


# MEMORANDUM

CITY/BOROUGH OF JUNEAU  
155 South Seward Street, Juneau, Alaska 99801

DATE: July 25, 2014

TO: Planning Commission 

FROM: Eric Feldt, Planner II, CFM  
Community Development Department

FILE NO.: CSP2014 0015

PROPOSAL: A State consistency permit for DOT/ PF to install road block gates along Thane Road for increased avalanche safety.

## GENERAL INFORMATION

Applicant: State of Alaska

Property Owner: State of Alaska

Property Address: Thane Road Right-of-Way (State of Alaska)

Legal Description: Right-of-Way

Parcel Code No.: N/A

Site Size: 1.3 miles (approx.) between gates

Comprehensive Plan Future  
Land Use Designation: Resource Development; Waterfront Commercial Industrial; and Rural Dispersed Residential

Zoning: D-1 & Rural Reserve

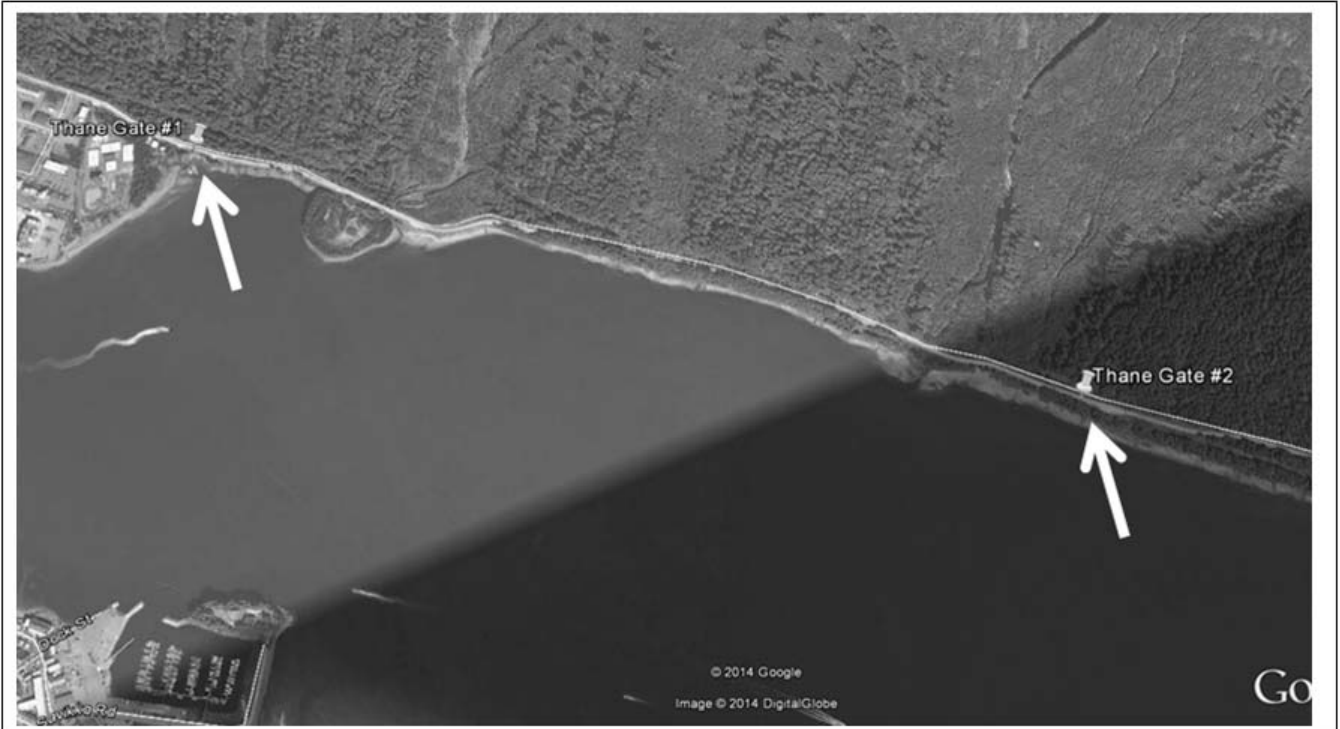
Utilities: Public Water; Private Sewer

Access: Thane Road

Existing Land Use: Right-of-Way

Surrounding Land Use:  
North - RR & D-1; Vacant Property  
South - RR & D-1; Vacant Property  
East - RR & D-1; Vacant Property  
West - Gastineau Channel

## Location of Proposed Avalanche Gates (Approx.)



## ATTACHMENTS

Attachment	A	Construction Drawings
Attachment	B	Urban Avalanche Path Map
Attachment	C	Public Comment

## PROPOSAL

The Alaska State Department of Transportation and Public Facilities (DOT/ PF) is improving avalanche safety along Thane Road by installing two road gates before, and after, several avalanche paths near the two rock dumps. See location map. These gates will block traffic from entering areas of avalanche danger.

## **BACKGROUND**

Thane Road provides the only road access from Juneau to the Rock Dump, Little Rock Dump, AEL&P power lines, Thane Neighborhood, Thane Ore House, and recreational trails. This road runs along the foot of Mount Roberts' and Sheep Mountain's steep hillsides as it follows the tidelands. Avalanches are common along this road, especially near the two rock dumps where snow can often block the road for many hours, leaving people unable to leave or reach their homes.

On an annual basis, DOT/ PF and the City & Borough of Juneau (CBJ) intentionally releases an avalanche at Snowslide Creek near the Little Rock Dump to minimize future avalanche build up and to reduce the duration of road blockage of future avalanches as well. This is done by firing ordnance through a howitzer from Downtown Douglas. This will continue to be done in the future.

## **ANALYSIS**

One gate will be installed before the Little Rock Dump and the second gate will be installed 1.3 miles south. There are three large avalanche chutes between the gates: 1) Snowslide Creek, located between the main Rock Dump and Little Rock Dump; 2) Cross Bay Creek, located just over 1 mile past (south) of Snowslide Creek; and 3) T014 Middle, located between Snowslide and Cross Bay Creeks chutes. The Snowslide Creek avalanche chute has a return rate interval (naturally released) of 1.2 years, the Cross Bay Creek has a return rate of 4.5 years, and the T014 Middle chute has a return rate of 14.6 years. See Attachment A for construction drawings and Attachment B for map of the avalanche paths. All three avalanche chutes pose danger to users of Thane Road.

The area between the proposed gates is heavily forested on the uphill side of the road and undeveloped tidelands on the waterside. All properties along the proposed gates are owned by the CBJ, Federal government, or AJT Mining Properties Inc.; some mining claims are located on these lands. The CBJ Docks & Harbors have leased portions of the tidelands between the two rock dumps for a private entity to construct a new port. The developer has not yet obtained permits to construct the port.

The Thane Campground (Operated by CBJ Parks & Rec.) is located on the uphill side of Thane Road next to the northerly proposed road gate. Since this campground is only open during the summer, it will not be affected by this proposal.

Both gates will be installed within DOT/ PF rights-of-way and would not affect adjacent land ownership.

Gregory Patz, DOT/ PF Maintenance & Operations Supervisor, describes the use of the proposed gates:

“These gates will be used in the event of an avalanche that covers the road, or when we are conducting avalanche control operations (artillery firing). In the first case, as soon as we discover that an avalanche has covered the road, we will lower the gates to prevent traffic from entering the avalanche zone, so that we can conduct control measures and clean up. In the second case, we will issue public notice of planned avalanche control operations, then conduct a sweep of the road between the two gates, and then close the gates prior to artillery firing.”

“Other avalanche safety measures in the area include warning signs advising motorists to not stop in the avalanche zone, and frequent observations to determine the need for avalanche control operations.”

The proposed road block gates will increase the safety of those using Thane Road during avalanches and warnings. The gates will be effective in keeping people safe from potential harm.

CBJ Emergency Programs Manager and avalanche forecaster, Tom Mattice, reviewed the proposal and stated “This is an industry standard practice and I support it.”

### **CONFORMITY WITH ADOPTED PLANS**

The CBJ Land Use code contains specific permitting processes when developing in mapped avalanche/ landslide zones, as located in the adopted 1987 map set. There are no proposed changes to the adopted maps.

The avalanche chapter of the 2012 All-Hazards Mitigation Plan specifically addresses avalanche chutes along Thane Road. “Large slides can occur on Thane Road and heavily used areas near Basin Road.” This Plan indicates +19 avalanche paths along Thane Road. There are no specific recommendations for avalanche mitigation along Thane Road. With that said, there are several safety measures that are promoted in this chapter that the CBJ continues to do, such as having a full-time avalanche forecaster and holding annual public education meetings on avalanche awareness and safety.

The 2013 Comprehensive Plan discusses the hazards of avalanches to populated areas, mentions the 1987 map set, as well as the 2012 Mitigation Plan. Although there are no specific recommendations for Thane Road, the following policy is relevant to the proposal:

**POLICY 7.17 TO MINIMIZE THE THREAT TO HUMAN SAFETY AND DEVELOPMENT  
POSED BY LANDSLIDES (MASS WASTING) AND AVALANCHES.**

Again, the purpose of the road gates is to provide greater public safety avalanche measure along Thane Road. Therefore, the proposal is consistent with adopted plans.

### **HABITAT**

No mapped habitat regulated by the CBJ Land Use Code will be affected by the project.

### **PUBLIC COMMENT**

Staff received a letter from the public who did not want a road closure and, instead, provided an alternative idea by having DOT/ PF install a light post that would flash yellow for 'high avalanche danger' and red for 'closure'. See Attachment C. Staff sent this letter to the applicant and asked for the alternative idea to be addressed. The applicant's response to the letter is provided below.

"The intended purpose of the gates is for times when either an avalanche covers Thane road or when DOT&PF is actively conducting avalanche control operations (artillery firing). During these times, it is crucial to have positive traffic control in the avalanche zone to allow DOT&PF maintenance workers to safely and efficiently perform the roadway maintenance. The gates will not be closed beyond these events. Flashing lights would not provide the positive level of traffic control needed to assure the safety of the public during these operations."

### **FINDINGS**

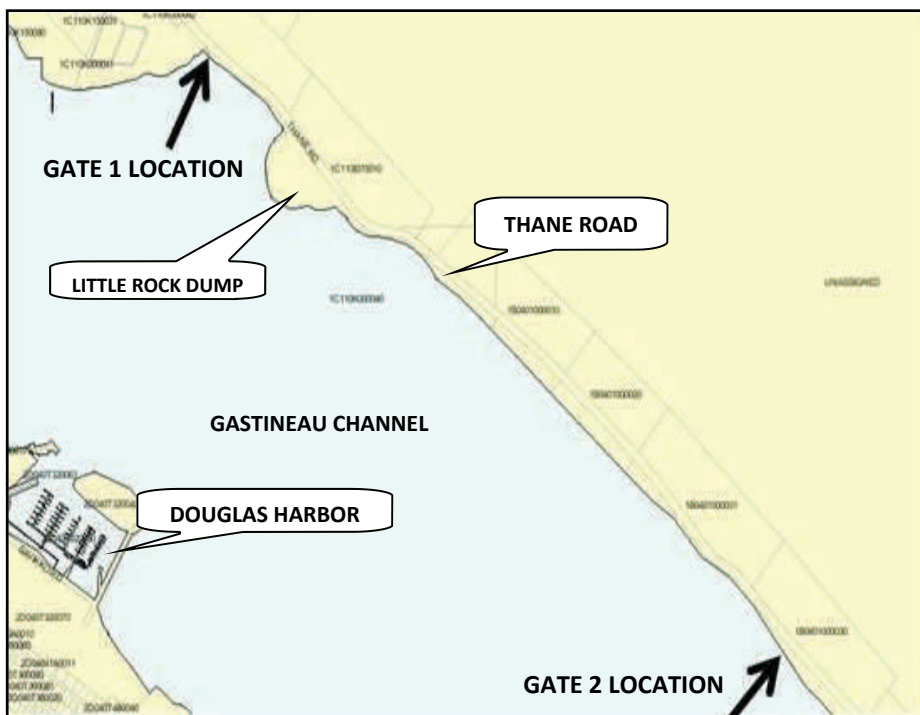
The proposal will protect the health and safety of the public along Thane Road by blocking traffic during times of avalanche emergencies. Although avalanches can be forecasted, predicting the time of an avalanche release can be difficult. The alternative presented by the public provides less protection for the public because it would allow people to be in an area of avalanche danger during times of high avalanche danger (yellow flashing light according to the alternative approach).

### **RECOMMENDATION**

It is recommended that the Planning Commission adopt the Director's analysis and findings and grant the requested State Consistency Permit. The permit would allow the development of two road block gates along Thane Road for increased avalanche safety.



# NOTICE OF PUBLIC HEARING



**City & Borough of Juneau**  
Community Development Department  
155 S Seward Street • Juneau, Alaska 99801

**SHIP TO:**



**PROPOSAL:** State consistency permit for DOT/PF to install road block gates along Thane Road for increased avalanche safety.

File No:	CSP2014 0015	Applicant:	State of Alaska
To:	Adjacent Property Owners	Property PCN:	0
Hearing Date:	August 12, 2014	Owner:	State of Alaska
Hearing Time:	7:00 PM	Size:	1.3 Miles Long
Place:	Assembly Chambers Municipal Building 155 South Seward Street Juneau, Alaska 99801	Zoned:	N/A
		Site Address:	Thane Road
		Accessed Via:	Thane Road

## PROPERTY OWNERS PLEASE NOTE:

You are invited to attend this Public Hearing and present oral testimony. The Planning Commission will also consider written testimony. You are encouraged to submit written material to the Community Development Department 14 days prior to the Public Hearing. Materials received by this deadline are included in the information packet given to the Planning Commission a few days before the Public Hearing. Written material received after the deadline will be provided to the Planning Commission at the Public Hearing.

*If you have questions, please contact Eric Feldt at [eric\\_feldt@ci.juneau.ak.us](mailto:eric_feldt@ci.juneau.ak.us) or at 586-0764.*



Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at [www.juneau.org/plancomm](http://www.juneau.org/plancomm).

*Date notice was printed: July 14, 2014*



# CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

Project Number	Project Name (15 characters)	Case Number CSP 20140015	Date Received 6/26/2014
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## TYPE OF PROJECT REVIEW:

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

## DESCRIPTION OF PROJECT

The project, within CBJ limits, includes installation of two avalanche gates on Thane Road. The new gates will be installed at both ends of the avalanche zone.

Please attach a cover letter to fully explain the project if there is not adequate space on this form.

## CURRENT USE OF LAND OR BUILDING(S):

Alaska DOT&PF Right of Way for Thane Road

## PROPOSED USE OF LAND OR BUILDING(S):

No Change

## PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? ☒ No ☐ Yes Case No.: \_\_\_\_\_

Capital Improvement Program # (CIP) \_\_\_\_\_

Local Improvement District # (LID) \_\_\_\_\_

State Project # 67840

ESTIMATED PROJECT COST: \$ Less than 2.5M

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

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

### CITY/STATE PROJECT FEES

	Fees	Check No.	Receipt	Date
Application Fees	\$ _____	_____	_____	_____
Total Fee	\$ N/A	_____	_____	_____

**NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM**

**&**

**EVEN IF THE PROPOSED PROJECT IS ASSOCIATE WITH OTHER LAND USE PERMITS, THIS APPLICATION MUST BE FILLED OUT**

# DEVELOPMENT PERMIT APPLICATION

Project Number <b>CSP20140015</b>	CITY and BOROUGH of JUNEAU	Date Received: <b>6/26/2014</b>
Project Name (City Staff to Assign Name)		

INFORMATION	Project Description <i>State project No. 67840 SEA Areawide Avalanche Gates, see attached plans</i>		
	PROPERTY LOCATION		
	Street Address <i>Thane Rd. MP 1 - MP 3</i>		City/Zip
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)		
	Assessor's Parcel Number(s)		
	LANDOWNER/ LESSEE		
	Property Owner's Name <i>Alaska DOT &amp; PF</i>		Contact Person: <i>Greg Lockwood</i>
	Mailing Address <i>PO Box 112506 Juneau, AK 99811-2506</i>		Work Phone: <i>465-2393</i>
	E-mail Address <i>greg.lockwood@alaska.gov</i>		Home Phone:
			Fax Number:
PROJECT / APPLICANT	LANDOWNER/ LESSEE CONSENT ****Required for Planning Permits, not needed on Building/ Engineering Permits****		
	I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows:		
	A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.		
	B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.		
	X <i>Greg Lockwood, Alaska DOT &amp; PF Project Manager</i>		<i>6/26/14</i>
	Landowner/Lessee Signature		Date
	X		
	Landowner/Lessee Signature		Date
	NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.		
	APPLICANT If the same as OWNER, write "SAME" and sign and date at X below		
Applicant's Name <i>SAME</i>		Contact Person:	
Mailing Address		Work Phone:	
E-mail Address		Home Phone:	
		Fax Number:	
		Other Contact Phone Number(s):	
X <i>Greg Lockwood</i>		<i>6/26/14</i>	
Applicant's Signature		Date of Application	

OFFICE USE ONLY BELOW THIS LINE					
STAFF APPROVALS	<input checked="" type="checkbox"/>	Permit Type	***SIGN	Date Received	Application Number(s)
		Building/Grading Permit			
	X	City/State Project Review and City Land Action		6/26/2014	CSP20140015
		Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)			
		Mining Case (Small, Large, Rural, Extraction, Exploration)			
		Sign Approval (If more than one, fill in all applicable permit #'s)			
		Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)			
		Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			
		Variance Case (De Minimis and all other Variance case types)			
		Wetlands Permits			
		Zone Change Application			
		Other (Describe)			
	***Public Notice Sign Form filled out and in the file.				
	Comments:				Permit Intake Initials





THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

Department of Transportation  
and Public Facilities

SOUTHEAST REGION  
DESIGN & ENGINEERING SERVICES  
Preconstruction

6860 Glacier Highway  
PO Box 112506  
Juneau, Alaska 99811-2506  
Main: 907.465.4444  
Toll free: 800.575-4540  
Fax: 907.465.4414

June 26, 2014

Mr. Hal Hart, Community Development Director  
City and Borough of Juneau  
155 South Seward Street  
Juneau, Alaska 99801

RE: Federal Project No. 000S845 - State Project No. 67840  
Southeast Alaska: Areawide Avalanche Gates

Dear Mr. Hart:

We are submitting the enclosed plans for your review and comment. In addition to a general review, please specifically review for compliance in accordance with AS 35.30.020.

Under AS 35.30.020, the Department must comply with local planning and zoning ordinances and other regulations in the same manner and to the same extent as other landowners. If you believe that the Department's construction of this project would result in a violation of planning, zoning, or other regulations generally applicable to landowners, please identify the portions of the project that would be in violation, and the specific planning, zoning, or other regulations that you believe would be violated.

If we have not received comments regarding the project's compliance with planning and zoning ordinances within 90 days after submittal of these plans, the Department will proceed with the project as planned. If you have any questions, I can be reached by phone at: (907) 465-2393, or by e-mail at: [greg.lockwood@alaska.gov](mailto:greg.lockwood@alaska.gov).

Sincerely,

A handwritten signature in blue ink that reads "Greg Lockwood".

Greg Lockwood, P.E.  
DOT&PF Project Manager

Enclosure: Preliminary Project Plans

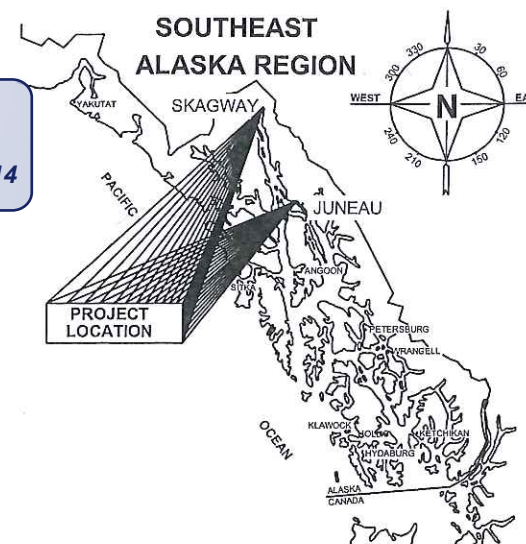
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By Community Development at 11:29 am, Jun 26, 2014



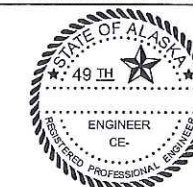
# THANE ROAD AND KLONDIKE HIGHWAY PROJECT No. 67840/000S(845)

*By Community Development at 11:26 am, Jun 26, 2014*



PATH:  
Q:\SEA\67840\ENIC3D\SHEET  
COMPILATION\67840\_A1\_TITLE.DWG  
PURVES, NATHAN A (DOT)  
TAB: A1      Friday, May 23, 2014 11:54:55 AM

**STATE OF ALASKA**  
**DEPARTMENT OF TRANSPORTATION**  
**& PUBLIC FACILITIES**  
**SOUTHEAST REGION**



APPROVED:

REGIONAL PRE-CONSTRUCTION ENGINEER  
CHUCK CORREA, P.E.

APPROVED:

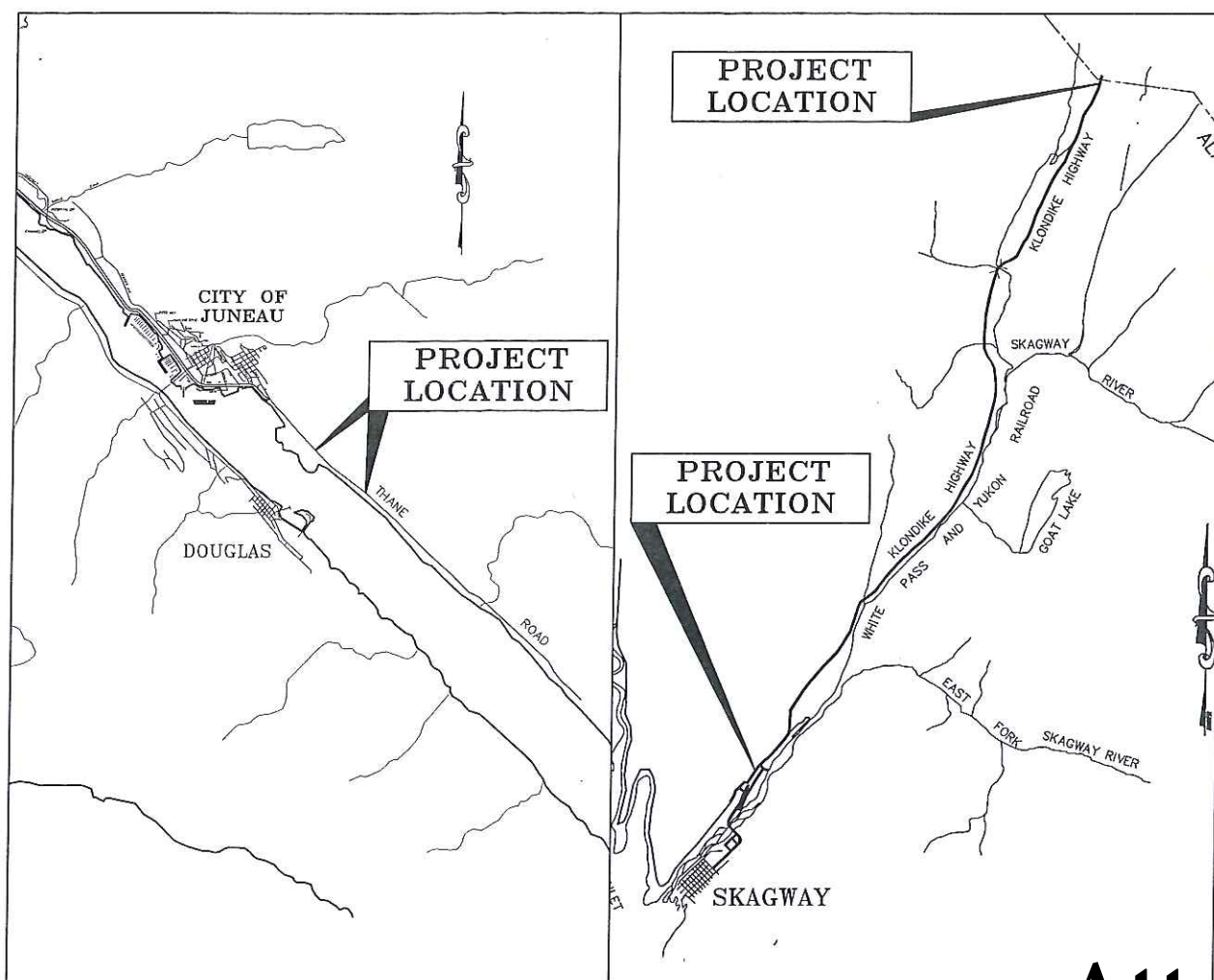
DIRECTOR, SOUTHEAST REGION  
ALBERT H. CLOUGH, CPG

CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD  
CONDITION:

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CONSTRUCTION PROJECT MANAGER	DATE
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	67840	2014	A1	15



### VICINITY MAP

A.D.T. 2012	=	1260
A.D.T. 2035	=	1410
D.H.V. (12.1%) 2035	=	170
% T	=	10.6%
V	=	35-45 M.P.H.
E.A.L.	=	350.000

A.D.T. 2012	=	560
A.D.T. 2035	=	630
D.H.V. (12.1%) 2035	=	210
% T	=	24.8%
V	=	35-45 M.P.H.
E.A.L.	=	250.000

NUMBER OF GATES	=	5 GATES
LENGTH OF GUARDRAIL	=	20 FEET

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

G-04.10S  
G-04.10W  
G-10.01  
G-13.00  
G-20.11  
G-30.11  
E-13.00

# Attachment A




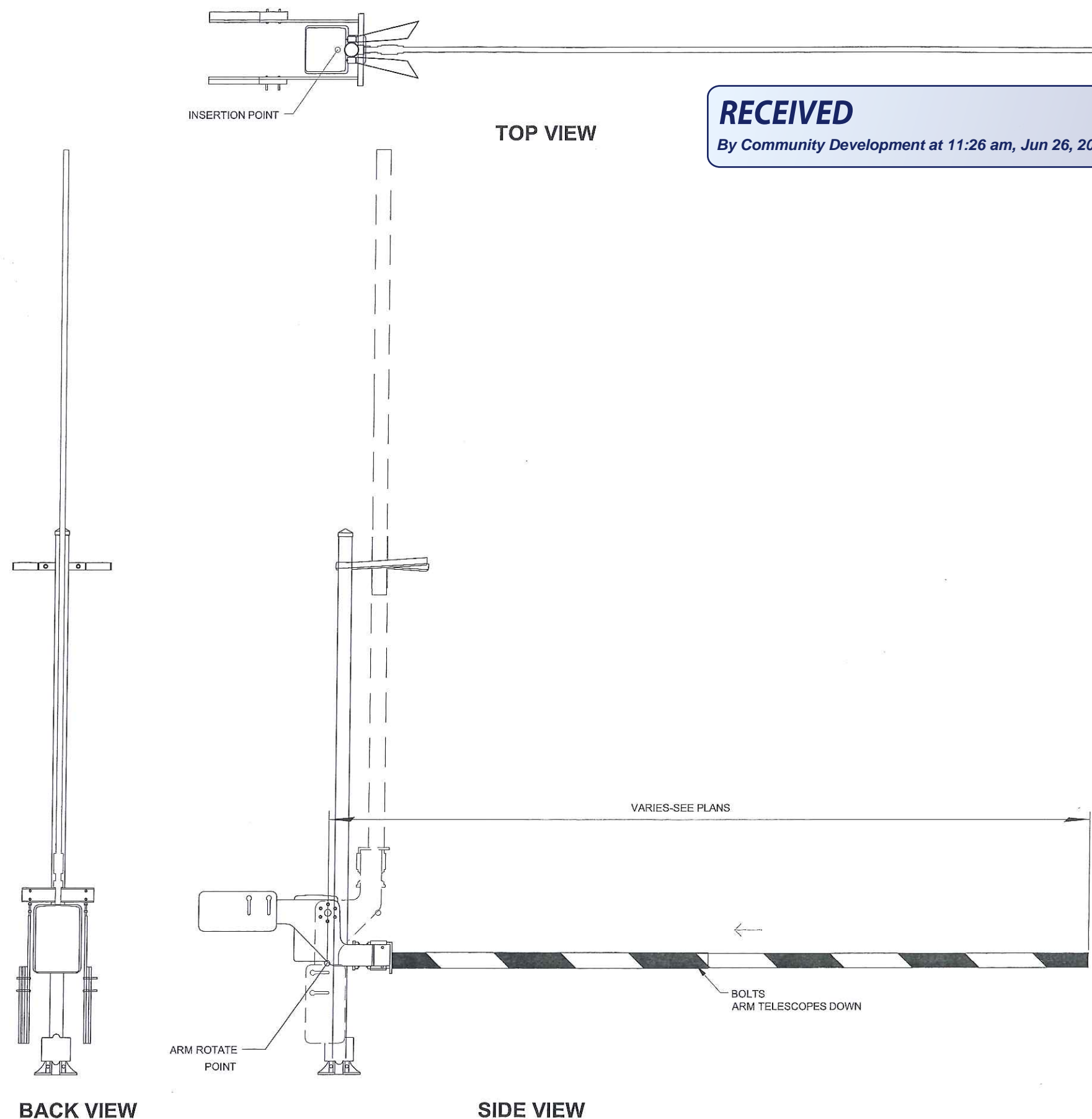
RECEIVED  
By Community Development at 11:26 am, Jun 26, 2014

ESTIMATE OF QUANTITIES			
ITEM NO	ITEM DESCRIPTION	PAY UNIT	QUANTITY
202 (1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
203 (3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	350
203 (6A)	BORROW, TYPE A	TON	400
301 (1)	AGGREGATE BASE COURSE, GRADING D-1	TON	40
608 (1)	W-BEAM GUARDRAIL	LINEAR FOOT	50
608 (13)	PARALLEL GUARDRAIL TERMINAL	EACH	1
607 (14A)	AVALANCHE GATE AND FOUNDATION	EACH	5
633 (1)	SILT FENCE	LINEAR FOOT	240
640 (1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640 (4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641 (1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641 (4)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQUIRED
642 (1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
643 (2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643 (25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED

BASIS OF ESTIMATE		
ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTORS
201(3B)	CLEARING AND GRUBBING	8 ACRES
203(3)	UNCLASSIFIED EXCAVATION	(ASSUME 840 C.Y. OF WOOD DEBRIS & 8,100 C.Y. OF EXCAVATION FOR WASTE DISPOSAL AREA)
203(6A)	BORROW, TYPE A	1.7 TON/CY COMPACTED IN-PLACE
301(1)	AGGREGATE BASE COURSE, GRADING D-1	1.95 TON/CY
641(3)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	240' OF SILT FENCE OR FIBER ROLL

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: G. LOCKWOOD		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION	
		SEA- AREAWIDE AVALANCHE GATES PROJECT #67840	
DESIGNED BY: P. SPRENGER		ESTIMATE OF QUANTITIES	
DRAWN BY: P. SPRENGER			
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REVISIONS		PROJECT DESIGNATION	YEAR
NO.	DATE	DESCRIPTION	
		67840	2014
		SHEET NO.	TOTAL SHEETS
		C1	15



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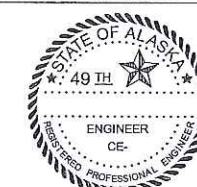
By Community Development at 11:26 am, Jun 26, 2014

## NOTES:

1. PROVIDE SAFETRANS MODEL S-60, TYPE 50 GATE OR B&B ROADWAY MODEL VW-M3 VERTICAL WARNING GATE OR APPROVED EQUAL.
2. PROVIDE FIBERGLASS/ALUMINUM GATE ARM ASSEMBLIES. SAFETRANS, TYPE VII, DIAMOND GRADE 076600-32XD FOR GATES 19' TO 32' IN LENGTH AND MODEL 076600-40XD FOR GATES 33' TO 40' IN LENGTH. B&B ROADWAYS, 6005-Y6 ALUMINUM EXTRUDED TUBING.
3. PROVIDE SAFETRANS GATES WITH COMPATIBLE HIGH WIND BRACING OR B&B ROADWAYS GATES WITH SID ARM CHANNELS AND CROSS MEMBERS
4. GATE ARM LENGTH IS MEASURED RELATIVE TO THE POINT OF ROTATION OF THE GATE.
5. PROVIDE SAFETRANS COMPATIBLE HIGH WIND BRACKETS WITH INSTALLATION.
6. PROVIDE GATE ARMS IN THE LENGTHS SPECIFIED ON THE "PLAN AND SECTION SHEETS".
7. PROVIDE GATES CAPABLE OF MANUAL OPERATION WITH A HANDCRANK OR WITH MECHANICAL OPERATION BY MEANS OF A DRILL TYPE MOTOR.
8. A HANDCRANK AND DRILL CRANK SHALL BE SUPPLIED FOR EACH PAIR OF GATES.
9. A SOLENOID RELEASE, AUTOMATIC MOTOR BRAKE SHALL BE FURNISHED AS PART OF THE GATE DRIVE MECHANISM. THE BRAKE SHALL AUTOMATICALLY RELEASE WHEN THE HAND CRANK IS INSERTED.
10. PLACE GATE ARM TO ALLOW FOR 6 TO 18 INCHES OF VERTICAL CLEARANCE ABOVE THE GUARDRAIL WHEN IN A DOWN POSITION.
11. GATES SHALL BE INSTALLED SO THAT GATE ARMS ARE LEVEL WITH THE GROUND WHEN IN THE CLOSED POSITION AND VERTICAL WHEN IN THE OPEN POSITION.
12. INSTALL PAIRS OF GATES WITH GATE ARMS AT THE SAME ELEVATION.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: G. LOCKWOOD



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION

SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

## AVALANCHE GATE DETAIL

DESIGNED BY: P. SPRENGER

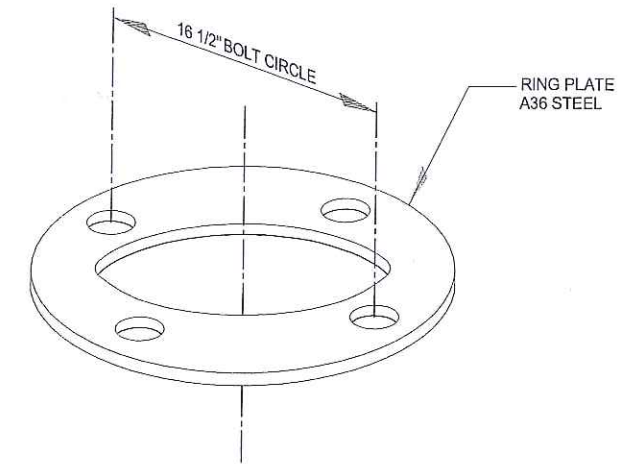
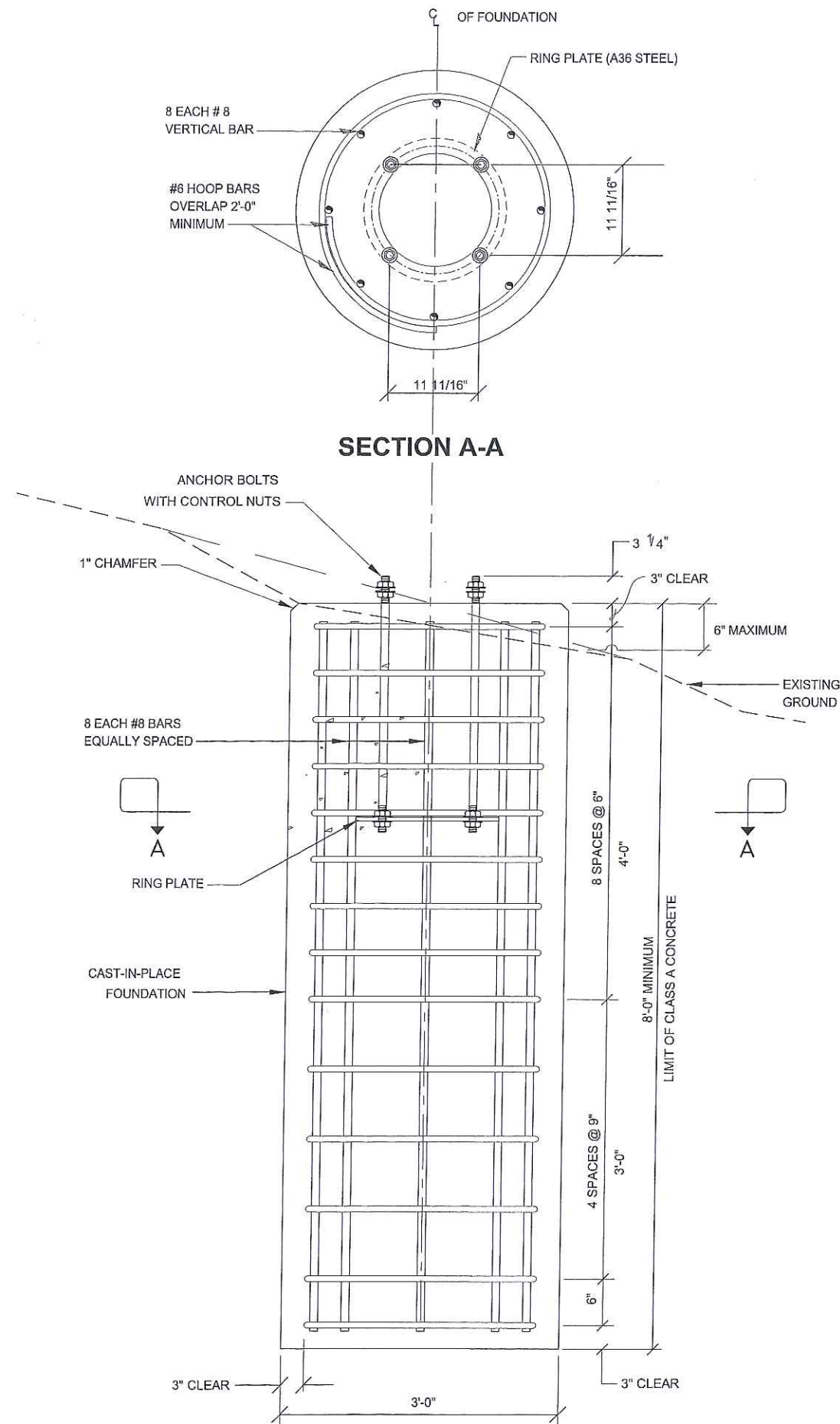
DRAWN BY: P. SPRENGER

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TAB: E1 Friday, May 23, 2014 11:55:11 AM PURVES, NATHAN A (DOT)

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION				
			67840	2014	E1	15





### FOUNDATION NOTES:

DESIGN: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4th EDITION 2001.

CONSTRUCTION: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION 2004 EDITION.

WIND LOAD: 100 MPH

GATE SUPPORT DETAIL: FOUNDATION DESIGN BASED ON A MAXIMUM LENGTH OF 34 FOOT GATE ARM AND A 36 INCH MOUNTING HEIGHT.

### MATERIALS PROPERTIES

CONCRETE	CLASS A	$f'_c=4000$ psi
REINFORCING STEEL	ASTM A615 GRADE 60	$F_y=60$ ksi
ANCHOR BOLT	F1554 GRADE 55	$F_y=55$ ksi
BOLT RING PLATE	ASTM A36	$F_y=36$ ksi

### PORTLAND CEMENT CONCRETE FOUNDATION NOTES:

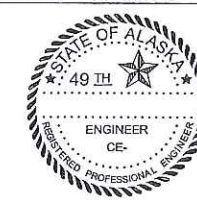
1. CONTRACTOR SHALL VERIFY ALL GEOMETRICS AND ELEVATIONS PRIOR TO CONSTRUCTION. USE TEMPLATE TO POSITION ANCHOR BOLTS.
2. CAST ALL PORTLAND CEMENT CONCRETE FOUNDATIONS AT LOCATIONS INDICATED ON THE PLANS.
3. COMPLETE ALL CONCRETE WORK IN CONFORMANCE WITH SECTIONS 501, 503 AND 660-3.02 OF THE STATE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
4. CLEAN BOTTOM OF FOUNDATION HOLES OF ALL LOOSE AND UNDESIRABLE MATERIAL BEFORE POURING CONCRETE.
5. BACKFILL AND COMPACT THE WORK HOLE USED TO CONSTRUCT THE FORMED AND POURED FOUNDATION IN 8 INCH LIFTS WITH A CEMENT-SOIL MIXTURE, CONSISTING OF 2 SACKS OF PORTLAND CEMENT PER CUBIC YARD OF SOIL.
6. USE FINISHED SLOPES AND A STRAIGHT EDGE TO DETERMINE THE TOP OF CONCRETE FOUNDATION. USE BLOCKS, IF NECESSARY TO ALLOW FOR TOPSOIL THICKNESS.
7. THE TOP SURFACE OF FOUNDATIONS MAY VARY FROM 6 INCHES BELOW TO 0 INCHES ABOVE THE INTERSECTION OF FINISHED SLOPES AND THE CENTER OF THE FOUNDATION.
8. FOR FIELD POURED CONCRETE FOUNDATION, USE 4 EACH ASTM F1554 GRADE 55 ANCHOR BOLTS. BOLT SIZE AND LENGTH AS REQUIRED BY THE STRUCTURE MANUFACTURER.
9. SIZE BOLT RING PLATES TO MATCH THE DIMENSIONS AND GEOMETRY OF ANCHOR BOLTS
10. OVERLAP ALL HOOP BARS 2'-0" MIN.

**RECEIVED**

By Community Development at 11:26 am, Jun 26, 2014

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CHECKED BY: G. LOCKWOOD



DESIGNED BY: P. SPRENGER

DRAWN BY: P. SPRENGER

PATH: Q:\SEA\67840\ENIG3\DISHEET COMPILATION\67840\_E2\_DETAILS.DWG

TAB: E2 Thursday, May 15, 2014 1:04:42 PM

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION

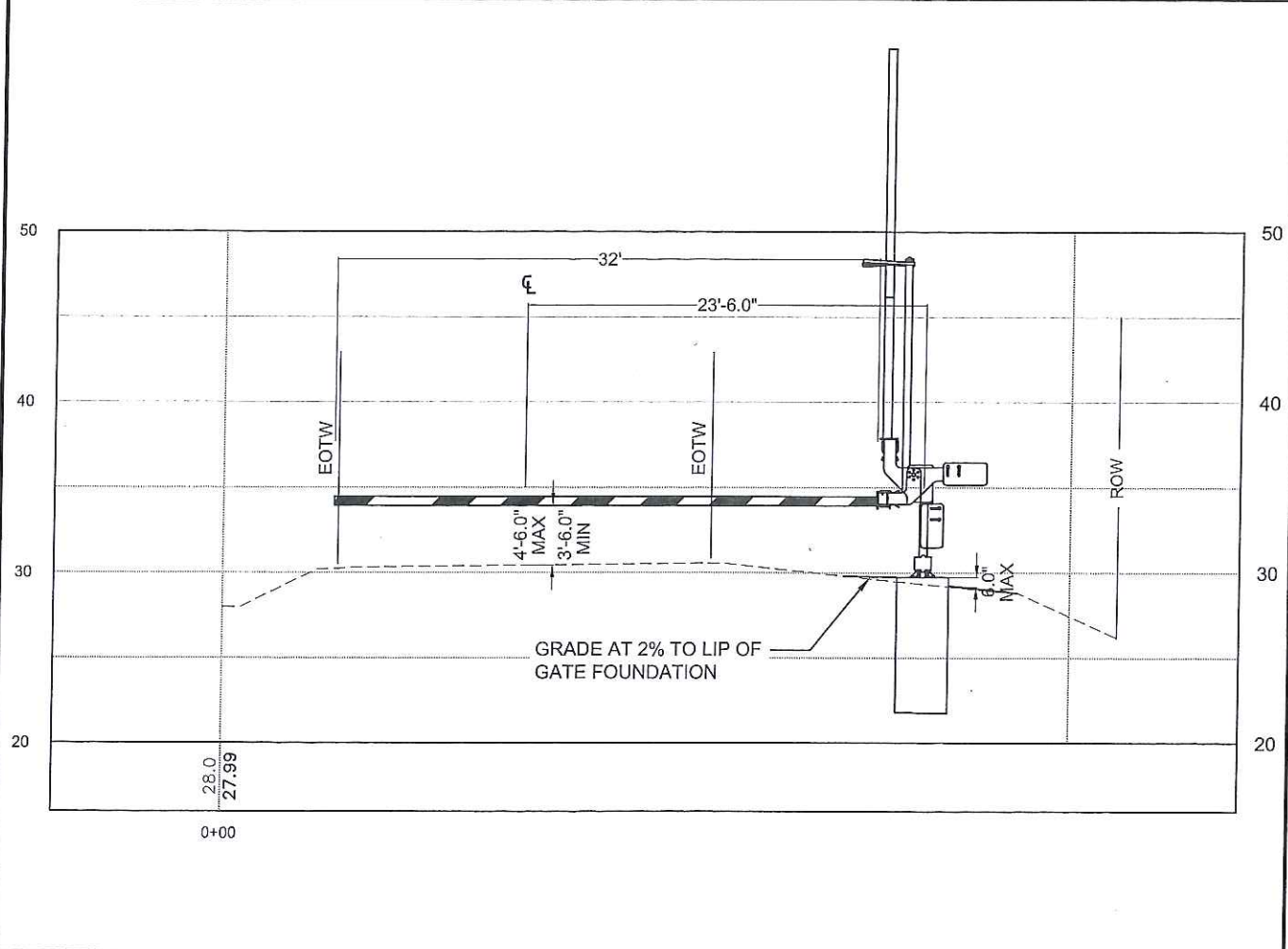
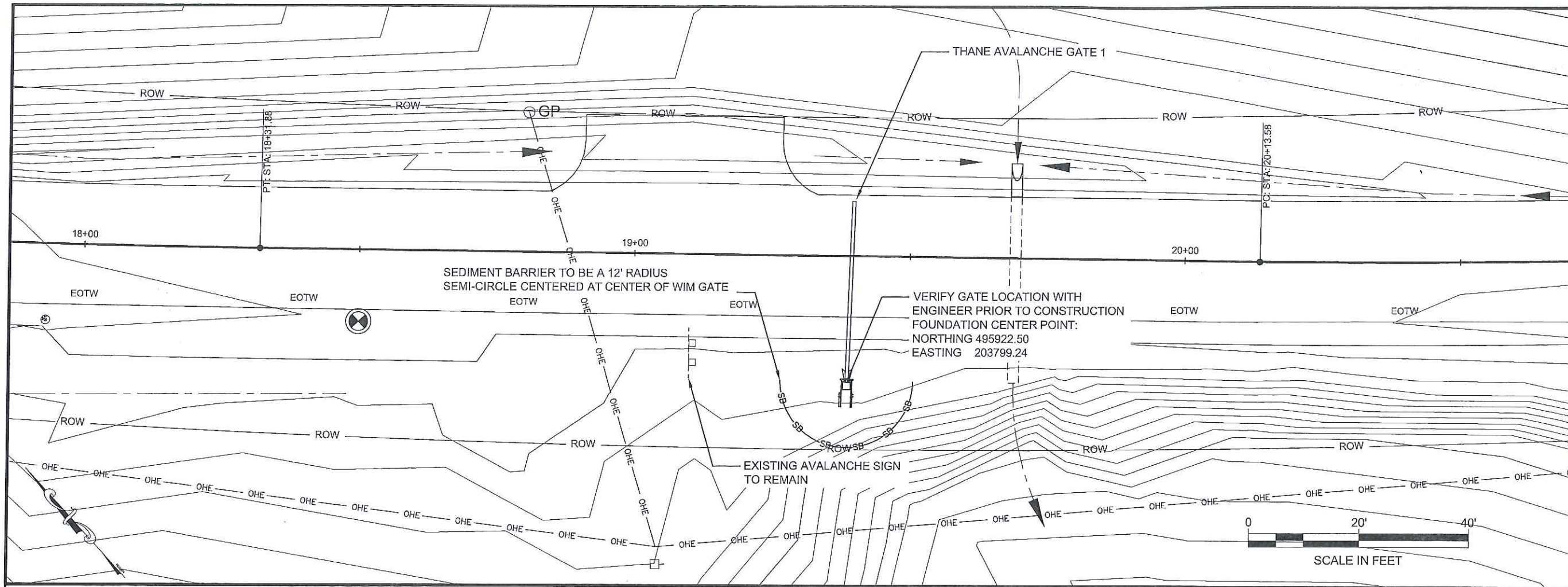
SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

### FOUNDATION DETAIL

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
67840	2014	E2	15





THANE SITE 1 SUMMARY					
NORTHING	EASTING	CL REFERENCE	ITEM NUMBER	QUANTITY	DESCRIPTION OF WORK
495922.50	203799.24	RT	607(14A)	1 EA	GATE AND FOUNDATION

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By Community Development at 11:26 am, Jun 26, 2014

LEGEND	
OHE	OVERHEAD ELECTRIC/UTILITIES
SB	SEDIMENT BARRIER
EOTW	EDGE OF TRAVELED WAY
- - -	EXISTING DRAIN PATTERN
⊗ ⊙ ⊕ ⊖	EXISTING MONUMENT

PATH: C:\SEA\167840\ENIC3\DISHEET  
COMPILATION\167840\_F1-2\_THANE\_LOCATION.S.DWG

PURVES, NATHAN A (DOT)  
TAB: F1 Friday, May 23, 2014 11:56:04 AM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

**PLAN LEGEND**

CHECKED BY: G. LOCKWOOD

DESIGNED BY: P. SPRENGER

DRAWN BY: P. SPRENGER

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
DESIGN & ENGINEERING SERVICES  
DIVISION-SOUTHEAST REGION

SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

**PLAN**

PROJECT DESIGNATION

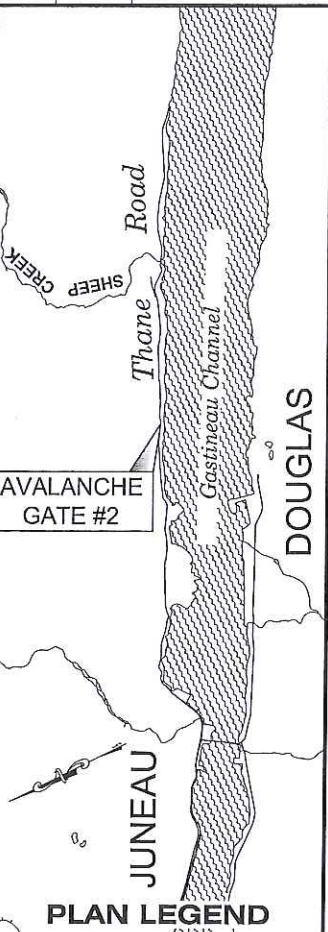
**67840**

STATE	YEAR
ALASKA	2014
SHEET NUMBER	TOTAL SHEETS
F1	14

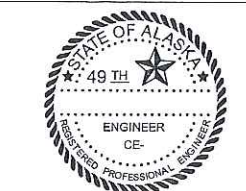
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No.	DATE	DESCRIPTION



CHECKED BY: G. LOCKWOOD



DESIGNED BY: P. SPRENGER

DRAWN BY: P. SPRENGER

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
DESIGN & ENGINEERING SERVICES  
DIVISION-SOUTHEAST REGION

SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

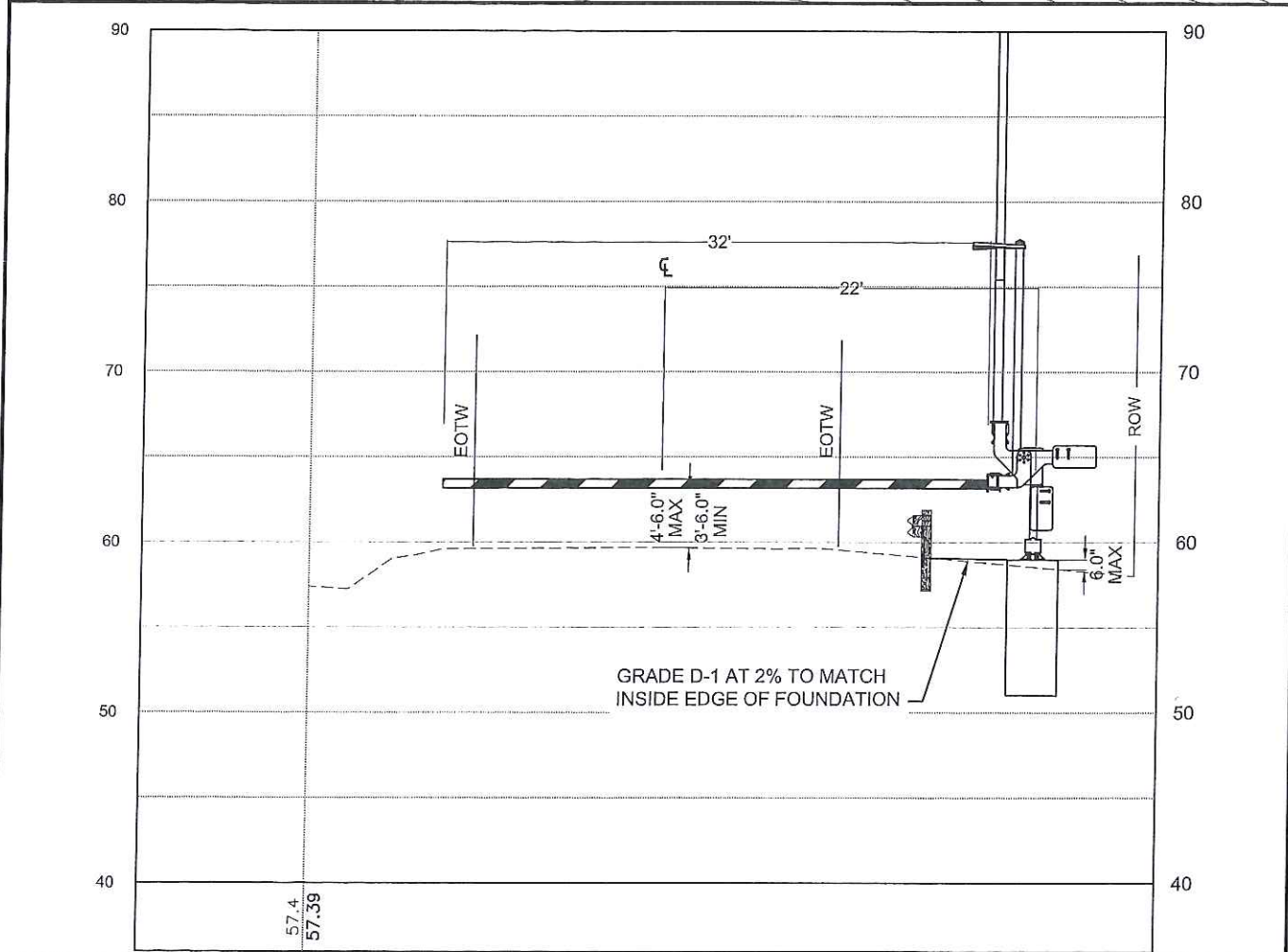
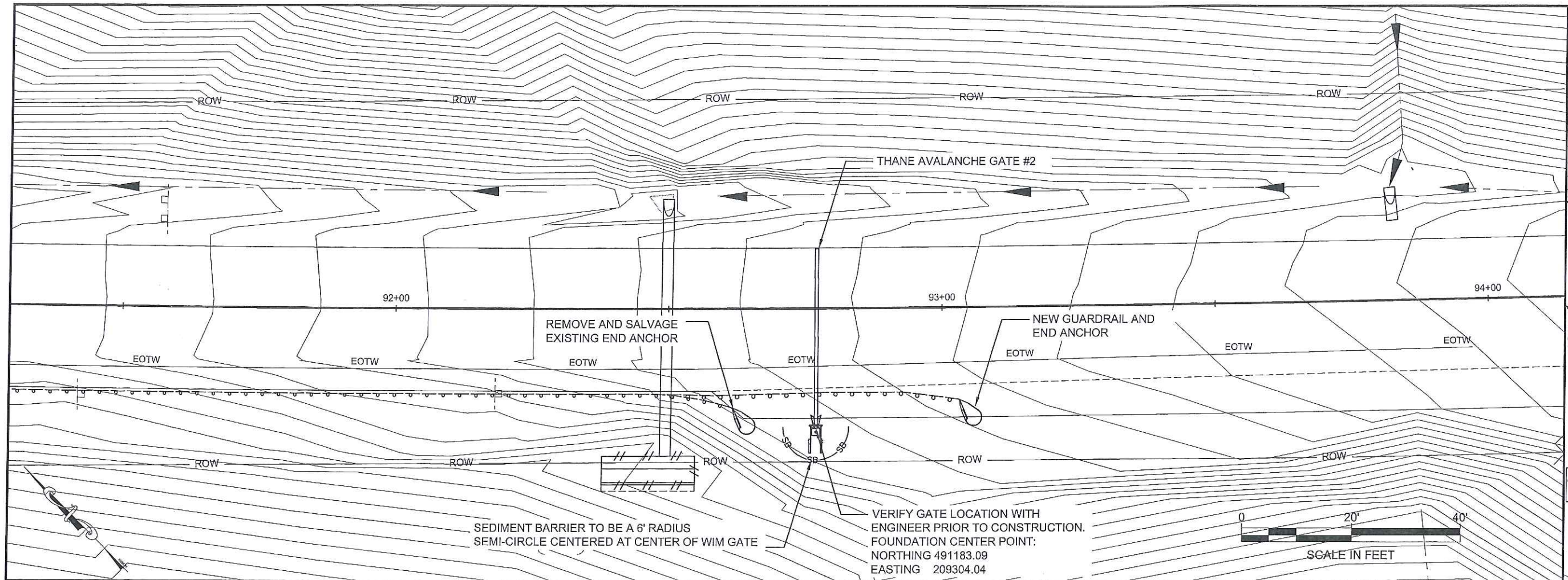
PLAN

PROJECT DESIGNATION

67840

STATE	YEAR
ALASKA	2014

SHEET NUMBER	TOTAL SHEETS
F2	14



THANE SITE 2 SUMMARY					
NORTHING	EASTING	CL REFERENCE	ITEM NUMBER	QUANTITY	DESCRIPTION OF WORK
491208.32	209288.48	RT		10 FT	REMOVE/SALVAGE W-BEAM GUARDRAIL
491193.00	209295.87	RT		1 EA	REMOVE/SALVAGE END ANCHOR
491208.32	209288.48	RT	606(1)	50 FT	W-BEAM GUARDRAIL
491164.85	209326.29	RT		1 EA	END ANCHOR
491183.09	209304.04	RT	607(14A)	1 EA	GATE AND FOUNDATION

**RECEIVED**

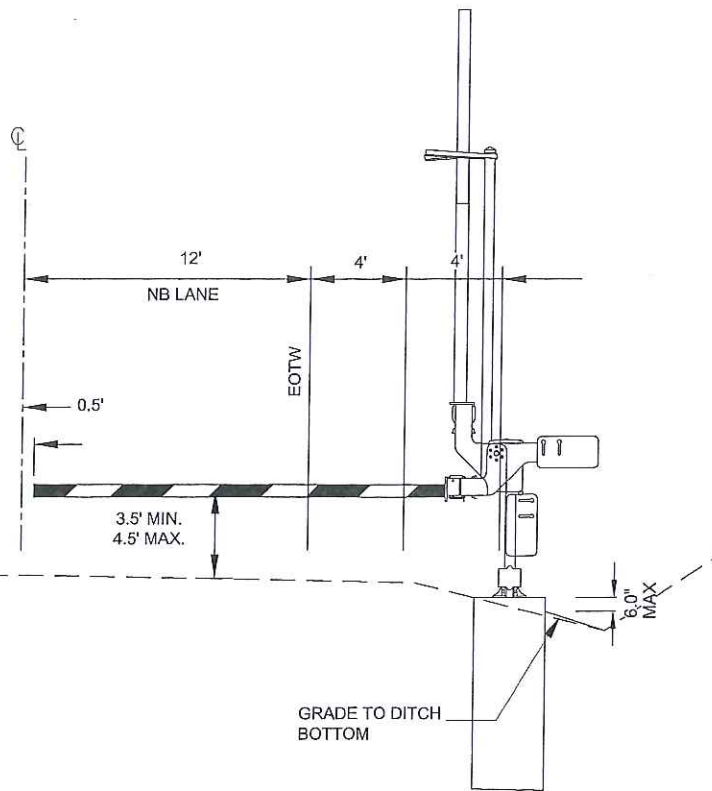
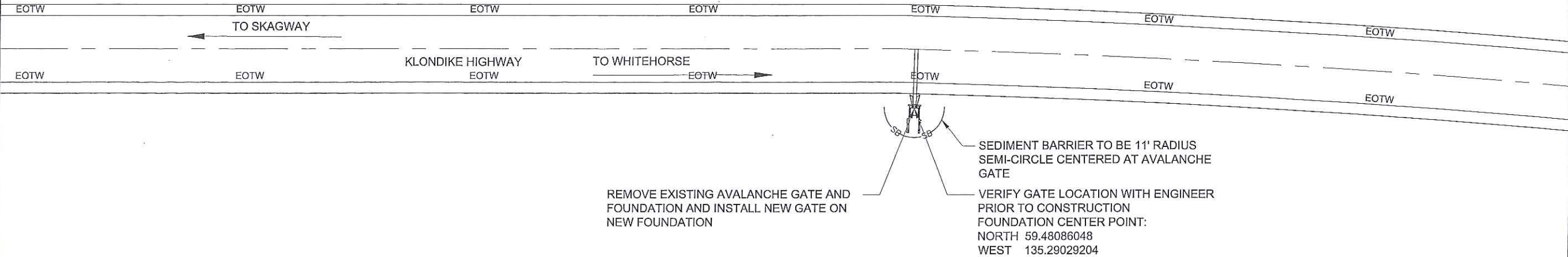
By Community Development at 11:26 am, Jun 26, 2014

LEGEND	
— OHE —	OVERHEAD ELECTRIC/UTILITIES
— SB —	SEDIMENT BARRIER
— EOTW —	EDGE OF TRAVELED WAY
— — —	EXISTING DRAIN PATTERN
⊕ ⊗ ⊙ ⊗ ⊕	EXISTING MONUMENT

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



DOT&PF  
SKAGWAY  
MAINTENANCE  
STATION



KLONDIKE SITE 1 SUMMARY				
GPS COORDINATES	CL REFERENCE	ITEM NO.	QUANTITY	DESCRIPTION OF WORK
59.48086048N, 135.29029204W	RT		1 EA	REMOVE GATE AND FOUNDATION
	RT	607(14A)	1 EA	GATE AND FOUNDATION

**RECEIVED**  
By Community Development at 11:26 am, Jun 26, 2014

LEGEND	
— OHE —	OVERHEAD ELECTRIC/UTILITIES
— SB —	SEDIMENT BARRIER
— EOTW —	EDGE OF TRAVELED WAY
— — — — —	EXISTING DRAIN PATTERN
⊗ ⊙ ⊗ ⊙ ⊗ ⊙	EXISTING MONUMENT

PATH:Q:\SEA\67840\ENC\3D\SHEET  
COMPILATION\67840\_F3\_KLONDIKE\_LOCATIONS.DWG

PURVES, NATHAN A (DOT)  
TAB: F3 Friday, May 23, 2014 1:03:09 PM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

CANADA  
ALASKA

KLONDIKE HIGHWAY

SKAGWAY RIVER

RAILROAD

GOAT LAKE

WHITE PASS

EAST FORK

**SITE 1 LOCATION**  
SKAGWAY

CHECKED BY: G. LOCKWOOD

STATE OF ALASKA  
49 TH  
ENGINEER  
CE  
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: P. SPRENGER  
DRAWN BY: P. SPRENGER

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
DESIGN & ENGINEERING SERVICES  
DIVISION-SOUTHEAST REGION

SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

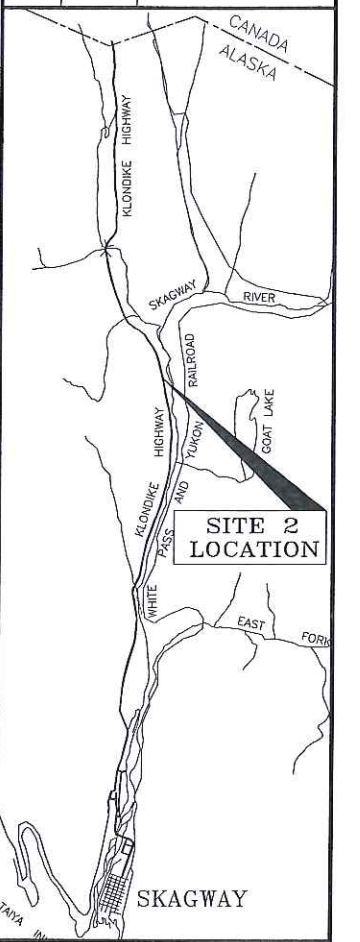
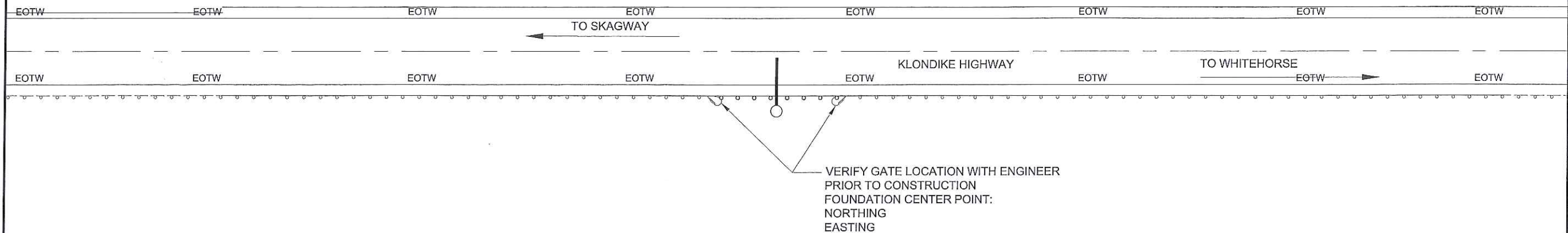
PROJECT DESIGNATION  
**67840**

STATE	YEAR
<b>ALASKA</b>	<b>2014</b>

SHEET NUMBER	TOTAL SHEETS
<b>F3</b>	<b>14</b>

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS





KLONDIKE SITE 2 SUMMARY				
GPS COORDINATES	CL REFERENCE	ITEM NO.	QUANTITY	DESCRIPTION OF WORK
59.5445298N, 135.20704759W	RT		10 FT	REMOVE GATE AND FOUNDATION
	RT		1 EA	REMOVE END ANCHOR
	RT		1 EA	REMOVE END ANCHOR
	RT	606(1)	50 FT	W-BEAM GUARDRAIL

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
DESIGN & ENGINEERING SERVICES  
DIVISION-SOUTHEAST REGION

SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

67840

STATE	YEAR
ALASKA	2014

SHEET NUMBER	TOTAL SHEETS
F4	14

**By Community Development at 11:26 am, Jun 26, 2014**

— OHE — OVERHEAD ELECTRIC/UTILITIES  
 — SB — SB — SEDIMENT BARRIER  
 — EOTW — EDGE OF TRAVELED WAY  
 — — — — — EXISTING DRAIN PATTERN  
 ⊕ ⊗ ⊗ ⊗ ⊕ EXISTING MONUMENT

**DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS**

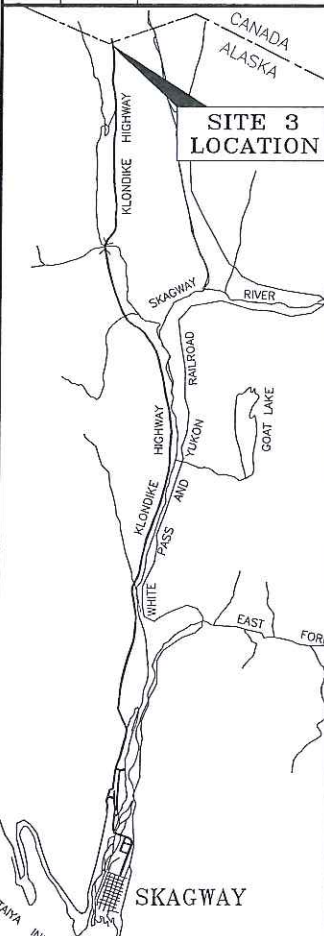
PURVES, NATHAN A (DOT)  
TAB: F5 Friday, May 23, 2014 1:12:59 PM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



CHECKED BY: G. LOCKWOOD



DESIGNED BY: P. SPRENGER

DRAWN BY: P. SPRENGER

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
DESIGN & ENGINEERING SERVICES  
DIVISION-SOUTHEAST REGION

SEA-  
AREAWIDE AVALANCHE GATES  
PROJECT #67840

PROJECT DESIGNATION

67840

STATE	YEAR
ALASKA	2014

SHEET NUMBER	TOTAL SHEETS
F5	14

VERIFY GATE LOCATION WITH ENGINEER  
PRIOR TO CONSTRUCTION  
FOUNDATION CENTER POINT:  
NORTH: 59.629628  
WEST: 135.163933

SEDIMENT BARRIER TO BE 11' RADIUS  
SEMI-CIRCLE CENTERED AT AVALANCHE  
GATE

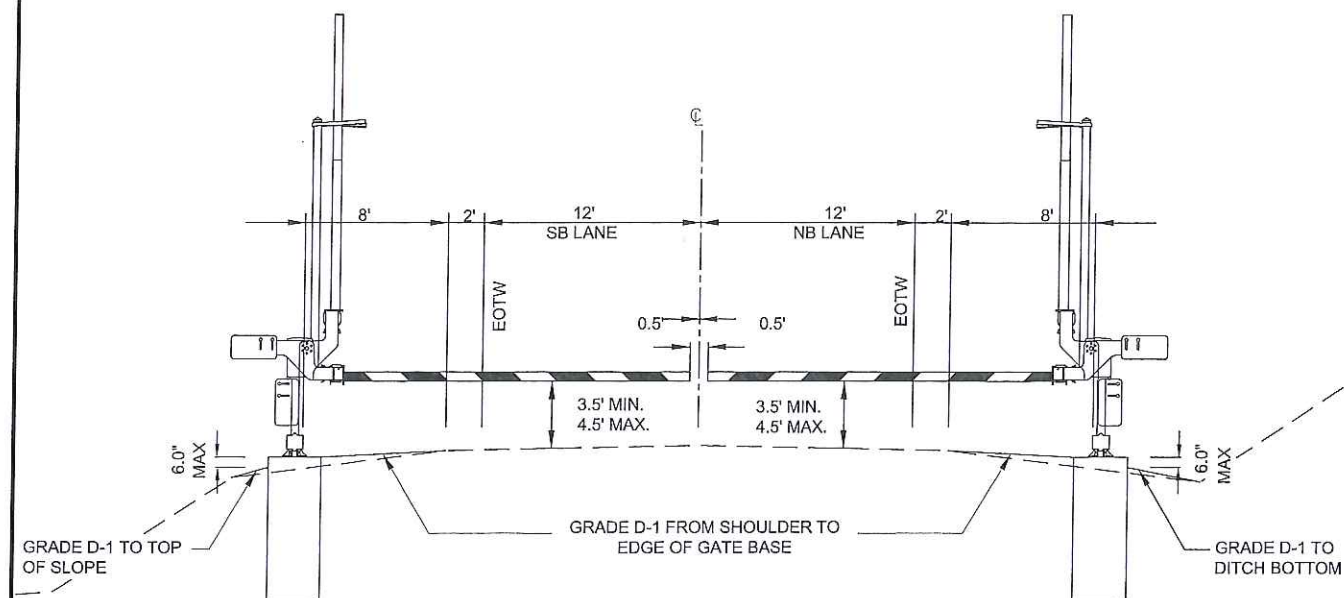
REMOVE EXISTING  
AVALANCHE GATE  
AND FOUNDATION

SEDIMENT BARRIER TO BE 5.5' RADIUS  
SEMI-CIRCLE CENTERED AT AVALANCHE  
GATE

VERIFY GATE LOCATION WITH ENGINEER  
PRIOR TO CONSTRUCTION  
FOUNDATION CENTER POINT:  
NORTH: 59.629589  
WEST: 135.163767

INTERNATIONAL  
BORDER

U.S. CANADA



### KLONDIKE SITE 3 SUMMARY

GPS COORDINATES	CL REFERENCE	ITEM NO.	QUANTITY	DESCRIPTION OF WORK
59.62964530N, 135.16445839W	LT		1 EA	REMOVE GATE AND FOUNDATION
59.62995890N, 135.1637670W	RT	607(14A)	1 EA	GATE AND FOUNDATION
59.62966280N, 135.1639330W	LT		1 EA	GATE AND FOUNDATION

**RECEIVED**

By Community Development at 11:27 am, Jun 26, 2014

### LEGEND

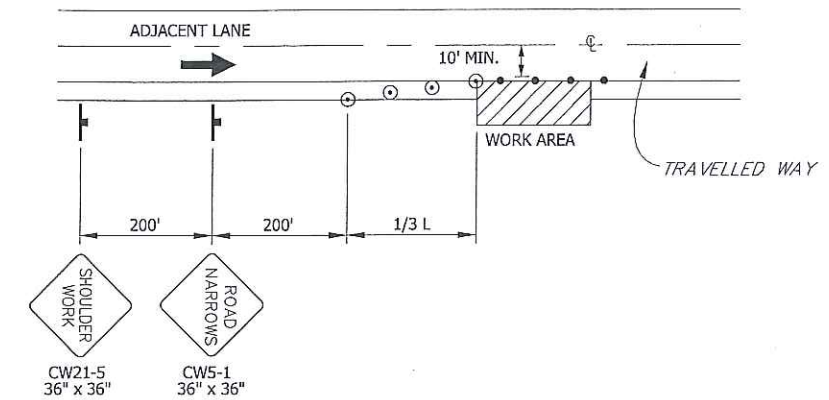
— OHE —	OVERHEAD ELECTRIC/UTILITIES
— SB —	SEDIMENT BARRIER
— EOTW —	EDGE OF TRAVELED WAY
— — —	EXISTING DRAIN PATTERN
⊗ ⊙ ⊗ ⊙	EXISTING MONUMENT

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## TRAFFIC CONTROL NOTES

1. A MINIMUM OF TWO LANES SHALL BE MAINTAINED AT ALL TIMES, THROUGH ALL WORK AREAS, EXCEPT DURING FLAGGING OPERATIONS.
3. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
4. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
6. FLOOD LIGHTS SHALL BE PROVIDED FOR FLAGGER STATIONS DURING NIGHT OPERATIONS.
7. A SINGLE FLAGGER MAY BE APPROVED BY THE ENGINEER IF THE ENTIRE WORK AREA IS LESS THAN 300' AND VISIBLE FROM THE FLAGGER STATION.
8. CHANNELIZATION DEVICES IF USED AT NIGHT SHALL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.
11. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, NOT ALL, OF THE TRAFFIC CONTROL SETUPS WHICH WILL BE REQUIRED ON THIS PROJECT. PLANS FOR CONFIGURATIONS NOT COVERED BY THE TCP SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. WHERE APPROPRIATE, THEY SHALL INCORPORATE APPLICABLE PORTIONS OF DETAILS ON THESE SHEETS.



## SHOULDER WORK

### LEGEND

- SIGN
- ----- CONE
- ----- DRUM

### FORMULAS FOR L (TAPER LENGTH)

$$40 \text{ MPH OR LESS } L = \frac{W \times S^2}{60}$$

$$45 \text{ MPH OR GREATER } L = W \times S$$

WHERE W= WIDTH OF OFFSET  
S= POSTED SPEED LIMIT  
OR ANTICIPATED  
OPERATING SPEED

DRUM OR CONE SPACING = S ( IN FEET)

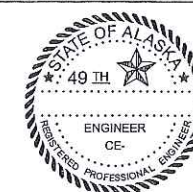
S	MIN. BUFFER LENGTH
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

**RECEIVED**

By Community Development at 11:27 am, Jun 26, 2014

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CHECKED BY: G. LOCKWOOD



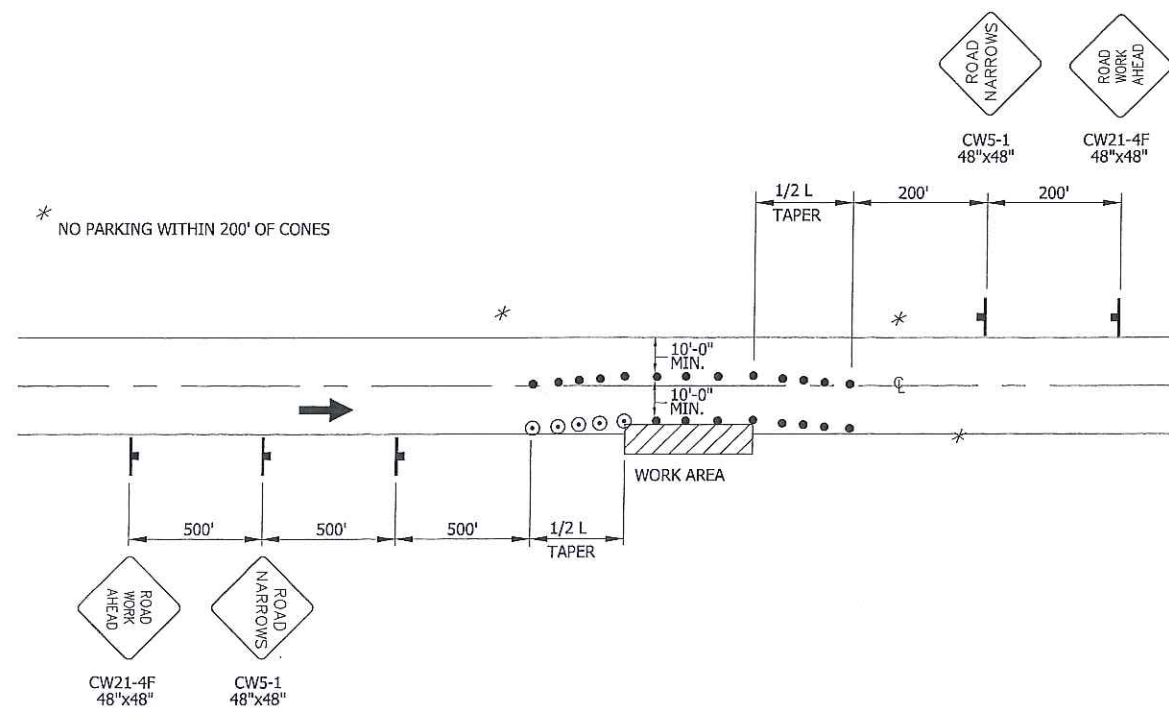
DESIGNED BY: P. SPRENGER

DRAWN BY: P. SPRENGER

PATH: Q:\SEA\67840\ENVC3D\SHEET COMPILATION\140522 S1 TRAFFIC CONTROL SHEET.DWG

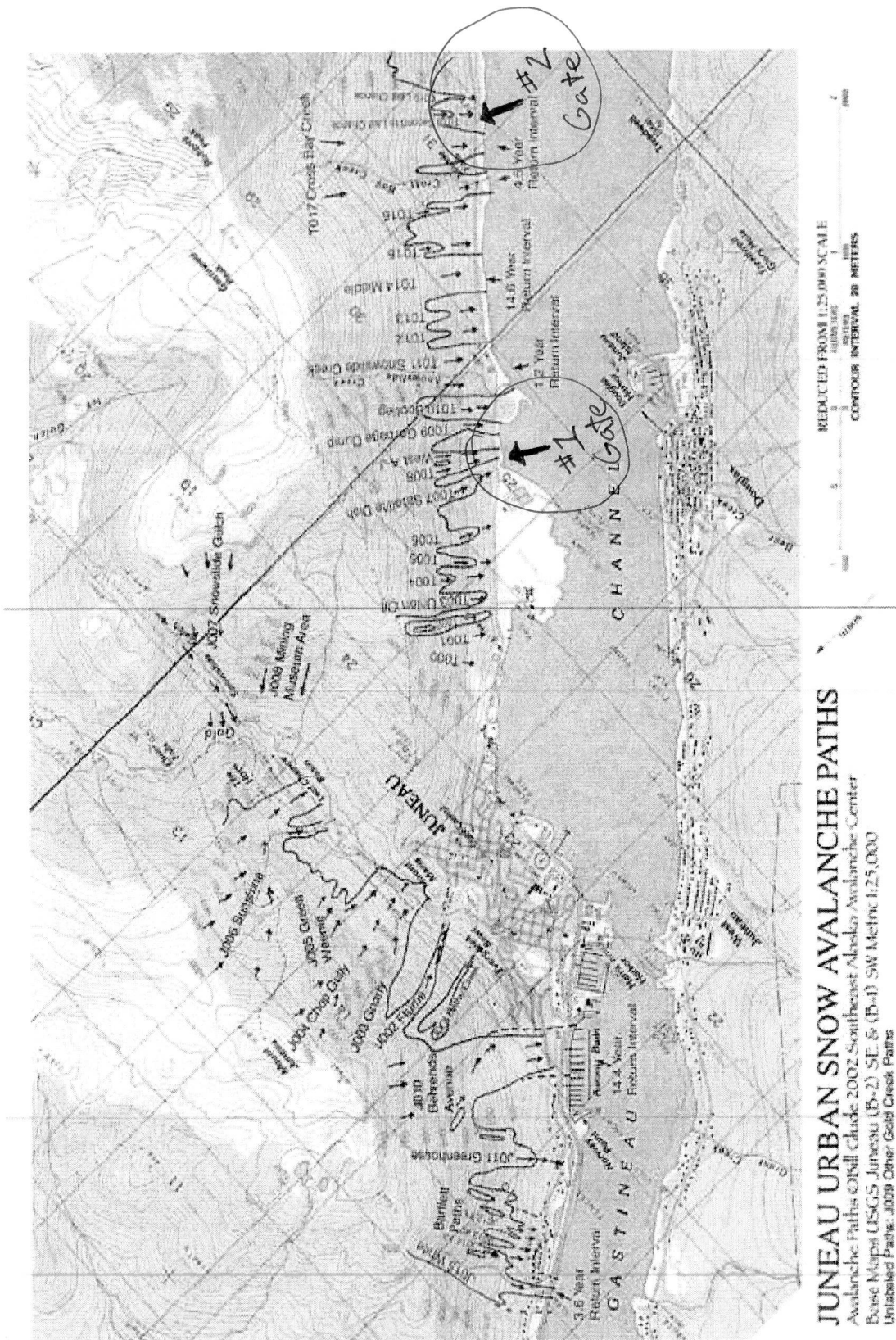
TAB: S2 Friday, May 23, 2014 11:57:25 AM PURVES, NATHAN A (DOT)

NO.	DATE	REVISIONS DESCRIPTION	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			67840	2014	S2	15



## ROADWAY ENCROACHMENT

NOTE: IF ONLY ONE LANE IS EFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.



Map 4 Juneau Snow Avalanche Paths

# Attachment B



PLANNING COMMISSION  
Assembly Chambers  
Municipal Building  
155 South Seward Street  
Juneau AK 99801

**Re: State consistency permit for DOT/PF to install roadblock gates along Thane Road for increased avalanche safety.**

As a current property owner and former resident of Thane Road I am against installing physical 'roadblock' gates along Thane Road for increased avalanche safety. Corralling Thane residents like cattle by installing physical gates to bar access to Thane Road is not an appropriate response to creating 'increased avalanche safety' along Thane Road. Maybe symbolic, but a physical gate that locks-up an entire neighborhood seems inappropriate and heavy handed.

Instead, DOT/PF could install a post on each side of Thane Road with flashing warning lights: yellow for high avalanche danger & red for closure (similar to a railroad crossing without the gate). This seems a much more appropriate action/response to increasing visibility of avalanche danger or road closure without locking-up an entire neighborhood.

Johnn R Kelly  
5795, 5805 Thane Road  
Juneau AK 99801  
(707) 987-8577

**Attachment C**