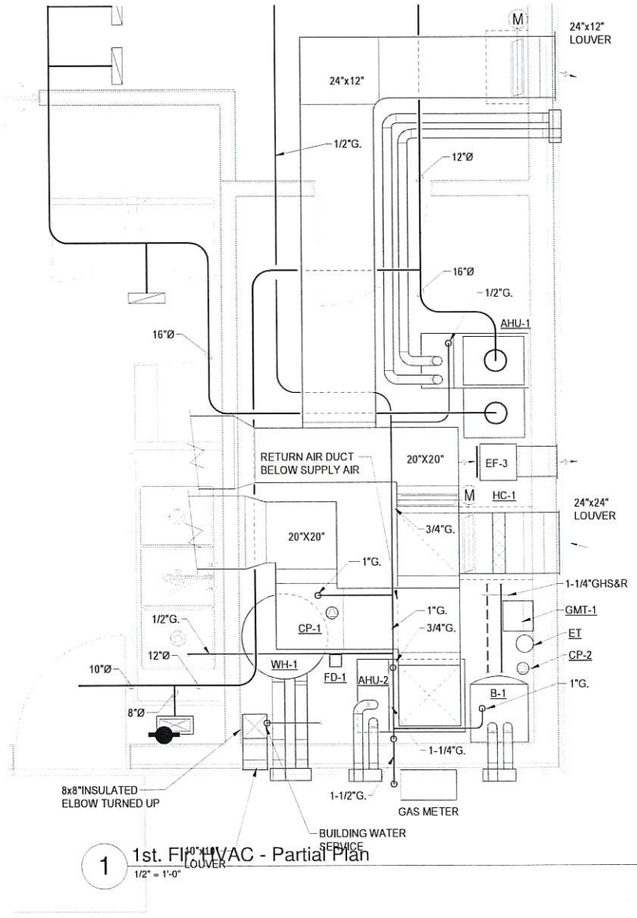
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SHEET NUMBER: M3.2

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2 AHU-2 CONTROL SCHEMATIC
12" = 1'-0"



1 1st. Flr. HVAC - Partial Plan
1/2" = 1'-0"

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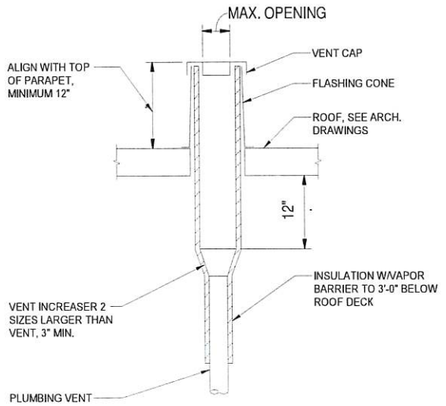
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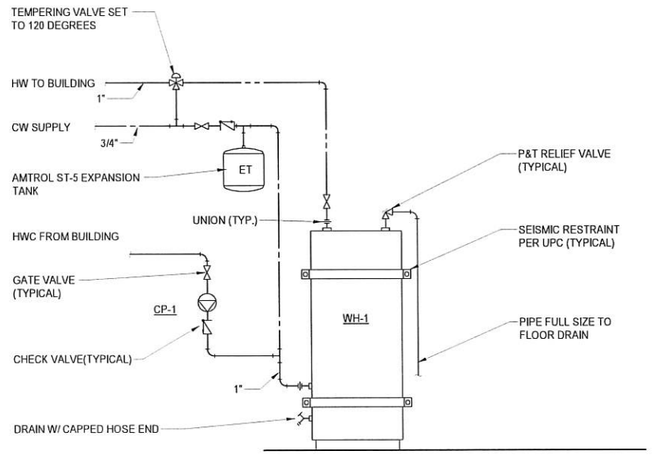
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Permit Drawings

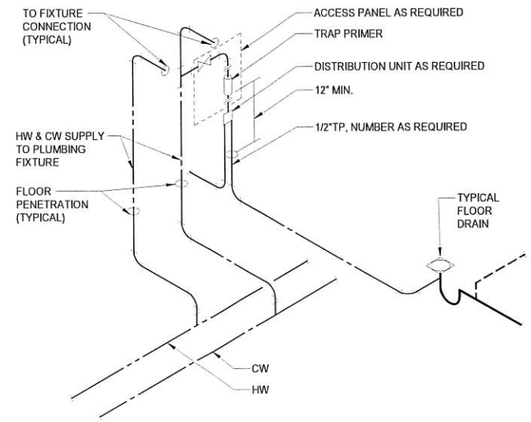
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1 VENT THRU ROOF DETAIL
12" = 1'-0"



2 WATER HEATER DETAIL
12" = 1'-0"



3 AUTOMATIC TRAP PRIMER DETAIL
12" = 1'-0"

Permit Drawings

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KNIK LANDING

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SHEET TITLE:
MECHANICAL DETAILS

SHEET NUMBER:
M8.1

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ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 00 00 - GENERAL REQUIREMENTS: ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC), STATE, MUNICIPAL, FEDERAL LAWS, AND AMENDMENTS GOVERNING THE PROJECT. ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A CERTIFIED ADMINISTRATOR JOURNEYMAN ELECTRICIAN.

ALL ELECTRICAL EQUIPMENT SHALL BE NEW COMMERCIAL GRADE AND INCLUDE THE SEAL OF A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE PURPOSE IT IS INSTALLED AS A COMPLETE ASSEMBLY. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ANY SUBSTITUTION OR DEVIATION FROM THE DESIGN IN WRITING TO THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, SCHEDULE INSPECTIONS, AND PAY ALL ASSOCIATED FEES UNLESS DIRECTED OTHERWISE.

WORKING CLEARANCES: THE CONTRACTOR IS REQUIRED TO COORDINATE THE MINIMUM WORKING CLEARANCES AND DEDICATED EQUIPMENT REQUIRED BY THE NEC. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH ALL SUBCONTRACTORS SO THAT ENCROACHMENTS INTO THE RESTRICTED SPACE ARE PREVENTED.

PROVIDE ALL CUTTING, CORING, AND PATCHING REQUIRED FOR ELECTRICAL INSTALLATION. REGISTERED STRUCTURAL ENGINEER APPROVAL IS REQUIRED WHEN CORING OR CUTTING OF STRUCTURAL MEMBERS IS REQUIRED.

COORDINATE WITH ARCHITECTURAL PLANS, SHOP DRAWINGS, AND OTHER TRADES PRIOR ROUGH-IN FOR FOR DEVICE AND EQUIPMENT LOCATIONS AND REQUIREMENTS.

26 01 10 - SUBMITTALS: PROVIDE MATERIAL AND EQUIPMENT SUBMITTAL FOR EACH SPECIFICATION SECTION DENOTED AS REQUIRED AT MINIMUM. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT (UNLESS HARD COPY IS REQUIRED BY OTHER CONTRACT APPLYING TO THE ENTIRE PROJECT). SUBMIT ALL REQUIRED SECTIONS IN A SINGLE SUBMITTAL OR BROKEN INTO NO MORE THAN THE FOLLOWING SEPARATE SECTIONS: "LIGHTING", "EQUIPMENT", "WIRING/DEVICES", AND "SPECIAL SYSTEMS". ORGANIZE SUBMITTAL AND/OR EACH SECTION BY SPECIFICATION NUMBER FOLLOWED BY ANY MAJOR EQUIPMENT REFERENCE ON THE DRAWINGS WITH ALL OPTIONS AND SELECTIONS HIGHLIGHTED TO DENOTE THE SPECIFIC EQUIPMENT PROPOSED. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND CONFIGURATION AND DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING A COMPLETE OPERATIONAL SYSTEM COMPLIANT WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

26 01 21 - RECORD DRAWINGS: MARK UP A SET OF DRAWINGS (REDLINES) SHOWING ALL ELECTRICAL WORK. SHOW DIAGRAMMATIC ROUTING MODIFICATIONS, SIZING, AND CIRCUIT REVISIONS TO THE CONTRACT PLANS. RECORD DRAWINGS SHALL BE KEPT ON SITE AVAILABLE FOR REVIEW DURING THE ENTIRE CONSTRUCTION PERIOD. SUBMIT FINAL REDLINE SET FOR APPROVAL PRIOR TO FINAL INSPECTION.

26 05 15 - POWER AND LIGHTING CONDUCTORS: STRANDED COPPER ROUTED IN CONDUIT UNLESS NOTED OTHERWISE. INSULATION TO BE THHN-2 90 DEGREE C FOR INDOOR APPLICATIONS AND XHHW-2 90 DEGREE C FOR OUTDOOR LOCATIONS, IN UNHEATED SPACES, OR INSTALLED WHILE THE AMBIENT TEMPERATURE IS LESS THAN -7C (20F). ALL CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS FOR AMBIENT TEMPERATURE DERATING, CONDUIT FILL DERATING, AND BOX FILL. PROVIDE UNSHARED DEDICATED NEUTRAL FOR EACH CIRCUIT. BRANCH CIRCUIT WIRING MAY BE INSTALLED IN SOLID CONDUCTOR CABLE TYPES DENOTED WHERE ROUTED CONCEALED AND SUPPORTED BY NEC REQUIREMENTS. TYPE W OR EQUAL CORDS WHERE INSTALLED IN ACCORDANCE WITH THE NEC REQUIREMENTS SIZED AS DENOTED IN THE NEC TABLES 400.5(A)(2) AND 400.5(A)(3).

240V/120V CONDUCTORS: COLOR CODE CONDUCTORS BLACK, RED, WHITE, AND GREEN. MINIMUM SIZE CONDUCTORS FOR 15 AND 20 AMP BRANCH CIRCUITS MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS: 12 AWG UP TO 75 FT, 10 AWG 75 FT TO 140 FT, GREATER THAN 140 FT SIZE CONDUCTORS TO LIMIT VOLTAGE DROP TO 5% OR LESS.

26 05 19 - MC CABLES: METALCLAD (MC) CABLE WITH STEEL OUTER SHEATH. ALLOWED USES DRY WHERE ROUTED CONCEALED AND PROTECTED. SOLID CONDUCTORS FOR 10 AWG AND SMALLER

26 05 22 - SIGNAL AND CONTROL: CONDUCTORS TO BE CABLE OR CONDUCTORS IN CONDUIT OF THE TYPE AND CONFIGURATION AS MANUFACTURER RECOMMENDATIONS FOR EACH SYSTEM. CONDUCTORS/CABLES TO BE INSTALLED IN RACEWAY, CABLE TRAYS, OR CAT 6 RATED J-HOOKS SPACED NO MORE THAN 4 FT APART. WHEN ROUTED IN NON-ACCESSIBLE LOCATIONS, RETURN AIR CEILING OR FLOOR PLENUM, CABLES MUST BE CMP PLENUM RATED OR IN CONDUIT. DO NOT INSTALL WHEN AMBIENT TEMPERATURES ARE LESS THAN -7C (20F). CLASS 1: WHERE SYSTEM POWER SUPPLY IS NOT MARKED AS CLASS 2, PROVIDE ALL CONDUCTORS IN RACEWAY OR OTHER CLASS 1 RATED CABLE. CLASS 2: CABLES CAN BE IN CONDUIT OR CLASS 2 RATED CABLE.

26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS: PROVIDE EQUI-POTENTIAL GROUNDING SYSTEM, IN ACCORDANCE WITH NEC ARTICLE 250. PROVIDE GROUNDING CONDUCTOR IN ALL RACEWAYS BONDED TO EQUIPMENT AND TO RACEWAY SYSTEM.

26 05 26.1 - GROUNDING AND BONDING FOR COMMUNICATION SYSTEMS: PROVIDE COMMUNICATION GROUND SYSTEM USING INSULATED GROUND BUS AT EACH TELECOM ROOM OR TTB BONDED TO THE MAIN SERVICE GROUND AND PROVIDE BOND FROM INSULATED GROUND BUS TO EACH RACK.

26 05 29 - HANGARS AND SUPPORTS FOR ELECTRICAL SYSTEMS: SUPPORT ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, PANELBOARDS, BOXES, CONDUIT, ETC. PER NEC AND IBC SEISMIC REQUIREMENTS. PROVIDE SEISMIC SUPPORT AND DESIGN SEALED BY A LICENSED STRUCTURAL ENGINEER AS A DEFERRED SUBMITTAL TO THE AHJ FOR ALL EQUIPMENT OVER 400 LBS AND, EQUIPMENT OVER 20 LBS MOUNTED GREATER THAN 4FT AFF, CONDUIT 2.5"C OR GREATER AND ALL TRAPEZE OR WALL SUPPORTED RACEWAY 10 LBS/LF OR GREATER. SUPPORT STRUT AND MOUNTING HARDWARE TO BE GALVANIZED

26 05 30 - RACEWAY: ALL POWER, LIGHTING, CLASS 1, CLASS 2/3 CIRCUITS INSTALLED IN CONDUIT SHALL BE CONCEALED RACEWAY EXCEPT WHERE SPECIFICALLY INDICATED ELSEWHERE IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. ELECTRICAL EQUIPMENT AND WIRING CAN BE EXPOSED IN MECHANICAL/ELECTRICAL ROOMS, COOLER/FREEZERS, TELECOMMUNICATION ROOMS, OPEN CEILING SPACES, OR WHERE SPECIFICALLY NOTED. DO NOT ROUTE RACEWAYS ON THE EXTERIOR SURFACE OF THE BUILDING OR THE ROOF UNLESS SPECIFICALLY NOTED OTHERWISE. RACEWAYS CROSSING BUILDING SEISMIC JOINTS OR CONNECTING TO EQUIPMENT WHICH MOVES OR VIBRATES REQUIRE TRANSITION TO FLEXIBLE RACEWAY ACROSS JOINT WITH ENOUGH SLACK TO ALLOW BUILDING MOVEMENT IN ALL DIRECTIONS WITHOUT DAMAGE.

26 05 31 - POLYVINYL CHLORIDE CONDUIT (PVC): UL 651, SCHEDULE 40 AND SCHEDULE 80. FITTINGS: UL 514C AND UL 514D. USES: SCHEDULE 40 - BELOW GRADE OR SLAB ON GRADE. SCHEDULE 80 – BELOW GRADE, SLAB ON GRADE, CORROSIVE ENVIRONMENT, OR EXPOSED. DO NOT INSTALL WHEN AMBIENT TEMPERATURES ARE LESS THAN -7C (20F).

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 05 33 – RIGID METAL CONDUIT (RMC): ANSI C80.1, UL 6. WITH BUSHINGS AT ALL TERMINATIONS. FITTINGS: GALVANIZED MALLEABLE IRON WITH THREADED HUBS FOR ALL CONDUIT ENTRIES AND COUPLINGS. SET SCREW OR RUNNING THREAD FITTINGS ARE NOT PERMITTED. USES: WET OR DRY WHERE INSTALLED BELOW GRADE, IN CONCRETE, STUB UPS, CONCEALED, WHERE EXPOSED TO PHYSICAL DAMAGE, ROUTED ON BUILDING ROOF, SERVICE RISERS, OR WITHIN 10FT OF RACEWAY ROUTED INTO FIXED FOUNDATIONS SUCH AS LIGHT POLE BASE OR STRUCTURE. MUST USE THREADED FITTINGS. MYERS HUBS WITH GROUNDING LOCKNUTS ARE REQUIRED FOR SERVICE RACEWAYS TO CT'S, METERS AND MAIN DISCONNECTS.

26 05 34 - ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3, UL 797; GALVANIZED STEEL TUBING. FITTINGS: NEMA FB 1; GALVANIZED STEEL OR MALLEABLE IRON SET SCREW OR COMPRESSION. DIE CAST OR PRESSURE CAST FITTINGS OR LOCKNUTS ARE NOT PERMITTED. USES: WET OR DRY CONCEALED OR EXPOSED WHERE NOT SUBJECT TO PHYSICAL DAMAGE. WET OR DAMP LOCATIONS REQUIRE RAINTIGHT WET RATED GLAND COMPRESSION COUPLINGS AND CONNECTORS. NOT PERMITTED FOR SERVICE ENTRANCE RACEWAY, IN CONTACT WITH EARTH, OR IN CONTACT WITH CONCRETE.

26 05 35 - FLEXIBLE METAL CONDUIT (FMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION. FMC FITTINGS: GALVANIZED MALLEABLE IRON OR STEEL WITH INSULATED THROATS. USES: DRY SPACES LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

LIQUIDTIGHT FLEXIBLE CONDUIT (LTMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION WITH PVC OUTER JACKET. USES: DRY, DAMP, OR WET LOCATIONS LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

26 05 36 - WET OR DAMP LOCATIONS: USE DEVICES, FIXTURES, RACEWAYS, CONNECTORS, COUPLINGS, CABLES, ENCLOSURES, SUPPORTS, DEVICES, COVER PLATES, AND CONDUCTORS RATED FOR LOCATION INSTALLED.

26 05 40 - BOXES: PROVIDE PULL AND JUNCTION BOXES AS REQUIRED SIZED PER NEC REQUIREMENTS. BOX TO BE NEMA RATED FOR THE THE ENVIRONMENT INSTALLED. BRANCH CIRCUIT JUNCTION BOXES TO BE ELECTRO-GALVANIZED, 4" SQUARE BY 1 1/2" DEEP MINIMUM FOR USE IN DRY INTERIOR AREAS. PROVIDE 4 11/16" SQUARE BY 2 1/8" DEEP OUTLET BOXES FOR ALL VOICE AND DATA OUTLETS. DO NOT INSTALL BOXES BACK-TO-BACK IN WALLS. PROVIDE SEPARATION TO MINIMIZE SOUND TRANSFER. PROVIDE FIRE RATED PADS TO COVER EACH BOX IN FIRE RATED WALLS WHERE NECESSARY TO MAINTAIN FIRE WALL RATING.

26 05 40.1 - WET OR DAMP LOCATION BOXES AND FITTINGS: BOXES: WET RATED. FITTINGS: THREADED HUBS OR RAINTIGHT CONNECTORS FOR EMT. OUTLET BOXES SHALL BE CAST FERROUS WITH THREADED HUBS, NEMA 3R FOR EXTERIOR LOCATIONS, NEMA 4 FOR EXTERIOR OR INTERIOR WET LOCATIONS SUBJECT TO WATER SPRAY. NEMA 4X FOR OUTDOOR WITHIN 1 MILE OF THE COASTLINE, CONTROL EQUIPMENT, AND INTERIOR/EXTERIOR WET LOCATIONS EXPOSED TO CORROSIVE ENVIRONMENT.

26 05 53 - IDENTIFICATION FOR ELECTRICAL EQUIPMENT: PROVIDE PLACARDS FOR ALL NEW AND EXISTING AFFECTED ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFER SWITCHES, CONTACTORS, EQUIPMENT AND DISCONNECTS PER NEC REQUIREMENTS.

X 26 09 24 - PHOTOCELL: ENCLOSED IN A WEATHER TIGHT ENCLOSURE WITH THREADED NIPPLE. THE ENCLOSURE SHALL BE SUITABLE FOR MOUNTING IN ANY POSITION WITH AN ADJUSTMENT SHIELD TO PERMIT ADJUSTMENT TO TURN-ON LIGHT LEVEL REQUIREMENTS.

X 26 24 17 - LOAD CENTERS: PROVIDE AND INSTALL RESIDENTIAL GRADE LOAD CENTERS OF THE RATING AND CONFIGURATION AS SHOWN ON THE SINGLE LINE DIAGRAM, PANEL SCHEDULES, AND SCCR TABLE. PROVIDE CIRCUIT DIRECTORY SHOWING CIRCUITING ARRANGEMENT. PROVIDE UL LISTED SURGE PROTECTION DEVICE AND COMBINATION-TYPE ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) BREAKER PROTECTION FOR ALL BRANCH CIRCUITS IN DWELLING UNITS, DORMITORIES, HOTEL GUEST SUITES, OR BARRACKS SLEEPING ROOM.

X 26 27 13 - ELECTRICAL SERVICES: THE ELECTRICAL CONTRACTOR SHALL CONTACT EACH SERVING UTILITY CO. AND VERIFY EXACT SERVICE REQUIREMENTS/LOCATION FOR POWER, TELEPHONE AND CABLE TV. SUBMIT EQUIPMENT SUBMITTALS/SHOP DRAWINGS TO SERVING POWER UTILITY FOR COORDINATION OF FAULT CURRENT RATINGS AND CONFIGURATION APPROVAL PRIOR TO EQUIPMENT PROCUREMENT. THE CONTRACTOR SHALL COORDINATE AND PROVIDE ALL REQUIREMENTS OF EACH SERVING UTILITY AND ALL EQUIPMENT SHALL CONFORM TO THE SERVING UTILITY STANDARDS AND REQUIREMENTS.

26 27 26 - WIRING DEVICE PLATES: COORDINATE COLOR WITH OWNER. FINISHED AREAS - FLUSH SMOOTH PLASTIC WITH MATCHING SCREWS. UNFINISHED AREAS - RAISED GALVANIZED STEEL. WET OR DAMP LOCATIONS PROVIDE WET RATED GASKETED PLATES. EXTERIOR AREAS - WEATHERPROOF WHILE-IN-USE, DIE CAST METAL, POWDER COAT FINISH, GASKETED, EXTRA DUTY RATED.

26 27 27 - RECEPTACLES: TAMPER-RESISTANT DUPLEX (AS DENOTED ON THE PLANS) COMMERCIAL GRADE, 2 POLE, 3 WIRE, 120V, 20 AMP STRAIGHT BLADE, UON, UL LISTED, SMOOTH NYLON FACE. BACK AND SIDE WIRED. INSTALL RECEPTACLES VERTICALLY WITH GROUNDING POLE ON BOTTOM UNLESS NOTED OTHERWISE.

26 27 28 - GFCI RECEPTACLES: DUPLEX WITH CLASS 3 INTEGRAL GROUND FAULT CURRENT INTERRUPTER (GFCI), THE GFCI SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION OR PROVIDE GFCI BREAKER IN PANEL. EXTERIOR, WET, OR DAMP LOCATIONS SHALL BE WEATHER RESISTANT MARKED "WR" ON THE FACE.

26 27 29 - SPECIAL RECEPTACLES: AMPERAGE/VOLTAGE/POLES AS DENOTED ON PLANS. COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT PROVIDED. RECEPTACLES DENOTED AS GFCI PROTECTED MAY BE PROTECTED BY GFCI CIRCUIT BREAKER OR REMOTE GFCI PROTECTION MODULE WITH TEST/RESET IN ACCESSIBLE LOCATION.

26 27 35 - SWITCHES: 20 AMP, 120/277V AC, BACK AND SIDE WIRED CONFIGURED AS INDICATED ON THE DRAWINGS. PROVIDE NEUTRAL (GROUNDED CONDUCTOR) IN ALL SWITCH BOXES FOR EACH SWITCHED CIRCUIT TO ALLOW FUTURE TECHNOLOGIES TO BE INSTALLED WHICH REQUIRE NEUTRAL CONDUCTOR.

26 27 36 - DIMMING SWITCHES: COMPATIBLE WITH FIXTURE SPECIFIED. ON/OFF CONTROL WITH RAISE AND LOWER PUSHBUTTONS.

26 27 37 - OCCUPANCY WALL SENSORS: DUAL TECHNOLOGY, PASSIVE INFRARED (PIR). SELF ADJUSTING, AUTOMATIC DUAL MODE WITH AUTO ON - AUTO OFF CONFIGURATION.

ABBREVIATIONS	
INDUSTRY STANDARD ABBREVIATIONS SHALL ALSO BE...	
Key Name	FullWord
(#)	DENOTES TYPICAL IN LIGHT FIXTURE TYPES
(D)	DEMOLISH
(E)	EXISTING
(R)	RELOCATED
AER	ARC ENERGY REDUCTION
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
BJ	BONDING JUMPER
CB	CIRCUIT BREAKER
CO, C.O.	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
EECP	ELEVATOR EMERGENCY COMMUNICATION PANEL
EECS	ELEVATOR EMERGENCY COMMUNICATION STATION
EGC	EQUIPMENT GROUNDING CONDUCTOR
FAA	FIRE ALARM ANNUCIATOR
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE ILLUMINATION
FHP	FRACTIONAL HORSEPOWER
FLA	FULL LOAD AMPS
FSD	FIRE SMOKE DAMPER
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GEC	GROUNDING ELECTRODE CONDUCTOR
GES	GROUNDING ELECTRODE SYSTEM
GFPE	GROUND FAULT PROTECTION OF EQUIPMENT
MCA	MINIMUM CIRCUIT AMPACITY
MFS	MAXIMUM FUSE SIZE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT (NOT IN SCOPE)
NO	NORMALLY OPEN
P	POLES
PC	PHOTO CELL
PH, Ø	PHASE
PNL	PANEL
RIB	RELAY IN A BOX (MOTOR RATED)
SCA	SHORT CIRCUIT AMPS
SCCR	SHORT CIRCUIT CURRENT RATING
SE	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTION DEVICE
SSBJ	SUPPLY SIDE BONDING JUMPER
SSEBJ	SUPPLY SIDE EQUIPMENT BONDING JUMPER
TGB	TELECOMMUNICATION GROUNDING BUSBAR
TMGB	TELECOMMUNICATION MAIN GROUNDING BUSBAR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

MOUNTING HEIGHT SCHEDULE	
EQUIPMENT (TO CENTER UON)	HEIGHT (UON)
CONTACTORS, MOTOR STARTERS, DISCONNECT (TOP)	66"
ELECTRIC RANGE RECEPTACLES (TOP)	7" MAX
INDICATING DEVICES (BOTTOM)	80"
PANELBOARDS - POWER; SPECIAL SYSTEMS (TOP)	72"
POWER METER BASE (CENTER LINE OF SOCKET)	PER UTILITY
PULL STATIONS, PUSH BUTTONS	46"
REC FULL HEIGHT REFRIGERATOR OR REACH-IN UNITS	46"
REC IN FINISHED AREAS	18"
REC IN NON-FINISHED, WAREHOUSE, MECH AND SHOPS	46"
REC LOCATED IN HAZARDOUS OR S-2 OCCUPANCIES	24" MINIMUM
TELECOMMUNICATION OUTLETS	18"
WALL MOUNTED SWITCHES	46"
WASHING MACHINES AND DRYER RECEPTACLE	43"

ELECTRICAL LEGEND

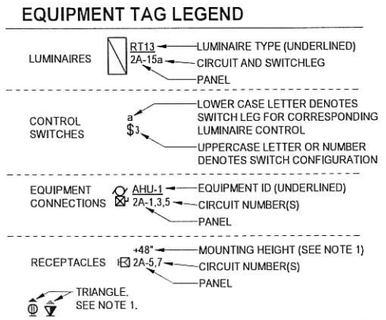
- PHOTOCELL CONTROL
- LUMINAIRE - TYPE AS NOTED ON PLAN - LINEWORK MAY VARY
- LUMINAIRE - WALL MOUNTED: TYPE AS NOTED ON PLAN
- LUMINAIRE - FILL INDICATES EMERGENCY (MAY VARY) - TYPE ENDS WITH 'E'
- EMERGENCY LIGHTING UNIT (WALL; CEILING; REMOTE HEAD)
- EXIT SIGN SHADE DENOTES FACE; ARROWS AS INDICATED
- COMBINATION EMERGENCY LIGHTING UNIT/EXIT SIGN, SHADE DENOTES FACE
- $ SWITCH - SINGLE POLE, SINGLE THROW, UON
- $x SWITCH - SEE SWITCH LEGEND FOR TYPE
- EMERGENCY SHUTDOWN
- WALL SENSOR - SEE SWITCH LEGEND: WALL SENSOR FOR TYPE
- METERING DEVICE
- POWER PANELBOARD
- MOTOR CONNECTION
- FUSED SAFETY SWITCH / DISCONNECT
- ELECTRIC BASEBOARD HEATER
- JUNCTION BOX OR EQUIPMENT CONNECTION (CEILING; WALL; FLOOR)
- JUNCTION BOX OR EQUIPMENT CONNECTION - WALL MOUNTED
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - GFCI PROTECTED
- DUPLEX RECEPTACLE - GFCI PROTECTED, WEATHERPROOF, +24" UON
- DOUBLE DUPLEX RECEPTACLE - GFCI PROTECTED
- DUPLEX RECEPTACLE - PROTECTED BY GFCI CIRCUIT BREAKER IN PANEL
- SPECIAL RECEPTACLE - GFCI PROTECTED (VERIFY NEMA CONFIGURATION)
- TELECOMMUNICATION OUTLET

SWITCH LEGEND

STANDARD: 3 (THREE WAY); 4 (FOUR WAY); B (THREE WAY DIMMER); C (TIMER); D (DIMMER); K (KEYED); L (LOW VOLTAGE); P (PILOT LIGHT); S (VARIABLE SPEED CONTROL); T (INTEGRAL MOTOR OVERLOAD)
WALL SENSOR: 2 (DUAL CIRCUIT OCCUPANCY); D (DIMMING VACANCY SENSOR); O (OCCUPANCY SENSOR); V (VACANCY SENSOR)

- LINETYPE/LINEWEIGHT DENOTING FUTURE WORK
- LINETYPE/LINEWEIGHT DENOTING DEMO WORK
- LINETYPE/LINEWEIGHT DENOTING EXISTING WORK TO REMAIN
- LINETYPE/LINEWEIGHT DENOTING NEW WORK
- LINETYPE/LINEWEIGHT DENOTING NEW ONE-LINE CONNECTIONS
- LINETYPE/LINEWEIGHT DENOTING BELOW GRADE CONDUIT
- LINETYPE/LINEWEIGHT DENOTING CONTROL WIRING

EQUIPMENT TAG LEGEND



NOTE 1: DIMENSIONS (WHEN GIVEN ARE AFF). TRIANGLE DENOTES 46" AFF IN OPEN AREAS OR AT CASEWORK LOCATIONS TO BE 4" ABOVE COUNTERTOP (BACKSPLASH WHEN PRESENT). COORDINATE WITH ARCHITECTURE. THIS APPLIES TO ALL ELECTRICAL DEVICES.

ELECTRICAL SHEET LIST		
NUM	REV#	SHEET TITLE
E0.1		LEGEND AND SPECIFICATIONS
E0.2		SCHEDULES
E1.1		ELECTRICAL SITE PLAN
E2.1		1ST FLOOR LIGHTING PLAN
E2.2		2ND FLOOR LIGHTING PLAN
E3.1		1ST FLOOR POWER AND SIGNAL PLAN
E3.2		2ND FLOOR POWER AND SIGNAL PLAN
E4.1		DIAGRAMS, DETAILS, AND SCHEDULES
TOTAL SHEETS: 8		

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Sheet Issue Date: 09/09/2025
Drawn by: RBC
Checked by: EDC

STATE OF ALASKA 49TH ERIC D. COWLING EE - 9773 9/9/25 REGISTERED PROFESSIONAL ENGINEER

NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: LEGEND AND SPECIFICATIONS
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

E0.1

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

9/9/2025 10:20:13 AM C:\Users\EricCowling\EIC Engineers\Design - Files\Projects\E25\E25-4831 Knik Landing\DES\E25-4831_ESh25_KnikLanding.rvt
acad.ctb | Eric Cowling | Created 8.5x5.86 | 9/5/2025 09:34:21 | C:\Users\EricCowling\EIC Engineers\Design - Files\Projects\E25\E25-4831 Knik Landing\DES\E25-4831_ESh25_KnikLanding.rvt

Planning Commission Packet
July 20, 2026
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LUMINAIRE SCHEDULE	
NOTES	
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.
(A)	COLUMN HEADER DENOTED "IU" IS FOR INTERNAL USE ONLY BY EIC ENGINEERS FOR QC. THE VALUE HAS NO CONTRACTURAL IMPLICATIONS.
(B)	CATALOG NUMBERS ARE FOR GENERAL REFERENCE AND ARE NOT INCLUSIVE OF ALL OPTIONS/REQUIREMENTS DENOTED ON PLANS AND SPECIFICATIONS. ASTERISK (*) DENOTES COORDINATION ITEMS.
(C)	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND PROVIDE MOUNTING HARDWARE/FLANGES ETC FOR ALL LUMINAIRES FOR CEILING TYPES SHOWN.
(D)	PROVIDE UNIVERSAL OR MULTI-VOLTAGE VOLTAGE DRIVERS WHEN AVAILABLE. COORDINATE EXACT VOLTAGE/PHASE WITH CONNECTED CIRCUITS IN ALL OTHER SITUATIONS.
(E)	LIGHT SOURCE COLOR TEMPERATURE, UNLESS OTHERWISE NOTED: 3500K (SELECT NEAREST AVAILABLE COLOR TEMP FOR EACH LUMINAIRE TYPE). LIGHT SOURCE CRI TO BE 80 MIN, UON.
(F)	COLOR FINISH FOR ALL EXTERIOR LUMINAIRES TO BE DARK BRONZE UON.
1	NOT USED.

SCHEDULE

IU	TYPE	DESCRIPTION	WATTS	LUMENS	MOUNTING	MANUFACTURER	MODEL	NOTE
57	D41	4" OPEN LED DOWNLIGHT, ADJUSTABLE (SET TO 750LM)	13 W	750 LM LED	CEILING RECESSED	LITHONIA	LDN4 AL01 SWW1* L04AR LD MVOLT UGZ	
7	D41E	4" OPEN LED DOWNLIGHT, ADJUSTABLE (SET TO 750LM) FED FROM EM INVERTER	13 W	750 LM LED	CEILING RECESSED	LITHONIA	LDN4 AL01 SWW1* L04AR LD MVOLT UGZ	
47	DJ41	4" OPEN LED DOWNLIGHT	12 W	954 LM LED	CEILING RECESSED	JUNO	IC1LED G4 09LM *K *CRI * 17 HZWH	
14	E2	EMERGENCY LIGHTING UNIT W/ TWO ADJUSTABLE HEADS	1 W	(2) 1.2W LED	WALL +7'-0" OR CEILING	LITHONIA	ELM2L M12	
1	EM	EMERGENCY LIGHTING UPS SINE WAVE INVERTER, 125VA, UL924	125 W	N/A	SURFACE	EVENLITE	PW 12 LC V1	
3	LC4	4FT LED STRIP WITH DROPPED LENS WHITE FINISH	26 W	3906 LM LED	SURFACE	LITHONIA	CLX L48 4000LM SEF RDL MVOLT GZ10 *K *CRI WH	
12	LF14	1' X 4' LED FLAT PANEL ADJUSTABLE OUTPUT (SET TO HIGH LM)	40 W	4356 LM LED	CEILING SURFACE	LITHONIA	CPANL 1X4 AL01 SWW7 M4 DCMK 14	
6	RM1	1FT LED CYLINDER VANITY	10 W	829 LM LED	WALL OVER MIRROR	LITHONIA	FMVCCLS 12IN MVOLT * 90CRI BN	
2	RM2	2FT LED CYLINDER VANITY	18 W	1737 LM LED	WALL OVER MIRROR	LITHONIA	FMVCCLS 24IN MVOLT * 90CRI BN	
4	XA	LED EXIT SIGN W/ EXTERIOR REMOTE EM LIGHT	2 W	GREEN LED	WALL OR CEILING	LITHONIA	LHQM LED G HO RO; AFB OELR DDBTXD WT	
4	XE	LED COMBO EXIT SIGN & EM LIGHTING UNIT W/ BATTERY BACKUP	4 W	GREEN LED	WALL OR CEILING	LITHONIA	LHQM LED G	
4	XEA	LED COMBO EXIT SIGN & EM LIGHTING UNIT W/ EXT REMOTE EM LIGHT	4 W	GREEN LED	WALL OR CEILING	LITHONIA	LHQM LED G HO; AFB OELR DDBTXD WT	
5	ZMCU1	OUTDOOR LED ROUND CYLINDER UP/DOWNLIGHT LIGHT, CAST-AL	14 W	947 LM LED	WALL	LITHONIA	OLLWU LED P1 40K MVOLT *	
1	ZMR	OUTDOOR LED WALL SCONCE, DIE-CAST ALUMINUM	24 W	LED	WALL	KENALL	MR13FL PP * 20L*K *	
6	ZWG6	OUTDOOR LED WALL LUMINAIRE, DIE-CAST ALUMINUM	48 W	6127 LM LED	WALL	LITHONIA	WDGE2 LED P5 * 80CRI VF MVOLT * *	

UTILIZATION EQUIPMENT CONNECTION SCHEDULE	
NOTES	
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.
(A)	COLUMN HEADER DENOTED "IU" IS FOR INTERNAL USE ONLY BY EIC ENGINEERS FOR QC. THE VALUE HAS NO CONTRACTURAL IMPLICATIONS.
(B)	REFER TO FLOOR PLAN DRAWINGS FOR EQUIPMENT TYPE REQUIREMENTS, LOCATIONS AND QUANTITIES.
(C)	COORDINATE ALL CONNECTION REQUIREMENTS WITH ACTUAL EQUIPMENT SUPPLIED PRIOR TO ROUGH-IN.
(D)	COORDINATE AND PROVIDE SPECIFIC SIZING OF OVERLOADS AND FUSES WITH EQUIPMENT RATINGS.
(E)	FRACTIONAL HP TYPE MOTOR SWITCH WHERE AUTO CONTROL IS REQUIRED PROVIDE 'RELAY IN BOX'.
(F)	DISCONNECT HP RATING TO BE SIZED PER VOLTAGE AND FUSE TYPE UTILIZED.
(G)	DISCONNECTS DENOTED PLANS CAN BE ELIMINATED WHEN PROVIDED INTEGRAL WITH EQUIPMENT.
(H)	PROVIDE EQUIPMENT NAMEPLATE FOR EACH EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCCR SCHEDULE FOR ADDITIONAL REQUIREMENTS.
(I)	THE 'SCA' COLUMN DENOTES CALCULATED SHORT CIRCUIT AMPS ON LINE SIDE OF EQUIPMENT. THE 'MIN FT' COLUMN DENOTES CONDUCTOR LENGTH USED FOR THE SCA CALCULATION. THE ACTUAL LENGTH IS EXPECTED TO BE LONGER. IF THE ACTUAL LENGTH IS LESS THAN "MIN FT", THE SCA MUST BE RECALCULATED.
(J)	THE "SCCR" COLUMN DENOTES THE ANTICIPATED FACTORY EQUIPMENT SHORT CIRCUIT CURRENT RATING. CONTRACTOR SHALL VERIFY THE ACTUAL EQUIPMENT SCCR MEETS OR EXCEEDS THE SCCR VALUE DENOTED IN THIS TABLE. WHERE THE EQUIPMENT SCCR IS LESS THAN THE SCA VALUE, THE CONTRACTOR SHALL PROVIDE CURRENT LIMITING FUSES TO RESTRICT THE PEAK LET-THRU AMPS TO LESS THAN THE EQUIPMENT SCCR. IN THESE CASES, REFER TO "FUSE PART #" COLUMN FOR THE ENGINEER RECOMMENDED FUSE TO BE PROVIDED. PROVIDE WARNING SIGNAGE DENOTING FUSE PEAK LET-THRU AMPERAGE, TEXT DENOTING "IDENTIFIED REPLACEMENT COMPONENTS REQUIRED", FOLLOWED BY AMPERAGE AND MANUFACTURER MODEL/TYPE OF FUSE REQUIRED. THE CONTRACTOR SHALL ALSO PROVIDE THE PEAK LET-THRU TABLE FOR THE FUSE INSTALLED AND POST AT THE ASSOCIATED EQUIPMENT DISCONNECT FOR INSPECTOR REVIEW. PROVIDE CLASS RK-5, J, OR SIMILAR TIME-DELAY FUSES OR EQUAL PER THE SYSTEM REQUIREMENTS WHERE SPECIFIC FUSE PART NUMBER IS NOT DENOTED.
(K)	EQUIPMENT WITH NO VALUES IN "MIN FT", "SCA", AND "SCCR" CELLS INDICATE NO ANALYSIS IS REQUIRED. EQUIPMENT WITH NO VALUES IN "FUSE PART #" AND "LET-THRU AMPS" CELLS INDICATE NO SPECIFIC FUSE IS REQUIRED.
1	NOT USED.

SCHEDULE

													ENGINEERED SHORT CIRCUIT CURRENT MITIGATION					
IU	EQUIP ID	LOCATION OR FUNCTION	KVA	HP	FLA	MCA	MFS	TYPE	INGRESS RATING	V	PH	OPD	CIRCUIT (MINIMUM) CU UON	MIN FT	SCA	SCCR	FUSE PART #	LET-THRU AMPS	NOTE
1	AHU-1	AIR HANDLER UNIT	1.056		8.8			FUSED DISC	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	5	4140	5,000	NA	SCA	
1	AHU-2	AIR HANDLER UNIT	1.380		11.5			FUSED DISC	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	13	2155	5,000	NA	SCA	
1	B-1	BOILER	0.150	FHP				MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	14	2063	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	79	452	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	44	785	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	66	531	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	54	647	5,000	NA	SCA	
1	CP-1	CIRCULATION PUMP	0.264	1/12				MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	12	2342	5,000	NA	SCA	
1	CP-2	CIRCULATION PUMP	0.150	FHP				MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	12	2282	5,000	NA	SCA	
1	DW	DISHWASHER	1.200					DUPLEX 5-20R GFCI CB	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	27	1226	5,000	NA	SCA	
1	EBB-1	ELECTRIC BASEBOARD - 3 LINEAR FEET	0.750					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	27	1213	5,000	NA	SCA	
1	EBB-1	ELECTRIC BASEBOARD - 3 LINEAR FEET	0.750					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	40	862	5,000	NA	SCA	
1	EBB-2	ELECTRIC BASEBOARD - 4 LINEAR FEET	1.000					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	17	1776	5,000	NA	SCA	
1	EBB-3	ELECTRIC BASEBOARD - 5 LINEAR FEET	1.250					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	34	979	5,000	NA	SCA	
1	ECUH-1	CABINET UNIT HEATER	2.000					MOTOR SWITCH	NEMA 1	120	1	30 A	0.75"C, (2)8 AWG, (1)8 AWG EGC	58	1398	5,000	NA	SCA	
1	EF-1	EXHAUST FAN	0.120	FHP				DIRECT WIRED	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	28	1173	5,000	NA	SCA	
1	EF-1	EXHAUST FAN	0.120	FHP				DIRECT WIRED	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	38	903	5,000	NA	SCA	
1	EF-2	EXHAUST FAN	0.696	1/4				MOTOR	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	34	1001	5,000	NA	SCA	
1	EF-3	EXHAUST FAN	0.696	1/4				MOTOR SWITCH	NEMA 1	120	1	15 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	10	2739	5,000	NA	SCA	
1	GW-1	GLASS WASHER	2.880		12			NEMA 6-15R	NEMA 1	240	1	15 A	0.5"C, (3)12 AWG, (1)12 AWG EGC	30	1963	5,000	NA	SCA	
1	HOOD	KITCHEN HOOD	0.200	0.25						120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	22	1453	5,000	NA	SCA	
1	KEG-1	KEGERATOR	0.180					DUPLEX 5-20R GFCI	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	36	951	5,000	NA	SCA	
1	MW	MICROWAVE	1.550					DUPLEX 5-20R GFCI	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	25	1324	5,000	NA	SCA	
1	WH-1	WATER HEATER	0.300					MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	13	2157	5,000	NA	SCA	

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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Drawn by: RBC
Checked by: EDC

STATE OF ALASKA 49TH ERIC D. COWLING EE - 977 4/4/25 REGISTERED PROFESSIONAL ENGINEER

NUM	DESCRIPTION

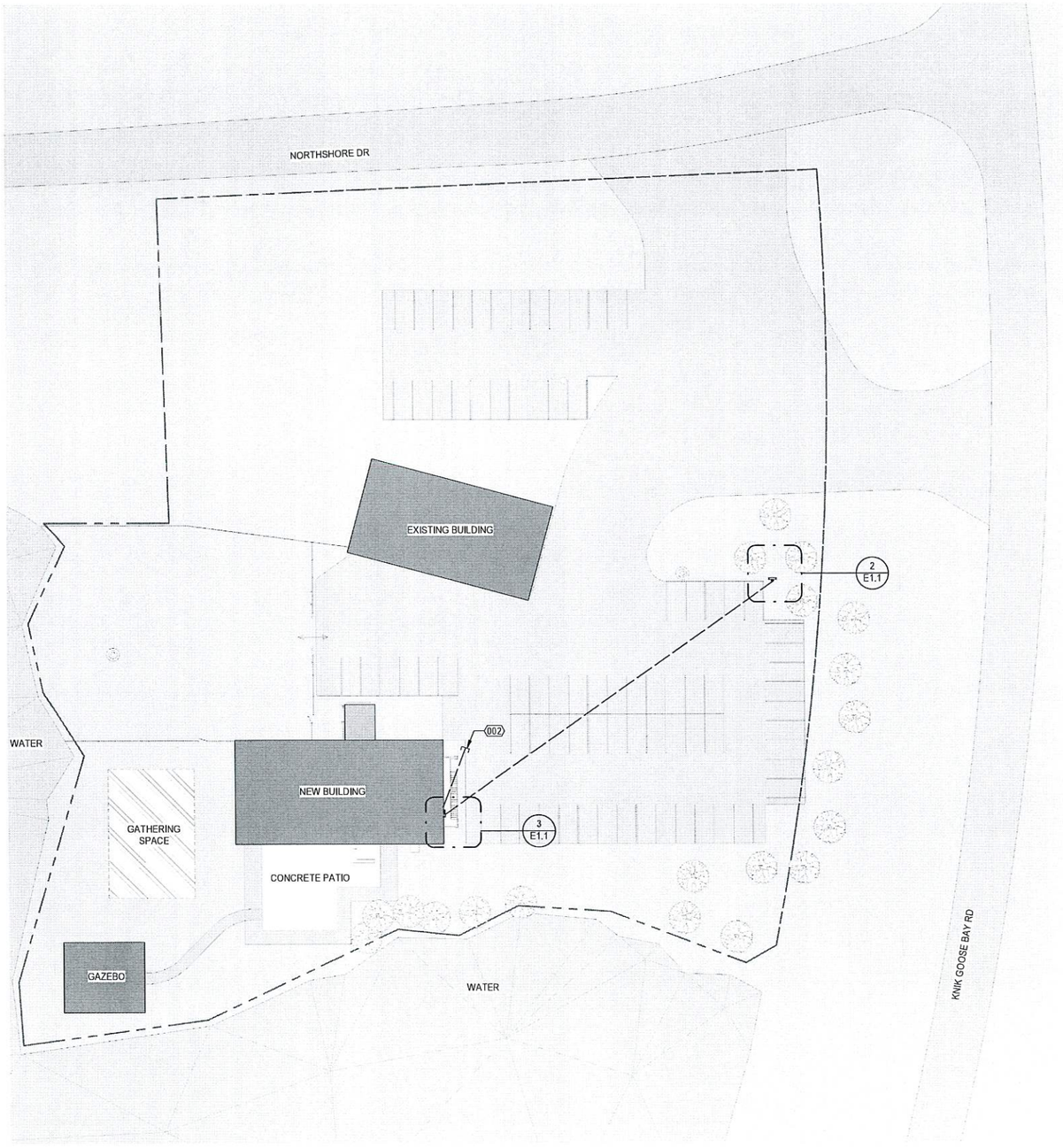
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Prepared for: Doug Massie
Sheet Title: SCHEDULES
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

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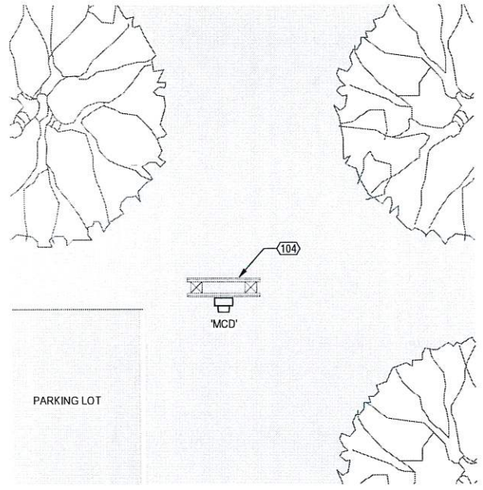
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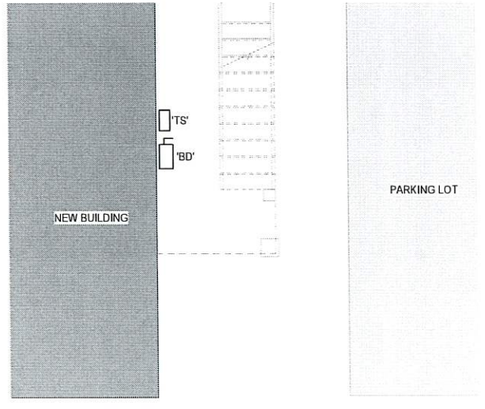
REF	NOTE
002	PROVIDE (2) 1" C. STUBOUTS FROM PANEL A FOR FUTURE SIGN AND POLE MOUNTED SITE LIGHTING.
104	PROPOSED LOCATION OF BUILDING ELECTRICAL SERVICE. COORDINATE WITH SERVING UTILITY BEFORE INSTALLATION TO VERIFY EXACT LOCATION AND REQUIREMENTS. PROVIDE WOOD POST BACKBOARD FOR REMOTE SERVICE PEDESTAL.



1 E1.1 ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"



2 E1.1 ELECTRICAL SITE PLAN - UTILITY SERVICE AND MCD
SCALE: 1/4" = 1'-0"



3 E1.1 ELECTRICAL SITE PLAN - SERVICE DISCONNECT
SCALE: 1/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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EE - 9771
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NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: ELECTRICAL SITE PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

E1.1

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NOTE:

- ARROWS DENOTE APPARENT DRAINAGE PATTERNS.

1 Ground Drainage Plan
1" = 30'-0"

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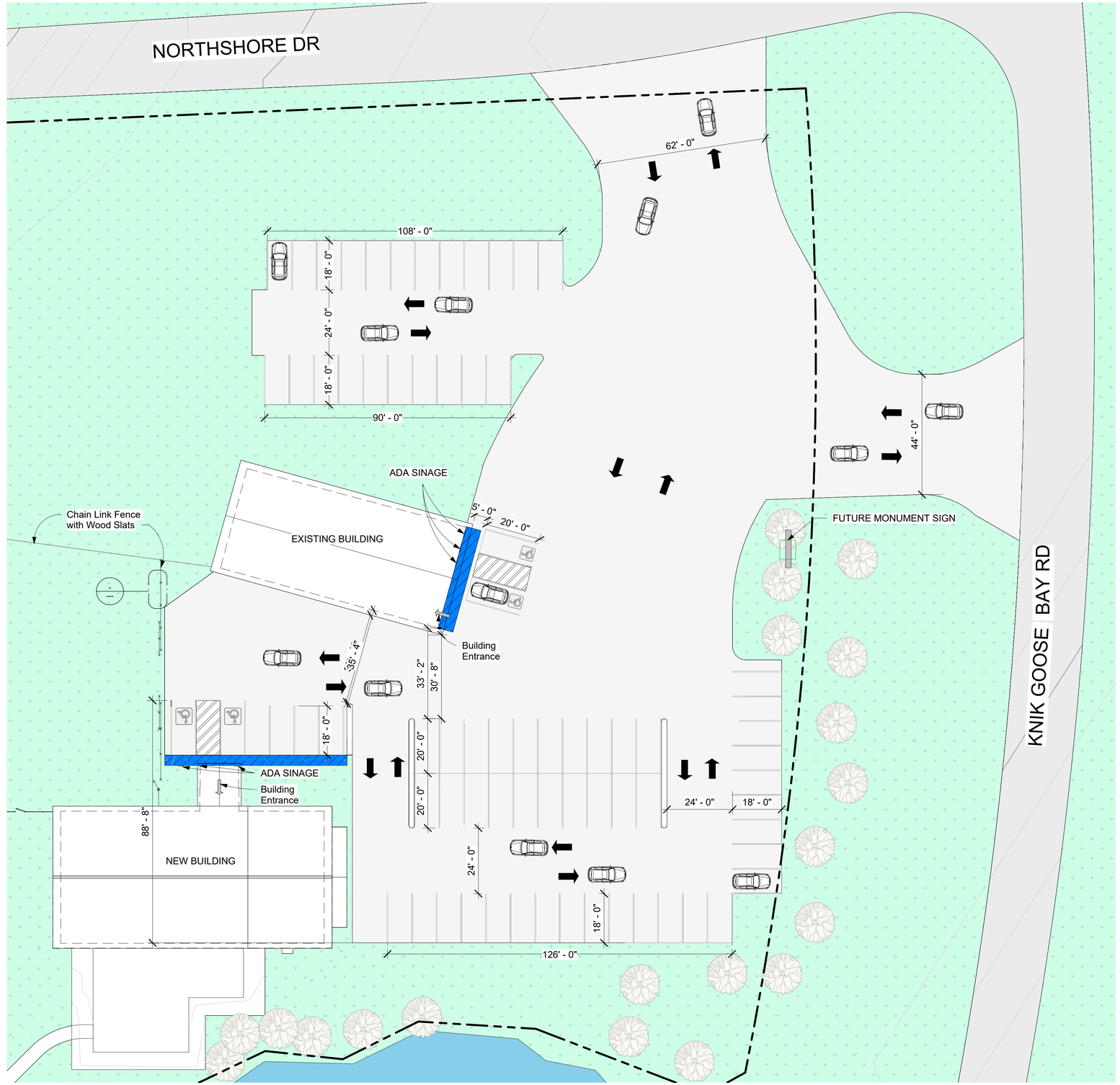
Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Ground Drainage Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.0.0

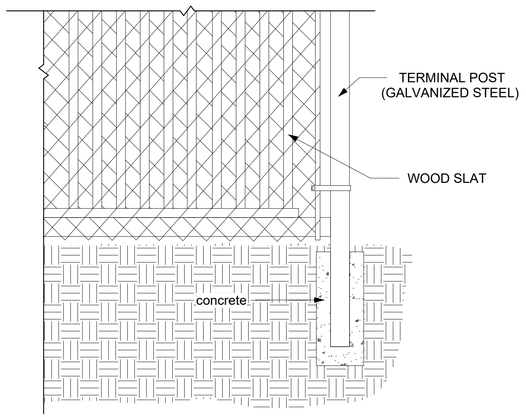
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KEY - SYMBOL - LEGEND

- VEGETATED OPEN SPACE
- PEDESTRIAN PATH
- GROUND
- PROPERTY LINE



1 Vehicular and Pedestrian Plan
1" = 20'-0"



2 Detail - Chain Link Fence with Wood Slats
3/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

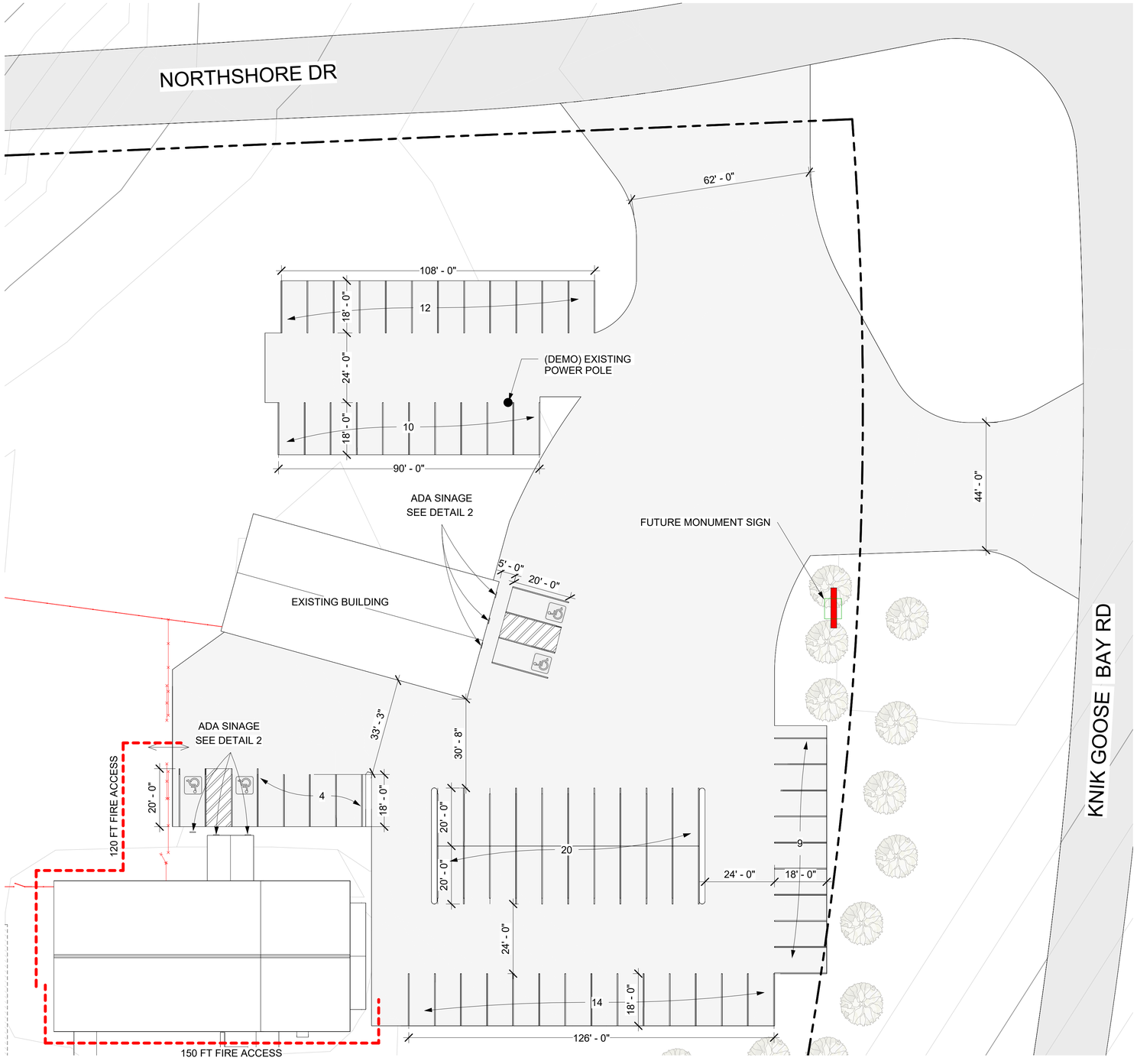
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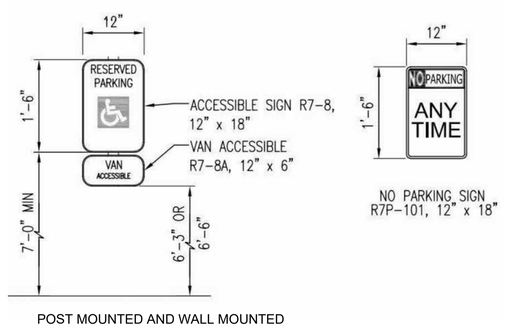
Sheet Issue Date:
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Drawn by: AA
Checked by: DHC

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Vehicular and Pedestrian Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.0.2



1 Parking Plan & Fire Department Access
1" = 20'-0"



POST MOUNTED AND WALL MOUNTED

2 ADA Parking Sign Dimensions
3/4" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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14104
REGISTERED PROFESSIONAL ENGINEER

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: Parking Plan
Address: 10204 S Knik Goose Bay Rd, Wasilla, AK 99623

A-1.0.1

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 00 00 - GENERAL REQUIREMENTS: ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC), STATE, MUNICIPAL, FEDERAL LAWS, AND AMENDMENTS GOVERNING THE PROJECT. ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A CERTIFIED ADMINISTRATOR JOURNEYMAN ELECTRICIAN.

ALL ELECTRICAL EQUIPMENT SHALL BE NEW COMMERCIAL GRADE AND INCLUDE THE SEAL OF A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE PURPOSE IT IS INSTALLED AS A COMPLETE ASSEMBLY. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ANY SUBSTITUTION OR DEVIATION FROM THE DESIGN IN WRITING TO THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, SCHEDULE INSPECTIONS, AND PAY ALL ASSOCIATED FEES UNLESS DIRECTED OTHERWISE.

WORKING CLEARANCES: THE CONTRACTOR IS REQUIRED TO COORDINATE THE MINIMUM WORKING CLEARANCES AND DEDICATED EQUIPMENT REQUIRED BY THE NEC. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH ALL SUBCONTRACTORS SO THAT ENCROACHMENTS INTO THE RESTRICTED SPACE ARE PREVENTED.

PROVIDE ALL CUTTING, CORING, AND PATCHING REQUIRED FOR ELECTRICAL INSTALLATION. REGISTERED STRUCTURAL ENGINEER APPROVAL IS REQUIRED WHEN CORING OR CUTTING OF STRUCTURAL MEMBERS IS REQUIRED.

COORDINATE WITH ARCHITECTURAL PLANS, SHOP DRAWINGS, AND OTHER TRADES PRIOR ROUGH-IN FOR FOR DEVICE AND EQUIPMENT LOCATIONS AND REQUIREMENTS.

26 01 10 - SUBMITTALS: PROVIDE MATERIAL AND EQUIPMENT SUBMITTAL FOR EACH SPECIFICATION SECTION DENOTED AS REQUIRED AT MINIMUM. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT (UNLESS HARD COPY IS REQUIRED BY OTHER CONTRACT APPLYING TO THE ENTIRE PROJECT). SUBMIT ALL REQUIRED SECTIONS IN A SINGLE SUBMITTAL OR BROKEN INTO NO MORE THAN THE FOLLOWING SEPARATE SECTIONS: "LIGHTING", "EQUIPMENT", "WIRING/DEVICES", AND "SPECIAL SYSTEMS". ORGANIZE SUBMITTAL AND/OR EACH SECTION BY SPECIFICATION NUMBER FOLLOWED BY ANY MAJOR EQUIPMENT REFERENCE ON THE DRAWINGS WITH ALL OPTIONS AND SELECTIONS HIGHLIGHTED TO DENOTE THE SPECIFIC EQUIPMENT PROPOSED. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND CONFIGURATION AND DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING A COMPLETE OPERATIONAL SYSTEM COMPLIANT WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

26 01 21 - RECORD DRAWINGS: MARK UP A SET OF DRAWINGS (REDLINES) SHOWING ALL ELECTRICAL WORK. SHOW DIAGRAMMATIC ROUTING MODIFICATIONS, SIZING, AND CIRCUIT REVISIONS TO THE CONTRACT PLANS. RECORD DRAWINGS SHALL BE KEPT ON SITE AVAILABLE FOR REVIEW DURING THE ENTIRE CONSTRUCTION PERIOD. SUBMIT FINAL REDLINE SET FOR APPROVAL PRIOR TO FINAL INSPECTION.

26 05 15 - POWER AND LIGHTING CONDUCTORS: STRANDED COPPER ROUTED IN CONDUIT UNLESS NOTED OTHERWISE. INSULATION TO BE THHN-2 90 DEGREE C FOR INDOOR APPLICATIONS AND XHHW-2 90 DEGREE C FOR OUTDOOR LOCATIONS, IN UNHEATED SPACES, OR INSTALLED WHILE THE AMBIENT TEMPERATURE IS LESS THAN -7C (20F). ALL CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS FOR AMBIENT TEMPERATURE DERATING, CONDUIT FILL DERATING, AND BOX FILL. PROVIDE UNSHARED DEDICATED NEUTRAL FOR EACH CIRCUIT. BRANCH CIRCUIT WIRING MAY BE INSTALLED IN SOLID CONDUCTOR CABLE TYPES DENOTED WHERE ROUTED CONCEALED AND SUPPORTED BY NEC REQUIREMENTS. TYPE W OR EQUAL CORDS WHERE INSTALLED IN ACCORDANCE WITH THE NEC REQUIREMENTS SIZED AS DENOTED IN THE NEC TABLES 400.5(A)(2) AND 400.5(A)(3).

240V/120V CONDUCTORS: COLOR CODE CONDUCTORS BLACK, RED, WHITE, AND GREEN. MINIMUM SIZE CONDUCTORS FOR 15 AND 20 AMP BRANCH CIRCUITS MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS: 12 AWG UP TO 75 FT, 10 AWG 75 FT TO 140 FT, GREATER THAN 140 FT SIZE CONDUCTORS TO LIMIT VOLTAGE DROP TO 5% OR LESS.

26 05 19 - MC CABLES: METALCLAD (MC) CABLE WITH STEEL OUTER SHEATH. ALLOWED USES DRY WHERE ROUTED CONCEALED AND PROTECTED. SOLID CONDUCTORS FOR 10 AWG AND SMALLER

26 05 22 - SIGNAL AND CONTROL: CONDUCTORS TO BE CABLE OR CONDUCTORS IN CONDUIT OF THE TYPE AND CONFIGURATION AS MANUFACTURER RECOMMENDATIONS FOR EACH SYSTEM. CONDUCTORS/CABLES TO BE INSTALLED IN RACEWAY, CABLE TRAYS, OR CAT 6 RATED J-HOOKS SPACED NO MORE THAN 4 FT APART. WHEN ROUTED IN NON-ACCESSIBLE LOCATIONS, RETURN AIR CEILING OR FLOOR PLENUM, CABLES MUST BE CMP PLENUM RATED OR IN CONDUIT. DO NOT INSTALL WHEN AMBIENT TEMPERATURES ARE LESS THAN -7C (20F). CLASS 1: WHERE SYSTEM POWER SUPPLY IS NOT MARKED AS CLASS 2, PROVIDE ALL CONDUCTORS IN RACEWAY OR OTHER CLASS 1 RATED CABLE. CLASS 2: CABLES CAN BE IN CONDUIT OR CLASS 2 RATED CABLE.

26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS: PROVIDE EQUI-POTENTIAL GROUNDING SYSTEM, IN ACCORDANCE WITH NEC ARTICLE 250. PROVIDE GROUNDING CONDUCTOR IN ALL RACEWAYS BONDED TO EQUIPMENT AND TO RACEWAY SYSTEM.

26 05 26.1 - GROUNDING AND BONDING FOR COMMUNICATION SYSTEMS: PROVIDE COMMUNICATION GROUND SYSTEM USING INSULATED GROUND BUS AT EACH TELECOM ROOM OR TTB BONDED TO THE MAIN SERVICE GROUND AND PROVIDE BOND FROM INSULATED GROUND BUS TO EACH RACK.

26 05 29 - HANGARS AND SUPPORTS FOR ELECTRICAL SYSTEMS: SUPPORT ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, PANELBOARDS, BOXES, CONDUIT, ETC. PER NEC AND IBC SEISMIC REQUIREMENTS. PROVIDE SEISMIC SUPPORT AND DESIGN SEALED BY A LICENSED STRUCTURAL ENGINEER AS A DEFERRED SUBMITTAL TO THE AHJ FOR ALL EQUIPMENT OVER 400 LBS AND, EQUIPMENT OVER 20 LBS MOUNTED GREATER THAN 4FT AFF, CONDUIT 2.5"C OR GREATER AND ALL TRAPEZE OR WALL SUPPORTED RACEWAY 10 LBS/LF OR GREATER. SUPPORT STRUT AND MOUNTING HARDWARE TO BE GALVANIZED

26 05 30 - RACEWAY: ALL POWER, LIGHTING, CLASS 1, CLASS 2/3 CIRCUITS INSTALLED IN CONDUIT SHALL BE CONCEALED RACEWAY EXCEPT WHERE SPECIFICALLY INDICATED ELSEWHERE IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. ELECTRICAL EQUIPMENT AND WIRING CAN BE EXPOSED IN MECHANICAL/ELECTRICAL ROOMS, COOLER/FREEZERS, TELECOMMUNICATION ROOMS, OPEN CEILING SPACES, OR WHERE SPECIFICALLY NOTED. DO NOT ROUTE RACEWAYS ON THE EXTERIOR SURFACE OF THE BUILDING OR THE ROOF UNLESS SPECIFICALLY NOTED OTHERWISE. RACEWAYS CROSSING BUILDING SEISMIC JOINTS OR CONNECTING TO EQUIPMENT WHICH MOVES OR VIBRATES REQUIRE TRANSITION TO FLEXIBLE RACEWAY ACROSS JOINT WITH ENOUGH SLACK TO ALLOW BUILDING MOVEMENT IN ALL DIRECTIONS WITHOUT DAMAGE.

26 05 31 - POLYVINYL CHLORIDE CONDUIT (PVC): UL 651, SCHEDULE 40 AND SCHEDULE 80. FITTINGS: UL 514C AND UL 514D. USES: SCHEDULE 40 - BELOW GRADE OR SLAB ON GRADE. SCHEDULE 80 – BELOW GRADE, SLAB ON GRADE, CORROSIVE ENVIRONMENT, OR EXPOSED. DO NOT INSTALL WHEN AMBIENT TEMPERATURES ARE LESS THAN -7C (20F).

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 05 33 – RIGID METAL CONDUIT (RMC): ANSI C80.1, UL 6. WITH BUSHINGS AT ALL TERMINATIONS. FITTINGS: GALVANIZED MALLEABLE IRON WITH THREADED HUBS FOR ALL CONDUIT ENTRIES AND COUPLINGS. SET SCREW OR RUNNING THREAD FITTINGS ARE NOT PERMITTED. USES: WET OR DRY WHERE INSTALLED BELOW GRADE, IN CONCRETE, STUB UPS, CONCEALED, WHERE EXPOSED TO PHYSICAL DAMAGE, ROUTED ON BUILDING ROOF, SERVICE RISERS, OR WITHIN 10FT OF RACEWAY ROUTED INTO FIXED FOUNDATIONS SUCH AS LIGHT POLE BASE OR STRUCTURE. MUST USE THREADED FITTINGS. MYERS HUBS WITH GROUNDING LOCKNUTS ARE REQUIRED FOR SERVICE RACEWAYS TO CT'S, METERS AND MAIN DISCONNECTS.

26 05 34 - ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3, UL 797; GALVANIZED STEEL TUBING. FITTINGS: NEMA FB 1; GALVANIZED STEEL OR MALLEABLE IRON SET SCREW OR COMPRESSION. DIE CAST OR PRESSURE CAST FITTINGS OR LOCKNUTS ARE NOT PERMITTED. USES: WET OR DRY CONCEALED OR EXPOSED WHERE NOT SUBJECT TO PHYSICAL DAMAGE. WET OR DAMP LOCATIONS REQUIRE RAINTIGHT WET RATED GLAND COMPRESSION COUPLINGS AND CONNECTORS. NOT PERMITTED FOR SERVICE ENTRANCE RACEWAY, IN CONTACT WITH EARTH, OR IN CONTACT WITH CONCRETE.

26 05 35 - FLEXIBLE METAL CONDUIT (FMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION. FMC FITTINGS: GALVANIZED MALLEABLE IRON OR STEEL WITH INSULATED THROATS. USES: DRY SPACES LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

LIQUIDTIGHT FLEXIBLE CONDUIT (LTMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION WITH PVC OUTER JACKET. USES: DRY, DAMP, OR WET LOCATIONS LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

26 05 36 - WET OR DAMP LOCATIONS: USE DEVICES, FIXTURES, RACEWAYS, CONNECTORS, COUPLINGS, CABLES, ENCLOSURES, SUPPORTS, DEVICES, COVER PLATES, AND CONDUCTORS RATED FOR LOCATION INSTALLED.

26 05 40 - BOXES: PROVIDE PULL AND JUNCTION BOXES AS REQUIRED SIZED PER NEC REQUIREMENTS. BOX TO BE NEMA RATED FOR THE THE ENVIRONMENT INSTALLED. BRANCH CIRCUIT JUNCTION BOXES TO BE ELECTRO-GALVANIZED, 4" SQUARE BY 1 1/2" DEEP MINIMUM FOR USE IN DRY INTERIOR AREAS. PROVIDE 4 11/16" SQUARE BY 2 1/8" DEEP OUTLET BOXES FOR ALL VOICE AND DATA OUTLETS. DO NOT INSTALL BOXES BACK-TO-BACK IN WALLS. PROVIDE SEPARATION TO MINIMIZE SOUND TRANSFER. PROVIDE FIRE RATED PADS TO COVER EACH BOX IN FIRE RATED WALLS WHERE NECESSARY TO MAINTAIN FIRE WALL RATING.

26 05 40.1 - WET OR DAMP LOCATION BOXES AND FITTINGS: BOXES: WET RATED. FITTINGS: THREADED HUBS OR RAINTIGHT CONNECTORS FOR EMT. OUTLET BOXES SHALL BE CAST FERROUS WITH THREADED HUBS, NEMA 3R FOR EXTERIOR LOCATIONS, NEMA 4 FOR EXTERIOR OR INTERIOR WET LOCATIONS SUBJECT TO WATER SPRAY. NEMA 4X FOR OUTDOOR WITHIN 1 MILE OF THE COASTLINE, CONTROL EQUIPMENT, AND INTERIOR/EXTERIOR WET LOCATIONS EXPOSED TO CORROSIVE ENVIRONMENT.

26 05 53 - IDENTIFICATION FOR ELECTRICAL EQUIPMENT: PROVIDE PLACARDS FOR ALL NEW AND EXISTING AFFECTED ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFER SWITCHES, CONTACTORS, EQUIPMENT AND DISCONNECTS PER NEC REQUIREMENTS.

X 26 09 24 - PHOTOCELL: ENCLOSED IN A WEATHER TIGHT ENCLOSURE WITH THREADED NIPPLE. THE ENCLOSURE SHALL BE SUITABLE FOR MOUNTING IN ANY POSITION WITH AN ADJUSTMENT SHIELD TO PERMIT ADJUSTMENT TO TURN-ON LIGHT LEVEL REQUIREMENTS.

X 26 24 17 - LOAD CENTERS: PROVIDE AND INSTALL RESIDENTIAL GRADE LOAD CENTERS OF THE RATING AND CONFIGURATION AS SHOWN ON THE SINGLE LINE DIAGRAM, PANEL SCHEDULES, AND SCCR TABLE. PROVIDE CIRCUIT DIRECTORY SHOWING CIRCUITING ARRANGEMENT. PROVIDE UL LISTED SURGE PROTECTION DEVICE AND COMBINATION-TYPE ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) BREAKER PROTECTION FOR ALL BRANCH CIRCUITS IN DWELLING UNITS, DORMITORIES, HOTEL GUEST SUITES, OR BARRACKS SLEEPING ROOM.

X 26 27 13 - ELECTRICAL SERVICES: THE ELECTRICAL CONTRACTOR SHALL CONTACT EACH SERVING UTILITY CO. AND VERIFY EXACT SERVICE REQUIREMENTS/LOCATION FOR POWER, TELEPHONE AND CABLE TV. SUBMIT EQUIPMENT SUBMITTALS/SHOP DRAWINGS TO SERVING POWER UTILITY FOR COORDINATION OF FAULT CURRENT RATINGS AND CONFIGURATION APPROVAL PRIOR TO EQUIPMENT PROCUREMENT. THE CONTRACTOR SHALL COORDINATE AND PROVIDE ALL REQUIREMENTS OF EACH SERVING UTILITY AND ALL EQUIPMENT SHALL CONFORM TO THE SERVING UTILITY STANDARDS AND REQUIREMENTS.

26 27 26 - WIRING DEVICE PLATES: COORDINATE COLOR WITH OWNER. FINISHED AREAS - FLUSH SMOOTH PLASTIC WITH MATCHING SCREWS. UNFINISHED AREAS - RAISED GALVANIZED STEEL. WET OR DAMP LOCATIONS PROVIDE WET RATED GASKETED PLATES. EXTERIOR AREAS - WEATHERPROOF WHILE-IN-USE, DIE CAST METAL, POWDER COAT FINISH, GASKETED, EXTRA DUTY RATED.

26 27 27 - RECEPTACLES: TAMPER-RESISTANT DUPLEX (AS DENOTED ON THE PLANS) COMMERCIAL GRADE, 2 POLE, 3 WIRE, 120V, 20 AMP STRAIGHT BLADE, UON, UL LISTED, SMOOTH NYLON FACE, BACK AND SIDE WIRED. INSTALL RECEPTACLES VERTICALLY WITH GROUNDING POLE ON BOTTOM UNLESS NOTED OTHERWISE.

26 27 28 - GFCI RECEPTACLES: DUPLEX WITH CLASS 3 INTEGRAL GROUND FAULT CURRENT INTERRUPTER (GFCI). THE GFCI SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION OR PROVIDE GFCI BREAKER IN PANEL. EXTERIOR, WET, OR DAMP LOCATIONS SHALL BE WEATHER RESISTANT MARKED "WR" ON THE FACE.

26 27 29 - SPECIAL RECEPTACLES: AMPERAGE/VOLTAGE/POLES AS DENOTED ON PLANS. COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT PROVIDED. RECEPTACLES DENOTED AS GFCI PROTECTED MAY BE PROTECTED BY GFCI CIRCUIT BREAKER OR REMOTE GFCI PROTECTION MODULE WITH TEST/RESET IN ACCESSIBLE LOCATION.

26 27 35 - SWITCHES: 20 AMP, 120/277V AC, BACK AND SIDE WIRED CONFIGURED AS INDICATED ON THE DRAWINGS. PROVIDE NEUTRAL (GROUNDED CONDUCTOR) IN ALL SWITCH BOXES FOR EACH SWITCHED CIRCUIT TO ALLOW FUTURE TECHNOLOGIES TO BE INSTALLED WHICH REQUIRE NEUTRAL CONDUCTOR.

26 27 36 - DIMMING SWITCHES: COMPATIBLE WITH FIXTURE SPECIFIED. ON/OFF CONTROL WITH RAISE AND LOWER PUSHBUTTONS.

26 27 37 - OCCUPANCY WALL SENSORS: DUAL TECHNOLOGY, PASSIVE INFRARED (PIR), SELF ADJUSTING, AUTOMATIC DUAL MODE WITH AUTO ON - AUTO OFF CONFIGURATION.

ABBREVIATIONS	
INDUSTRY STANDARD ABBREVIATIONS SHALL ALSO BE...	
Key Name	**FullWord**
(#)	DENOTES TYPICAL IN LIGHT FIXTURE TYPES
(D)	DEMOLISH
(E)	EXISTING
(R)	RELOCATED
AER	ARC ENERGY REDUCTION
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
BJ	BONDING JUMPER
CB	CIRCUIT BREAKER
CO, C.O.	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
EECP	ELEVATOR EMERGENCY COMMUNICATION PANEL
EECS	ELEVATOR EMERGENCY COMMUNICATION STATION
EGC	EQUIPMENT GROUNDING CONDUCTOR
FAA	FIRE ALARM ANNUCIATOR
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE ILLUMINATION
FHP	FRACTIONAL HORSEPOWER
FLA	FULL LOAD AMPS
FSD	FIRE SMOKE DAMPER
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GEC	GROUNDING ELECTRODE CONDUCTOR
GES	GROUNDING ELECTRODE SYSTEM
GFPE	GROUND FAULT PROTECTION OF EQUIPMENT
MCA	MINIMUM CIRCUIT AMPACITY
MFS	MAXIMUM FUSE SIZE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT (NOT IN SCOPE)
NO	NORMALLY OPEN
P	POLES
PC	PHOTO CELL
PH, Ø	PHASE
PNL	PANEL
RIB	RELAY IN A BOX (MOTOR RATED)
SCA	SHORT CIRCUIT AMPS
SCCR	SHORT CIRCUIT CURRENT RATING
SE	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTION DEVICE
SSBJ	SUPPLY SIDE BONDING JUMPER
SSEBJ	SUPPLY SIDE EQUIPMENT BONDING JUMPER
TGB	TELECOMMUNICATION GROUNDING BUSBAR
TMGB	TELECOMMUNICATION MAIN GROUNDING BUSBAR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

MOUNTING HEIGHT SCHEDULE	
EQUIPMENT (TO CENTER UON)	**HEIGHT (UON)**
CONTACTORS, MOTOR STARTERS, DISCONNECT (TOP)	66"
ELECTRIC RANGE RECEPTACLES (TOP)	7" MAX
INDICATING DEVICES (BOTTOM)	80"
PANELBOARDS - POWER; SPECIAL SYSTEMS (TOP)	72"
POWER METER BASE (CENTER LINE OF SOCKET)	PER UTILITY
PULL STATIONS, PUSH BUTTONS	46"
REC FULL HEIGHT REFRIGERATOR OR REACH-IN UNITS	46"
REC IN FINISHED AREAS	18"
REC IN NON-FINISHED, WAREHOUSE, MECH AND SHOPS	46"
REC LOCATED IN HAZARDOUS OR S-2 OCCUPANCIES	24" MINIMUM
TELECOMMUNICATION OUTLETS	18"
WALL MOUNTED SWITCHES	46"
WASHING MACHINES AND DRYER RECEPTACLE	43"

ELECTRICAL LEGEND

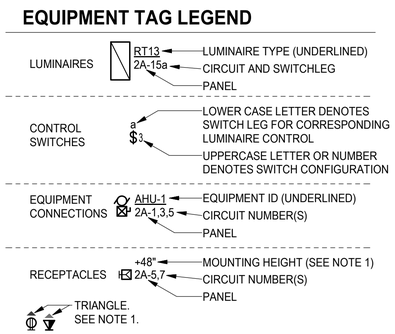
- PHOTOCELL CONTROL
- LUMINAIRE - TYPE AS NOTED ON PLAN - LINEWORK MAY VARY
- LUMINAIRE - WALL MOUNTED: TYPE AS NOTED ON PLAN
- LUMINAIRE - FILL INDICATES EMERGENCY (MAY VARY) - TYPE ENDS WITH 'E'
- EMERGENCY LIGHTING UNIT (WALL; CEILING; REMOTE HEAD)
- EXIT SIGN SHADE DENOTES FACE; ARROWS AS INDICATED
- COMBINATION EMERGENCY LIGHTING UNIT/EXIT SIGN, SHADE DENOTES FACE
- $ SWITCH - SINGLE POLE, SINGLE THROW, UON
- $x SWITCH - SEE SWITCH LEGEND FOR TYPE
- EMERGENCY SHUTDOWN
- WALL SENSOR - SEE SWITCH LEGEND: WALL SENSOR FOR TYPE
- METERING DEVICE
- POWER PANELBOARD
- MOTOR CONNECTION
- FUSED SAFETY SWITCH / DISCONNECT
- ELECTRIC BASEBOARD HEATER
- JUNCTION BOX OR EQUIPMENT CONNECTION (CEILING; WALL; FLOOR)
- JUNCTION BOX OR EQUIPMENT CONNECTION - WALL MOUNTED
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE - GFCI PROTECTED
- DUPLEX RECEPTACLE - GFCI PROTECTED, WEATHERPROOF, +24" UON
- DOUBLE DUPLEX RECEPTACLE - GFCI PROTECTED
- DUPLEX RECEPTACLE - PROTECTED BY GFCI CIRCUIT BREAKER IN PANEL
- SPECIAL RECEPTACLE - GFCI PROTECTED (VERIFY NEMA CONFIGURATION)
- TELECOMMUNICATION OUTLET

SWITCH LEGEND

STANDARD: 3 (THREE WAY); 4 (FOUR WAY); B (THREE WAY DIMMER); C (TIMER); D (DIMMER); K (KEYED); L (LOW VOLTAGE); P (PILOT LIGHT); S (VARIABLE SPEED CONTROL); T (INTEGRAL MOTOR OVERLOAD)
WALL SENSOR: 2 (DUAL CIRCUIT OCCUPANCY); D (DIMMING VACANCY SENSOR); O (OCCUPANCY SENSOR); V (VACANCY SENSOR)

- LINETYPE/LINEWEIGHT DENOTING FUTURE WORK
- LINETYPE/LINEWEIGHT DENOTING DEMO WORK
- LINETYPE/LINEWEIGHT DENOTING EXISTING WORK TO REMAIN
- LINETYPE/LINEWEIGHT DENOTING NEW WORK
- LINETYPE/LINEWEIGHT DENOTING NEW ONE-LINE CONNECTIONS
- LINETYPE/LINEWEIGHT DENOTING BELOW GRADE CONDUIT
- LINETYPE/LINEWEIGHT DENOTING CONTROL WIRING

EQUIPMENT TAG LEGEND



NOTE 1: DIMENSIONS (WHEN GIVEN ARE AFF). TRIANGLE DENOTES 46" AFF IN OPEN AREAS OR AT CASEWORK LOCATIONS TO BE 4" ABOVE COUNTERTOP (BACKSPLASH WHEN PRESENT). COORDINATE WITH ARCHITECTURE. THIS APPLIES TO ALL ELECTRICAL DEVICES.

ELECTRICAL SHEET LIST		
NUM	**REV#**	**SHEET TITLE**
E0.1		LEGEND AND SPECIFICATIONS
E0.2		SCHEDULES
E1.1		ELECTRICAL SITE PLAN
E2.1		1ST FLOOR LIGHTING PLAN
E2.2		2ND FLOOR LIGHTING PLAN
E3.1		1ST FLOOR POWER AND SIGNAL PLAN
E3.2		2ND FLOOR POWER AND SIGNAL PLAN
E4.1		DIAGRAMS, DETAILS, AND SCHEDULES
TOTAL SHEETS: 8		

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Sheet Issue Date: 09/09/2025
Drawn by: RBC
Checked by: EDC

STATE OF ALASKA 49TH ERIC D. COWLING EE - 9773 9/9/25 REGISTERED PROFESSIONAL ENGINEER

NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: LEGEND AND SPECIFICATIONS
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

E0.1

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

9/9/2025 10:20:13 AM C:\Users\EricCowling\EIC Engineers\Design - Files\Projects\E25\E25-4831 Knik Landing\DES\E25-4831_ESht25_KnikLanding.rvt
qc:09/09/2025 09:04:21 : fc-2 : abuDbl : pschd : 0.5;5.8:6.3/5151

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LUMINAIRE SCHEDULE	
NOTES	
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.
(A)	COLUMN HEADER DENOTED "IU" IS FOR INTERNAL USE ONLY BY EIC ENGINEERS FOR QC. THE VALUE HAS NO CONTRACTURAL IMPLICATIONS.
(B)	CATALOG NUMBERS ARE FOR GENERAL REFERENCE AND ARE NOT INCLUSIVE OF ALL OPTIONS/REQUIREMENTS DENOTED ON PLANS AND SPECIFICATIONS. ASTERISK (*) DENOTES COORDINATION ITEMS.
(C)	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND PROVIDE MOUNTING HARDWARE/FLANGES ETC FOR ALL LUMINAIRES FOR CEILING TYPES SHOWN.
(D)	PROVIDE UNIVERSAL OR MULTI-VOLTAGE VOLTAGE DRIVERS WHEN AVAILABLE. COORDINATE EXACT VOLTAGE/PHASE WITH CONNECTED CIRCUITS IN ALL OTHER SITUATIONS.
(E)	LIGHT SOURCE COLOR TEMPERATURE, UNLESS OTHERWISE NOTED: 3500K (SELECT NEAREST AVAILABLE COLOR TEMP FOR EACH LUMINAIRE TYPE). LIGHT SOURCE CRI TO BE 80 MIN, UON.
(F)	COLOR FINISH FOR ALL EXTERIOR LUMINAIRES TO BE DARK BRONZE UON.
1	NOT USED.

SCHEDULE

IU	TYPE	DESCRIPTION	WATTS	LUMENS	MOUNTING	MANUFACTURER	MODEL	NOTE
57	D41	4" OPEN LED DOWNLIGHT, ADJUSTABLE (SET TO 750LM)	13 W	750 LM LED	CEILING RECESSED	LITHONIA	LDN4 AL01 SWW1* L04AR LD MVOLT UGZ	
7	D41E	4" OPEN LED DOWNLIGHT, ADJUSTABLE (SET TO 750LM) FED FROM EM INVERTER	13 W	750 LM LED	CEILING RECESSED	LITHONIA	LDN4 AL01 SWW1* L04AR LD MVOLT UGZ	
47	DJ41	4" OPEN LED DOWNLIGHT	12 W	954 LM LED	CEILING RECESSED	JUNO	IC1LED G4 09LM *K *CRI * 17 HZWH	
14	E2	EMERGENCY LIGHTING UNIT W/ TWO ADJUSTABLE HEADS	1 W	(2) 1.2W LED	WALL +7'-0" OR CEILING	LITHONIA	ELM2L M12	
1	EM	EMERGENCY LIGHTING UPS SINE WAVE INVERTER, 125VA, UL924	125 W	N/A	SURFACE	EVENLITE	PW 12 LC V1	
3	LC4	4FT LED STRIP WITH DROPPED LENS WHITE FINISH	26 W	3906 LM LED	SURFACE	LITHONIA	CLX L48 4000LM SEF RDL MVOLT GZ10 *K *CRI WH	
12	LF14	1' X 4' LED FLAT PANEL ADJUSTABLE OUTPUT (SET TO HIGH LM)	40 W	4356 LM LED	CEILING SURFACE	LITHONIA	CPANL 1X4 AL01 SWW7 M4 DCMK 14	
6	RM1	1FT LED CYLINDER VANITY	10 W	829 LM LED	WALL OVER MIRROR	LITHONIA	FMVCCLS 12IN MVOLT * 90CRI BN	
2	RM2	2FT LED CYLINDER VANITY	18 W	1737 LM LED	WALL OVER MIRROR	LITHONIA	FMVCCLS 24IN MVOLT * 90CRI BN	
4	XA	LED EXIT SIGN W/ EXTERIOR REMOTE EM LIGHT	2 W	GREEN LED	WALL OR CEILING	LITHONIA	LHQM LED G HO RO; AFB OELR DDBTXD WT	
4	XE	LED COMBO EXIT SIGN & EM LIGHTING UNIT W/ BATTERY BACKUP	4 W	GREEN LED	WALL OR CEILING	LITHONIA	LHQM LED G	
4	XEA	LED COMBO EXIT SIGN & EM LIGHTING UNIT W/ EXT REMOTE EM LIGHT	4 W	GREEN LED	WALL OR CEILING	LITHONIA	LHQM LED G HO; AFB OELR DDBTXD WT	
5	ZMCU1	OUTDOOR LED ROUND CYLINDER UP/DOWNLIGHT LIGHT, CAST-AL	14 W	947 LM LED	WALL	LITHONIA	OLLWU LED P1 40K MVOLT *	
1	ZMR	OUTDOOR LED WALL SCONCE, DIE-CAST ALUMINUM	24 W	LED	WALL	KENALL	MR13FL PP * 20L*K *	
6	ZWG6	OUTDOOR LED WALL LUMINAIRE, DIE-CAST ALUMINUM	48 W	6127 LM LED	WALL	LITHONIA	WDGE2 LED P5 * 80CRI VF MVOLT * *	

UTILIZATION EQUIPMENT CONNECTION SCHEDULE	
NOTES	
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.
(A)	COLUMN HEADER DENOTED "IU" IS FOR INTERNAL USE ONLY BY EIC ENGINEERS FOR QC. THE VALUE HAS NO CONTRACTURAL IMPLICATIONS.
(B)	REFER TO FLOOR PLAN DRAWINGS FOR EQUIPMENT TYPE REQUIREMENTS, LOCATIONS AND QUANTITIES.
(C)	COORDINATE ALL CONNECTION REQUIREMENTS WITH ACTUAL EQUIPMENT SUPPLIED PRIOR TO ROUGH-IN.
(D)	COORDINATE AND PROVIDE SPECIFIC SIZING OF OVERLOADS AND FUSES WITH EQUIPMENT RATINGS.
(E)	FRACTIONAL HP TYPE MOTOR SWITCH WHERE AUTO CONTROL IS REQUIRED PROVIDE 'RELAY IN BOX'.
(F)	DISCONNECT HP RATING TO BE SIZED PER VOLTAGE AND FUSE TYPE UTILIZED.
(G)	DISCONNECTS DENOTED PLANS CAN BE ELIMINATED WHEN PROVIDED INTEGRAL WITH EQUIPMENT.
(H)	PROVIDE EQUIPMENT NAMEPLATE FOR EACH EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCCR SCHEDULE FOR ADDITIONAL REQUIREMENTS.
(I)	THE 'SCA' COLUMN DENOTES CALCULATED SHORT CIRCUIT AMPS ON LINE SIDE OF EQUIPMENT. THE 'MIN FT' COLUMN DENOTES CONDUCTOR LENGTH USED FOR THE SCA CALCULATION. THE ACTUAL LENGTH IS EXPECTED TO BE LONGER. IF THE ACTUAL LENGTH IS LESS THAN "MIN FT", THE SCA MUST BE RECALCULATED.
(J)	THE "SCCR" COLUMN DENOTES THE ANTICIPATED FACTORY EQUIPMENT SHORT CIRCUIT CURRENT RATING. CONTRACTOR SHALL VERIFY THE ACTUAL EQUIPMENT SCCR MEETS OR EXCEEDS THE SCCR VALUE DENOTED IN THIS TABLE. WHERE THE EQUIPMENT SCCR IS LESS THAN THE SCA VALUE, THE CONTRACTOR SHALL PROVIDE CURRENT LIMITING FUSES TO RESTRICT THE PEAK LET-THRU AMPS TO LESS THAN THE EQUIPMENT SCCR. IN THESE CASES, REFER TO "FUSE PART #" COLUMN FOR THE ENGINEER RECOMMENDED FUSE TO BE PROVIDED. PROVIDE WARNING SIGNAGE DENOTING FUSE PEAK LET-THRU AMPERAGE, TEXT DENOTING "IDENTIFIED REPLACEMENT COMPONENTS REQUIRED", FOLLOWED BY AMPERAGE AND MANUFACTURER MODEL/TYPE OF FUSE REQUIRED. THE CONTRACTOR SHALL ALSO PROVIDE THE PEAK LET-THRU TABLE FOR THE FUSE INSTALLED AND POST AT THE ASSOCIATED EQUIPMENT DISCONNECT FOR INSPECTOR REVIEW. PROVIDE CLASS RK-5, J, OR SIMILAR TIME-DELAY FUSES OR EQUAL PER THE SYSTEM REQUIREMENTS WHERE SPECIFIC FUSE PART NUMBER IS NOT DENOTED.
(K)	EQUIPMENT WITH NO VALUES IN "MIN FT", "SCA", AND "SCCR" CELLS INDICATE NO ANALYSIS IS REQUIRED. EQUIPMENT WITH NO VALUES IN "FUSE PART #" AND "LET-THRU AMPS" CELLS INDICATE NO SPECIFIC FUSE IS REQUIRED.
1	NOT USED.

SCHEDULE | **ENGINEERED SHORT CIRCUIT CURRENT MITIGATION**

IU	EQUIP ID	LOCATION OR FUNCTION	KVA	HP	FLA	MCA	MFS	TYPE	INGRESS RATING	V	PH	OPD	CIRCUIT (MINIMUM) CU UON	MIN FT	SCA	SCCR	FUSE PART #	LET-THRU AMPS	NOTE
1	AHU-1	AIR HANDLER UNIT	1.056		8.8			FUSED DISC	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	5	4140	5,000	NA	SCA	
1	AHU-2	AIR HANDLER UNIT	1.380		11.5			FUSED DISC	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	13	2155	5,000	NA	SCA	
1	B-1	BOILER	0.150	FHP				MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	14	2063	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	79	452	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	44	785	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	66	531	5,000	NA	SCA	
1	CF-1	CEILING PADDLE FAN	0.200	FHP				J-BOX	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	54	647	5,000	NA	SCA	
1	CP-1	CIRCULATION PUMP	0.264	1/12				MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	12	2342	5,000	NA	SCA	
1	CP-2	CIRCULATION PUMP	0.150	FHP				MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	12	2282	5,000	NA	SCA	
1	DW	DISHWASHER	1.200					DUPLEX 5-20R GFCI CB	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	27	1226	5,000	NA	SCA	
1	EBB-1	ELECTRIC BASEBOARD - 3 LINEAR FEET	0.750					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	27	1213	5,000	NA	SCA	
1	EBB-1	ELECTRIC BASEBOARD - 3 LINEAR FEET	0.750					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	40	862	5,000	NA	SCA	
1	EBB-2	ELECTRIC BASEBOARD - 4 LINEAR FEET	1.000					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	17	1776	5,000	NA	SCA	
1	EBB-3	ELECTRIC BASEBOARD - 5 LINEAR FEET	1.250					J-BOX		120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	34	979	5,000	NA	SCA	
1	ECUH-1	CABINET UNIT HEATER	2.000					MOTOR SWITCH	NEMA 1	120	1	30 A	0.75"C, (2)8 AWG, (1)8 AWG EGC	58	1398	5,000	NA	SCA	
1	EF-1	EXHAUST FAN	0.120	FHP				DIRECT WIRED	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	28	1173	5,000	NA	SCA	
1	EF-1	EXHAUST FAN	0.120	FHP				DIRECT WIRED	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	38	903	5,000	NA	SCA	
1	EF-2	EXHAUST FAN	0.696	1/4				MOTOR	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	34	1001	5,000	NA	SCA	
1	EF-3	EXHAUST FAN	0.696	1/4				MOTOR SWITCH	NEMA 1	120	1	15 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	10	2739	5,000	NA	SCA	
1	GW-1	GLASS WASHER	2.880		12			NEMA 6-15R	NEMA 1	240	1	15 A	0.5"C, (3)12 AWG, (1)12 AWG EGC	30	1963	5,000	NA	SCA	
1	HOOD	KITCHEN HOOD	0.200	0.25						120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	22	1453	5,000	NA	SCA	
1	KEG-1	KEGERATOR	0.180					DUPLEX 5-20R GFCI	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	36	951	5,000	NA	SCA	
1	MW	MICROWAVE	1.550					DUPLEX 5-20R GFCI	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	25	1324	5,000	NA	SCA	
1	WH-1	WATER HEATER	0.300					MOTOR SWITCH	NEMA 1	120	1	20 A	0.5"C, (2)12 AWG, (1)12 AWG EGC	13	2157	5,000	NA	SCA	

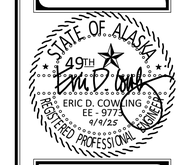
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NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: SCHEDULES
Address: 10204 S Knik Goose Bay Rd. Wasilla. AK 99623

E0.2

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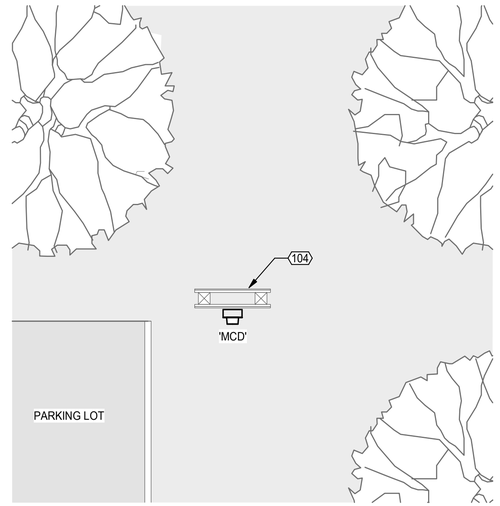
Planning Commission Packet
Project Number 2025
395 of 483

REFERENCED SHEET NOTES

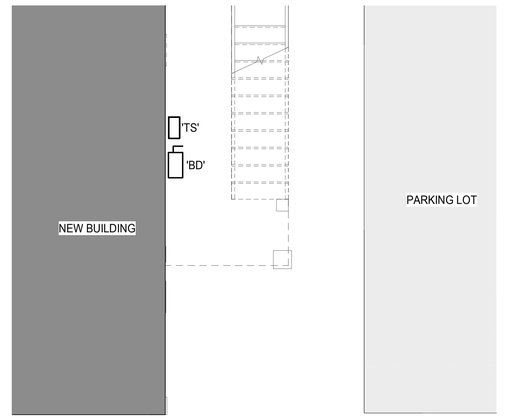
REF	NOTE
002	PROVIDE (2) 1" C. STUBOUTS FROM PANEL A FOR FUTURE SIGN AND POLE MOUNTED SITE LIGHTING.
104	PROPOSED LOCATION OF BUILDING ELECTRICAL SERVICE. COORDINATE WITH SERVING UTILITY BEFORE INSTALLATION TO VERIFY EXACT LOCATION AND REQUIREMENTS. PROVIDE WOOD POST BACKBOARD FOR REMOTE SERVICE PEDESTAL.



1 E1.1 ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"



2 E1.1 ELECTRICAL SITE PLAN - UTILITY SERVICE AND MCD
SCALE: 1/4" = 1'-0"



3 E1.1 ELECTRICAL SITE PLAN - SERVICE DISCONNECT
SCALE: 1/4" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER

NUM	DESCRIPTION

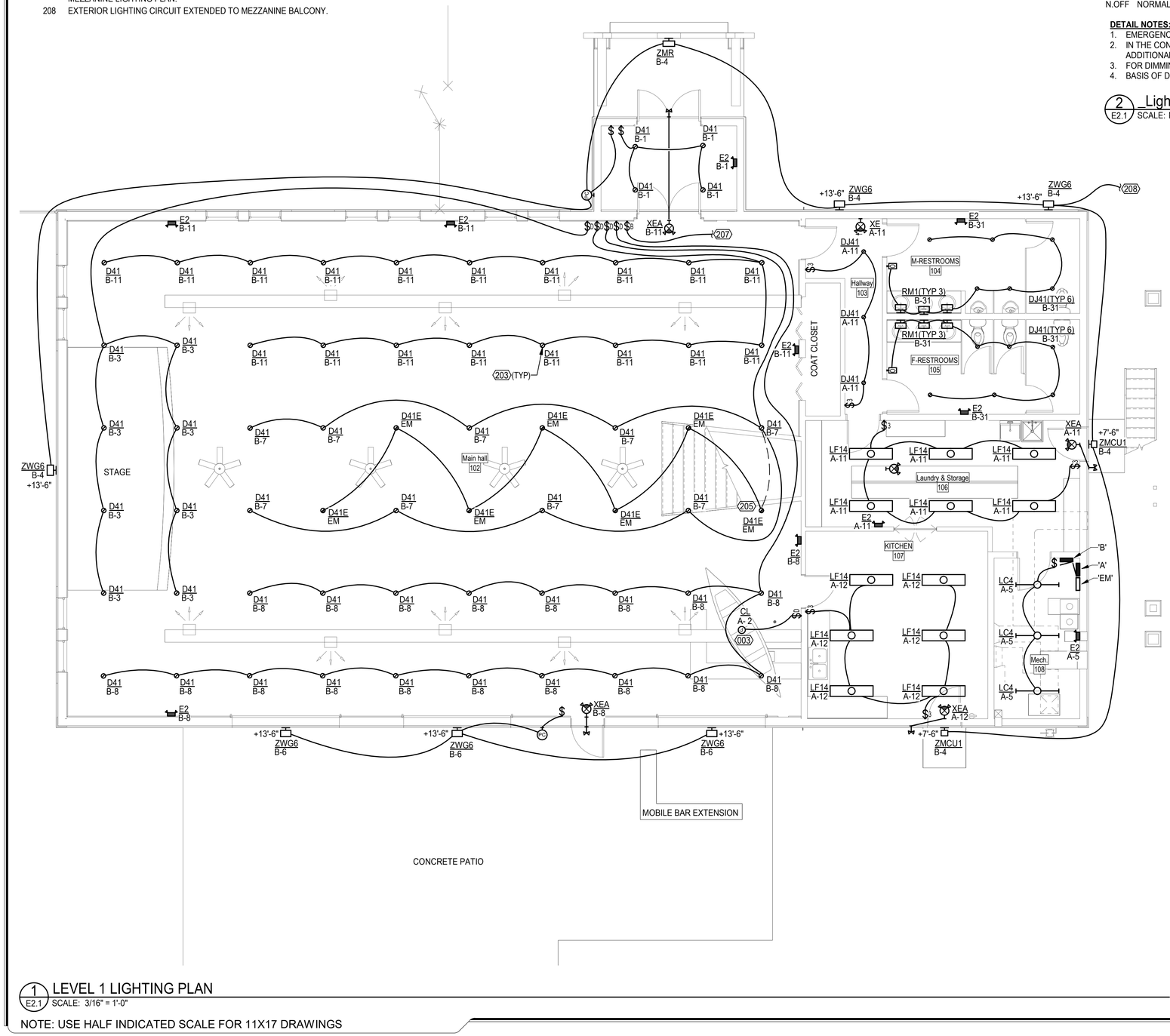
Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: ELECTRICAL SITE PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla. AK 99623

E1.1

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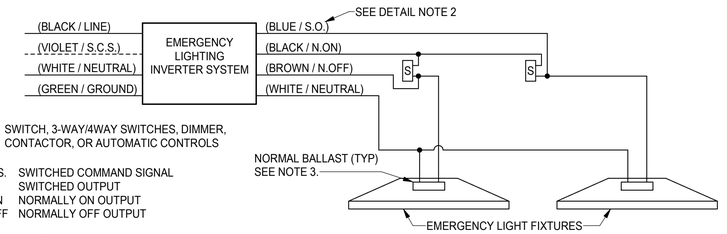
REFERENCED SHEET NOTES

REF	NOTE
003	PROVIDE CEILING MOUNTED JUNCTION BOX ABOVE BAR FOR FUTURE CONNECTION OF INTEGRAL LIGHTING IN OVERHEAD CANOPY.
203	PROVIDE FIRE RATED TOP HAT OVER EACH LIGHT FIXTURE INSTALLED IN CEILING WITH INSULATION.
205	LIGHTING CONTROLS, SWITCHES, AND/OR DIMMERS TO CONTROL BOTH NORMAL AND EMERGENCY FIXTURES. EMERGENCY FIXTURES ARE TO BE CONNECTED TO THE EMERGENCY CIRCUIT INDICATED VIA UL 924 LISTED EMERGENCY POWER CONTROL DEVICE. UL 924 DEVICE TO MONITOR NORMAL CIRCUIT IN SAME AREA AND TO POWER ALL EMERGENCY LIGHTING TO FULL ON IF NORMAL CIRCUIT FAILS REGARDLESS OF CONTROLS, SWITCHES, AND/OR DIMMERS STATE.
207	3-WAY DIMMER SWITCH TO CONTROL LIGHTING ABOVE STAIR LANDING. SEE MEZZANINE LIGHTING PLAN.
208	EXTERIOR LIGHTING CIRCUIT EXTENDED TO MEZZANINE BALCONY.



1 E2.1 LEVEL 1 LIGHTING PLAN
SCALE: 3/16" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

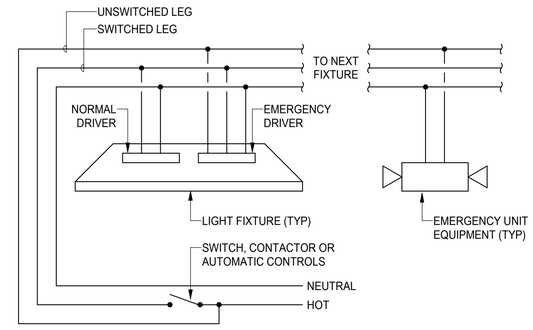


S SWITCH, 3-WAY/4WAY SWITCHES, DIMMER, CONTACTOR, OR AUTOMATIC CONTROLS

S.C.S. SWITCHED COMMAND SIGNAL
S.O. SWITCHED OUTPUT
N.ON NORMALLY ON OUTPUT
N.OFF NORMALLY OFF OUTPUT

DETAIL NOTES:
1. EMERGENCY FIXTURES TO ILLUMINATE WHEN LINE VOLTAGE AT INVERTER FAILS NO MATTER WHAT STATE SWITCHES/CONTROLS ARE IN.
2. IN THE CONFIGURATION SHOWN, THE SWITCHED COMMAND SIGNAL INPUT IS NOT USED AND THE SWITCHED OUTPUT FUNCTIONS AS AN ADDITIONAL NORMALLY OFF OUTPUT.
3. FOR DIMMING PROVIDE LINE VOLTAGE DIMMING BALLAST ONLY. DOES NOT WORK WITH 0-10V OR LOW VOLTAGE.
4. BASIS OF DESIGN: EVENLITE PW SERIES.

2 E2.1 _Lights__EMERGENCY LIGHTING INVERTER CONNECTION DIAGRAM
SCALE: NONE



DETAIL NOTES:
1. EMERGENCY FIXTURES TO BE CONNECTED TO LOCAL LIGHTING CIRCUIT TO ILLUMINATE WHEN UNSWITCHED LEG CIRCUIT FAILS NO MATTER WHAT STATE LIGHTING IS OPERATING.

3 E2.1 _Lights__EMERGENCY LIGHTING CONNECTION DIAGRAM
SCALE: NONE

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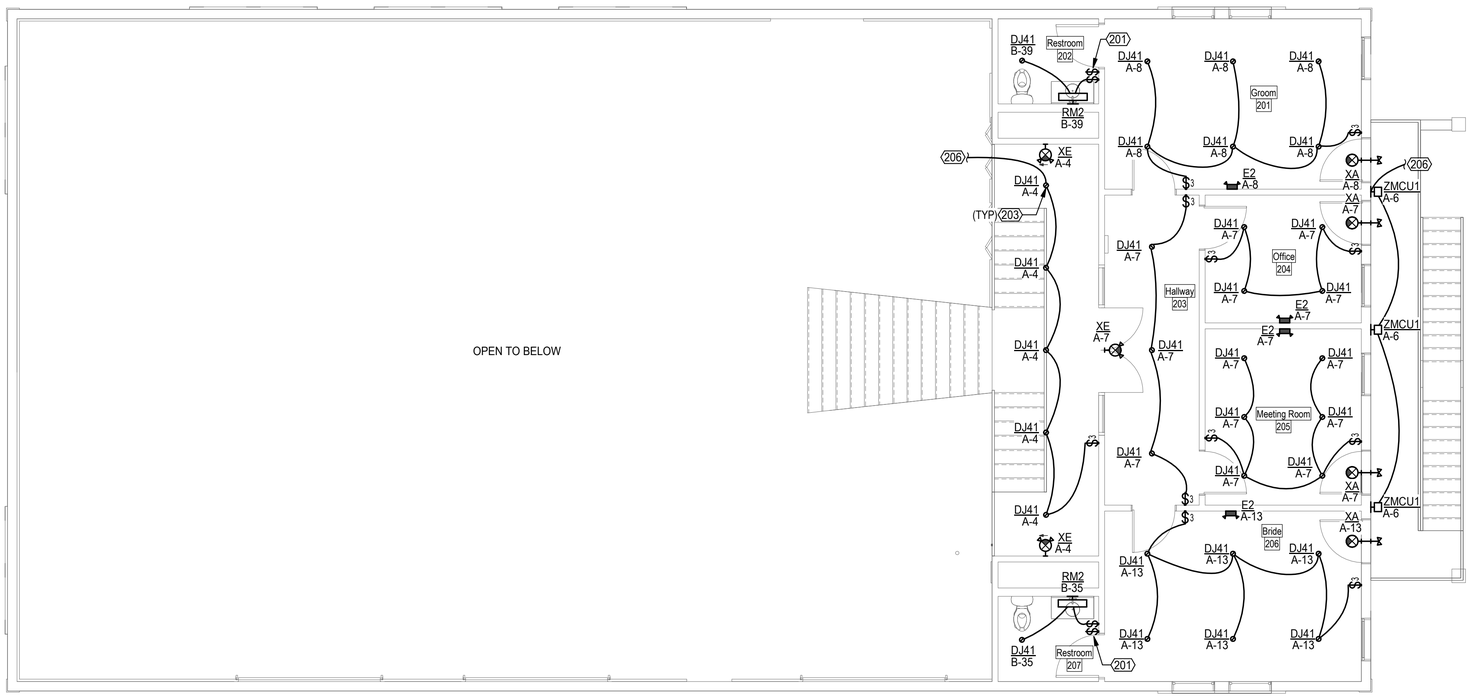
Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: 1ST FLOOR LIGHTING PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

E2.1

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REFERENCED SHEET NOTES

REF	NOTE
201	EXHAUST FAN CONTROL SWITCH. SEE THE POWER PLAN FOR FAN.
203	PROVIDE FIRE RATED TOP HAT OVER EACH LIGHT FIXTURE INSTALLED IN CEILING WITH INSULATION.
206	SEE FIRST FLOOR PLAN FOR LIGHTING CONTROL.



1 E2.2 LEVEL 2 LIGHTING PLAN
SCALE: 3/16" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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9/9/25
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NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: 2ND FLOOR LIGHTING PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

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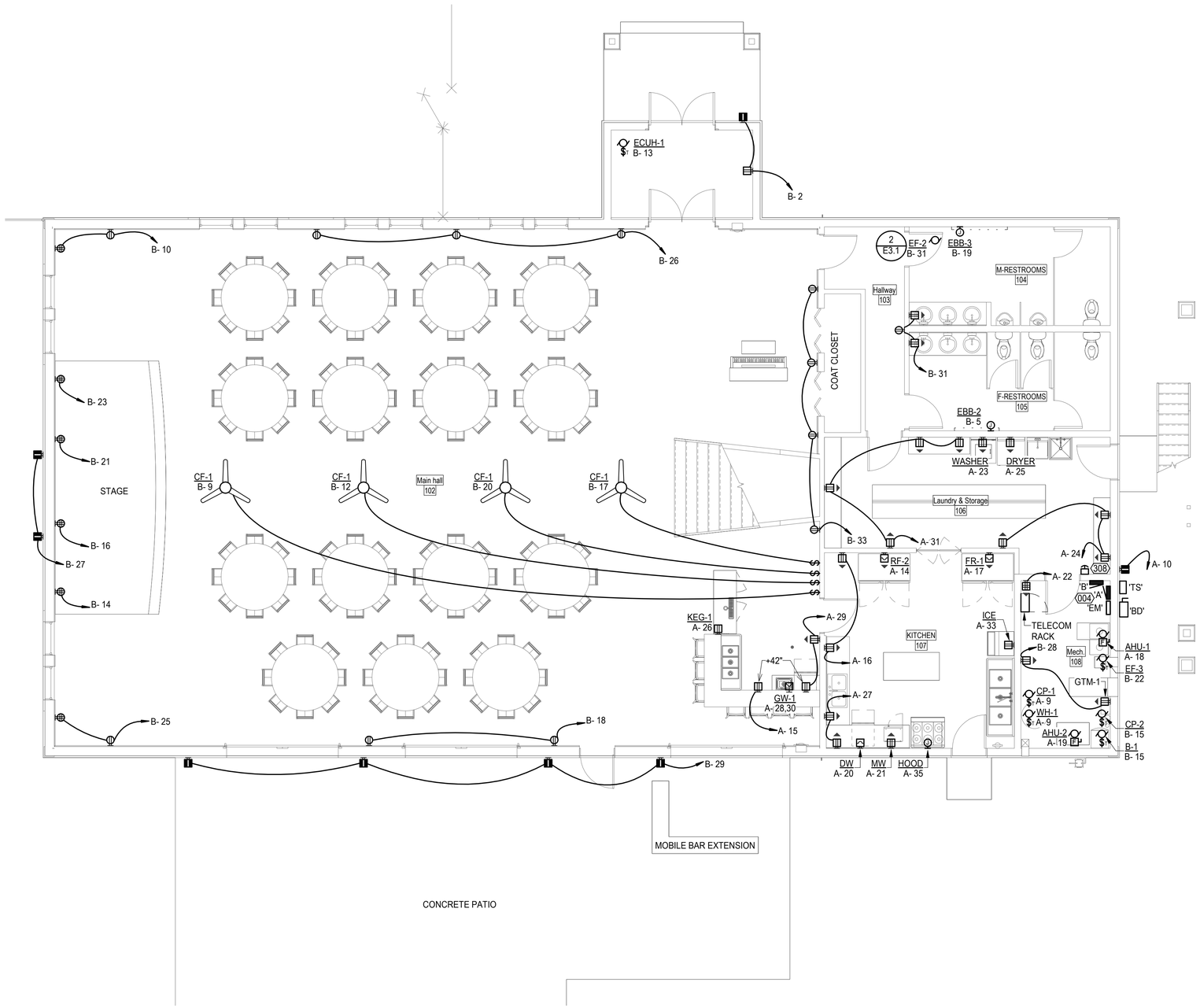
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GENERAL NOTES

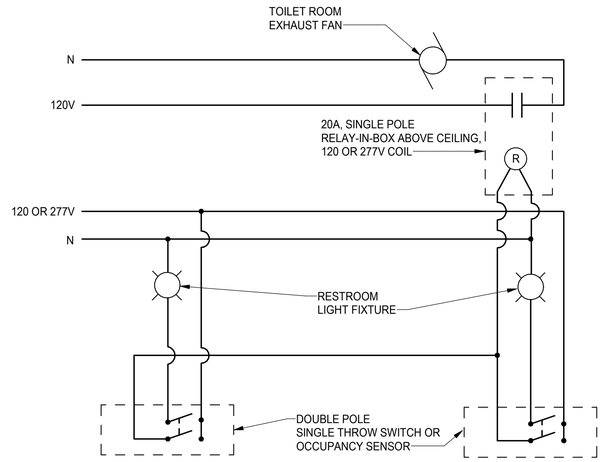
1. BASED ON THE A3 GREATER THAN 100 OCCUPANCY ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

(#) REFERENCED SHEET NOTES

REF	NOTE
004	COORDINATE WITH MECHANICAL TO NOT ROUTE ANY PIPING OR DUCTS ABOVE PANELS OR ENCROACH ON THE REQUIRED WORKING CLEARANCES.
308	PROVIDE A REMOTE EMERGENCY SHUTDOWN SWITCH TO DE-ENERGIZE THE POWER SOURCE OF STEAM HEATING, HOT WATER HEATING, AND HOT WATER SUPPLY BOILERS. PROVIDE "SWITCH PROTECTION COVER" TO ELIMINATE INADVERTENT OPERATION AND LABEL SWITCH "EMERGENCY BOILER/HOT WATER SHUTDOWN".



1 E3.1 LEVEL 1 POWER AND SIGNAL PLAN
SCALE: 3/16" = 1'-0"



2 E3.1 PUBLIC RESTROOM EXHAUST FAN SWITCH DETAIL
SCALE: NONE

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Prepared for: Doug Massie
Sheet Title: 1ST FLOOR POWER AND SIGNAL PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla. AK 99623

E3.1

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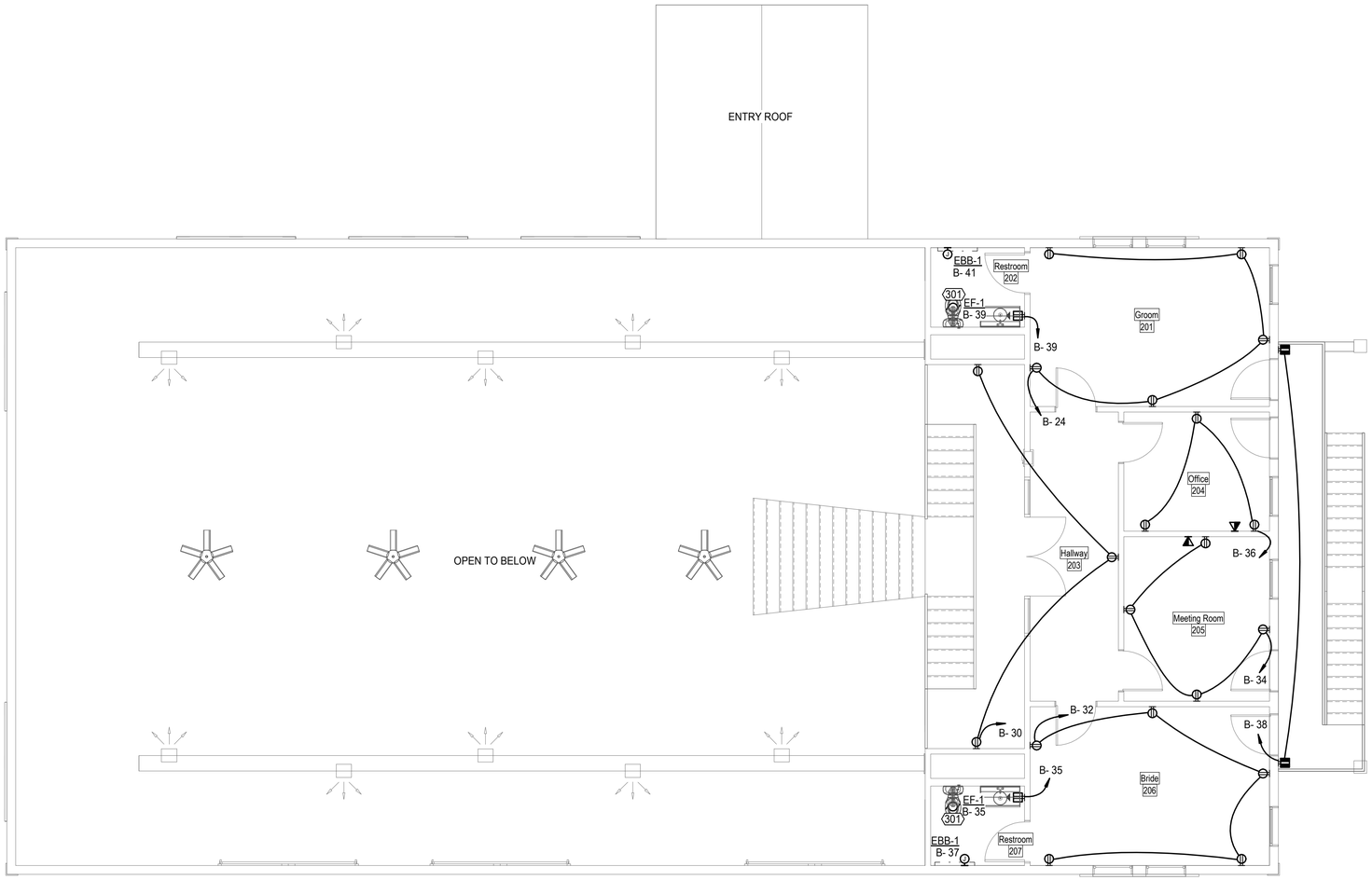
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GENERAL NOTES

1. BASED ON THE A3 GREATER THAN 100 OCCUPANCY ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

(#) REFERENCED SHEET NOTES

REF	NOTE
301	EXHAUST FAN CONTROLLED BY SWITCH SHOWN ON LIGHTING PLAN.



1 E3.2 LEVEL 2 POWER AND SIGNAL PLAN
SCALE: 3/16" = 1'-0"

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS

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Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: 2ND FLOOR POWER AND SIGNAL PLAN
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

E3.2

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DISTRIBUTION SCCR SCHEDULE
EQUIPMENT SHALL HAVE AN SCCR EXCEEDING THE SHORT CIRCUIT AMPS "SCA" OR MINIMUM SCCR, WHICH EVER IS GREATER. EQUIPMENT SHALL BE FULLY RATED. BRANCH CIRCUIT PANELS RATED 225 AMPS OR LESS MAY USE MANUFACTURER TESTED COMBINATIONS PER NEC 240.86(B) WHERE THE MOTOR LOAD DO NOT EXCEED 1% OF THE LOWEST AIC RATED DEVICE IN THE PANEL PER NEC 240.86(C).
CONTRACTOR TO VERIFY EQUIPMENT TO BE PROVIDED WITH SERVING UTILITY PRIOR TO PROCUREMENT. ANY DECREASE OF TRANSFORMER %Z, CONDUCTOR LENGTHS, OR INCREASE IN TRANSFORMER KVA OR CABLE SIZES TO BE REPORTED TO CONTRACT OFFICER FOR RECALCULATION OF SCA PRIOR TO PROCUREMENT.
THE "MIN FT" COLUMN DENOTES DISTANCE USED FOR 'SCA' CALCULATION. ACTUAL DISTANCE IS EXPECTED TO BE LONGER. IF CONDUCTOR LENGTH IS LESS THAN "MIN FT", CONTRACTOR SHALL SUBMIT A VARIATION REQUEST FOR RECALCULATION. THIS MAY REQUIRE ASSOCIATATED EQUIPMENT MODIFICATIONS.

ASSUMED UTILITY SYSTEM CONFIGURATION (BASIS FOR CALCULATION)

SERVICE TRANSFORMER

KVA	%Z	SCA SECONDARY LINE-LINE	SCA SECONDARY LINE-NEUTRAL
50	1.40	14,877	23,803

AMPS	- FOR CALCULATION ONLY - SERVICE LATERAL	MIN FT
200	(3)3/0 AWG	22

EQUIP ID	OPD	SCA	MIN SCCR	XR	MIN FT
A	200 A	6,741	10,000	1.55	5
BD	200 A	7,022	10,000	1.64	188
MCD	200 A	16,690	19,000	4.15	22
TS	200 A	6,856	10,000	1.58	7
B	100 A	6,670	10,000	1.51	2

LOAD CLASSIFICATIONS SCHEDULE	
NOTES	
(A)	NOT ALL LOAD CLASSIFICATIONS ARE NECESSARILY USED. ONLY CLASSIFICATIONS FROM LOADS THAT ARE CONNECTED TO EACH PANEL ARE SHOWN IN THE SUMMARY SECTION OF THE PANEL SCHEDULES.
(B)	PANELBOARD BUS RATINGS TO EQUAL OR EXCEED OPD RATINGS SHOWN IN PANEL SCHEDULES UNLESS OTHERWISE NOTED.
(C)	THE NEC DEMAND PERCENTAGE VALUES SHOWN IN THE PANEL SCHEDULE ARE A WEIGHTED AVERAGE. EXAMPLE 100VA @ 125% PLUS 100VA @100% IS A WEIGHTED AVERAGE OF 112.5% RESULTING IN 225VA NEC COMPUTED DEMAND AND 200VA CONNECTED.

SCHEDULE		
CLASS.	**NEC 2020**	**DESCRIPTION**
CONT	210.20(A)	125% OF THE CONTINUOUS LOAD.
KTCH	220.56	TABLE 220.56 - DEMAND FACTORS FOR KITCHEN EQUIPMENT.
LTG	210.20(A)	LIGHTING LOADS CONSIDERED TO BE CONTINUOUS. 125% OF THE CONTINOUS LOAD.
LTGE	210.20(A)	CALCULATED SAME AS 'LTG' BUT EXCLUDED FROM ENERGY LIGHTING POWER DENSITY CALCULATIONS.
MTR	430.24	125% OF THE FULL-LOAD CURRENT RATING OF THE HIGHTEST RATED MOTOR PLUS THE SUM OF THE FULL-LOAD CURRENT RATINGS OF ALL OTHER MOTORS.
NCDN	220.60	NONCOINCIDENT LOADS: WHERE TWO OR MORE LOAD ARE UNLIKELY TO BE IN USE SIMULTANEOUSLY, THE LARGEST LOAD WILL BE USED. LOADS CLASSIFIED AS NCDN WILL HAVE ZERO LOAD.
NCNT	210.20(A)	100% OF THE NON-CONTINUOUS LOAD.
REC	220.44	NON-DWELLING GENERAL USE RECEPTACLES = FIRST 10KVA OR LESS AT 100% PLUS REMAINDER AT 50%.
MCA	(SEE MTR)	THE LOAD IS BASED ON THE GIVEN MCA (MINIMUM CIRCUIT AMPACITY) WHICH INCLUDES 125% OF THE LARGEST MOTOR OF THE UNIT. 100% OF THE MCA LOAD.

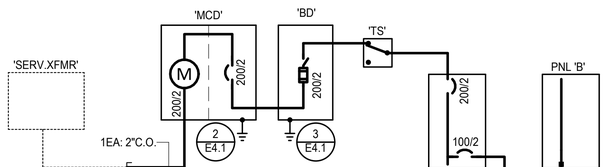
PANEL SCHEDULE NOTES (COLUMN 'N' OF PANEL SCHEDULE)	
'KEY'	**DEFINITION OF REQUIREMENT - NOT ALL KEY NOTES ARE NECESSARILY REFERENCED**
A	PROVIDE COMBINATION-TYPE AFCI CIRCUIT BREAKER.
B	PROVIDE CIRCUIT BREAKER RATED FOR "BACKFEED" USE.
C	CONTROL CIRCUIT VIA CONTACTOR.
D	PROVIDE DUAL FUNCTION AFCI AND GFCI CIRCUIT BREAKER.
E	PROVIDE GFPE CIRCUIT BREAKER.
G	PROVIDE GFCI CIRCUIT BREAKER.
L	PROVIDE CIRCUIT BREAKER WITH OEM LOCK-OFF DEVICE FOR USE AS DISCONNECT PER NEC.
N	PROVIDE NEW CIRCUIT BREAKER MATCHING EXISTING BREAKER AIC RATINGS.
O	PROVIDE CIRCUIT BREAKER WITH OEM LOCK ON DEVICE IDENTIFIED WITH RED MARKINGS.
S	PROVIDE SHUNT TRIP CIRCUIT BREAKER CONTROLLED BY ASSOCIATED SYSTEM.

SERVICE EQUIPMENT SCHEDULE				
NOTES				
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE.			
(A)	'MB' DENOTES ELECTRICAL SERVICE METERBASE PER UTILITY STANDARDS.			
1	METER/MAIN TO BE COMMERCIAL TYPE WITH SAFETY TEST BY-PASS PROVISIONS.			
SCHEDULE				
ID	**FUNCTION**	**OPD**	**VOLTAGE CONFIG**	**ENCLOSURE**
MCD	METER COMBINATION DISCONNECT	200 A	240/120V, 1PH, 3W	NEMA 3R
BD	BUILDING DISCONNECT	200 A	240/120V, 1PH, 3W	NEMA 3R

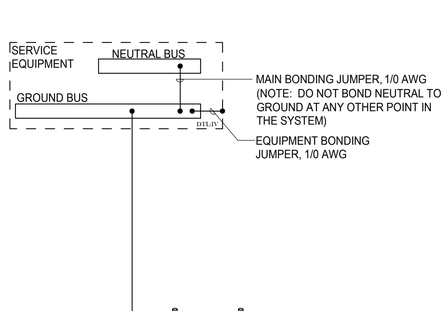
UTILITY SERVICE DEMAND KW ESTIMATE			
TOTAL CONNECTED	**POWER FACTOR**	**DIVERSITY FACTOR**	**ESTIMATED DEMAND KW**
37.57 kVA	0.9	0.7	23.67

FEEDER SCHEDULE		
ID	**OPD**	**FEEDER (MINIMUM) CU UON**
A	200	2"C, (3)3/0 AWG, (1)6 AWG EGC
BD	200	2.5"C, (3)300 KCMIL, (1)3 AWG EGC
TS	200	2"C, (3)3/0 AWG, (1)6 AWG EGC
B	100	1.25"C, (3)2 AWG, (1)6 AWG EGC

TRANSFER SWITCH SCHEDULE					
NOTES					
(A)	PROVIDE LABEL DENOTING "SYSTEM CONFIGURED FOR NON-SEPARETLY DERIVED PORTABLE GENERATOR (NO N-G BOND IN GENERATOR)".				
ID	**SYSTEM RATING**	**POLES**	**AMP**	**WITHSTAND**	**ENCLOSURE**
TS	240/120V, 1PH, 3W	2 POLE	200 A	6,856	NEMA 3R

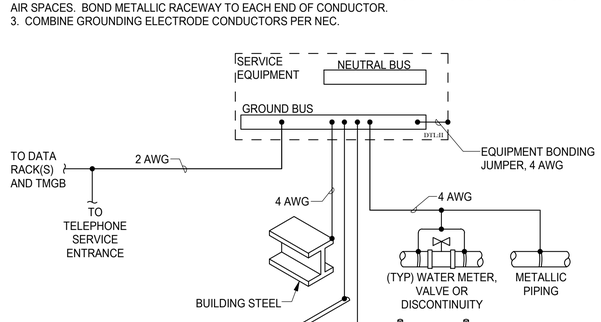


1 E4.1 POWER ONE-LINE
SCALE: NONE



2 E4.1 SERVICE GROUNDING SYSTEM ONE-LINE DIAGRAM
SCALE: NONE

NOTES:
1. BOND ALL BUILDING STEEL AND METALLIC PIPING TO PROVIDE ELECTRICALLY CONTINUOUS SYSTEMS.
2. PROVIDE RACEWAY FOR ALL ELECTRODE AND BOND CONDUCTORS. RACEWAY TO BE METALLIC IN PLENUM AIR SPACES. BOND METALLIC RACEWAY TO EACH END OF CONDUCTOR.
3. COMBINE GROUNDING ELECTRODE CONDUCTORS PER NEC.



3 E4.1 BUILDING GROUNDING SYSTEM ONE-LINE DIAGRAM
SCALE: NONE

PANEL 'A' SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W
OPD RATING: 200 A
LOAD CENTER
LOCATION: Mech. 108
ENCLOSURE: NEMA 1
MOUNTING: SURFACE

#	N	LOAD DESCRIPTION	AMP	P	A		B		P	AMP	LOAD DESCRIPTION	N	#
1		B	100	2	11.96	0.20			1	20	LTG: RM 102 CL		2
3	--	--	--	--			9.13	0.09	1	20	LTG/LTGE: RM 102		4
5		LTG/LTGE: RM 108	20	1	0.08	0.05			1	20	LTG:		6
7		LTG/LTGE: RM 203-205	20	1			0.22	0.10	1	20	LTG/LTGE: RM 201		8
9	S	MTR/NCNT: RM 108 CP-1,WH-1	20	1	0.56	0.18			1	20	REC:		10
11		LTG/LTGE: RM 103,106	20	1			0.31	0.26	1	20	LTG/LTGE: RM 107		12
13		LTG/LTGE: RM 206	20	1	0.10	0.38			1	20	KTCH: RM 107 RF-2	G	14
15		REC: RM 102	20	1			0.18	0.36	1	20	REC: RM 107		16
17	G	KTCH: RM 107 FR-1	20	1	1.00	1.06			1	20	MTR: RM 108 AHU-1		18
19		MTR: RM 108 AHU-2	20	1			1.38	1.20	1	20	NCNT: RM 107 DW	G	20
21	G	NCNT: RM 107 MW	20	1	1.55	0.36			1	20	REC: RM 108		22
23		REC: RM 106 WASHER	20	1			0.18	0.54	1	20	REC: RM 106		24
25		REC: RM 106 DRYER	20	1	0.18	0.18			1	20	REC: RM 102 KEG-1		26
27		REC: RM 107	20	1			0.36	1.44	2	15	NCNT: RM 102 GW-1	G	28
29		REC: RM 102	20	1	0.36	1.44			--	--	--	--	30
31		REC: RM 106	20	1			0.72	0.00	1	20	SPARE	--	32
33	G	REC: RM 107 ICE	20	1	1.27	0.00			1	20	SPARE	--	34
35		MCA: RM 107 HOOD	20	1			0.20	0.00	1	20	SPARE	--	36
37	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	38
39	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	40
41	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	42
43	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	44
45	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	46
47	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	48
49	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	50
51	--	SPARE	20	1			0.00	0.00	1	20	SPARE	--	52
53	--	SPARE	20	1	0.00	0.00			1	20	SPARE	--	54
		TOTAL KVA/PHASE:			20.9		16.7						
		TOTAL AMPS/PHASE:			174.3		138.8						

SUMMARY BY LOAD TYPE

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
CONT	3.750 kVA	125.00%	4.688 kVA
KTCH	1.380 kVA	100.00%	1.380 kVA
LTG	3.099 kVA	125.00%	3.874 kVA
LTGE	0.106 kVA	125.00%	0.133 kVA
MCA	0.200 kVA	100.00%	0.200 kVA
MTR	5.432 kVA	106.35%	5.777 kVA
NCNT	7.930 kVA	100.00%	7.930 kVA
REC	15.672 kVA	81.90%	12.836 kVA

PANEL TOTALS
CONNECTED KVA: 37.569 kVA
NEC CALCULATED KVA: 36.817 kVA
CONNECTED AMPS: 157 A
NEC CALCULATED AMPS: 153 A

PANEL 'B' SCHEDULE

VOLTAGE: 240/120V, 1PH, 3W
OPD RATING: 100 A
LOAD CENTER
LOCATION: Mech. 108
ENCLOSURE: NEMA 1
MOUNTING: SURFACE

#	N	LOAD DESCRIPTION	AMP	P	A		B		P	AMP	LOAD DESCRIPTION	N	#
1		LTG/LTGE:	20	1	0.07	0.36			1	20	REC:		2
3		LTG: RM 102	20	1			0.13	0.24	1	20	LTG:		4
5	L	CONT: RM 105 EBB-2	20	1	1.00	0.18			1	20	LTG: RM 102		6
7		LTG MAIN HALL 102	20	1			0.26	0.30	1	20	LTG/LTGE: RM 102		8
9		MTR/LTG: RM 102 ,CF-1	20	1	0.20	0.54			1	20	REC: RM 102		10
11		LTG/LTGE: RM 102	20	1			0.30	0.20	1	20	MTR/LTG: RM 102 ,CF-1		12
13	L	NCNT: ECUH-1	30	1	2.00	0.36			1	20	REC: RM 102	S	14
15	S	MTR: RM 108 B-1,CP-2	20	1			0.30	0.36	1	20	REC: RM 102	S	16
17		MTR/LTG: RM 102 ,CF-1	20	1	0.20	0.36			1	20	REC: RM 102		18
19	L	CONT: RM 104 EBB-3	20	1			1.25	0.20	1	20	MTR/LTG: RM 102 ,CF-1		20
21	S	REC: RM 102	20	1	0.36	0.70			1	15	MTR: RM 108 EF-3		22
23	S	REC: RM 102	20	1			0.36	0.90	1	20	REC: RM 201		24
25		REC: RM 102	20	1	0.54	0.54			1	20	REC: RM 102		26
27		REC:	20	1			0.36	0.36	1	20	REC: RM 108		28
29		REC:	20	1	0.72	0.54			1	20	REC: RM 203		30
31		MTR/REC/LTG/LTGE: RM 103- EF-2	20	1			1.49	0.90	1	20	REC: RM 206		32
33		REC: RM 102	20	1	0.72	0.72			1	20	REC: RM 205		34
35		MTR/REC/LTG: RM 207 EF-1	20	1			0.34	0.54	1	20	REC: RM 204		36
37	L	CONT: RM 207 EBB-1	20	1	0.75	0.36			1	20	REC: EXT UPPER DECK		38
39		MTR/REC/LTG: RM 202 EF-1	20	1			0.34	0.00	1	20	SPARE	--	40
41	L	CONT: RM 202 EBB-1	20	1	0.75	0.00			1	20	SPARE	--	42
		TOTAL KVA/PHASE:			12.0		9.1						
		TOTAL AMPS/PHASE:			99.7		76.1						

SUMMARY BY LOAD TYPE

LOAD CLASSIFICATION	CONNECTED	NEC FACTORS	TOTAL NEC
CONT	3.750 kVA	125.00%	4.688 kVA
LTG	1.771 kVA	125.00%	2.214 kVA
LTGE	0.036 kVA	125.00%	0.045 kVA
MTR	2.732 kVA	106.37%	2.906 kVA
NCNT	2.000 kVA	100.00%	2.000 kVA
REC	10.800 kVA	96.30%	10.400 kVA

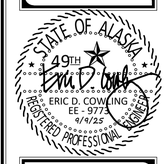
PANEL TOTALS
CONNECTED KVA: 21.089 kVA
NEC CALCULATED KVA: 22.252 kVA
CONNECTED AMPS: 88 A
NEC CALCULATED AMPS: 93 A

EIC ENGINEERS, INC
ELECTRICAL ENGINEERS
EIC JOB NO: E25-4831
CORP. #AECC1105
6927 OLD SEWARD HWY
SUITE 200
ANCHORAGE, AK 99518
T 907.349.9712
F 907.349.9713
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Determine DESIGN LLC AECL1613
506 E. FIREWEED LN, SUITE A
ANCHORAGE, AK 99503
Office: (907)339-9100
dan@determinedesign.com

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Sheet Issue Date:
09/09/2025
Drawn by: RBC
Checked by: EDC



NUM	DESCRIPTION

Project Title: Knik Landing
Prepared for: Doug Massie
Sheet Title: DIAGRAMS, DETAILS, AND SCHEDULES
Address: 10204 S Knik Goose Bay Rd. Wasilla, AK 99623

E4.1

9/9/2025 10:20:15 AM C:\Users\EricCowling\EIC Engineers\Design - Files\Projects\E25\E25-4831 Knik Landing\DES\E25-4831_ESht25_KnikLanding.rvt
qc:09/09/2025 09:04:21 : fc:2 : abuDb! : pschd : 0.5;5.8.6.3/5151

NOTE: USE HALF INDICATED SCALE FOR 11X17 DRAWINGS


OPEN DURING
ROW INSPECTOR


homeGUARD
BUILDERS CHOICE
CAUTION
CUIDADO
SLOW
DOWN
SPEED LIMIT
5 MPH


Knik
BAR & GRILL
OPEN

Communication and
Deficient Application Material

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Development Services Division
350 East Dahlia Avenue, Palmer, AK 99645
Phone (907) 861-7822
www.matsugov.us

February 23, 2026

Broken Boat, LLC (dba Knik Landing/Knik Bar and Grill)
Attn: Douglas Massie
10204 S. Knik Goose Bay Road
Wasilla, AK 99623

SUBJECT: CUP Application for Alcoholic Beverage Uses – Request for Required Information

LOCATION: 10204 S. Knik Goose Bay Road; Tax Account #7186000L001

Dear Mr. Massie,

Borough staff have reviewed the application material, and it has been determined that the following information needs to be provided to process this request:

1. Please provide a copy of the delegation letter from the State of Alaska Alcohol & Marijuana Control Office (AMCO) depicting that the proposed expansion area (licensed alcohol-beverage serving area) for Beverage Dispensary License #597 has been approved by the Alcoholic Beverage Control (ABC) Board in a delegated status. The delegation letter must include AMCO Form AB-02 and the board-approved Premises Diagram map. The Premises Diagram must clearly depict the areas of the subject parcel defining the approved consumption areas (licensed footprint).
2. The application narrative is insufficient:
    a. Update the narrative to include the AMCO application status for the proposed expansion of the licensed alcoholic beverage serving areas.
    b. Describe the total number and size of all parking spaces available for the operation, including ADA-compliant spaces and construction type (asphalt, concrete, compacted gravel, etc.). Include parking details regarding the existing and proposed structures. A parking diagram must be included in the site plans.
    c. Describe the days and hours of operation.
    d. Describe the anticipated AM and PM peak hours of vehicular traffic, to include an estimation of the total number of vehicles that are expected to enter/exit the site during operating hours.
    e. Describe the external colors of the proposed operation, to include both existing and new construction.

f. Describe any advertisement signs that exist or are proposed for the operation, to include their locations and construction type, and whether they are lit, and the type of lighting, if applicable. Ensure that advertisement signage and lighting locations are depicted on the site plans.
g. Describe any existing or proposed exterior lighting, to include the height, direction of light, and type. Is it downward-directed and shielded to mitigate light from impacting nearby properties?
h. Describe the type/s and locations of all access points for the operation. If access is offered via a state right-of-way, provide a copy of the state-issued driveway permit. Consider that, in most cases, if expansion is proposed, both the state and the borough must be contacted to confirm whether a permit is required and/or whether it needs to be applied for and/or updated. For driveway permits within the borough accessing borough-owned/maintained roadways, please contact the MSB Permitting Center at (907) 861-7822.
i. Describe the current topography of the subject parcel and whether drainage issues exist or flooding occurs. For new construction, describe any significant changes to grading that may affect water run-off/drainage. Site plans must include contour lines with elevation and arrows depicting drainage throughout the entire parcel.
j. Describe measures to mitigate any potential negative effect upon other properties in the area due to such factors as dust, noise, obtrusive advertising, and glare, such as the use of buffers, planted berms, landscaping, reduction or elimination of obtrusive or garish signage or other features, lowered building elevations, and site and building design features.
k. Describe measures the operation will incorporate into its plan to prevent, reduce, or eliminate crime or alcohol-related accidents in the area.

3. The site plan is insufficient. Please review page 3 for the items necessary for a complete site plan.
    a. The submitted site plans are not to scale. It appears the scale of the diagrams would be accurate; however, they have been submitted on a smaller paper size than the drawings are intended for. Please provide updated site plans to scale (these can be submitted electronically or in a larger format in person).
    b. The dimensions and wording on the provided site plans are faded or blurred, and difficult and/or impossible to read. Some of the lettering is too small to read. The information required for a complete site plan can be submitted on multiple pages if necessary.
    c. Indicate the setback distances to the lot lines and rights-of-way on the site plan.
    d. Provide the dimensions of the structures: size (square footage), height, width, and length.
    e. Show the direction of proposed drainage on the property. Contours and arrows can be used in conjunction on a separate plan sheet as necessary.
    f. Fencing is depicted on the site plans; however, the construction type is not described in the narrative, and whether the proposed fencing is for privacy and/or to reduce visual effects to the surrounding parcels.
    g. Ensure that advertisement signage and lighting locations are depicted on the site plans.
    h. A parking diagram must be included in the site plans to depict all parking spaces available for the operation, including the locations of ADA-compliant spaces.

4. According to the submitted site plans, several of the proposed parking areas are extremely close to the waterbody. Mat-Su Borough Ordinance 05-023 established voluntary measures that property owners can use to protect the quality of our lakes, streams, and wetlands. See attached Voluntary Best Management Practices for Development around Waterbodies.

5. Provide a copy of the Fire Marshal's determination for:
    a. maximum occupancy capacity
    b. Plan Approval for the construction of the proposed new facility.

Should you have any questions or require additional information, please feel free to contact me by phone at (907) 861-8527 or email at rick.benedict@matsugov.us.

Respectfully,

Rick Benedict, Current Planner
Development Services Division
Matanuska-Susitna Borough

Attachments:
Voluntary Best Management Practices for Development around Waterbodies

From: Rick Benedict
To: "Doug Massie"
Subject: RE: Knik Bar & Grill - CUP Application #ALC-2026-010282
Date: Monday, February 23, 2026 2:39:00 PM
Attachments: Alcoholic-Beverage-Uses-Application.pdf

Mr. Massie,

Page 2 of the attached application will list the items to be described in the narrative. The application seeks specific information as outlined in MSB 17.70.030, 17.70.100, & 17.70.110. Chapter 17.70 REGULATION OF ALCOHOLIC BEVERAGE USES

Respectfully,

Rick Benedict – Current Planner
Development Services Division
Matanuska-Susitna Borough
(907)861-8527 direct

From: Doug Massie <massman76@hotmail.com>
Sent: Monday, February 23, 2026 2:32 PM
To: Rick Benedict <Rick.Benedict@matsugov.us>
Subject: Re: Knik Bar & Grill - CUP Application #ALC-2026-010282

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
Can you send me the document or point me in the right direction of where I can find directions and all required documentation for the narrative that you reference? When I applied for the permit, there was nothing that I could find outlining what was required to be in the narrative.

Thanks,

Doug Massie

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From: Rick Benedict <Rick.Benedict@matsugov.us>
Sent: Monday, February 23, 2026 11:46:07 AM
To: massman76@hotmail.com <massman76@hotmail.com>
Subject: Knik Bar & Grill - CUP Application #ALC-2026-010282

Mr. Massey,

An initial review of the Conditional Use Permit application concerning Knik Bar & Grill/Knik Landing has been conducted by the Planning Department. Please find attached a request for additional information.

I'm available by email or phone to answer any questions or provide clarity to the attached letter.

Respectfully,

Rick Benedict – Current Planner
Development Services Division
Matanuska-Susitna Borough
(907)861-8527 direct

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Development Services Division
350 East Dahlia Avenue, Palmer, AK 99645
Phone (907) 861-7822
www.matsugov.us

March 16, 2026

Broken Boat, LLC (dba Knik Landing/Knik Bar and Grill)
Attn: Douglas Massie
10204 S. Knik Goose Bay Road
Wasilla, AK 99623

SUBJECT: CUP Application for Alcoholic Beverage Uses – Request for Required Information

LOCATION: 10204 S. Knik Goose Bay Road; Tax Account #7186000L001

Dear Mr. Massie,

I'm following up on our February 26th meeting, during which we discussed the remaining items needed to complete your application. Below is a list of information needed to complete the application:

1. Please update the application narrative to include the following information:
    a. The status of the AMCO application for the proposed expansion of licensed alcoholic beverage serving areas, including the application submission date to AMCO and the total square footage of all Beverage Dispensary licensed areas.
    b. The total number and size of all parking spaces available for the operation, including ADA-compliant spaces and construction type (asphalt, concrete, compacted gravel, etc.).
    c. Days and hours of operation.
    d. Anticipated AM and PM peak hours of vehicular traffic, to include an estimation of the total number of vehicles that are expected to enter/exit the site during operating hours.
    e. External colors of the proposed operation, to include both existing and new construction.
    f. Describe any advertisement signs that exist or are proposed for the operation, to include their locations and construction type, and whether they are lit, and the type of lighting, if applicable. Ensure that advertisement signage and lighting locations are depicted on the site plans.
    g. Describe any existing or proposed exterior lighting, to include the height, direction of light, and type (downward-directed and shielded to mitigate light from impacting nearby properties).

h. Locations of all access points for the operation. If access is offered via a state right-of-way, provide a copy of the state-issued driveway permit. Consider that, in most cases, if expansion is proposed, both the state and the borough must be contacted to confirm whether a permit is required and/or needs to be updated. For driveway permits within the borough accessing borough-owned/maintained roadways, please get in touch with the MSB Permitting Center at (907) 861-7822.
i. Describe the current topography of the subject parcel and whether drainage issues exist or flooding occurs. For new construction, describe any significant changes to grading that may affect water run-off/drainage. Site plans must include contour lines with elevation and arrows depicting drainage throughout the entire parcel.
j. Describe measures to mitigate any potential negative effect upon other properties in the area due to such factors as dust, noise, obtrusive advertising, and glare, such as the use of buffers, planted berms, landscaping, reduction or elimination of obtrusive or garish signage or other features, lowered building elevations, and site and building design features.

2. Please update the site plan/s to depict the following information. Page 3 of the application contains the items necessary for a complete site plan:
   a. A drainage plan is required. Show the direction of proposed drainage on the subject property. Contours and arrows can be used in conjunction on a separate plan sheet as necessary.
   b. Vehicular and pedestrian circulation patterns as related to the proposed access points from Knik Goose Bay Road and Northshore Drive.
   c. Fencing is depicted on the site plans. However, the construction type is not described in the narrative, and it is unclear whether the proposed fencing is for privacy, security, or to reduce visual effects to the surrounding parcels.
   d. Ensure that advertisement signage and lighting locations are depicted on the site plans.
   e. ADA-compliant spaces must be included in the site plans depicting their locations.

If you have any additional questions, please feel free to contact me by phone at (907) 861-8527 or email at rick.benedict@matsugov.us. Upon receipt of the requested information and a complete application determination, our office will conduct the required public notice process and schedule a public hearing before the Planning Commission.

Sincerely,

Rick Benedict, Current Planner
Development Services Division
Matanuska-Susitna Borough

Attachments:
Application for a Conditional Use Permit – Regulation of Alcoholic Beverage Uses MSB 17.70

From: Doug Massie
To: Rick Benedict; Maxwell Sumner; Mike Brown; Misty Massie; StephanieNowersDistrict2@gmail.com; Michael Bowles
Cc: Wade Long; AMCO Local Government Only (CED sponsored); CED ABC Alcohol Licensing (CED sponsored)
Subject: Re: Knik Bar & Grill - CUP Application #ALC-2026-010282
Date: Tuesday, March 17, 2026 2:25:47 PM

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

Mr. Benedict and Mr. Strawn,

This is completely unnecessary, as you and Strawn are fully aware of our current application status and intent to expand the licensed premise for the new event venue, which you know makes the existing beer garden a moot point. The 597-restaurant designation application is not new; it is a renewal, that has been approved and renewed several times.

You are fully aware of our pending expansion application with AMCO and the Borough. I provided you a copy of the AMCO app., and I am currently working through the borough Alcohol use permit process. The AMCO board approved our application and you (MSB) are holding it up.

Fact- the borough has never protested the restaurant designation (Now called an endorsement) in that past, nothing has changed. We have owned the business for 5 years, and as far as I can tell the beer garden in question has been there for over 10 years (Reviewed and approved by AMCO) without any borough protest. In a conversation Alex Strawn, he admitted that a borough employee did not do their job, but it was never protested.

So why, when you know I am applying for expansion beyond what already exists, are you holding up our restaurant endorsement. The only thing this does is hurt our business financially for something that has gone permitted for years, and will change drastically in the next few months when expansion permits are approved.

I have to be honest with you and your staff Mr. Strawn. I have found the Mat-Su planning department to be the most difficult and unfriendly department towards businesses in the Mat-Su that I have ever experienced. Many business people in the community feel the same as I, unfortunately. Your office seems to be hyper-critical of my business recently, after a half decade of zero interaction, zero inspections, and zero protests of several license renewals and modifications. I find this very curious and concerning to say the least.

This is a simple fix. Remove your protest and allow my pending applications to work out your perceived problem. Very simple, this is an opportunity for your department to do the right thing and remove the unwarranted protest on a beer garden that has been in existence and permitted by AMCO for over a decade.

Doug and Misty Massie
Broken Boat LLC

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From: Rick Benedict <Rick.Benedict@matsugov.us>
Sent: Tuesday, March 17, 2026 11:16:14 AM
To: Doug Massie <massman76@hotmail.com>
Cc: Wade Long <Wade.Long@matsugov.us>; Alex Strawn <Alex.Strawn@matsugov.us>; AMCO Local Government Only (CED sponsored) <amco.localgovernmentonly@alaska.gov>; CED ABC Alcohol Licensing (CED sponsored) <alcohol.licensing@alaska.gov>
Subject: RE: Knik Bar & Grill - CUP Application #ALC-2026-010282

Mr. Massie,

The borough protested the new restaurant endorsement for Beverage Dispensary License (BDL) #597 because staff determined a modification to expand the use was being proposed. AMCO submitted the application to the borough for review on December 19, 2025, which included the "Form AB-02 Premises Diagram," showing an expansion of the existing consumption area already permitted by the MSB (#LCUP/GFR 1985-0008). The proposed expansion triggers a requirement for grandfathered sites to obtain a modified (new) Conditional Use Permit (CUP) under MSB 17.70.200(A) to include these areas of expansion and other new factors of the operation.

Once a complete application is established regarding the CUP application you submitted on February 2, 2026, public notice will then be given in accordance with MSB 17.03, and a public hearing will be scheduled with the Planning Commission (PC). When the PC adopts a resolution approving the new/modified permit, the borough code allows the Planning Director to then issue the permit once all conditions of the resolution are met.

At that time, the borough's "protest" of license #597 will also be rescinded, with AMCO, as required by MSB 8.40.030(D). AMCO provided an update yesterday via email, which you were included in, indicating that the Alcohol Board approved the Restaurant Endorsement under BDL #597 in a delegated status. Approval with delegation often includes a 180-day period to resolve any outstanding items required by state or local entities, such as obtaining a CUP through the borough. You will want to verify with AMCO when this delegation period expires.

Respectfully,

Rick Benedict – Current Planner
Development Services Division
Matanuska-Susitna Borough
(907)861-8527 direct

From: Doug Massie <massman76@hotmail.com>
Sent: Monday, March 16, 2026 11:45 AM
To: Rick Benedict <Rick.Benedict@matsugov.us>
Subject: Re: Knik Bar & Grill - CUP Application #ALC-2026-010282

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
I'm in Hawaii on vacation and I will be back on Wednesday. I have many of the required documents and pieces of the application needed. I just need to put them together in an email and complete the narrative.

On another note, can you explain why there is a protest on my application for a restaurant endorsement? I have been in the queue for over a year and this puts my approval at risk, which will adversely affect my business.

Doug Massie

Get Outlook for Android

From: Rick Benedict <Rick.Benedict@matsugov.us>
Sent: Monday, March 16, 2026 9:32:32 AM
To: Doug Massie <massman76@hotmail.com>
Subject: Knik Bar & Grill - CUP Application #ALC-2026-010282

Good Morning Mr. Massey,

I'm following up regarding our meeting on February 26th. I wanted to check in to see if you have any further questions after our discussion, and to ensure we have a plan to stay on track to a complete application and the scheduling of a public hearing with the Planning Commission.

I've attached an updated information request and removed the items you provided during our meeting. I'm available by email or phone to answer any further questions or provide clarity to the attached letter.

Respectfully,

Rick Benedict – Current Planner
Development Services Division
Matanuska-Susitna Borough
(907)861-8527 direct

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
Development Services Division
350 East Dahlia Avenue, Palmer, AK 99645
Phone (907) 861-7822
www.matsugov.us

March 16, 2026

Broken Boat, LLC (dba Knik Landing/Knik Bar and Grill)
Attn: Douglas Massie
10204 S. Knik Goose Bay Road
Wasilla, AK 99623

SUBJECT: CUP Application for Alcoholic Beverage Uses – Request for Required Information

LOCATION: 10204 S. Knik Goose Bay Road; Tax Account #7186000L001

Dear Mr. Massie,

I'm following up on our February 26th meeting, during which we discussed the remaining items needed to complete your application. Below is a list of information needed to complete the application:

1. Please update the application narrative to include the following information:
    a. The status of the AMCO application for the proposed expansion of licensed alcoholic beverage serving areas, including the application submission date to AMCO and the total square footage of all Beverage Dispensary licensed areas.

Status: in process
Date submitted: NEED
Square footage: 13000 sq ft

    b. The total number and size of all parking spaces available for the operation, including ADA-compliant spaces and construction type (asphalt, concrete, compacted gravel, etc.).

Total parking spaces: 72
ADA: 4
Construction type: compacted gravel

    c. Days and hours of operation.

Wedding venue: 8:00AM – 12:00AM, seven days a week
Bar: 12:00PM – 12:00 AM, seven days a week

d. Anticipated AM and PM peak hours of vehicular traffic, to include an estimation of the total number of vehicles that are expected to enter/exit the site during operating hours.

Peak hours: 4PM – 8PM, estimated 92 vehicles

e. External colors of the proposed operation, to include both existing and new construction.

Neutral earth tones, tan and brown

f. Describe any advertisement signs that exist or are proposed for the operation, to include their locations and construction type, and whether they are lit, and the type of lighting, if applicable. Ensure that advertisement signage and lighting locations are depicted on the site plans.

Wood timber frame, dimly lit, flood lights pointing down on it, will say Knik Landing.
Location: south of driveway off KGB

g. Describe any existing or proposed exterior lighting, to include the height, direction of light, and type (downward-directed and shielded to mitigate light from impacting nearby properties).

Disk lighting in soffits shining downward. 15' high. Flood lights on each gabled end, 20' high.
No other parking lot lighting

h. Locations of all access points for the operation. If access is offered via a state right-of-way, provide a copy of the state-issued driveway permit. Consider that, in most cases, if expansion is proposed, both the state and the borough must be contacted to confirm whether a permit is required and/or needs to be updated. For driveway permits within the borough accessing borough-owned/maintained roadways, please get in touch with the MSB Permitting Center at (907) 861-7822.

State is not showing a diveway permit on file, but you're working with State
Will block off driveway off borough road, but will maintain size for future access

i. Describe the current topography of the subject parcel and whether drainage issues exist or flooding occurs. For new construction, describe any significant changes to grading that may affect water run-off/drainage. Site plans must include contour lines with elevation and arrows depicting drainage throughout the entire parcel.

No current flooding, dug down 17 ft for sewer and never hit water, previous owner contoured the property so that drainage goes northeast into state culvert system.

Built it and didn't change topography. Installed a pad for patio. Slab on grade and maintains previous drainage. No site plan exists with topography.

j. Describe measures to mitigate any potential negative effect upon other properties in the area due to such factors as dust, noise, obtrusive advertising, and glare, such as the use of buffers, planted berms, landscaping, reduction or elimination of obtrusive or garish signage or other features, lowered building elevations, and site and building design features.

Continue to operate the way they have for 65 years, will put up a fence on the west side down to the lake. Any area where alcohol is served will be fenced and not observable by public.

Material, chain link with wood slats

Will observe normal quite hours

Owned for 5 years, has had zero complaints

No flashy signs, will maintain steady signage

Will get rid of ugly outbuildings

Will do enhanced landscaping to get rid of weeds

2. Please update the site plan/s to depict the following information. Page 3 of the application contains the items necessary for a complete site plan:
   a. A drainage plan is required. Show the direction of proposed drainage on the subject property. Contours and arrows can be used in conjunction on a separate plan sheet as necessary.

Draw to scale with direction arrows the direction water will flow to the northeast retention pond

b. Vehicular and pedestrian circulation patterns as related to the proposed access points from Knik Goose Bay Road and Northshore Drive.

I provided a map example showing vehicular circulation. Apply this concept to your plan, be sure to show that the Borough road driveway is blocked off.

c. Fencing is depicted on the site plans. However, the construction type is not described in the narrative, and it is unclear whether the proposed fencing is for privacy, security, or to reduce visual effects to the surrounding parcels.

All 3

d. Ensure that advertisement signage and lighting locations are depicted on the site plans.

draw and submit

e. ADA-compliant spaces must be included in the site plans depicting their locations.

Have this based on the plan you emailed me today

If you have any additional questions, please feel free to contact me by phone at (907) 861-8527 or email at rick.benedict@matsugov.us. Upon receipt of the requested information and a complete application determination, our office will conduct the required public notice process and schedule a public hearing before the Planning Commission.

Sincerely,

Rick Benedict, Current Planner
Development Services Division
Matanuska-Susitna Borough

Attachments:
Application for a Conditional Use Permit – Regulation of Alcoholic Beverage Uses MSB 17.70

UNITED STATES POSTAL SERVICE®

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Up to 1,000 pieces (1 certificate for total number)

For each additional 1,000 pieces, or fraction thereof

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Acceptance employee must cancel postage affixed (by round-date) at the time of mailing.

If payment of total fee due is being paid by Permit Imprint, include the PostalOne! Transaction Number here: _____

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18	1st	☐ Verified	45

Total Number of Pounds	Total Postage Paid for Mailpieces	Fee Paid
4. 2oz		$13.50

Mailed For	Mailed By
Permit Center	Betty Jean Black



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It is hereby certified that the number of mailpieces presented and the associated postage and fee were verified. This certificate does not provide evidence that a piece was mailed to a particular address.

(Postmaster or Designee)

Knik Landing

1474000L004 1
TUCKER WILLIAM JAY
TUCKER JOANN M
10360 S KNIK GOOSE BAY RD
WASILLA, AK 99623-8806

7186000L004 2
REDINGTON LISA
KELSAR JAMES
11019 W NORTHSHORE DR
WASILLA, AK 99623

6166000L013 3
KIMPTON ROBERT
11020 W NORTHSHORE DR
WASILLA, AK 99623

6166000L007 4
BUCHANAN JONATHAN & BETH
11242 W NORTHSHORE DR
WASILLA, AK 99623

6166000L012 5
ARCTIC ACRES LLC
1530 OXFORD DR
ANCHORAGE, AK 99503

16N03W24D009 6
KNIK INDUSTRIES LLC
1730 JAIME MARIE CIR
WASILLA, AK 99654

6360B01L007 7
ROSE RAYMOND P & DANYA M
26232 MONDON HILL RD
BROOKSVILLE, FL 34601-5409

1474000L005 8
DICKERSON SCOTT D
2855 SCENIC DR
CHIPLEY, FL 32428-3485

7186000L002 9
MARQUEZ DAWN L EST
389 GRIER AVE
% DEBRA L HEUPEL PER REP
LEAD, SD 57754

6166000L008 10
NOVELLI BRAD & PERSI LVG TR
7583 E ASPEN RIDGE RD
WASILLA, AK 99654

16N03W24A020 11
MORMILE DON & CATHERINE
PO BOX 3566
PALMER, AK 99645-3566

7186000L003 12
PITCHER JAMES & FLORENCE
PO BOX 60009
FAIRBANKS, AK 99706

6166000L010 13
LUND CHRISTOPHER P
PO BOX 6121
JBER, AK 99506

7186000L001 14
BROKEN BOAT LLC
PO BOX 874893
WASILLA, AK 99687

6360B02L002 15
O'NEIL WILLIAM & KATHRYN
PO BOX 877149
WASILLA, AK 99687-7149

6166000L011 16
WHISENAND SHAWN & BRIDGETTE C
PO BOX 877303
WASILLA, AK 99687-7303

7186000L005 17
POHL ANDREW
PO BOX 879005
WASILLA, AK 99687

CC 18
KNIK FAIRVIEW COMMUNITY COUNCIL
PO BOX 879434
WASILLA, AK 99687

Matanuska-Susitna Borough
Development Services Division
350 E. Dahlia Avenue
Palmer, Alaska 99645

TOTAL 18

The Matanuska-Susitna Borough Planning Commission will consider the following:

Douglas Massie for Knik Landing / Knik Bar and Liquor Store, submitted an application for a conditional use permit under MSB 17.70 – Regulation of Alcoholic Beverage Uses, to expand a pre-existing use of a beverage dispensary license. The site is located at 10204 S. Knik Goose Bay Road, Tax ID #7186000L001; within Township 16 North, Range 3 West, Section 24, Seward Meridian.

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Name:_____ ***Mailing Address:***_____

Location/Legal Description of your property:_____

Comments:_____

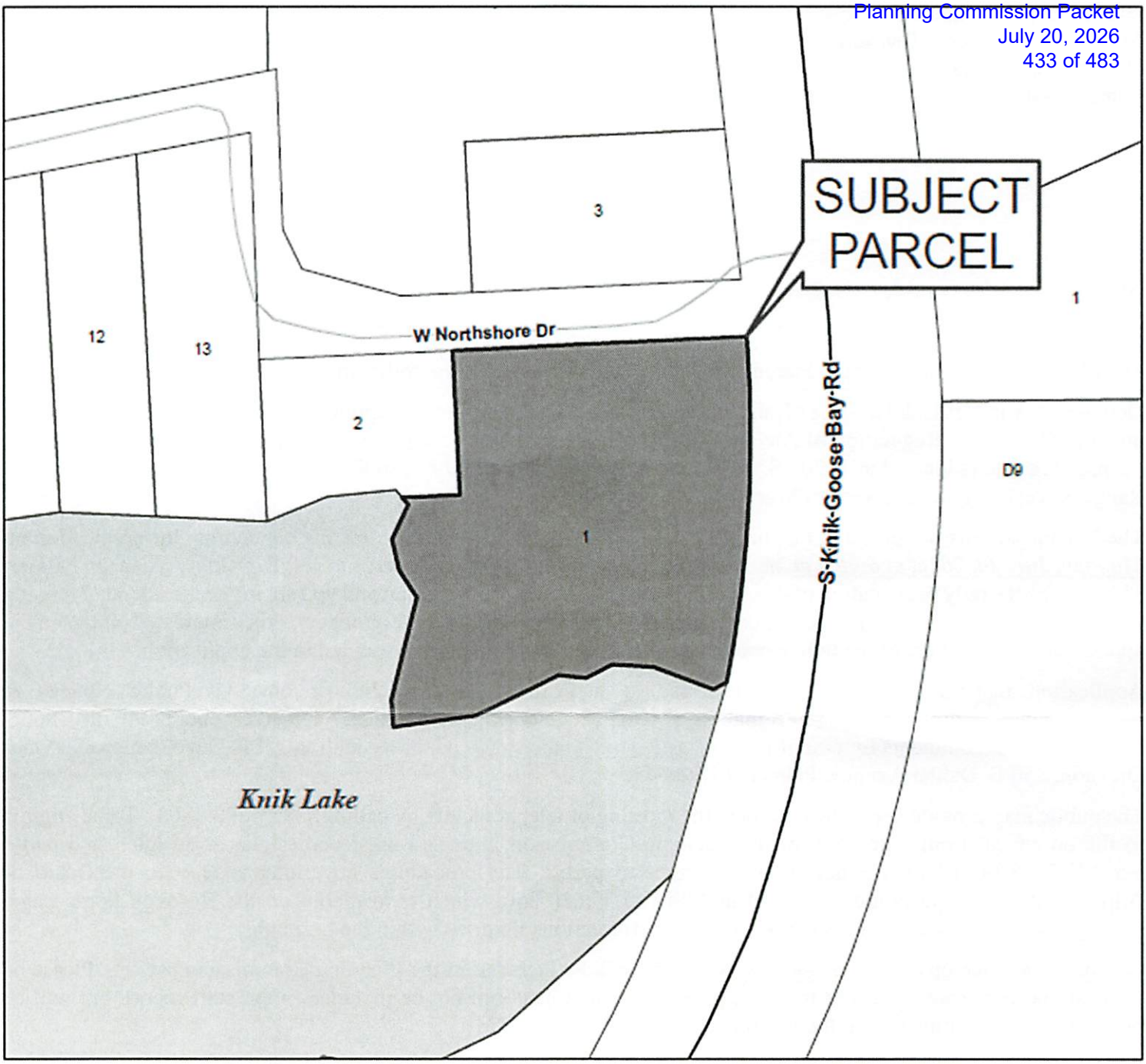
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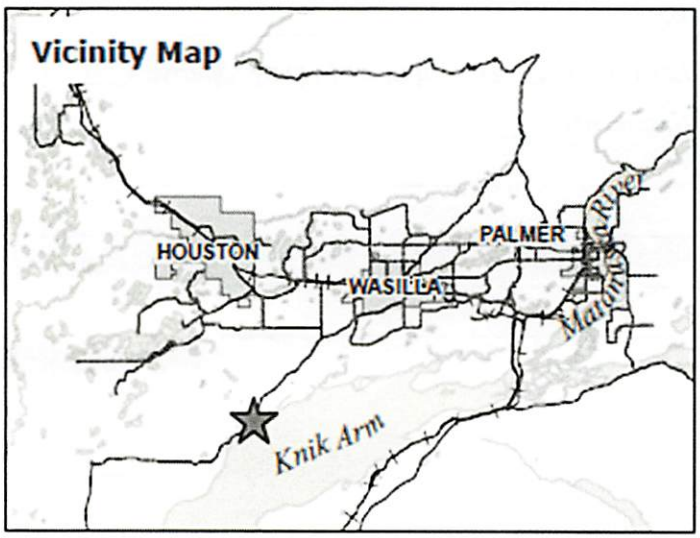
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Note: Vicinity Map Located on Reverse Side



7186000L001

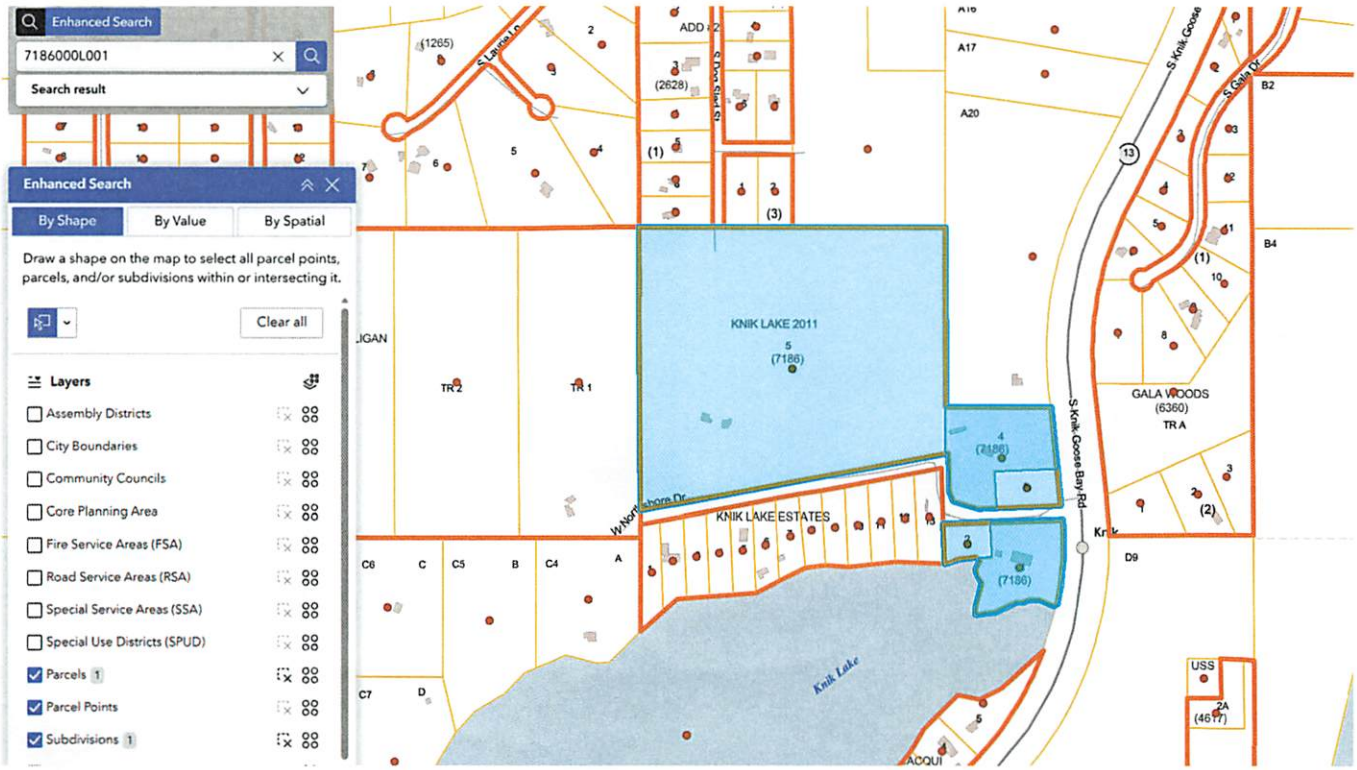


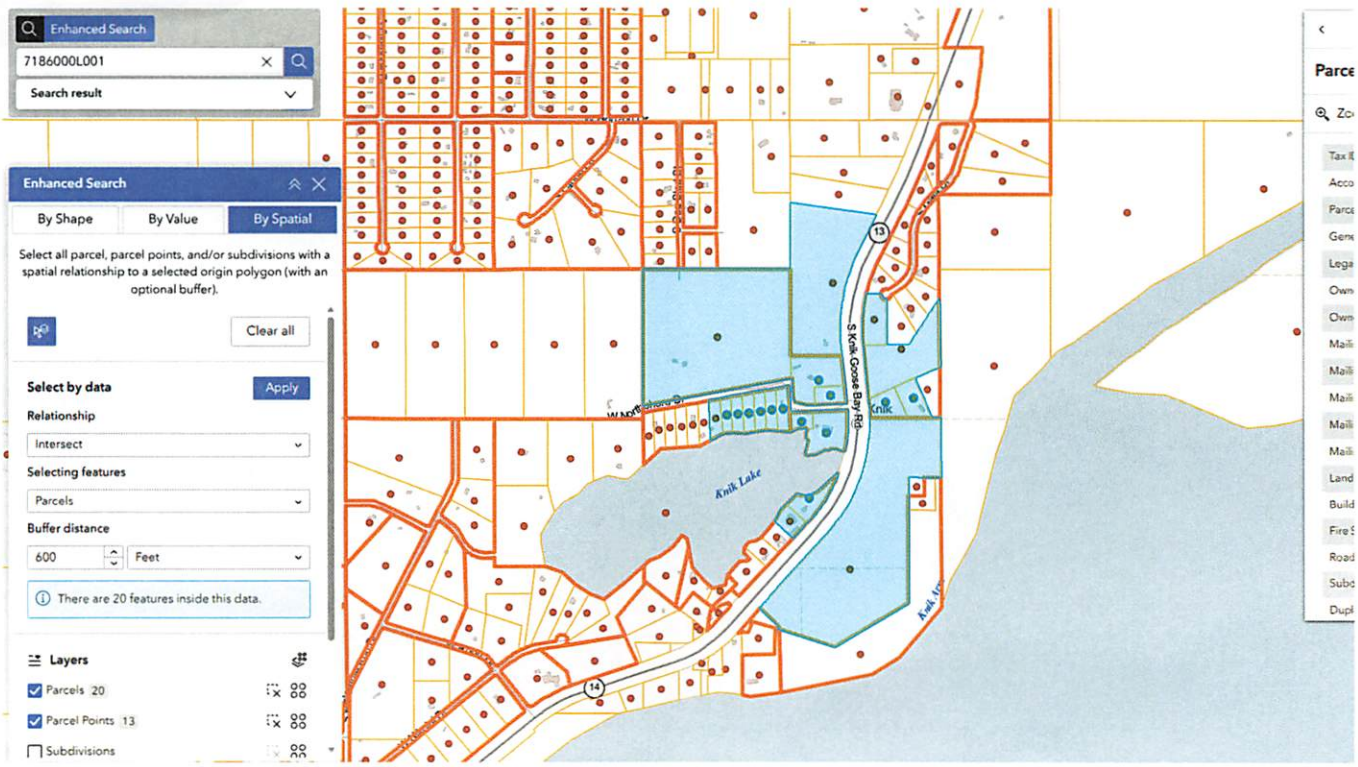
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MSB Information Technology/GIS
March 05, 2026

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Enhanced Search
7186000L001
Search result
Enhanced Search
By Shape
By Value
By Spatial
Draw a shape on the map to select all parcel points, parcels, and/or subdivisions within or intersecting it.
Clear all
Layers
Assembly Districts
City Boundaries
Community Councils
Core Planning Area
Fire Service Areas (FSA)
Road Service Areas (RSA)
Special Service Areas (SSA)
Special Use Districts (SPUD)
Parcels 1
Parcel Points
Subdivisions 1
KNIK LAKE 2011
5
(7186)
KNIK LAKE ESTATES
GALA WOODS
(6360)
TR A
S Knik Goose Bay Rd
Knik Lake
USS
(4677)


Enhanced Search
7186000L001
Search result
Enhanced Search
By Shape
By Value
By Spatial
Select all parcel, parcel points, and/or subdivisions with a spatial relationship to a selected origin polygon (with an optional buffer).
Clear all
Select by data
Apply
Relationship
Intersect
Selecting features
Parcels
Buffer distance
600
Feet
There are 20 features inside this data.
Layers
Parcels 20
Parcel Points 13
Subdivisions
S Knik Goose Bay Rd
Knik Lake

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Name: Don Roseveare ***Mailing Address:*** P.O. Box 877817 Wasilla 99687

Location/Legal Description of your property: 16N 3W 24C7 11852 W. Northshore

Comments: Lack of Parking, Construction ~~did~~ did not follow Borough Lake set back guidance

RECEIVED
MAY 29 2026
PERMIT CENTER

Matanuska-Susitna Borough
Development Services Division
350 E. Dahlia Avenue
Palmer, Alaska 99645

1474000L004 1
TUCKER WILLIAM JAY
TUCKER JOANN M
10360 S KNIK GOOSE BAY RD
WASILLA, AK 99623-8806

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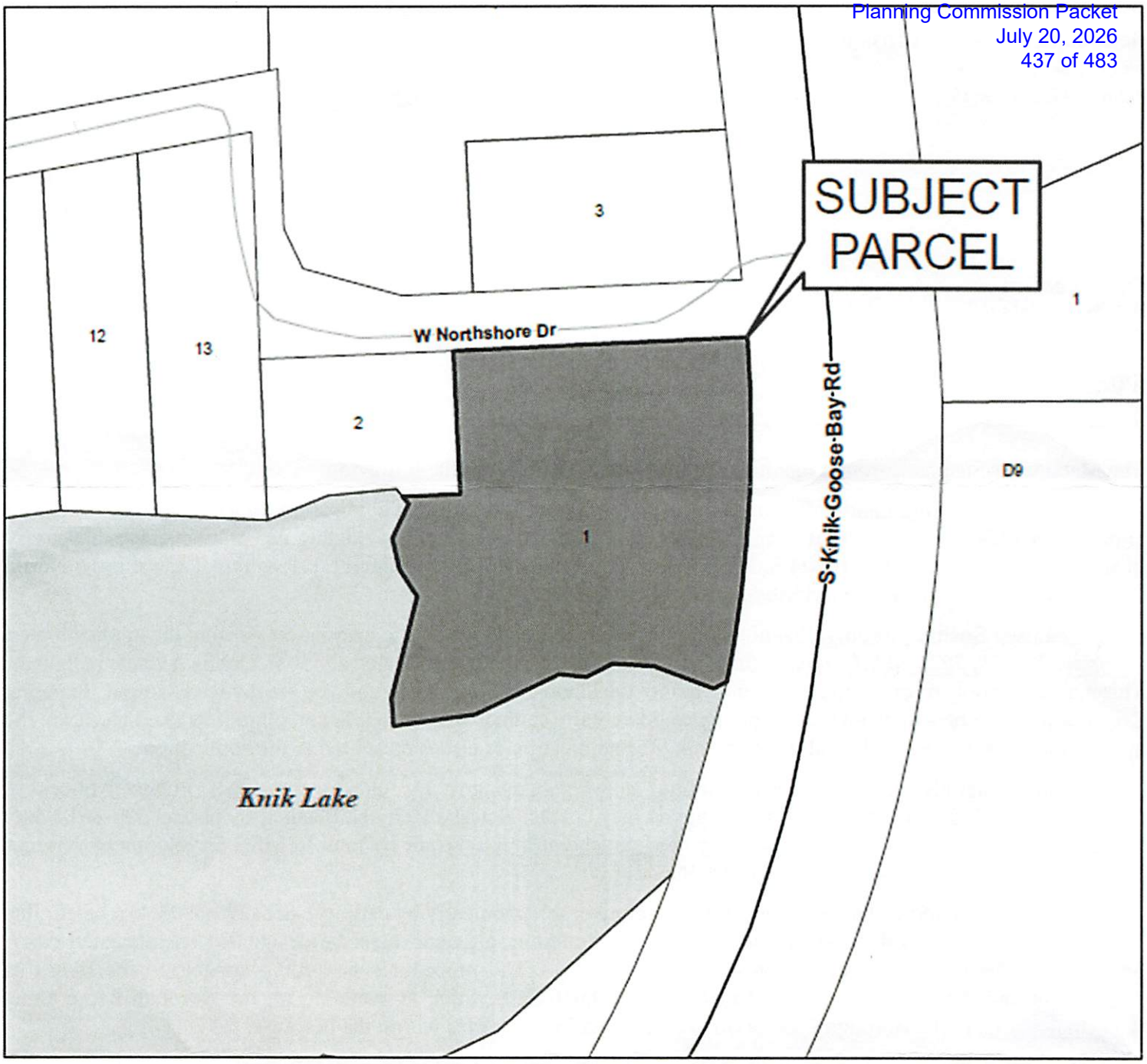
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Name: William & Joann Tucker ***Mailing Address:*** 10360 S Knik Goose Bay

Location/Legal Description of your property: Lot 4 Jacqui Subdivision

Comments: See Attached and

Note: Vicinity Map Located on Reverse Side



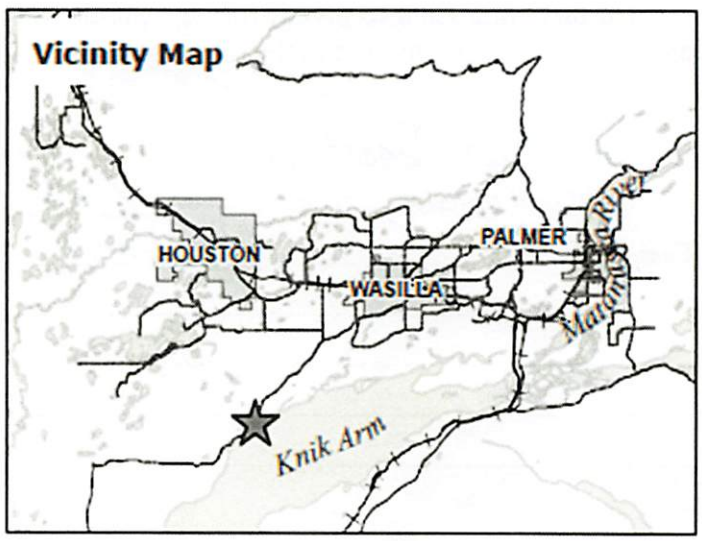
7186000L001

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MSB Information Technology/GIS
March 05, 2026

0 1,000 Feet

N



Knik bar Permitting

Lot # 4 Jacque sub division
10360 S. Knik goose bay rd.
Wasilla,Ak 99623

Knik is a 55 acre residential lake .The Knik Lake,Lake management plan covers several of the reasons why we decided to purchase our primary residency on Knik Lake.
The concerns we have for this new permitting of the Knik bar are
-Noise , music , voices the reverberation and echoing across the lake
-traffic will increase
300 capacity,Non adequate parking. Drinking and driving on One of most dangerous roads in Alaska. Knik Goose Bay.
-Glare blinding light that shine across lake

The impact on lake itself, the impact of the wildlife and the decrease in property values of surrounding area.

Thank you for your attention in this matter

William Tucker

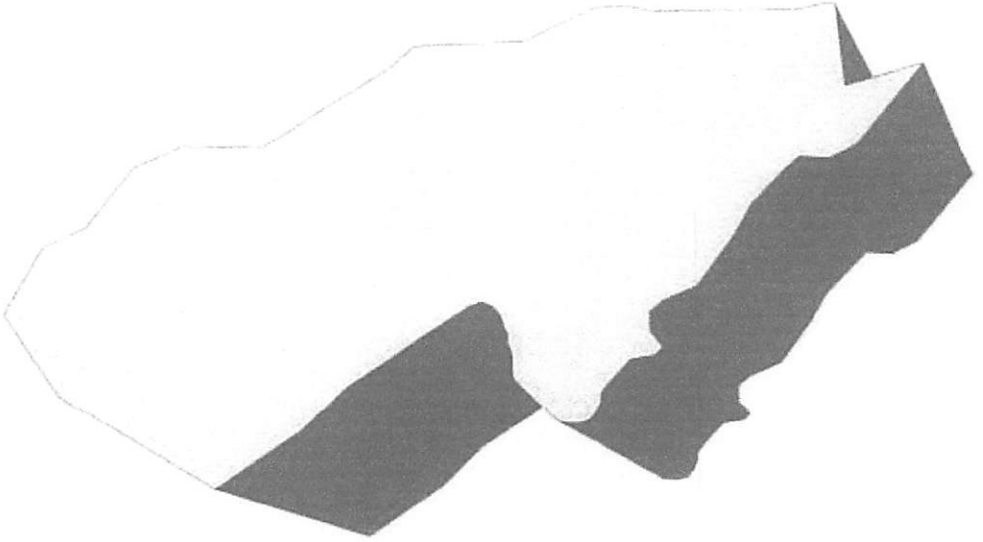
Joann Tucker

1995

KNIK LAKE, LAKE MANAGEMENT PLAN

MATANUSKA-SUSITNA BOROUGH
PLANNING DEPARTMENT

ADOPTED
AUGUST 15, 1995



The Knik Lake, Lake Management Plan is dedicated to Trader Ed (Edward R. Shepard), a lifelong resident of the Knik community and the individual who initiated the efforts to develop this plan so that the wildlife and recreational values of Knik Lake would be protected for future generations.

1 Introduction

1.1 Purpose

Lake management plans are developed for a variety of purposes. Most often lake front property owners request management plans because increased development or the provision of new public access brings about increased lake usage and a corresponding increase in user conflicts. As more people use a lake conflicts among users may occur, bird nesting sites (especially loons and grebes) may be disturbed, environmental degradation may occur and the overall quality of the experience may decline. The most often cited complaints are noise generated from watercraft during the evening and night hours and inappropriate use of public access points. A lake management plan seeks to present policies and strategies which attempt to balance the various demands placed upon a lake, solve lake related problems, and protect the public health, safety and welfare.

The Knik Lake Management Plan provides management guidelines for:

- The protection of the residential quality of life at Knik Lake; and
- The continued recreational enjoyment of Knik Lake; and
- The protection of Knik Lake's water quality; and
- The provision of controlled and maintained access; and
- The protection and enhancement fish and wildlife; and
- The protection of the public health, safety and welfare.

1.2 Process

Lake management plans are typically initiated by individuals having concerns about a particular lake or who have experienced conflicts between user groups. These individuals request that the Planning Department of the Matanuska-Susitna Borough complete a lake management plan. With the advice of the Planning Commission which is vested with planning authority in the Borough, the Department collects background information on the lake and contacts adjacent property owners and users to participate in the planning process.

Meetings are held with adjacent property owners and users to: 1) identify any problems that may exist, 2) develop recommended alternatives, and 3) consider methods of implementing the recommendations. A draft plan is then developed and a public comment period is held to solicit comments on the draft plan. After

2.2 Land Ownership

There are 36 lots within the Knik Lake planning area (see Table 1). The majority of the land adjacent to Knik Lake is privately owned. The Borough owns only one lot with lake frontage (see Figure 2).

Table 1
Land Ownership and Parcel Size

	Mat-Su Borough	Kniknatu	Private
Number of Parcels	3	2	31
Total Acreage			
Average Parcel Size	N/A	N/A	
Smallest Parcel Size			
Largest Parcel Size			

N/A = Not Appropriate due to small sample size.
Note: Sample consists of shoreline properties only.

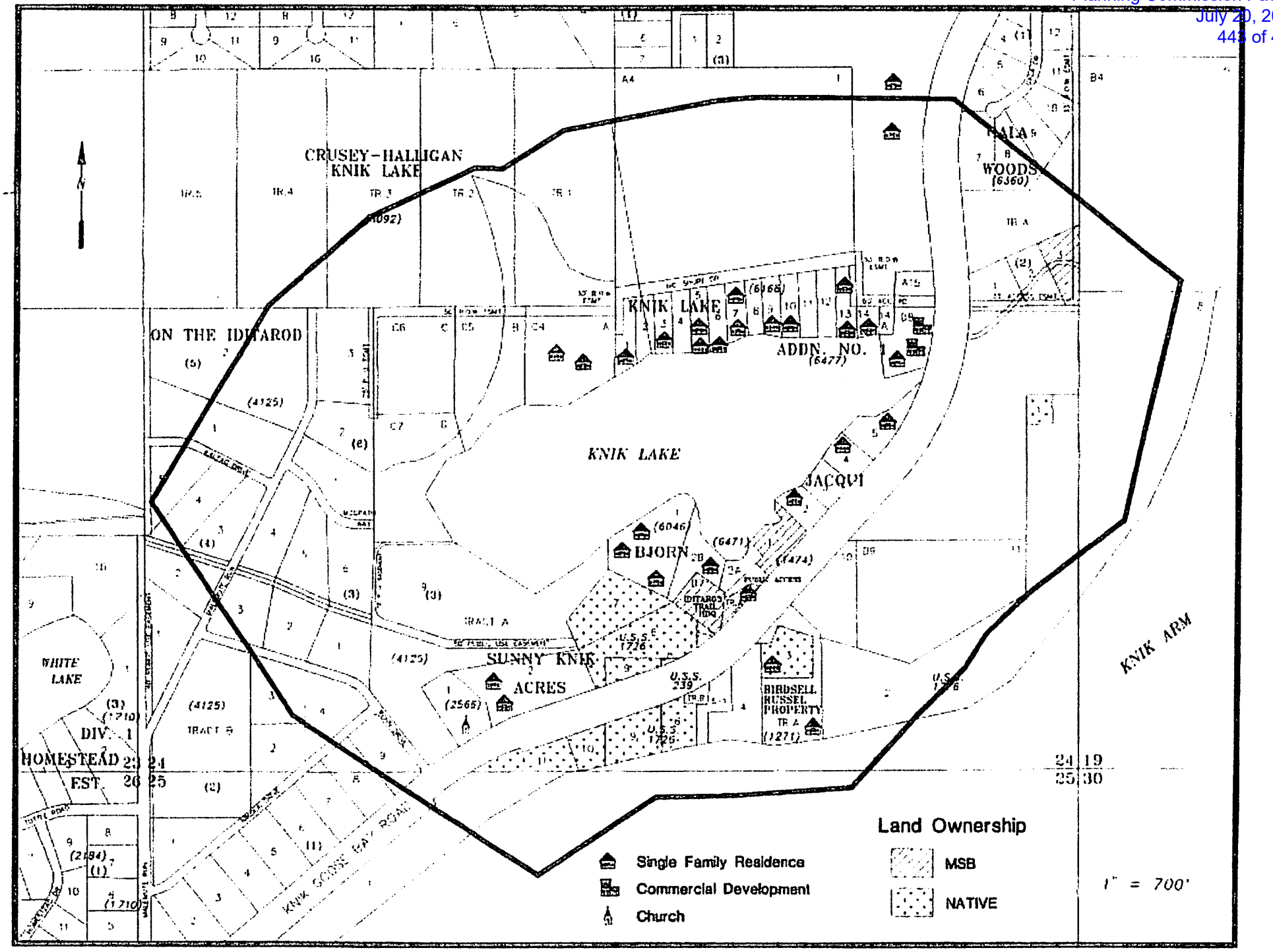
2.3 Existing Plans

State

The State plan affecting the Knik Lake area is the Willow Sub-Basin Plan. The Willow Sub-Basin Area plan, adopted in October 1982, contains management intent for State and Borough lands within the Willow Sub-Basin, an area of approximately 1,500 square miles. Knik Lake is located within the Knik management unit. Generally speaking, the plan's intent for public lands within the management unit is to encourage their use for settlement, protection of the Iditarod Trail and provision of stream buffers for Goose and Fish Creeks. Since there is only one publicly owned lot near Knik Lake, the plan's direct impact on this management plan is negligible.

Borough

Borough plans that address Knik Lake in some manner include the Borough-wide comprehensive plan, adopted in 1971; the Matanuska-Susitna Borough Coastal Zone Management Plan, as amended; the Knik/Fairview comprehensive plan which is presently being developed and the Borough wide Long Range Transportation and Public Facilities plans.


CRUSEY-HALLIGAN
KNIK LAKE
TR 5
TR 4
TR 3
TR 2
TR 1
(4092)
ON THE IDITAROD
(5)
(4125)
(6)
(4)
(3)
KNIK LAKE
ADDN. NO. 1
(6477)
(6366)
KNIK LAKE
(6046)
BJORN
(6471)
(6474)
IDITAROD TRAIL
TRACT A
(4125)
SUNNY KNIK
ACRES
(2566)
U.S.S. 1716
U.S.S. 239
U.S.S. 1726
BIRDSELL RUSSEL PROPERTY
TR A
(1271)
WOODS
(6360)
TR A
(2)
JACQUI
KNIK ARM
WHITE LAKE
(3)
(1710)
DIV. 1
HOMESTEAD
EST.
(4125)
TRACT B
(2)
(2184)
(1)
(1710)
KNIK GOOSE BAY ROAD
24 19
25 30
Land Ownership
Single Family Residence
Commercial Development
Church
MSB
NATIVE
1" = 700'

include: public safety (fire protection, emergency medical services, and emergency preparedness); library; historical preservation; governmental administration; education; parks, recreation and open space; trails; and utilities.

2.4 Existing Regulations - Public

This section describes the principle regulations affecting use and development in the Knik Lake area. This section is **NOT** meant to provide an all encompassing description of all activities and uses that require permits or approvals from local, state or federal agencies. Prior to undertaking any development activity, individuals should contact the appropriate local, state and federal agencies and obtain the required permits and approvals.

Federal

Any work which results in the dredging or placing of structures or fills in tidal (ocean) waters, streams, lakes or wetlands requires a 404 permit from the U.S. Army Corps of Engineers.

Migratory birds, which include loons and grebes, are protected by the Migratory Bird Treaty Act. The Act, among other things, prohibits the "take" of migratory birds where "take" is defined to mean pursuing, killing, etc., migratory birds. Destruction of nest sites, eggs or the birds themselves is a violation of the Act.

State

The Alaska Department of Environmental Conservation (DEC) provides regulations for waste water disposal. DEC waste water/septage regulations [18 AAC 72,015(f)] state that no holding tank, septic tank, soil absorption system, seepage pit, privy or other waste water collection, treatment, or disposal system may be within 100 feet, measured horizontally, of the mean annual high water level of a lake, river, stream, spring, slough, or the mean higher high water level of coastal waters.

In addition to the U.S. Army Corps of Engineers 404 permit requirements, any activity within streams and certain work within lakes requires a Title 16 permit from the Department of Fish and Game. Activities which result in the construction of a dam which impounds water or places a weir, culvert or temporarily blocks a stream requires a Title 16 permit. In February, 1994 the Habitat and Restoration Division of Fish and Game issued a one year, general permit allowing the vehicle movement on frozen water surfaces in southcentral Alaska. The permit allows certain motorized vehicles less than 2,000 pounds gross vehicle weight and wheeled vehicles less than 10,000 pounds gross vehicle weight to travel upon frozen water surfaces in southcentral Alaska without a

is 10 feet deep or less is substantial and, as expected, is near the shoreline. Due to these physical characteristics of Knik Lake, boats with large motors must perform numerous turning movements unless the engines are idled or kept at a reduced speed. A large number of turning movements will (and has) create(d) numerous wakes on the lake. Moreover, several boats with large engines performing such maneuvers or one boat performing many of these turns could create severe erosion problems.

Grebes which typically utilize floating vegetation for nests and loons which nest near the shoreline are very susceptible to disturbance and damage caused by wakes. Wakes also may harm grebe and loon chicks by either drowning them or by separating them from parents and making them easier targets for predators such as gulls and ravens. Finally, large motors generate higher sound levels than smaller ones.

Recommendation It is recommended that a limit on the size or power of boat motors be imposed due to harm to wildlife and habitat, an existing noise nuisance, shoreline erosion, and harm to the residential character of the area. The recommended limit for motors on Knik Lake is 5 horsepower. The size limit of 5 horsepower has been selected based on the physical characteristics of the lake, residential character of the area, request for quiet hours and as recommended by the area's property owners and residents.

4.3 Water Level

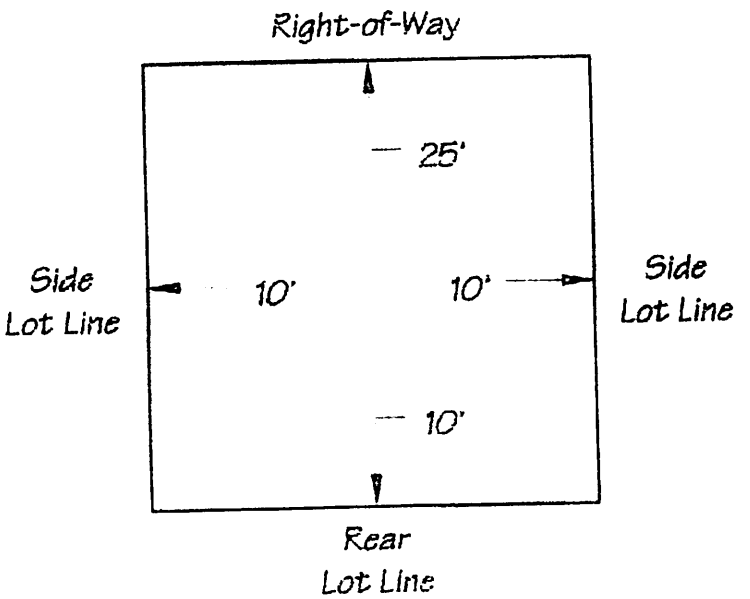
Management Issue Some property owners have reported that the lake's present water level is higher than its historical level. The higher level being caused by disturbance within an outlet located at the east portion of the lake when a natural gas pipeline was installed. As a result of the higher water level, it has been indicated that docks have become inconvenient for launching or landing boats and certain upland areas of the lake have become inundated with water. Other property owners, however, have reported that the lake is at its historic level and that no corrective action(s) are necessary.

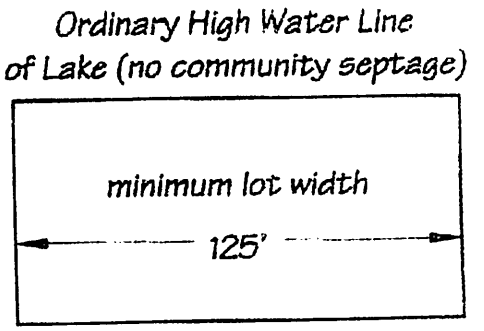
The State of Alaska, Departments of Fish and Game and Natural Resources were contacted for information on the historic water level of the lake. The agencies' personnel did not have any information about the historic water level of the lake.

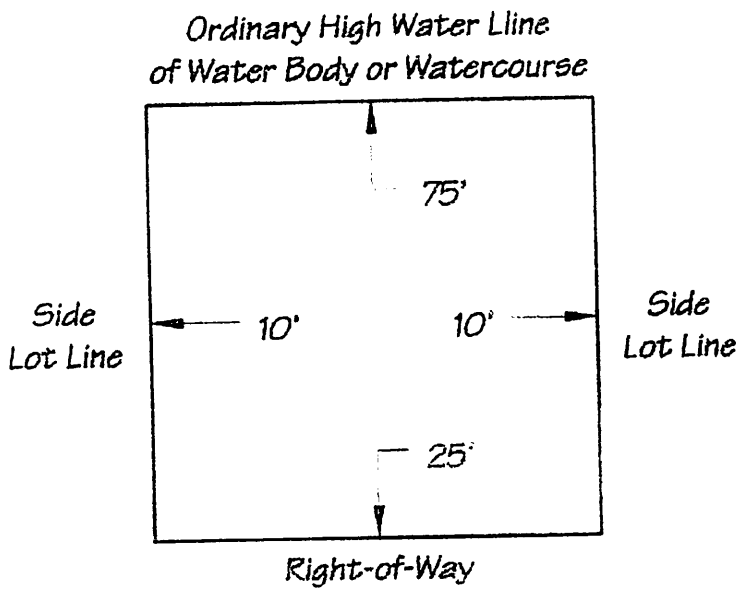
Alternatives One alternative is to let the lake remain at its current level. This alternative is very easy to implement as nothing new needs to be done. Another alternative is to modify the outlet stream in such a manner as to increase the outward flow of water until the lake reaches its historical level. This second alternative would require the placement of an outlet control structure within the outlet stream or modification of the outlet stream itself.

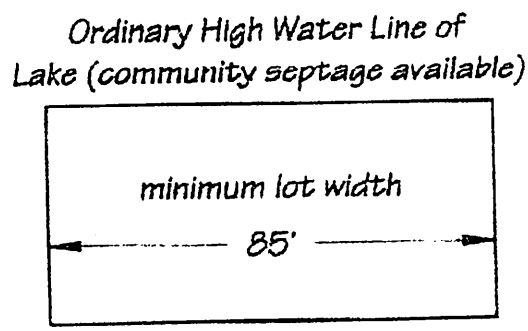
Figure 3

General Setback Requirements and Lot Size* Requirements









*All lots must be a minimum of 40,000 sq. ft.

The Borough received approximately 350,000 acres of land through the Municipal Entitlement Program. The Planning Department of the Borough manages and disposes of these lands through the policies and procedures described within Title 23. As of December, 1994, the Borough owned about 1.2 acres within the Knik Lake area (see Table 1).

Existing Regulations - Private

Private regulations which exist in the Knik Lake area consist of subdivision covenants. Only two subdivisions within the area have covenants, these being Knik Lake Estates and Jacqui Subdivision. The Knik Lake Estates covenants regulate dwelling type, provide for lot setbacks, and prohibit livestock and unsanitary conditions.

The Jacqui Subdivision covenants prohibits nuisances, temporary structures and livestock, and places restrictions on other site development such as fences and signs. For an up-to-date and complete version of these covenants, the reader is referred to the State of Alaska Recorders Office.

2.5 Present Lake Usage

Knik Lake contains 50 surface acres without coves or peninsulas and has just over 1.5 miles of shoreline (see Table 2). Figure 4 illustrates the lake's bathymetry. Trout are found in the lake and the lake contains active grebe nests.

Table 2
Knik Lake Characteristics

Surface Area	50 acres
Maximum Depth	37 feet
Mean Depth	19 feet
Shoreline Length	1.5 miles
Volume	963 acre feet

Source: State of Alaska, Department of Fish and Game

The present use of Knik Lake may be characterized as being residential. Most residents live at the lake throughout the entire year. Lake front property owners are also the predominant users of Knik Lake. They boat, swim and fish at the lake. The use of personal watercraft (jetskis) does not presently occur on Knik Lake.

Residents have indicated that the lake is used by visitors for boating and fishing. Some visitors access the lake from the Borough owned public access point located at milepost 14 at the Knik/Goose Bay Road. Some visitors have been reported to camp at the site which lacks sanitary and camping facilities and trash receptacles resulting in unsanitary conditions. In addition boats with large engines, over 15 horsepower, have used the lake for engine testing in early spring and occasionally during the summer. Boats with large engines have created erosion from wakes since the lake is small and shallow which requires a large boat to make frequent turns.

As Knik Lake is one of the early ice-free lakes in the area, it is commonly used by southcentral boaters to check their boats and motors for the upcoming season. This use of the lake has created noise and erosion problems due to effects of large boats and motors being tested on a relatively small and shallow lake. The public access point has also been utilized for overnight camping. Overnight camping has restricted the use of the public access by members of the public as the parcel is small. Litter, noise, and unsanitary conditions are also problems occurring with the unmanaged use at the public access. Finally, access to the public access parcel is by using a natural gas utility easement. Other present uses of Knik Lake include swimming by area children, trout fishing, and wildlife (grebe) viewing.

3 Goals

Goals describe the future expectations of residents, property owners, and users for a lake. The following goals reflect the aspirations of Knik Lake residents, property owners, and users and address their principal concerns: water quality, access, wildlife, recreation, and the residential character of the area. The goals are not shown in priority order as they are interdependent.

3.1 Water Quality

Knik Lake is a significant natural resource and it is the desire of property owners, residents and users of Knik Lake to maintain or improve the lake's water quality.

The water level of Knik Lake should be maintained at its natural level.

3.2 Recreation and Residential Character

The variety of recreational opportunities offered by Knik Lake should be maintained and enhanced but suited to the lake's particular characteristics and should not detract from the residential quality of the lake.

Prior to placing the structure in the stream several steps are required. The first step is obtaining a consensus from the lake's adjacent property owners that the lake's level should be lowered. Other steps that need to be accomplished include obtaining the necessary permits and reviewing the impacts of a lower water level on property setbacks. For example, a permit from the Alaska Department of Fish and Game is required to work within the stream as well as place the structure in it. Also, a water right may be required from the Alaska Department of Natural Resources. Additionally, the impact of the new water level must be reviewed in terms of positive impacts on Department of Environmental Conservation and Matanuska-Susitna Borough setback requirements for waste water systems and structures, respectively.

A final alternative is to perform limited redesign of the outlet channel. The redesign would increase outlet flow yet provide for fish passage. This alternative, which is preferred by the State of Alaska, Department of Fish and Game, is the least costly and less environmentally disruptive alternative.

Recommendation It is recommended that a review of the need for, and impacts of, lower water levels on property and structures, e.g., docks, be performed. After completing this review, and should the review indicate no negative impact, permit applications should be filed with the necessary agencies to redesign the outlet channel in order to bring the lake lower it to its historical level.

4.4 Access

Management Issue Presently the legal and physical overland access to Knik Lake is provided by a business having a launch and over Borough land. Access to Knik Lake is necessary for recreation purposes. Access must also be provided to the lake to fulfill the state's legal requirement of providing public access to a public water body. The public's access over Borough land has created problems, such as, overnight camping, litter and unsanitary conditions. To use the Borough parcel one must utilize the natural gas line easement which was not developed for vehicular traffic.

Alternatives Legal and physical overland access is necessary for Knik Lake in order to comply with Borough and State regulations. The privately owned public access point does not present any concerns or problems because the commercial establishment manages the access point.

In regards to the Borough owned parcel, three alternatives present themselves: 1) do nothing, 2) sell the parcel, or 3) actively manage the parcel. The first alternative must be discarded because the lack of management at this access point is the primary reason residents and property owners requested a lake management plan for Knik Lake. Moreover, doing nothing would allow environmental

caused by motorized craft may destroy the nest or wash away the eggs. In addition to damaging a nest, activities occurring too close to a nest will cause loons to leave an active nest thereby allowing predators such as gulls and ravens to eat the unprotected eggs or chicks. Discarded mono-filament line presents another threat to loons and other birds as it may entangle birds and chicks and ultimately kill them through starvation predation, or by drowning.

Alternatives If nothing is done to inform lake users of the sensitivity of loons and grebes to water borne activities and development, active nests will not be found on Knik Lake in the future. In order to maintain the presence of loons at the present nest site it is necessary that some proactive steps be implemented.

Recommendations Most individuals will not disturb a nest site if they are informed of its location and the proper behavior when near it. It is recommended that a number of techniques be employed to provide the public with information about loons and grebes. First, existing nests where regular loon or grebe nests have occurred should be encircled by a number of buoys marked with "Loon (or Grebe) Nesting Site - Do Not Approach" placed at least 150 feet (200 feet preferred) from the nest's boundary. Appendix #2 provides an illustration of a low cost, effective buoy. Loon and grebe alert notices and general information about loons should be posted at a weather protected signboard at the lake's access point to inform the public about proper "loon or grebe etiquette" (see Appendix #2).

5.0 Implementation

Plans may be implemented in a number of ways but are typically implemented through capital improvement programs and subdivision and zoning ordinances. Within the Borough, residents may also petition for motorized use restrictions on lakes and this ordinance may be used to implement a lake management plan. This ordinance was discussed by Knik Lake property owners and found not to be needed at this time. Plans may also provide for private implementation through public information campaigns and a list of best management practices that may be used by the public. The problems facing Knik Lake at this time do not warrant a special zoning or subdivision ordinance nor do they warrant implementation of the Borough's motorized use of lakes ordinance. Therefore, this plan will utilize a combination of capital improvements, public information and best management practices to implement the plan. In addition should a Lake Management ordinance[1] be adopted containing a general provisions section that

[1] Note: Due to the diversity of lakes in the Borough and the many requests for lake management plans and guidelines that have been received, a Borough-wide ordinance consisting of a general provisions section containing rules for all lakes, e.g., don't litter and a more specific provisions section containing several lake categories with different guidelines ranging from none to several is being considered.

throughout the Borough. Firework displays create two problems, noise from explosions and trash from the fireworks. Firework displays may also start forest fires. The Borough does not have the resources to actively police the illegal use of fireworks and such use is a low priority for the Alaska State Troopers. However the Borough should advise property owners of the law and inform them, by correspondence, to be considerate of their neighbors, avoid polluting the lake with debris and avoid forest fires and disturbance of waterfowl.

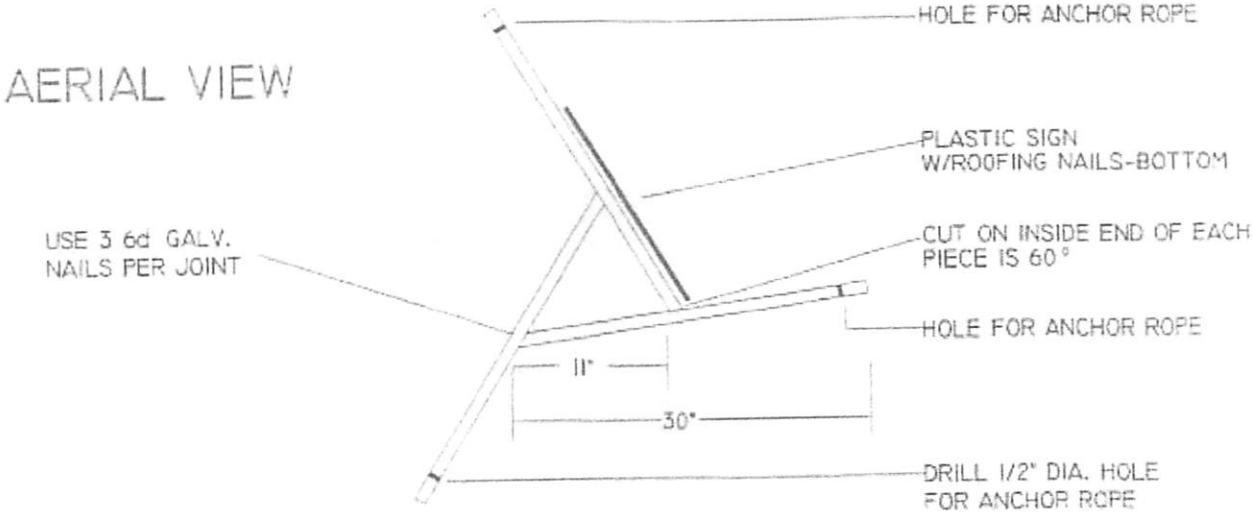
Loons and Grebes To protect loons and grebes it is recommended that buoys should be placed a minimum of 150 feet (200 feet preferred) around the island to inform lake users of the nest site. Appendix #1 provides information on buoy construction and placement. Finally, a weather protected informational signboard should be constructed at the preferred access point and information about lake usage and proper behavior near active loon nests e.g. "Loon (or Grebe) Alert!" The Knik area residents and property owners and Borough should cooperate in implementing the loon and grebe protection program.

Enforcement Violation(s) of the management guidelines described within the Implementation Section of this plan should be subject to citations and the remaining remedies that exist for violation of the Borough motorized use of waterbodies ordinance (17.58).

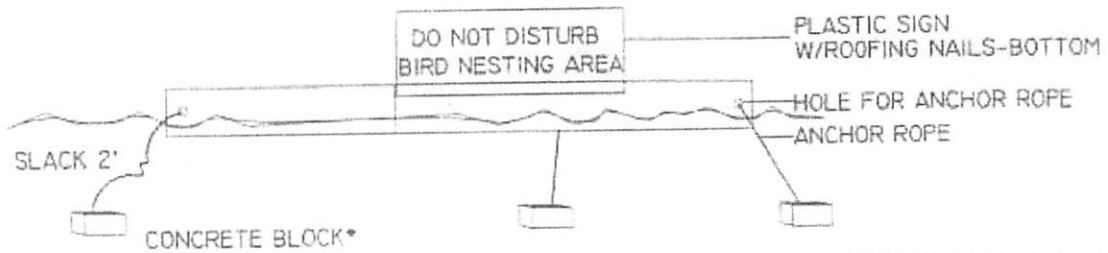
SIGN FLOAT FOR LOON NESTS

(NOT LIKELY TO TURN OVER
IN THE STRONGEST WIND)

AERIAL VIEW

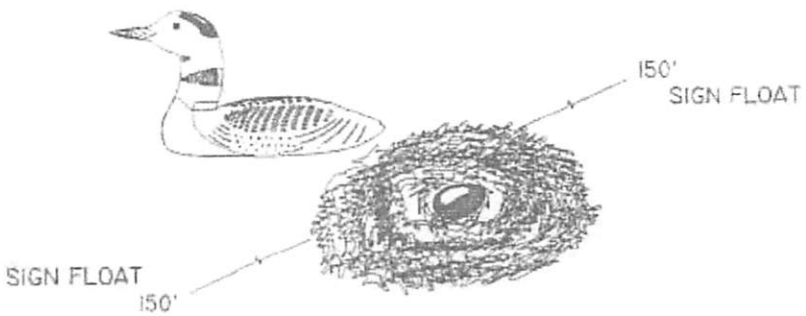


VIEW FROM WATER



*GALLON MILK JUGS FILLED WITH SAND
COULD REPLACE CONCRETE BLOCKS

NEST



MATERIALS LIST

3 - 1"x 4"x 30"
WHITE PINE OR
NO. WHITE CEDAR

9 - 6d .GALV BOX NAILS

5 - 1" ROOFING GALV. NAILS

1 - LOON SIGN

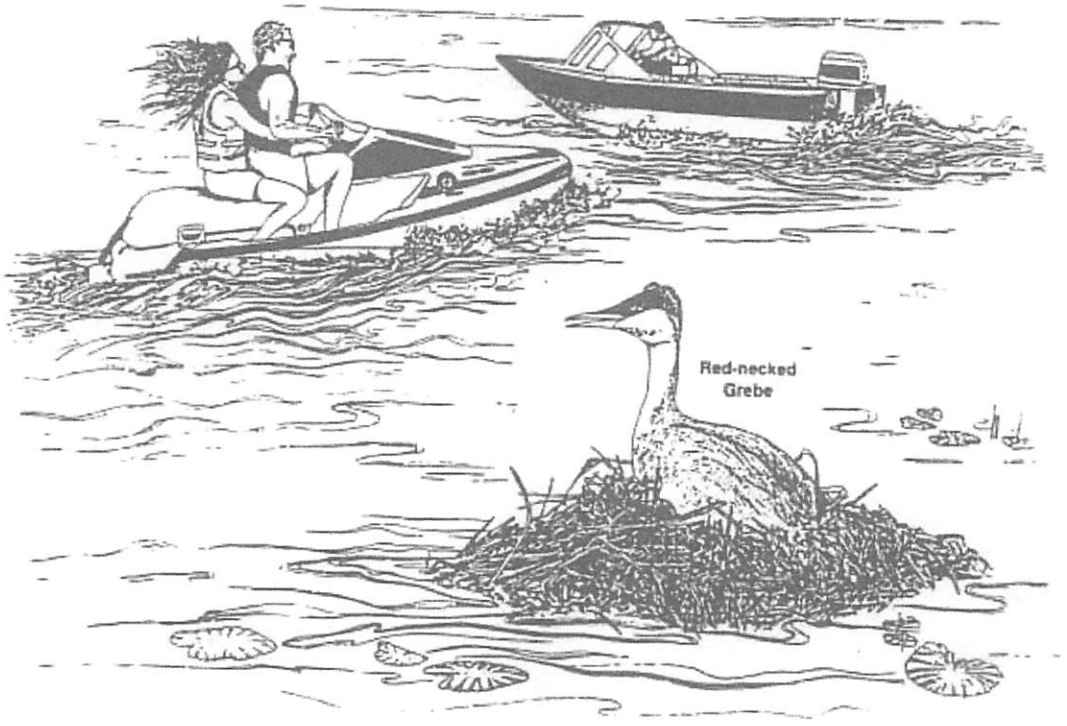
2 - 3 CONCRETE BLOCK *
FOR ANCHORS

ENOUGH 1/4" NYLON ROPE
TO REACH BOTTOM OF LAKE
FOR ANCHOR

The platforms should be attached with two anchors a minimum of 150 feet from the nest (more, if needed to avoid disturbing the loons) and be clearly visible, yet not be a boating hazard. Signs should be removed after nesting is completed (usually by mid-July) each year to preserve there use. Signs should be stored over the winter in a dry area.

DESIGNED BY:
HERB CELLEY/PO BOX 318 TURTLE POINT BOWLAKE, NORTHWOOD, N.H. 03261
ENHANCED BY:
MATANUSKA-SUSITNA BOROUGH SUPPORT SERVICE 745

STEER CLEAR!



BOATERS **– Stay at least 100 feet away from nesting Red-necked Grebes.**

Grebes are duck-sized birds that nest on floating vegetation and debris in shallow water.

Wakes from watercraft will destroy their nests and kill their eggs and chicks.

Go slowly along shorelines and avoid nesting areas.

– HELP PROTECT ALASKA'S WILDLIFE –

Wildlife harassment is illegal. Report violations to Fish and Wildlife Protection (State Troopers) or call (800) 478-3377.

This sign was produced by a grant to the Alaska Watchable Wildlife Trust Fund, c/o Alaska Conservation Foundation, 430 W. 7th Avenue #215, Anchorage AK 99501 (907) 276-1917.

POSTED BY ALASKA DEPT. FISH AND GAME

Concerns of knik lake

From Jay And Joanna <tucksigloo@gci.net>
Date Sun 6/14/2026 10:41 AM
To Wade Long <wade.long@matsugov.us>

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

Knik bar Permitting

Jay and Joanna Tucker
Lot # 4 Jacque sub division
10360 S. Knik goose bay rd.
Wasilla,Ak 99623

Knik Lake,lake management plan is dedicated to Trader Ed (Edward R. Shepard), a lifelong resident of the Knik community and the individual who initiated the efforts to develop this plan so that wild life and recreational values of Knik lake would be preserved for future generations.
Knik is a 55 acre ,5 horsepower residential lake The Knik Lake,Lake management plan covers several of the reasons why we decided to purchase our primary residency on Knik Lake.
The concerns we have for this new permitting of the Knik bar are
-The original culvert maintaining lake level existed on the north west side of the old/original Knik bar had apparently collapsed. The current Knik Bar owner has dug a ditch for drainage on the east side of bar that was intended for runoff of KGB road not to maintain level of lake. A Weir should have been installed to maintain level of lake.
-the Noise and music , voices
the reverberation and echoing across the lake
-traffic will increase
300 capacity,Non adequate parking. Drinking and driving on One of most dangerous roads in Alaska. Knik Goose Bay.
-Glare blinding light that shine across lake

The impact on lake itself including lake level integrity , the impact of the wildlife and the decrease in property values of surrounding area. We have many more pictures if needed

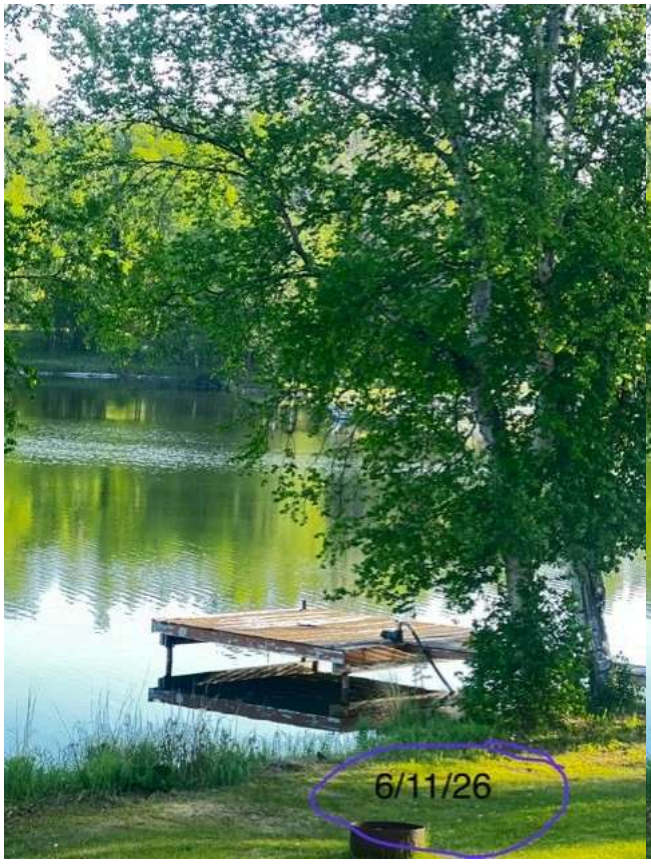
Thank you for your attention in this matter

William Tucker

Joann Tucker

Also our next door neighbors
Tony and Dawn Rosario
have the same concerns


07/04/2020


6/11/26


6/11/26









Sent from my iPhone

Re: Knik bar/Knik Lake

From Wade Long <Wade.Long@matsugov.us>
Date Thu 6/25/2026 8:57 AM
To Jeff Jenkins <akproenergy@mtaonline.net>

Mr. Jenkins,

Thank you for this report. I have discussed this with Army Corps of Engineers and they have permitted the shoring activity, but they are researching the lake impacts.

Respectfully,

Wade Long
Development Services Manager
Matanuska-Susitna Borough
350 E. Dahlia Ave
Palmer, AK 99645
office: 907-861-7865
cell: 907-707-4741

From: Jeff Jenkins <akproenergy@mtaonline.net>
Sent: Thursday, June 18, 2026 7:33 AM
To: Wade Long <wade.long@matsugov.us>
Subject: Knik bar/Knik Lake

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]
Hello,
Please see attached photos.
Jeff Jenkins
9077150152

SLOW
DOWN







Resolution

By: Wade Long
Introduced: June 15, 2026
Public Hearing: July 20, 2026
Action:

MATANUSKA-SUSITNA BOROUGH
PLANNING COMMISSION RESOLUTION NO. 26-10

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION APPROVING A CONDITIONAL USE PERMIT TO EXPAND OPERATIONS FOR A PRE-EXISTING ALCOHOLIC BEVERAGE DISPENSARY (BAR), LOCATED AT 10204 SOUTH KNIK GOOSE BAY ROAD, TAX ID# 7186000L001; LOCATED WITHIN TOWNSHIP 16 NORTH, RANGE 03 WEST, SECTION 24, SEWARD MERIDIAN.

WHEREAS, an application has been received from Douglas Massie on behalf of Knik Landing, for a conditional use permit to expand an existing beverage dispensary (bar) at 10204 S Knik Goose Bay Road (Tax ID #7186000L001); within Township 16 North, Range 3 West, Section 24, Seward Meridian; and

WHEREAS, the applicant proposes to construct a 5,000 square foot event building and a 2,000 square foot outdoor deck associated with the existing Knik Bar & Liquor operation; and

WHEREAS, the beverage dispensary use at Knik Bar & Liquor operates under an existing legal nonconforming status issued in 1985 (LCUP/GFR #177019850008); and

WHEREAS, the existing Knik Bar & Liquor operation is proposed to operate under the name “Knik Landing Event Center” as part of the expanded use; and

WHEREAS, the proposed use represents an expansion of the existing beverage dispensary operation from legal nonconforming status; and

WHEREAS, the subject property is located within the Knik Sled Dog and Recreation Special Land Use District; and

WHEREAS, development within the district is required to comply with the applicable development standards and requirements of MSB 17.20.070(A) Table 1; and

WHEREAS, table 1 establishes buffering requirements for new large-scale commercial and heavy industrial development; and

WHEREAS, "large-scale commercial" is defined in MSB 17.125 as a commercial building with a total gross building area equal to or exceeding 25,000 square feet; and

WHEREAS, the proposed development consists of a 3,600 square foot restaurant, 5,000 square foot event building, and a 2,000 square foot outdoor deck; and

WHEREAS, the total square footage is approximately 10,600 square feet, which does not meet the definition of large-scale commercial development; and

WHEREAS, table 1 requires that glare and illumination associated with exterior lighting are required to be contained on

the subject property and not impact adjacent properties, surrounding lands, or the night sky; and

WHEREAS, according to the application materials, exterior lighting associated with the proposed development will be downward-directed and shielded, which is intended to direct light toward the ground and minimize light spillover onto adjacent properties; and

WHEREAS, this design is consistent with the requirement to contain illumination on-site and reduce impacts to surrounding uses; and

WHEREAS, glare from exterior lighting is required to be shielded from vehicular traffic and shall not impair traffic safety; and

WHEREAS, the application materials provided show that no lighting fixtures will exceed 20 feet in height; and

WHEREAS, Table 1 requires a minimum lot size of 40,000 square feet, consistent with MSB Title 43, unless reduced through the provision of community water or sewer; and

WHEREAS, the subject property is approximately 2.76 acres in size, which exceeds the minimum 40,000 square foot requirement; and

WHEREAS, table 1 requires a minimum setback of 30 feet between new large-scale commercial or heavy industrial structures and the property line of the nearest existing land uses; and

WHEREAS, MSB 17.70.020 requires a conditional use permit for the operation of an alcoholic beverage dispensary (bar); and

WHEREAS, an application for a restaurant endorsement associated with the existing Beverage Dispensary license is currently under review by the State of Alaska and is pending approval by the Matanuska-Susitna Borough Planning Commission for a conditional use permit; and

WHEREAS, the subject property is located at the southwest corner of Northshore Drive and Knik Goose Bay Road intersection in the Knik Lake area; and

WHEREAS, Northshore Drive is a borough road and separates the subject property from a vacant parcel located directly to the north; and

WHEREAS, a property with a residential use is located northwest of the subject parcel north of Northshore Drive; and

WHEREAS, a vacant parcel is located directly west of the bar property, with residential properties located further west beyond that vacant parcel; and

WHEREAS, Knik Lake is located directly south of the subject property, and residential properties are located across the lake to the south; and

WHEREAS, Knik Goose Bay Road is a state road located directly east of the subject property; and

WHEREAS, across Knik Goose Bay Road to the east is a tidal zone and a mix of privately owned vacant parcels, including parcels owned by individuals and a company, adjacent to the Knik Arm of Cook Inlet; and

WHEREAS, the closest residence is located just over 300 feet to the northwest of the subject property; and

WHEREAS, according to the application materials, the proposed event building is proposed to operate seven days per week from 8:00 a.m. to 12:00 a.m.; and

WHEREAS, according to the application materials, the existing bar is proposed to operate seven days per week from 12:00 p.m. to 12:00 a.m.; and

WHEREAS, according to the application materials, the outdoor deck use aligns with the event building hours; and

WHEREAS, according to the application materials, amplified sound is proposed indoors only; and

WHEREAS, according to the site plan, 72 total parking spaces are provided on-site; and

WHEREAS, based on industry-standard guidance from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition, restaurant uses typically generate demand of approximately 8–12 spaces per 1,000 square feet, while assembly/venue uses generate approximately 5–10 spaces per 1,000 square feet, and applying these ranges, the combined parking demand is estimated to fall within a range that is generally consistent with the 72 spaces provided, and the proposed parking supply is therefore considered adequate based on ITE industry standards; and

WHEREAS, the site plan indicates four ADA-accessible parking spaces, including van-accessible spaces, and for a parking lot of 51–75 spaces, three accessible spaces are required, and the proposal therefore exceeds ADA requirements; and

WHEREAS, according to the site plan, a metal chain link fence with wood slats is proposed to extend from the northwest corner of the existing building to the lake to provide visual screening, security, and privacy; and

WHEREAS, the owner and/or operator must comply with the maximum permissible sound level limits per the requirements of MSB 8.52, Noise, Amplified Sound, and Vibration; and

WHEREAS, according to the site plan, the proposed fencing is intended to connect between the existing building and the proposed event building and then extend from the proposed event building to the lake; and

WHEREAS, a high volume driveway permit is required for access onto the borough road Northshore Drive; and

WHEREAS, according to the application material, the event space is proposed to accommodate up to 200 guests for seated events and up to 300 persons for standing events; and

WHEREAS, the State Fire Marshal-accepted public safety plan establishes occupant load limits, emergency access, and life safety measures for indoor and outdoor event operations, ensuring compliance with applicable fire and life safety codes; and

WHEREAS, implementation of the approved safety plan reduces potential risks associated with large gatherings, including emergency response, crowd management, and egress, thereby protecting public health and safety; and

WHEREAS, adherence to the Fire Marshal-approved plan is required for operation of the event venue and outdoor deck, providing ongoing oversight of life safety conditions during events; and

WHEREAS, the proposed use is accessed from Northshore Drive, a borough road, and Knik Goose Bay Road, a state road, and

WHEREAS, the nearest school is Joe Redington Sr./Jr. High School, which is approximately 3.6 miles from the site; and

WHEREAS, Dena'ina Elementary School is approximately 3.1 miles from the site; and

WHEREAS, state regulations preclude beverage dispensary licenses within 200 feet of a school; and

WHEREAS, persons under the age of 21 are prohibited from being served alcoholic beverages; and

WHEREAS, the operator of the proposed use is required to operate in accordance with Alaska laws and statutes, which include mandatory alcohol server education; and

WHEREAS, Alaska Statute 04.16.030 specifically prohibits the sale of alcoholic beverages to drunken persons; and

WHEREAS, the subject property is approximately 2.76 acres in size; and

WHEREAS, MSB 17.55.020 requires that no structure or footing be located closer than 75 feet from the ordinary high water mark of a body of water, unless otherwise authorized through an approved land use permit; and

WHEREAS, the subject property is subject to an approved Mandatory Land Use Permit (MLUP-2025-010065), which authorizes a non-habitable event venue structure approximately 40 feet from the ordinary high water mark and a covered gazebo approximately 5 feet from the ordinary high water mark of Knik Lake; and

WHEREAS, for purposes of minimum setback distances, fences are not considered structures under MSB 17.55.004; and

WHEREAS, the operation is required to comply with the maximum permissible sound level limits of MSB 8.52 – Noise, Amplified Sound, and Vibration; and

WHEREAS, the surrounding area consists of a mix of residential and vacant parcels in proximity to the subject property, and

WHEREAS, Knik Lake is located directly south of the subject property, and open water areas may transmit sound and are not considered a physical noise buffer; and

WHEREAS, according to the application materials, signage will consist of a wood timber frame sign reading "Knik Landing," with lighting that is dim and directed downward to minimize visual impact; and

WHEREAS, the subject property will be accessed primarily from Knik Goose Bay Road, a roadway under the jurisdiction of the State of Alaska; and

WHEREAS, a driveway permit for access onto Knik Goose Bay Road has been issued by the State of Alaska; and

WHEREAS, any future use of the Northshore Drive access will require compliance with MSB 11.12, including permitting and potential upgrades to meet applicable driveway standards based on traffic generation; and

WHEREAS, according to the application materials, peak traffic is anticipated between 4:00 p.m. and 8:00 p.m., with approximately 92 vehicle trips (entering and exiting) during the peak hour; and

WHEREAS, the projected traffic generation exceeds the threshold for a low volume driveway under MSB 11.12 and would require higher design standards if access to a borough right-of-way is pursued; and

WHEREAS, internal site circulation and parking layout are designed to manage vehicle movement on site and minimize the potential for vehicles queuing onto adjacent roadways; and

WHEREAS, Knik Goose Bay Road functions as a primary transportation corridor and is designed to accommodate higher traffic volumes than local or collector roads; and

WHEREAS, according to the site plan, parking areas are located on the subject parcel and are designed to serve both the existing and proposed uses; and

WHEREAS, internal circulation and parking layout are designed to accommodate vehicle movement on-site and minimize the potential for congestion; and

WHEREAS, according to the application materials and site plan, all parking for employees and patrons will be located on the subject parcel; and

WHEREAS, according to the application materials and site plan, internal circulation is provided on-site to accommodate vehicle movement and reduce the potential for vehicles queuing onto adjacent roadways; and

WHEREAS, internal circulation and on-site parking are provided to accommodate traffic demand and reduce the potential for traffic impacts extending onto adjacent roadways; and

WHEREAS, access to the subject property from Knik Goose Bay Road has historically served the existing beverage dispensary use; and

WHEREAS, the proposed development includes an additional event building located to the south of the existing structure and associated outdoor use areas; and

WHEREAS, Knik Goose Bay Road and Northshore Drive provide separation between portions of the subject property and nearby residential uses; and

WHEREAS, according to the application materials, exterior building materials and colors will consist of neutral earth tones intended to blend with the surrounding environment; and

WHEREAS, the site plan consolidates buildings, parking, and circulation areas on the subject property; and

WHEREAS, according to the application materials, the proposed use will operate in conjunction with the existing bar and is not a new standalone establishment; and

WHEREAS, according to the application materials, the site includes controlled access and defined areas for alcohol service; and

WHEREAS, according to the application materials, a chain link fence with wood slats is proposed to enclose areas where alcohol is served and to provide screening, privacy, and site security; and

WHEREAS, the Alcoholic & Marijuana Control Office (AMCO) has no record of violations by the applicant or persons with an interest in the application within the 12 months preceding the application; and

WHEREAS, no information has been submitted indicating that any person or party associated with this application is

untrustworthy, unfit to conduct business in the borough, or is a potential source of harm to the public; and

WHEREAS, two written comments were received expressing concerns regarding noise, traffic, parking, lighting, and potential impacts to Knik Lake and surrounding residential properties; and

WHEREAS, no comments were received from the Knik-Fairview Community Council; and

WHEREAS, there are no complaints from the public on record regarding the subject property; and

WHEREAS, the Planning Commission has reviewed this application with respect to applicable standards set forth in MSB 17.70, and

WHEREAS, the Planning Commission conducted a public hearing on July 20, 2026, on this matter.

NOW, THEREFORE, BE IT RESOLVED, that the Matanuska-Susitna Borough Planning Commission hereby adopts the aforementioned findings of fact and makes the following conclusions of law supporting approval of Planning Commission Resolution 26-10:

1. The buffering requirements of MSB 17.20.070(A), Table 1, are not applicable to the proposed development.

2. The proposed exterior lighting is consistent with the requirements of MSB 17.20.070(A), Table 1.
3. The proposed development complies with the minimum lot size requirements of MSB 17.20.070(A), Table 1.
4. The setback requirements of MSB 17.20.070(A), Table 1, are not applicable to the proposed development.
5. The proposed use is compatible with and will preserve or not materially detract from the value, character, and integrity of the surrounding area (MSB 17.70.100(A)(1)(a)).
6. The proposed use will not be harmful to public health, safety, convenience, and welfare (MSB 17.70.100(A)(1)(b)).
7. Sufficient setbacks, lot area, buffers or other safeguards are being provided (MSB 17.70.100(A)(1)(c)).
8. There will not be any negative effects upon the properties in the area due to such factors as dust, noise, obtrusive advertising, and glare (MSB 17.70.100(A)(2)(a)).
9. The proposed use will not negatively affect the safe, efficient flow of traffic on any highway, arterial, collector or street from which access to and from the establishment is obtained (MSB 17.70.100(A)(2)(b)).

10. Measures will be in place to reduce any negative effect upon adjacent and nearby properties (MSB 17.70.100(A)(2)(c)).
11. Adequate parking is provided to accommodate a reasonably expected increased demand for parking created by issuing the permit (MSB 17.70.100(A)(2)(d)).
12. Access to the premises will not create an unreasonable traffic hazard (MSB 17.70.100(A)(2)(e)).
13. Traffic will not overtax existing road systems (MSB 17.70.100(A)(2)(f)).
14. The proposed use is compatible with the character of the surrounding area (MSB 17.70.100(A)(2)(g)).
15. The proposed use is not expected to increase the crime rate in the area or increase alcohol-related accidents (MSB 17.70.110(B)(1)).
16. The applicant has not had a liquor license suspended or revoked in the 12 months preceding the application (MSB 17.70.110(B)(2)).
17. The applicant is trustworthy or fit to conduct business in the borough and the applicant is not a potential source of harm to the public (MSB 17.70.110(B)(3)).

BE IT FURTHER RESOLVED, the Planning Commission finds this application does meet the standards of MSB 17.70 and does hereby approve the conditional use permit with the following conditions:

1. The operation shall comply with all applicable federal, state, and local regulations.
2. All aspects of the operation shall comply with the description detailed in the application materials and with the conditions of this permit. An amendment to the Conditional Use Permit shall be required prior to any expansion or substantial alteration of the conditional use.
3. Outdoor use areas, including the deck and event-related outdoor activities, shall be limited to the hours of 8:00 a.m. to 10:00 p.m. daily.
4. The operation shall comply with the maximum permissible sound level limits allowed per the requirements of MSB 8.52, Noise, Amplified Sound, and Vibration.
5. Prior to operation of the expanded service areas, provide a copy of the approved State of Alaska Beverage Dispensary license to the Mat-Su Borough Planning Department.
6. Use of access from Northshore Drive requires a driveway permit and compliance with MSB 11.12 driveway standards.
7. The driveway access onto Knik Goose Bay Road shall be maintained in accordance with the approved State of Alaska driveway permit.

ADOPTED by the Matanuska-Susitna Borough Planning Commission this ___ day of _____, 2026.

Richard Allen - Chair

ATTEST

Lacie Olivieri, Planning Clerk

(SEAL)

YES:

NO:

COMMISSION BUSINESS

MATANUSKA-SUSITNA BOROUGH
Planning and Land Use Department
350 East Dahlia Avenue • Palmer, AK 99645
Phone (907) 861-7822
Matsu.gov

MEMORANDUM

DATE: July 7, 2026

TO: Planning Commission

FROM: Alex Strawn, Planning and Land Use Director

SUBJECT: Tentative Future PC Items

Upcoming PC Actions

Quasi-Judicial

- Houdini's Herbs – Marijuana Retail Facility; 8164B01L001A (Staff: Wade Long)
- Butte Land Co. – Earth Materials Extraction; 17N02E35A024 (Staff: Natasha Grover)
- Harman Northeast – Earth Materials Extraction; 18N01W15B015 (Staff: Wade Long)
- Three Bears Alaska Inc. – Core Area Conditional Use Permit; 8211000L001 (Staff: Wade Long)
- Hart – Variance; 8578B05L015A (Staff: Natasha Grover)
- Riordan – Variance; 6041B08L010 (Staff: Natasha Grover)
- Punt Brothers Construction – Variance; 6040B03L003 (Staff: Natasha Grover)
- Little Flare – Marijuana Retail Facility; 5865000L007A (Staff: Wade Long)

Legislative

- Historic Preservation Plan (HPP) (Staff: Paul Clark)
- MSB Borough-Wide Comprehensive Plan (Staff: Paul Clark)