STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FORESTRY

VALLENAR BAY ROAD

MP 0-8.5

PROJECT NO. 34050-4

INVITATION TO BID

MARCH 31, 2016

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(State Funded)

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

INVITATION FOR BIDS

for Construction Contract

Date **March 31, 2016**

VALLENAR BAY ROAD, PROJECT NO. 34050-4

Project Name and Number

Location of Project: **Gravina Island near Ketchikan, Alaska**

Contracting Officer: Marlys Hagen, DNR Procurement Officer

Issuing Office: Division of Forestry

State Funded ☒ Federal Aid ☐

Description of Work:

Construct 8.4 Miles of linear graded road and associated drainage structures. Supply and install culverts and modular bridges as necessary. Reconstruct approximately 1.1 miles of existing forest road and construct associated drainage structures.

The Engineer's Estimate is:

- ☐ Less than $100,000
- ☐ Between $100,000 and $250,000
- ☐ Between $250,000 and $500,000
- ☐ Between $500,000 and $1,000,000
- ☐ Between $1,000,000 and $2,500,000
- ☒ Between $2,500,000 and $5,000,000
- ☐ Greater than $5,000,000

All work shall be completed in **365** Calendar Days, or by **N/A**.
Interim Completion dates, if applicable, will be shown in the Special Provisions.

Bidders are invited to submit sealed bids, in single copy, for furnishing all labor, equipment, and materials and for performing all work for the project described above. Bids will be opened publicly at 2:00 PM local time, at 550 W. 7th Ave., Suite 1230; Anchorage, AK 99501 on the 28th of April 2016.

SUBMISSION OF BIDS

ALL BIDS INCLUDING ANY AMENDMENTS OR WITHDRAWALS MUST BE RECEIVED PRIOR TO BID OPENING. BIDS SHALL BE SUBMITTED ON THE FORMS FURNISHED AND MUST BE IN A SEALED ENVELOPE MARKED AS FOLLOWS:

Bid for Project: **VALLENAR BAY ROAD** **Project Number 34050-4**	**ATTN:** **Procurement Officer** **Dept. Natural Resources** **550 W. 7th Ave., Suite 1230** **Anchorage AK 99501-3564** **Phone (907) 269-8666**

Bids, amendments or withdrawals transmitted by mail must be received at the above specified address no later than 30 minutes prior to the scheduled time of bid opening. Hand-delivered bids, amendments or withdrawals must be received at the above specified address prior to the scheduled time of bid opening. Faxed bid amendments must be addressed to the above specific address. Fax number: (907) 269-8909.

A bid guaranty is required with each bid in the amount of 5% of the amount bid. (Alternate bid items as well as supplemental bid items appearing on the bid schedule shall be included as part of the total amount bid when determining the amount of bid guaranty required for the project.)

The Department hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises (DBEs) will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

NOTICE TO BIDDERS

Bidders are hereby notified that data to assist in preparing bids is available as follows:

SEE SPECIAL NOTICE TO BIDDERS

Plans and Specifications may be downloaded from: https://aws.state.ak.us/OnlinePublicNotices/default.aspx
For additional information contact:

Procurement Officer
Dept. of Natural Resources
550 West 7th Avenue, Suite 1230
Anchorage, AK 99501-3564
Phone (907) 269-8666
Fax (907) 269-8909

All questions relating to design features, constructability, quantities, or other technical aspects of the project should be directed to the following. Bidders requesting assistance in viewing the project must make arrangements at least 48 hours in advance with:

Greg Staunton
Project Manager
Fax: (907) 225-3070 Phone: (907) 225-3070 Email: greg.staunton@alaska.gov

All questions concerning bidding procedures should be directed to:

Marlys Hagen C.P..M., CPPB, CPPO Procurement Officer
Dept. of Natural Resources
550 West 7th Avenue, Suite 1230
Anchorage, AK 99501-3564
Phone (907) 269-866
Fax (907) 269-8909

Other Information:

Bid results are available approximately 30 minutes after each bid opening by calling the Procurement Officer.

Apprenticeship Requirements and Alaska Hire. See the attached Administrative Order No. 278 regarding Apprenticeship requirements on State funded construction projects that exceed $2,500,000, and the Employment Preference Determination that sets Alaska Hire requirements. Contractor's must comply with these requirements.

STATE CAPITOL
P.O. Box 110001
Juneau, AK 99811-0001
907-465-3500
fax: 907-465-3532

550 West Seventh Avenue, Suite 1700
Anchorage, AK 99501
907-269-7450
fax 907-269-7461
www.Gov.Alaska.Gov
Governor@Alaska.Gov

Governor Bill Walker
STATE OF ALASKA

ADMINISTRATIVE ORDER NO. 278

I, Bill Walker, Governor of the State of Alaska, under the authority of Article III, Sections 1 and 24 of the Constitution of the State of Alaska, revoke Administrative Order 226 and make the following findings and order concerning apprenticeship utilization for construction projects financed by the State of Alaska:

FINDINGS AND PURPOSE

Well-trained construction workers are critical to the efficient and economical completion of construction projects. The State regularly provides funding and is a party to contracts for construction projects. Studies of the state's workforce by the Department of Labor and Workforce Development have identified the need to increase the supply of skilled construction workers available in the state. In order to develop and maintain a skilled workforce for construction projects, the State government needs to increase its efforts to ensure the supply of trained construction workers for the future.

Traditionally, apprenticeship programs have been an effective way to provide on-the-job training experience for the construction trades. Individuals enrolled in apprentice programs gain the training and experience necessary to advance in the construction trades. Therefore, I find that increasing the opportunities for on-the-job training through monitoring the use of apprentice workers on State-financed construction projects will work to improve the future pool of workers available for State-financed construction projects.

Administrative Order 226, which required reporting of apprentice hours for heavy and highway construction projects, was a first step to building our pool of skilled construction workers through use of apprentice workers. It is now time to expand our efforts to encourage use of apprentice workers on more State construction projects; therefore I am revoking Administrative Order 226 and replacing it with this Order.

ORDER

Under the authority of Article III, Sections 1 and 24, of the Constitution of the State of Alaska, I hereby order the following:

1. This Order applies to each construction contract advertised for bids by the Department of Transportation and Public Facilities or the Department of Administration on or after November 10, 2015, that at the time of contract award, has a contract award amount of $2,500,000 or more.

2. For each construction contract that meets the qualifications of paragraph 1 of this Order, unless it would jeopardize federal funding, the Commissioner of the Department of Transportation and Public Facilities or the Commissioner of the Department of Administration, as applicable, shall strive to require that not less than 15 percent labor hours on a project are performed by apprentices in the following United States Department of Labor Standard Occupational Classification Systems job titles:

Boilermakers	Mechanics
Bricklayers	Millwrights
Carpenters	Painters
Cement Masons	Piledriving Occupations
Culinary Workers	Plumbers and Pipefitters
Electricians	Roofers
Equipment Operators	Sheet Metal Workers
Elevator Constructors & Mechanics	Surveyors
Insulation Workers	Sprinkler Fitters
Ironworkers	Truck Drivers
Laborers	Tug Boat Workers
	Welders

3. The Commissioner of the Department of Transportation and Public Facilities and the Commissioner of the Department of Administration shall coordinate with and provide information concerning activities under this Order to the Commissioner of the Department of Labor and Workforce Development, including information required under AS 36.05.035 and other information related to compliance with this Order during the life of the project.

4. The Department of Transportation and Public Facilities and the Department of Administration, for applicable State construction projects, shall provide information to the Commissioner of the Department of Labor and Workforce Development, including the:

    a. name of the project;
    b. dollar value of the project;
    c. name of the prime contractor and contact information; and
    d. name of each subcontractor and contact information provided to the Department of Transportation and Public Facilities or the Department of Administration, as applicable, by the prime contractor.

5. The Commissioner of the Department of Labor and Workforce Development shall assist the Commissioner of the Department of Transportation and Public Facilities and the Commissioner of the Department of Administration by collecting and reporting for each state construction project identified the total:

    a. apprentice hours worked on the project; and
    b. journeymen hours worked on the project.

6. The Commissioners of the Department of Labor and Workforce Development, the Department of Transportation and Public Facilities, and the Department of Administration

shall report annually to the Governor on the percent of apprentice hours achieved for United States Department of Labor Standard Occupational Classification Systems job titles: Boilermakers, Bricklayers, Carpenters, Cement Masons, Culinary Workers, Electricians, Equipment Operators, Elevator Constructors & Mechanics, Insulation Workers, Ironworkers, Laborers, Mechanics, Millwrights, Painters, Piledriving Occupations, Plumbers and Pipefitters, Roofers, Sheet Metal Workers, Surveyors, Sprinkler Fitters, Truck Drivers, Tug Boat Workers, Welders.

7. The Commissioner of the Department of Natural Resources shall, in the development of Best Interest Findings for mineral and oil and gas leases, seek input from other agencies and include a discussion of the potential benefits of the lessee's hiring and employment of apprentices to perform at least 15 percent of total work hours. As to existing leases, the Commissioner of Natural Resources shall strive to consider ways to encourage lessees developing minerals, including oil and gas, on State-owned land to employ apprentices for work performed on the leased area.

8. The Commissioner of the Department of Labor and Workforce Development shall submit a report to the Governor by November 15, 2020, that shall include a description of the apprentice hours achieved through this Order, recommendations for change to the directives of this Order, and other information to assist the Governor in determining if the directives in this Order are being met.

In this Order, unless the context clearly requires otherwise,

1. "apprentice" means an apprentice enrolled in a federally registered approved apprenticeship training program under 29 U.S.C. 50 and 29 C.F.R. 29.1 - 29.13;

2. "construction" has the meaning given in AS 36.30.990(7), except that "construction" does not include the services and professional services relating to planning and design required for the construction;

3. "federally registered approved apprenticeship training program" means an apprenticeship training program approved by the Office of Apprenticeship Training Employer and Labor Services, United States Department of Labor, under 29 U.S.C. 50 and 29 C.F.R. 29.1 - 29.13; and

4. "labor hours" means the total hours of work performed by construction workers on the project, but does not include hours worked by superintendents, owners, and workers who are not subject to prevailing wage requirements of AS 36.05.070.

REVOCATION

Administrative Order 226 is revoked.

EFFECTIVE DATE AND SUNSET PROVISION

This Order takes effect November 10th, 2015.

This Order expires January 1, 2021.

DATED at Juneau, Alaska, this 5th day of November, 2015.

Bill Walker
Governor

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Labor and Workforce Development

Office of the Commissioner

Post Office Box 111149
Juneau, Alaska 99811
Main: 907.465.2700
Fax: 907.465-2784

EMPLOYMENT PREFERENCE DETERMINATION

(Effective July 1, 2015)

By authority of AS 36.10.150 and 8 ACC 30.064, the Commissioner of Labor and Workforce Development has determined the entire State of Alaska to be a Zone of Underemployment. A Zone of Underemployment requires that Alaska residents who are eligible under AS 36.10.140 be given a minimum of 90% employment preference on public works contracts throughout Alaska. This hiring preference applies on a project-by-project, craft-by-craft or occupational basis and must be met each workweek by each contractor/subcontractor.

The following classifications require a minimum of 90 percent Alaska resident hire preference:

Boilermakers	Bricklayers	Carpenters	Cement Masons
Culinary Workers	Electricians	Engineers and Architects	Equipment Operators
Foreman and Supervisors	Insulation Workers	Ironworkers	Laborers
Mechanics	Millwrights	Painters	Piledriving Occupations
Plumbers and Pipefitters	Roofers	Sheet Metal Workers	Surveyors
Truck Drivers	Tug Boat Workers	Welders	

For additional information about the Alaska resident hire requirements, contact the nearest Wage and Hour office.

Please be advised that most public projects are covered. Funding sources are unique for every project. The inclusion of federal funds does not necessarily remove a project from jurisdiction. Ongoing projects that were excluded from the employment preference determination effective August 16, 2013 are not subject to this determination if the bid was submitted prior to July 1, 2015. Ongoing projects subject to the August 16, 2013, determination must comply with the Alaska resident employment preference requirements listed above. If there is any uncertainty about whether the law applies to a particular project, the department requests that you contact the regional Wage and Hour office nearest you for a determination. DOLWD Wage and Hour office contact numbers are as follows: Juneau: (907) 465-4842, Anchorage: (907) 269-4900, Fairbanks: (907) 451-2886.

This determination is effective July 1, 2015 and remains in effect through June 30, 2017.

Heidi Drygas

Heidi Drygas, Commissioner

6/10/15

Date

STATE OF ALASKA
DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT
ALASKA EMPLOYMENT PREFERENCE INFORMATION

By authority of A.S. 36.10.150 and 8 AAC 30.064, the Commissioner of Labor and Workforce Development has determined the State of Alaska to be a Zone of Underemployment. A Zone of Underemployment requires that Alaska residents who are eligible under AS 36.10.140 be given a minimum of 90 percent employment preference on public works contracts throughout the state in certain job classifications. **This 90 percent Alaska resident hiring preference applies on a project-by-project, craft-by-craft or occupational basis and must be met each workweek by each contractor/subcontractor in each of the following classifications:**

Boilermakers	Electricians	Laborers	Roofers
Bricklayers	Engineers and Architects	Mechanics	Sheet Metal Workers
Carpenters	Equipment Operators	Millwrights	Surveyors
Cement Masons	Foremen & Supervisors	Painters	Truck Drivers
Culinary Workers	Insulation Workers	Piledriving Occupations	Tug Boat Workers
	Ironworkers	Plumbers & Pipefitters	Welders

This determination became effective July 1, 2015, and remains in effect through June 30, 2017. This determination will be applied to projects with a bid submission deadline on or after July 1, 2015 and to projects previously covered by the 2013 Alaska employment preference determination. This will afford contractors an opportunity to consider the impacts of Alaska resident hire in their bids.

The first person on a certified payroll in any classification is called the "first worker" and is not required to be an Alaskan resident. However, once the contractor adds any more workers in the classification, then all workers in the classification are counted, and the 90 percent calculation is applied to compute the number of required Alaskans to be in compliance. To compute the number of Alaskan residents required in a workweek in a particular classification, multiply the total number of workers in the classification by 90 percent. The result is then rounded down to the nearest whole number to determine the number of Alaskans that must be employed in that classification.

If a worker works in more than one classification during a week, the classification in which they spent the most time would be counted for employment preference purposes. If the time is split evenly between two classifications, the worker is counted in both classifications.

If you have difficulty meeting the 90 percent requirement, an approved waiver must be obtained before a non-Alaska resident is hired who would put the contractor/subcontractor out of compliance (8 AAC 30.081 (e) (f)). The waiver process requires proof of an adequate search for qualified Alaskan workers. Qualified Alaska residents identified through the search must be hired before waivers for non-resident workers may be granted. To apply for a waiver, contact the nearest Wage and Hour Office for instructions.

Here is an example to apply the 90 percent requirement to four boilermaker workers. Multiply four workers by 90% and drop the fraction (.90 X 4 = 3.6 - .6 = 3). The remaining number is the number of Alaskan resident boilermakers required to be in compliance in that particular classification for that week.

The penalties for being out of compliance are serious. AS 36.10.100 (a) states "A contractor who violates a provision of this chapter shall have deducted from amounts due to the contractor under the contract the prevailing wages which should have been paid to a displaced resident and these amounts shall be retained by the contracting agency." If a contractor/subcontractor is found to be out of compliance, penalties accumulate until they come into compliance.

Contractors are responsible for determining residency status. If you have difficulty determining whether a worker is an Alaska resident, you should contact the nearest Wage and Hour Office. Contact Wage and Hour in Anchorage at (907) 269-4900, in Fairbanks at (907) 451-2886, or in Juneau at (907) 465-4842.

THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Labor and
Workforce Development
P.O. Box 111149
Juneau, Alaska 99811-1149
Main: 907.465.2700, Fax: 907.465.2784

Department of Transportation
and Public Facilities
P.O. Box 112500
Juneau, Alaska 99811-2500
Main: 907.465.3900, Fax: 907.586.8365

Dear Prospective Contractor:

If you are considering bidding on an Alaska public works project, please remember the positive benefits of hiring locally. Construction, maintenance, and operation of public works projects are vital to the local economy. Alaska Hire helps contractors too— your neighbors are more invested in our community than non-residents, they are more likely to show up to work on time and finish the job.

If you want to hire more Alaskans, we're here to help. Hiring local workers is cost-effective and can benefit your business in many ways. The Alaska Department of Labor and Workforce Development's Job Center staff can connect you with qualified, skilled Alaskan workers through the Alaska Labor Exchange (ALEXsys) employee/employer database. Call (907) 465-2712 to get connected with a Job Center and potential employees in your community.

Work Opportunity Tax Credits (WOTC) are available to employers who hire qualified new employees who are unemployed disabled veterans, recipients of Temporary Assistance or food stamps, ex-offenders, and residents of Empowerment Zones or Renewal Communities. The WOTC program saved employers operating in Alaska over $3.2 million last year. For information on the tax credit program call (907) 465-5952 or visit the WOTC website, www.jobs.alaska.gov/wotc.htm.

The Department of Transportation and Public Facilities, the Department of Labor and Workforce Development, the Alaska Native Coalition on Employment and Training (ANCET), the Construction Education Foundation, and other industry training providers work closely together to recruit women, Alaska Natives, minorities and veterans for training and job referral. We can assist your business in finding qualified employees right now, as well as help you institute training programs to ensure a stable and skilled workforce over the long term. There are many high school and adult training programs across the state that prepare Alaska residents for construction jobs and to learn a trade as registered apprentice. Alaska has over 1,500 registered apprentices and our Job Centers can assist employers that want to hire apprentices. Alaska's prevailing wage is adjusted to allow employers to pay apprentices a reduced rate while they are learning their trade, offsetting your costs of training the apprentice. Additionally, there are on-the-job training wage incentives available for employers that hire apprentices.

If you are awarded a contract, we will send you additional information on the business benefit of hiring locally and how to use the free Alaska Labor Exchange System to find qualified Alaska residents. Your effort to hire locally is appreciated very much. We wish you well in the upcoming construction season and thank you for putting Alaskans to work.

Sincerely,

Heidi Drygas, Commissioner
Department of Labor
and Workforce Development

Marc Luiken, Commissioner
Department of Transportation
and Public Facilities

"Keep Alaska Moving through service and infrastructure."

SPECIAL NOTICE TO BIDDERS

The Department hereby notifies bidders that information to assist in preparing bids is available.

1. Publications. These items are available upon request in the Anchorage Department of Transportation and Public Facilities Building Plans Room located at 4111 Aviation Avenue:

   a. Standard Specifications for Highway Construction 2015. ($25.00) Available online at: http://www.dot.state.ak.us/stwddes/dcsspecs/pop_hwyspecs_english.shtml

   b. Alaska Test Methods Manual (Lab & Field), 2007 Edition. ($25.00) Available online at: http://www.dot.state.ak.us/stwddes/desmaterials/mat_waqtc/pop_testman.shtml

2. Other Publications.
   a. Forest Resources and Practices Act, Regulations and Implementation. Available on line at: http://forestry.alaska.gov/forestpractices#acts
   b. ADOT Best Management Practices for Erosion& Sediment Control. Available on line at: http://www.dot.state.ak.us/stwddes/desenviron/resources/stormwater.shtml#

3. Materials Certification List (MCL). The MCL provides the Engineer with the appropriate approving authority. Contractor, submit certification for each material to the Engineer. The MCL is included in Appendix D.

4. High Visibility Clothing. The Department requires all workers within the project limits to wear an outer visible surface or layer of high visibility color and retroreflectivity. See subsection 643-3.11.

5. Prevailing Wage Requirements. The Lt. Governor certified the revised regulatory definition of "on-site" in 8 AAC 30.910 to clarify the scope of activities covered by Alaska's Little Davis Bacon Act (AS 36.05.010 - AS 36.05.110) as proposed by the Department of Labor and Workforce Development (DOLWD) proposed a. For a copy of the revised definition of 8 AAC 30.910, go to: http://labor.alaska.gov/lss/forms/Pam400.pdf

   DOLWD will enforce the revised provisions on all projects with bid opening date on or after February 15, 2011. Prospective bidders on projects with a bid opening date on or after February 15, 2011, must consider the impact of the revised regulation and bid accordingly. DOLWD will not enforce the new "on-site" definition on projects with a bid opening date prior to February 15, 2011.

6. Section 641. The ESCP has been provided by the Department in the Appendix B to aid the contractor in preparing a Detailed Erosion Sediment Control Plan (DESCP).

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

REQUIRED DOCUMENTS

State Funded Contracts

REQUIRED FOR BID. Bids will not be considered if the following documents are not completely filled out and submitted at the time of bidding:

1. **Bid Form (Form 25D-9DNR)**
2. **Bid Schedule**
3 **Bid Security (Form 25D-14DNR or Certified Check)**
4. Any bid revisions must be submitted by the bidder prior to bid opening on the following form:

   Bid Modification (Form 25D-16DNR)

REQUIRED AFTER NOTICE OF APPARENT LOW BIDDER. The apparent low bidder is required to complete and submit the following document within 5 working days after receipt of written notification:

1. **Subcontractor List (Form 25D-5DNR)**

REQUIRED FOR AWARD. In order to be awarded the contract, the successful bidder must completely fill out and submit the following documents within the time specified in the intent to award letter:

1. **Construction Contract (Form 25D-10ADNR)**
2. **Payment Bond (Form 25D-12DNR)**
3. **Performance Bond (Form 25D-13DNR)**
4. **Contractor's Questionnaire (Form 25D-8DNR)**
5. **Certificate of Insurance (from carrier)**

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

SUBCONTRACTOR LIST

VALLENAR BAY ROAD, PROJECT NO. 34050-4

Project Name and Number

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the close of business on the fifth working day after receipt of written notice from the Department.

Failure to submit this form with all required information by the due date will result in the bidder being declared nonresponsive and may result in the forfeiture of the Bid Security.

Scope of work must be clearly defined. If an item of work is to be performed by more than one firm, indicate the portion or percent of work to be done by each.

Check as applicable: [☐] All Work on the above-referenced project will be accomplished without subcontracts greater than ½ of 1% of the contract amount.

or

[☐] Subcontractor List is as follows:

LIST FIRST TIER SUBCONTRACTORS ONLY

FIRM NAME, ADDRESS, PHONE NO.	AK BUSINESS LICENSE NO., CONTRACTOR'S REGISTRATION NO.	SCOPE OF WORK TO BE PERFORMED

CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE

For projects with federal-aid funding, I hereby certify Alaska Business Licenses and Contractor registrations will be valid for all subcontractors prior to award of the subcontract. For projects without federal-aid funding (State funding only), I hereby certify the listed Alaska Business Licenses and Contractor's Registration were valid at the time bids were opened for this project.

Signature of Authorized Company Representative | **Title**

Company Name | **Company Address (Street or PO Box, City, State, Zip)**

Date | **Phone Number**

FIRM NAME, ADDRESS, PHONE NO.	AK BUSINESS LICENSE NO., CONTRACTOR'S REGISTRATION NO.	SCOPE OF WORK TO BE PERFORMED

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

CONTRACTOR'S QUESTIONNAIRE

VALLENAR BAY ROAD, PROJECT NO. 34050-4
Project Name and Number

A. FINANCIAL

1. Have you ever failed to complete a contract due to insufficient resources?

   ☐ NO ☐ YES If YES, explain:

   _____
   _____
   _____
   _____
   _____

2. Describe any arrangements you have made to finance this work: _____
   _____
   _____

B. EQUIPMENT

1. Describe below the equipment you have available and intend to use for this project:

ITEM	QUAN.	MAKE	MODEL	SIZE / CAPACITY	PRESENT MARKET VALUE

2. What percent of the total value of this contract do you intend to subcontract? _____%

3. Do you propose to purchase any equipment for use on this project?

☐ NO ☐ YES If YES, describe type, quantity, and approximate cost:

4. Do you propose to rent any equipment for this work?

☐ NO ☐ YES If YES, describe type and quantity:

5. Is your bid based on firm offers for all material necessary for this project?

☐ NO ☐ YES If NO, explain:

C. EXPERIENCE

1. Have you had previous construction contracts or subcontracts with the State of Alaska?

☐ NO ☐ YES If YES, explain:

2. List, as an attachment to this questionnaire, other construction projects you have completed, the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months.

I hereby certify that the above statements are true and complete.

Name of Contractor | **Name & Title of Person Signing**

Signature | **Date**

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID FORM

for

VALLENAR BAY ROAD, PROJECT NO. 34050-4
Project Name and Number

by

Company Name

Company Address (Street or PO Box, City, State, Zip)

TO THE CONTRACTING OFFICER,
DEPARTMENT OF NATURAL RESOURCES:

In compliance with your Invitation for Bids dated **March 31, 2016**, the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of the above-referenced Project, located at or near **Ketchikan**, Alaska, according to the plans and specifications and for the amount and prices named herein as indicated on the Bid Schedule consisting of **2** sheets, which is made a part of this Bid.

The Undersigned declares that he has carefully examined the contract requirements and that he has made a personal examination of the site of the work; that he understands that the quantities, where such are specified in the Bid Schedule or on the plans for this project, are approximate only and subject to increase or decrease, and that he is willing to perform increased or decreased quantities of work at unit prices bid under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within fifteen calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this bid, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying bid guarantee shall be forfeited to the State of Alaska, Department of Natural Resources as liquidated damages, and the said Contracting officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within 10 calendar days, and to complete the work within **365** calendar days, after the effective date of the Notice to Proceed, or by **n/a**, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of **100%** (of the contract) and Performance Bond in the amount of **100%** (of the contract), as surety conditioned for the full, complete and faithful performance of this contract.

The Undersigned acknowledges receipt of the following addenda to the drawings and/or specifications (give number and date of each).

Addenda Number	Date Issued	Addenda Number	Date Issued	Addenda Number	Date Issued

NON-COLLUSION DECLARATION

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he nor the firm, association, or corporation of which he is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this bid.

The Undersigned has read the foregoing and hereby agrees to the conditions stated therein by affixing his signature below:

Signature of Authorized Company Representative

Typed Name and Title

( ) **( )**

Phone Number **Fax Number**

Email Address

ALASKA PRODUCTS PREFERENCE WORKSHEET

(See Reverse Side for Instructions)

Project Name and Number: VALLENAR BAY ROAD, PROJECT NO. 34050-4

Bid Phase: Not Applicable Contractor:

PRODUCT	MANUFACTURER	CLASS & PREFERENCE PERCENTAGE	TOTAL DECLARED VALUE	REDUCTION AMOUNT
			TOTAL	

INSTRUCTIONS FOR ALASKA PRODUCTS PREFERENCE WORKSHEET

Special Notice: All procurements, except those funded from Federal sources, shall contain Contract provisions for the preference of Alaska products. To be considered for the Alaska Product Preference, each product listed by the Bidder on this worksheet must have current certification from the Alaska Products Preference Program at the time of Bid Opening. A product with expired certification at the bid opening date will not be considered eligible. Products that are not specified for use on the project will not be considered eligible. The Alaska Product Preference Program List of certified products is available online at: http://www.commerce.state.ak.us/ded/dev/prodpref/prodpref.htm or may be obtained by contacting the local DCED office or writing: Dept. of Commerce & Economic Development, Alaska Products Preference List, P.O. Box 110800, Juneau, Alaska 99811-0800.

BIDDERS INSTRUCTIONS:

A. General. The contracting Agency may request documentation to support entries made on this form. False presentations may be subject to AS 36.30.687. All Bidder's entries must conform to the requirements covering bid preparations in general. Discrepancies in price extensions shall be resolved by multiplying the declared total value times the preference percentage and adjusting any resulting computation(s) accordingly.

B. Form Completion – BASIC BIDS.

(1) Enter project number and name, the words "Basic Bid" and the CONTRACTOR'S name in the heading of each page as provided.

(2) The Bidder shall compare those candidate products appearing on the preference listing (see Special Notice comments above) against the requirements of the technical specifications appearing in the contract documents. If the Bidder determines that a candidate product can suitably meet the contract requirements, then that product may be included in the worksheet as follows.

(3) For each suitable product submitted under the "Basic Bid" enter:

- The product name, generic description and its corresponding technical specification section number under the heading "PRODUCT",
- The company name of the Alaska producer under the heading "Manufacturer", and
- The product class (I, II, or III) and preference percentage (3, 5, or 7% respectively) under the "CLASS/% heading.

(4) For each product appearing on the list and to be utilized by the CONTRACTOR enter:

- Under the heading "TOTAL DECLARED VALUE" the manufacturer's quoted price of the product, (caution: this value is to be the manufacturer's quoted price at the place of origin and shall not include costs for freight, handling or miscellaneous charges of incorporating the product into the Work,) and
- The resulting preference – i.e. the preference percentage times the total declared value amount – under the heading "REDUCTION AMOUNT".

(5) Continue for all "suitable" basic bid products. If the listing exceeds one page enter the words "Page # __ SUB" in front of the word "TOTAL" and on the first line of the following pages enter "SUBTOTAL OF REDUCTION AMOUNT FROM PREVIOUS PAGE".

(6) On the final page of the listing enter "BASIC BID PREFERENCE GRAND" immediately before the word "TOTAL".

(7) Total the entries in the "REDUCTION AMOUNT" column for each page by commencing at the first entry for that page. If a continuation page exists, ensure that the subtotal from the previous page is computed into the running total. Number pages as appropriate.

(8) Compute a Grand Total for the Basic Bid Preference. Enter the amount on the final page of the worksheet. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Basic Bid Schedule.) Submit worksheet(s) with the Bid Schedule.

C. Form Completion – ALTERNATE BIDS.

(1) Enter project number and name, the words "ALTERNATE BID #__", and CONTRACTOR'S name in the heading of each page as provided.

(2) On the first entry line enter "ADDITIONAL ALASKA PRODUCTS FOR ALTERNATE BID #__", and repeat procedures 2 through 5 under part B these Bidder's instructions except that references to "Basic Bid" shall be replaced with the words "Alternate Bid #__."

(3) Following the listing of all additional Alaska products enter the words "ADDITIONAL PRODUCTS PREFERENCE FOR ALTERNATE BID #__ - SUBTOTAL" and enter a subtotal amount for all additional products as listed. Subtotal amount to be determined by adding all additional product entries in the "REDUCTION AMOUNT" column.

(4) Skip three lines and enter "LESS THE FOLLOWING NON-APPLICABLE ALASKA PRODUCTS:

(5) Beginning on the next line, enter the product name and manufacturer of each Alaska Product appearing on the "Basic Bid" listing which would be deleted or reduced from the Project should the "Alternate Bid" be selected. Details of entry need only be sufficient to clearly reference the subject product. (i.e. "Pre-hung doors by Alaska Door Co., Anchorage.") Products being reduced shall specify the amount of the reduction. Should no products require deletion enter "None". When a product is listed as a "NON-
APPLICABLE ALASKA PRODUCT" for this alternate bid and if under the basic bid the Bidder received a preference on his basic bid as a result of that product, then the applicable entries under the headings "TOTAL DECLARED VALUE" and "REDUCTION AMOUNT" (for each product and from the basic bid listing) shall also be entered into the corresponding headings of this form. Where only a portion of the products has been deleted, the entry (which will differ from those on the basic bid listing) may be "pro-rated" or as otherwise substantiated.

(6) Following the listing of all non-applicable Alaska products enter the words "NON-APPLICABLE PRODUCTS PREFERENCE FROM BASIC BID ___ SUBTOTAL" and enter a subtotal amount for all non-applicable products listed. Subtotal amount to be determined by adding all non-applicable entries in the "REDUCTION AMOUNT" column.

(7) At the bottom of the final page enter the words "ALTERNATE BID #___ PREFERENCE GRAND" immediately before the word "TOTAL".

(8) Compute a Grand Total for the Alternate Bid Preference (for Alternate #___) by subtracting the non-applicable product preference subtotal from the additional product preference subtotal. Enter on the final page. (Note: When solicitations require written bids this amount should also be entered on line “C” of the Alternate Bid Schedule.) Submit separate worksheet(s) with each Alternate Bid.

State of Alaska Department of Natural Resources Division of Forestry Coastal Region	**BID SCHEDULE**	Vallenar Bay Road Construction Project No.: 34050-4

Before preparing this bid schedule, read carefully, Section 102 of the 2015 State of Alaska Standard Specifications for Highway Construction and the following: The Bidder shall insert, as called for, a unit price or a lump sum price in figures opposite each Pay Item for which an estimated quantity appears in the Bid Schedule. A unit price or lump sum price is not to be entered or tendered for any Pay Item not appearing in the Bid Schedule. The Estimated Quantity of work for payment on a lump sum basis will be "All Required" and as further specified in the Contract. Wherever a contingent sum is shown for any item in this Bid Schedule, such amount shall govern and be included in the Bid Total.

Conditioned or qualified bids will be considered Non-Responsive. Contract award will be made on the Basis of the Basic Bid or the Basic Bid plus alternates, in the order listed and to the extent of available funding.

The bidder shall insert a unit bid price for each pay item listed below. Type or print legibly.

Basic Bid

Item Number	Description	Unit	Quantity	Unit Bid Price	Bid Amount
203(20A)	Linear Grading - Typical Section	Mile	7.13		
203(20B)	Linear Grading - Special Uphill Buttress Section	Linear Foot	475		
203(20C)	Linear Grading - Special Double Buttress Section	Linear Foot	1135		
203(20D)	Linear Grading - Special Bench Section	Linear Foot	1275		
203(20E)	Linear Grading - Typical Road Restoration Section	Linear Foot	1000		
252(4)	Rock Buttress	Cubic Yard	1455		
501(7A)	Precast Concrete Member , Ecology Block	Each	120		
501(7B)	Precast Concrete Member , Half Ecology Block	Each	24		
501(7C)	Precast Concrete Member , Ecology Block Cap	Each	72		
514(1)	40-foot Prefabricated Bridge, Contractor Furnished	Each	4		
514(2)	50-foot Prefabricated Bridge, Contractor Furnished	Each	1		
514(3)	80-foot Prefabricated Bridge, Contractor Furnished	Each	1		
603(17-18)	18" pipe	Linear Foot	1385		
603(17-24)	24" pipe	Linear Foot	680		
603(17-36)	36" pipe	Linear Foot	150		
603(17-48)	48" pipe	Linear Foot	300		
603(17-60)	60" pipe	Linear Foot	74		
615(1)	Standard Signs	Square Foot	262		
631(2)	Geotextile, Erosion Control, Class 1	Square Yard	550		
640(1)	Mobilization and Demobilization	Lump Sum	All Req'd	Lump Sum	
641(1)	Erosion, Sediment and Pollution Control Administration	Lump Sum	All Req'd	Lump Sum	
641(2)	Temporary Erosion, Sediment and Pollution Control	Contingent Sum	All Req'd	Contingent Sum	50,000.00
641(6)	DESCP Price Adjustment	Contingent Sum	All Req'd	Contingent Sum	0.00
643(1)	Gate	Each	1		
	Total Basic Bid		$		

State of Alaska Department of Natural Resources Division of Forestry Coastal Region	**BID SCHEDULE**	Vallenar Bay Road Construction Project No.: 34050-4

The bidder shall insert a unit bid price for each pay item listed below. Type or print legibly.

Additive Alternate A

Item Number	Description	Unit	Quantity	Unit Bid Price	Bid Amount
203(20A)	Linear Grading - Typical Section	Mile	0.73		
603(17-18)	18" pipe	Linear Foot	420		
603(17-24)	24" pipe	Linear Foot	90		
641(1)	Erosion, Sediment and Pollution Control Administration	Lump Sum	All Req'd	Lump Sum	
641(2)	Temporary Erosion, Sediment and Pollution Control	Contingent Sum	All Req'd	Contingent Sum	$3,000.00
641(6)	DESCP Price Adjustment	Contingent Sum	All Req'd	Contingent Sum	$0.00
	Total Additive Alternate A Bid		$		

The bidder shall insert a unit bid price for each pay item listed below. Type or print legibly.

Additive Alternate B

Item Number	Description	Unit	Quantity	Unit Bid Price	Bid Amount
203(20E)	Linear Grading - Typical Road Restoration Section	Linear Foot	6000		
603(17-18)	18" pipe	Linear Foot	360		
603(17-24)	24" pipe	Linear Foot	120		
603(17-36)	36" pipe	Linear Foot	100		
641(1)	Erosion, Sediment and Pollution Control Administration	Lump Sum	All Req'd	Lump Sum	
641(2)	Temporary Erosion, Sediment and Pollution Control	Contingent Sum	All Req'd	Contingent Sum	1,000.00
641(6)	DESCP Price Adjustment	Contingent Sum	All Req'd	Contingent Sum	0.00
	Total Additive Alternate B Bid		$		

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION CONTRACT

VALLENAR BAY ROAD, PROJECT NO. 34050-4
Project Name and Number

This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES, herein called the Department, acting by and through its Contracting Officer, and

_____
Company Name

_____
Company Address (Street or PO Box, City, State, Zip)

a/an [ ] Individual [ ] Partnership [ ] Joint Venture [ ] Sole Proprietorship [ ] Corporation incorporated under the laws of the State of _____ its successors and assigns, herein called the Contractor, is effective the date of the signature of the Contracting Officer on this document.

WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Department, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the above-referenced project at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of

_____ Dollars
($_____), and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents are made a part of this Contract and accepted as such.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Department, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Department. In no event shall the Department be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by the Department. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order.

The Contractor further covenants and agrees that all materials shall be furnished and delivered and all labor shall be done and performed, in every respect, to the satisfaction of the Department, on or before: N/A or within 365 calendar days. It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any reason, except with the written consent of the Department, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, the Department shall have the right to deduct from any money due or which may become due the Contractor, or if no money shall be due, the Department shall have the right to recover One Thousand Five Hundred and no/100 dollars ($1,500.00) per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

The bonds given by the Contractor in the sum of $_____ Payment Bond, and $ _____ Performance Bond, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

CONTRACTOR

Company Name

Signature of Authorized Company Representative

Typed Name and Title

Date

(Corporate Seal)

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

Div. of Forestry Duly Authorized Representative (Signature) **Date**

Typed Name

Signature of Contracting Officer **Date**

Typed Name

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PAYMENT BOND

Bond No._____

For

VALLENAR BAY ROAD, PROJECT NO. 34050-4

Project Name and Number

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____

of _____ as Principal,

and _____

of _____ as Surety,

firmly bound and held unto the State of Alaska in the penal sum of

_____ Dollars

($_____) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the_____ of_____ A.D., 20____, for construction of the above-referenced project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall comply with all requirements of law and pay, as they become due, all just claims for labor performed and materials and supplies furnished upon or for the work under said contract, whether said labor be performed and said materials and supplies be furnished under the original contract, any subcontract, or any and all duly authorized modifications thereto, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at _____, _____ this_____ day of_____ A.D., 20_____.

Principal: _____

Address: _____

By: _____

Contact Name: _____

Phone: ( ) _____

Surety: _____

Address: _____

By: _____

Contact Name: _____

Phone: ( ) _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

_____ _____

Alaska Department of Natural Resources Authorized Representative **Date**

See Instructions on Reverse

INSTRUCTIONS

1. This form, for the protection of persons supplying labor and material, shall be used whenever a payment bond is required. There shall be no deviation from this form without approval from the Contracting Officer.

2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.

3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.

4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.

5. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PERFORMANCE BOND

Bond No._____

For

VALLENAR BAY ROAD, PROJECT NO. 34050-4

Project Name and Number

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____

of _____ as Principal,

and _____

of _____ as Surety,

firmly bound and held unto the State of Alaska in the penal sum of

_____ Dollars

($_____) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the_____ of_____ A.D., 20_____, for construction of the above-named project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall well and truly perform and complete all obligations and work under said contract and if the Principal shall reimburse upon demand of the Department of Transportation and Public Facilities any sums paid him which exceed the final payment determined to be due upon completion of the project, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at_____, _____ this_____ day of_____ A.D., 20_____.

Principal: _____

Address: _____

By: _____

Contact Name: _____

Phone: ( ) _____

Surety: _____

Address: _____

By: _____

Contact Name: _____

Phone: ( ) _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

_____ _____

Alaska Department of Natural Resources Authorized Representative **Date**

See Instructions on Reverse

INSTRUCTIONS

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.

2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.

3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.

4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.

5. The bond shall be signed by authorized persons. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID BOND

For

VALLENAR BAY ROAD, PROJECT NO. 34050-4

Project Name and Number

DATE BOND EXECUTED: _____

PRINCIPAL (Legal name and business address):	TYPE OF ORGANIZATION:
	[ ] Individual [ ] Partnership [ ] Joint Venture [ ] Corporation
	STATE OF INCORPORATION:

SURETY(IES) (Name and business address):

A.	**B.**	**C.**
PENAL SUM OF BOND:		DATE OF BID:

We, the PRINCIPAL and SURETY above named, are held and firmly bound to the State (State of Alaska), in the penal sum of the amount stated above, for the payment of which sum will be made, we bind ourselves and our legal representatives and successors, jointly and severally, by this instrument.

THE CONDITION OF THE FOREGOING OBLIGATION is that the Principal has submitted the accompanying bid in writing, date as shown above, on the above-referenced Project in accordance with contract documents filed in the office of the Contracting Officer, and under the Invitation for Bids therefor, and is required to furnish a bond in the amount stated above.

If the Principal's bid is accepted and he is offered the proposed contract for award, and if the Principal fails to enter into the contract, then the obligation to the State created by this bond shall be in full force and effect.

If the Principal enters into the contract, then the foregoing obligation is null and void.

PRINCIPAL

Signature(s)	**1.**	**2.**	**3.**
Name(s) & Title(s) (Typed)	**1.**	**2.**	**3.**

Corporate Seal

See Instructions on Reverse

CORPORATE SURETY(IES)

Surety A	Name of Corporation		State of Incorporation	Liability Limit **$**
Signature(s)	**1.**	**2.**		Corporate Seal
Name(s) & Titles (Typed)	**1.**	**2.**		

Surety B	Name of Corporation		State of Incorporation	Liability Limit **$**
Signature(s)	**1.**	**2.**		Corporate Seal
Name(s) & Titles (Typed)	**1.**	**2.**		

Surety C	Name of Corporation		State of Incorporation	Liability Limit **$**
Signature(s)	**1.**	**2.**		Corporate Seal
Name(s) & Titles (Typed)	**1.**	**2.**		

INSTRUCTIONS

1. This form shall be used whenever a bid bond is submitted.
2. Insert the full legal name and business address of the Principal in the space designated. If the Principal is a partnership or joint venture, the names of all principal parties must be included (e.g., "Smith Construction, Inc. and Jones Contracting, Inc. DBA Smith/Jones Builders, a joint venture"). If the Principal is a corporation, the name of the state in which incorporated shall be inserted in the space provided.
3. Insert the full legal name and business address of the Surety in the space designated. The Surety on the bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. Individual sureties will not be accepted.
4. The penal amount of the bond may be shown either as an amount (in words and figures) or as a percent of the contract bid price (a not-to-exceed amount may be included).
5. The scheduled bid opening date shall be entered in the space marked Date of Bid.
6. The bond shall be executed by authorized representatives of the Principal and Surety. Corporations executing the bond shall also affix their corporate seal.
7. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
8. The states of incorporation and the limits of liability of each surety shall be indicated in the spaces provided.
9. The date that bond is executed must not be later than the bid opening date.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID MODIFICATION

VALLENAR BAY ROAD, PROJECT NO. 34050-4
Project Name and Number

Modification Number: _____

Note: All revisions shall be made to the unadjusted bid amount(s).
Changes to the adjusted bid amounts will be computed by the Department.

PAY ITEM NO.	PAY ITEM DESCRIPTION	REVISION TO UNIT BID PRICE +/-	REVISION TO BID AMOUNT +/-

TOTAL REVISION: $_____

_____
Name of Bidding Firm

_____
Responsible Party Signature **Date**

This form may be duplicated if additional pages are needed.

SPECIAL PROVISIONS

to the

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

2015 STANDARD SPECIFICATIONS for HIGHWAY CONSTRUCTION

VALLENAR BAY ROAD

PROJECT NUMBER 34050-4

SECTION 101

DEFINITIONS AND TERMS

101-1.03 DEFINITIONS.

DEPARTMENT. Replace with the following: The Alaska Department of Natural Resources, Division of Forestry (DOF).

ROADWAY. Replace with the following: The portion of a highway, road, or facility including shoulders within the limits of construction.

Add the following:

ADVERSE GRADE. Any grade that a loaded log truck would travel up when hauling logs from the cutting unit or other log source location to the barge landing, lumber/pulp mill, or point of sale. On this project, trucks are hauling to Gravina Island Industrial Complex.

FAVORABLE GRADE. Any grade that a loaded log truck would travel down when hauling logs from the cutting unit or other log source location to the barge landing, lumber/pulp mill, or point of sale. On this project, trucks are hauling to Gravina Island Industrial Complex.

(05/11/15)Forestry-Special Provision

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE. Replace the second paragraph with the following: Material Reports and/or Soils Investigation Reports are not available for this project. (01/01/01)PARKS-Special Provision

SECTION 103

AWARD AND EXECUTION OF CONTRACT

103-1.06 INSURANCE REQUIREMENTS Change the fourth paragraph to: The State of Alaska and the Ketchikan Gateway Borough shall be named as an additional insured on policies required by paragraphs 2 thru 4 above. All of the above insurance coverages shall be considered to be primary and non-contributory to any other insurance carried by the State of Alaska or the Ketchikan Gateway Borough, whether through self-insurance or otherwise.

(04/21/2015) Forestry – Special Provision.

SECTION 105

CONTROL OF WORK

105-1.02 PLANS AND WORKING DRAWINGS. Add the following to the first paragraph: Full size plan sheets are 11" by 17". Plans are not available in CAD digital format. (01/01/01)PARKS-Special Provision

105-1.05 COOPERATION BY CONTRACTOR. Add the following: Blasting operations, equipment storage or construction activities within the airport reserve are to be coordinated with Ketchikan International Airport. Contact person is as follows:

Mr. Mike Carney
Airport Manager's Office, 1000 Airport Terminal Bldg., Ketchikan, AK 99901
Phone 907-228-6688, Cell phone (907)617-2455

(04/21/2015)FORESTRY-Special Provision

105-1.06 UTILITIES. Add the following:

Utilities Relocated by Others.

Utilities will be relocated by others concurrently with construction of this project. The Contractor will give the Utility, through the Engineer, 15 calendar days advance written notice regarding the dates when the utility owner is required to begin and end operations. For utilities being relocated, the Contractor will:

1. provide erosion, sediment, and pollution control including the stabilization of areas disturbed during utility work. Refer to Section 641 for further information;

2. clear and grub;

3. provide Construction Surveying before utility relocation. Include:
   - Control for utility relocation - Centerline staking with Station information.
   - Slope staking.

   The utility shall give the Contractor, through the Engineer, 15 calendar days advance written notice for required staking.

Work done by utility owner(s) is as follows: KPU Electric will relocate guy wires near STA 3+20.

(06/05/15)

105-1.07 COOPERATION BETWEEN CONTRACTORS. Add the following: A contractor for the Alaska Department of Transportation (ADOT) will be constructing the Lewis Reef Road just north of Ketchikan International Airport in the summer of 2015 or 2016. Coordinate with ADOT or their contractor to avoid conflict in construction operations.

105-1.08 SURVEY CONTROL. Add the following: Horizontal reference is staked at varying intervals, the approximate road location centerline is flagged using orange glow ribbon. Any control that is damaged or destroyed during construction shall be the Contractor's responsibility and shall be replaced at his own expense. At least one on-site Contractor employee other than the construction foreman shall be designated as responsible for setting grades.

(04/21/15)FORESTRY-Special Provision

SECTION 106

CONTROL OF MATERIAL

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.
Add the following:

Whenever materials or equipment are specified or described in the contract documents by using the name of a proprietary item or the name of a particular supplier the naming of the item is intended to establish the type, function and quality required. Materials or equipment of other suppliers may be accepted by the Department if sufficient information is submitted by the Contractor which clearly demonstrates to the Department that the material or equipment proposed is equivalent or equal in all aspects to that named. Requests for review of substitute items of material and equipment will not be accepted by the Department from anyone other than the Contractor.

If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make written application to the Department for approval thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and approval of the proposed substitute will not delay the Contractor's achievement of final completion on time, whether or not acceptance of the substitute for use in the work will require a change in any of the contract documents to adapt the design to the proposed substitute. Any payment of license fee or royalty in connection with the substitute shall be borne by the Contractor.

Submittals are required for all materials. Submittal approval by the Department is required prior to incorporation of materials into work. Complete submittal information is required to be on the job site at all times during construction. Contractor shall make materials available for inspection in a convenient manner, at the time of arrival, for conformance with the submittal information and contract documents. Materials found to differ from contract specifications shall be replaced at no additional expense to Department.

When materials or work are specified to be per manufacturer’s recommendations, submit written manufacturer’s recommendations for the materials or work prior to commencing work or incorporating materials into work.

(01/01/01)PARKS-Special Provision

106-1.02 MATERIAL SOURCES. Add the following to Subparagraph 1. General.:

Rock borrow sources for constructing the road are unspecified. It is the contractor’s responsibility to assess the rock’s suitability for pit development in the area of the road and propose pit sites or sources to the DOF prior to source development.

Rock borrow sources from outside the ROW on Airport Reserve and Ketchikan Gateway Borough land are subject to the Ketchikan Gateway Borough's approval. The forest road ROW is 50 feet either side of centerline, unless a greater width is required for sound engineering reasons. A rock source is a sound engineering reason when adjacent to the road.

Rock borrow sources are incidental to the construction and subject to the approval of the Engineer.

Rock borrow sources outside the clearing limits will not be approved from STA 235+00 to STA 380+00. If rock borrow is required it will need to be imported from elsewhere for this section of the road.

(04/22/15)FORESTRY-Special Provision

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-1.02 PERMITS, LICENSES, AND TAXES. Replace the 10th item under "The contractor shall:" paragraph with the following:

Provide the information necessary to comply with the Alaska Forest Practices Act and Regulations. Requirements for this are given in Section 641 Erosion and Pollution Control.

(04/21/2015) FORESTRY-Special Provision

107-1.09 CONSTRUCTION OVER OR ADJACENT TO WATERS Add the following:
This project is for silvacultural purposes as described in 33 CFR 323.4(a)(1) and (a)(6).

107-1.12 FOREST PROTECTION. Add the following:

7. During the Term of this Contract, contractor shall make every effort to prevent and suppress fires within the Timber Sale Area. Unless otherwise required herein, or prevented by circumstances over which contractor has no control, contractor shall place its equipment, employees, contractors, and employees of contractors at the disposal of any authorized government employee for the purpose of fighting forest fires within or near the Timber Sale Area.

8. Contractor will ensure that both the road building crews have adequate fire fighting equipment and training for its use on site when operating in the contract area, pursuant to the approved operating plan. In the event of "extreme fire danger," a fire watch will remain in the active road building areas a minimum of one hour after work has stopped for the day, or at its election, the State may suspend road building operations until the fire danger is reduced. Contractor shall report all fires to the Alaska Division of Forestry in Ketchikan at (907) 225-3070 and to the U. S. Forest Service in Ketchikan at (907) 225-2148 immediately after becoming aware of a fire or imminent threat of fire.

(05/01/06)FORESTRY-Special Provision

(05/01/06)FORESTRY-Special Provision

SECTION 108

PROSECUTION AND PROGRESS

108-1.02 NOTICE TO PROCEED. Add the following: The Contractor may request a Limited Notice to Proceed after the Award has been made, to permit him to order long lead materials which would cause delays in project completion. However, granting is within the sole discretion of the Contracting Officer, and refusal or failure to grant a Limited Notice to Proceed shall not be a basis for claiming for delay, extension of time, or alteration of price.

(6/30/98)PARKS-Special Provision

SECTION 109

MEASUREMENT AND PAYMENT

109-1.07 PAYMENT FOR MATERIAL ON HAND. Add the following: The location of stockpiled materials for payment in acceptable storage facilities off the project will be in Alaska, at a location acceptable to the Engineer. (09/01/89)R16-Special Provision

SECTION 201

CLEARING AND GRUBBING

201-1.01 DESCRIPTION. Add the following: This work consists of reference staking drainage structures and control points, marking clearing limits outside units**,** clearing and grubbing, slash treatment, excavation and embankment, including haul and end haul**,** and material source development to construct roadways and associated features within the specified alignment and grade tolerances**.**

(05/01/06)FORESTRY-Special Provision

201-3.01 GENERAL. Add the following:

Immediately remove slash deposited in stream courses.

Minimum Utilization Standards. Utilization standards for merchantable timber are listed below. Fall and buck merchantable sawlogs and utility logs into lengths not to exceed 40 feet. Pieces (logs) will be considered as meeting utilization standards when such pieces would have met Utilization Standards if bucking lengths were varied to include such material.

"Merchantable Sawlog," is A No. 4 or better sawlog which is at least 12 feet long plus trim, at least 6 inches in diameter inside the bark at the small end, and contains at least 50 board feet net scale according to the Official Rules of the Log Scaling & Grading Bureaus developed and authored by The Northwest Log Rules Advisory Group.

"Utility Logs" shall be logs that do not meet the minimum requirements of No. 4 or better sawmill grades, but are suitable for the production of firm useable pulp chips to an amount of not less than 50% of the gross scale with a minimum gross diameter of 6 inches on the small end, minimum gross length of 12 feet, plus trim.

Merchantable Timber. All merchantable timber within the clearing limits on either private or State land remains the property of the landowners. Remove brush from log decks. Deck logs so that logs are piled parallel to one another; can be removed by standard log loading equipment; will not damage standing trees; will not interfere with drainage, road sight distances and will not roll. Keep logs in log decks free of brush and soil. Deck logs separately and on respective owner's property adjacent to the road in approved locations. Utility logs may be used for debris mats in the road construction upon approval of the Engineer.

Unmerchantable Timber, Large Construction Slash and Debris. Unmerchantable timber is all timber not meeting the requirements of merchantable timber.

"Slash" means pieces of woody vegetative residue greater than five inches in diameter or longer than three feet in length resulting from construction operations.

“Debris” means woody vegetation residue less than five inches in diameter or less than three feet long.

The following are approved methods of disposal of unmerchantable timber, construction slash and debris:

(a) Remove from project. Recycle or dispose of material legally off the project. Furnish a statement documenting the nature and quantity of material processed or sold for recycling. Otherwise, furnish a signed copy of the disposal agreement before disposal begins.

(b) Burn. Obtain necessary burning permits. Furnish a copy of the burning permits before burning begins. Provide a competent watchperson during the burning operations. When burning is complete, extinguish the fire so no smoldering debris remains. Dispose of unburned material according to (c, e, or h) below, or (a) above.

(c) Bury. Bury debris excavated as part of this work in trenches or pits in approved areas within the right-of-way. Do not bury debris beneath drainage ditches, or in any areas subject to free-flowing water. Place debris in alternating layers of 4 feet of debris covered with 2 feet of earth material. Distribute stumps, logs, and other large pieces to form a dense mass and minimize air voids. Cover the top layer of buried debris with at least 1 foot of compacted earth. Grade and shape the area.

(d) Hazardous material. Furnish a copy of all disposal permits. Dispose of material according to Federal, State, and local regulations.

(e) Windrowing Construction Slash. Place construction slash outside the roadway in neat, compacted windrows approximately parallel to and along the toeline of embankment slopes. Do not permit the top of the windrows to extend above subgrade. Use construction equipment to mat down all material in a windrow to form a compact and uniform pile. Construct breaks of at least 15 feet at least every 200 feet in a windrow. Do not place windrows against trees. Obtain approval for pioneer roads. A pioneer road may be constructed to provide an area for placement of windrows, provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.

(f) Scattering. Scatter construction slash outside the clearing limits without damaging trees. Limb all logs. Place logs and stumps away from trees, positioned so they will not roll, and are not on top of one another. Limb and scatter other construction slash to reduce slash concentrations.

(g) Chipping or Grinding. Use an approved chipping machine to grind slash and stumps greater than 3 inches in diameter and longer than 3 feet. Deposit chips or ground woody material on embankment slopes or outside the roadway to a loose depth less than 6 inches. Minor amounts of chips or ground woody material may be permitted within the roadway if they are thoroughly mixed with soil and do not form a layer.

(h) Debris Mat. Use tree limbs, tops, cull logs, split stumps, wood chunks, and other debris to form a mat upon which construction equipment is operated and the road bed is constructed. Place stumps upside down and blend stumps into the mat. Distribute stumps, logs, and other large pieces to form a dense mass and minimize air voids. Cover the top layer of buried debris with at least 2 feet of compacted unclassified borrow (703-2.18).

(i) Removal to designated locations. Remove construction slash to designated locations.

(j) Piling. Pile construction slash in designated areas. Place and construct piles so that if the piles are burned, the burning will not damage remaining trees. Keep piles free of dirt from stumps. Cut unmerchantable logs into lengths of less than 20 feet.

(k) Placing Slash on Embankment Slopes. Place construction slash on completed embankment slopes to reduce soil erosion. Place construction slash as flat as practicable on the completed slope. Do not place slash closer than 2 feet below subgrade.

(05/01/06)FORESTRY-Special Provision

201-3.03 GRUBBING. Replace the first paragraph with the following: Remove and dispose of all roots, moss, grass, turf, debris, or other objectionable material within excavation limits, and within fill limits where the embankments are to be made to a depth of less than 2 feet below subgrade. Remove stumps with less than 24 inches of cover. Grub any other areas designated on the Plans or in the Special Provisions. (05/01/06)FORESTRY-Special Provision

201-4.01 METHOD OF MEASUREMENT. Replace the entire Subsection with the following: Work described under this Section will not be measured for payment but shall be considered subsidiary to Item 203(20) Linear Grading. (05/01/06)PARKS-Special Provision

201-5.01 BASIS OF PAYMENT. Replace the entire Subsection with the following: Work described under this Section will not be paid for separately but shall be considered subsidiary to Item 203(20) Linear Grading.

(05/01/06)PARKS-Special Provision

SECTION 203

EXCAVATION AND EMBANKMENT

203-1.01 DESCRIPTION. Add the following:

All work associated with material source development needed for this Section is described in Section 201 - Clearing and Grubbing and is incidental to Pay Items listed under this Section.

203-3.03 EMBANKMENT CONSTRUCTION. Add the following:

Cut and fill slopes shall be constructed to template. Protect backslopes from being undercut. Deposit material inside the roadbed limits or designated locations. Do not restrict drainage.

Turnouts: Place turnouts in an intervisable manner unless designated otherwise by the Engineer. Turnouts shall be constructed between Station 0+00 and Station 50+00, between Station 240+00 and 270+00 and at all road junctions. Turnouts shall be placed within sight of and on either side of bridges.

Turnarounds: Turnarounds shall be placed in all other parts of the project.

Turnout and turnaround embankments shall be constructed in a similar manner to the road cross sections. Turnouts and turnarounds shall be constructed on the opposite side of the road when the road is adjacent to private ownership unless authorized by the Engineer.

Place rocks that are too large to be incorporated in the embankment outside the traveled way on the downhill side so that they will not roll, obstruct drainage, or hinder roadbed use and maintenance. Maximum boulder size cannot exceed half the depth of embankment layer**.**

Place material by side casting and end dumping to a minimum depth needed for operation of spreading and hauling equipment and minimum depths as shown on typical cross- sections. Minimum embankment depth is 24 inches in all areas, unless otherwise approved by the engineer. Construct solid embankments with adequate compaction by working smaller rock and fines in with larger rocks to fill the voids.

Produce and use suitable Unclassified Borrow (7.03-2.18) from approved sources, and remove and treat unsuitable or excess material as shown on TYPICAL SECTIONS – B Sheet Series.

Contour the excess or unsuitable material to form a natural appearance.

Operate loaded hauling and spreading equipment uniformly over full width of each layer to achieve adequate compaction of fill.

Do not encroach on stream channels, wetlands, or extend beyond right-of-way or easement limits. Do not make alignment or profile grade adjustments that adversely affect drainage.

Remove snow and ice in advance of the work and deposit beyond the roadway limits in a manner that will not waste material or generate sediment. Do not incorporate snow and ice in embankments. Place snow or ice in a manner that will prevent damage to soil and water quality.

Construct the roadbed within the following grading tolerances:

1. Alignment (centerline). Alignment may be shifted a maximum of 5 feet slope distance left or right of the staked or flagged centerline except where a designed alignment is shown on Plan and Profile Sheets in the Drawings. Where the Drawings show a designed alignment, construct the road on alignment, except where otherwise authorized by the Engineer. Do not construct curves with radii less than 140 feet. Compound curves are permitted. Road bed width is to be 14 feet with a tolerance of (+) 2 feet.

2. Profile grade. Profile grade may be rolled with the ground. The profile grade shall have no vertical curves with a curve length less than 80 feet when the algebraic difference in the grade change is less than 10 percent, or a curve length of less than 100 feet when the algebraic difference of the grade change is greater than or equal to 10 percent. Maximum Favorable Grade is 10%, maximum Adverse Grade is 8%.

3. Use a crawler tractor with a dozer blade to shape and finish the roadbed. Provide for drainage of surface water, unless otherwise designated. Do not permit individual rocks in the roadbed to protrude more than 4 inches above the subgrade. A motor grader finish is not required.

(05/01/06)FORESTRY-Special Provision

203-4.01 METHOD OF MEASUREMENT. Replace this entire Subsection with the following: Item 203(20A) Linear Grading – Typical Sections will be measured per mile of road along the centerline, constructed and accepted. All other Linear Grading Items will be measured per linear foot along the centerline, constructed and accepted. (05/04/15)FORESTRY-Special Provision

203-5.01 BASIS OF PAYMENT. Replace this entire Subsection with the following: Item 203(20A) Linear Grading – Typical Sections will be paid for per mile of road, measured along the centerline, constructed and accepted. All other Linear Grading Items will be paid for by linear foot, measured along the centerline, constructed and accepted. Only one Linear Grading Pay Item will be paid for on a given section of alignment. Construction surveying, clearing, grubbing, excavation, blasting activities and embankment construction will be considered subsidiary to all Linear Grading Items.

Payment will be made under:

Pay Item	Pay Unit
203(20A) Linear Grading – Typical Section	Mile
203(20B) Linear Grading – Special Uphill Buttress Section	Linear Foot
203(20C) Linear Grading – Special Double Buttress Section	Linear Foot
203(20D) Linear Grading – Special Bench Section	Linear Foot
203(20E) Linear Grading – Typical Road Restoration Section	Linear Foot

(05/04/15)FORESTRY-Special Provision

SECTION 204

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

204-2.01 DESCRIPTION. Replace with the following: Use materials that conform to the following:

Bedding material shall meet the same requirements as the applicable lift of material. Do not place rocks larger than 6 inches in their largest dimension against culverts.

(04/24/15)FORESTRY-Special Provision

204-5.01 BASIS OF PAYMENT. Replace the second and third and fourth paragraphs with the following: When Item 204(1), Structure Excavation, does not appear in the Bid Schedule, structure excavation required to complete other items of work will not be paid for directly but will be considered as subsidiary to those items. (05/01/06)PARKS-Special Provision

SECTION 205

EXCAVATION, BACKFILL, AND FOUNDATION FILL FOR MAJOR STRUCTURES

205-2.01 MATERIALS. Use materials that conform to the following:
Replace with the following:
Backfill and Foundation Fill Subsection 703-2.18, Unclassified Borrow

(05/01/15)FORESTRY-Special Provision

205-3.03 BACKFILL. Add the following: All backfill placed within 1 foot of a structural unit shall be graded to pass the 3 inch sieve.
(05/01/06)FORESTRY-Special Provision

Add the following Subsections:

205-3.04 CHANNEL PRESERVATION. Do not disturb the natural bed of the waterway adjacent to the work unless directed in the Plans or in writing by the Engineer.

Remove all water as necessary to perform work.

(05/01/06)FORESTRY-Special Provision

205-5.01 BASIS OF PAYMENT. Add the following: Excavation and backfill for the foundations of bridges and other major structures is subsidiary to those respective structures.

(05/05/15)FORESTRY-Special Provision

Add the following section:

SECTION 252

ROCK BUTTRESS

252.01 DESCRIPTION. For rock buttress, furnish rock and place it mechanically in cut and fill sections.

252.02 MATERIALS. Furnish material that conforms to specifications in the following subsections:

Riprap, Class IV 611-2.01

Control gradation by visual inspection. When shown on the Drawings, provide two samples of the specified class of rock. Each sample shall be at least 4.5 tons or 10 percent of the total rock weight, whichever is less. Provide one sample at the construction site, which may be a part of the finished rock covering. Provide the other sample at the quarry. Use these samples as a frequent reference for judging the gradation of the rock supplied. When specified in the Special Provisions, provide mechanical equipment at the sorting site and the labor needed to assist in checking gradation.

252-3.01 CONSTRUCTION REQUIREMENTS.

1. Placing Rock. Perform the work specified in Section 203, 204 or 205, as required. Place the rock in a stable orientation with minimal voids. Offset the rock to produce a random pattern. Use spalls smaller than the minimum rock size to chock the larger rock solidly in position and to fill voids between the large rocks. Construct the exposed face of the rock mass to be reasonably uniform, with no projections beyond the neat line of the slope that are more than 18 inches, or as shown on the Drawings.

252-4.01 METHOD OF MEASUREMENT. This work will not be measured separately for Items 203(B) and 203(C), but will be measured per Cubic Yard constructed and accepted for Additional Uphill Buttress as shown on SLOPE EXCEPTION SECTIONS – B Sheet Series of the Drawings.

252-5.01 BASIS OF PAYMENT. Work under this section will be considered subsidiary to Items 203(20B) and 203(20C), except separate payment will be made for Additional Uphill Buttress constructed and accepted.

Payment for Additional Uphill Buttress will be made under:

Pay Item	Pay Unit
252(4) Rock Buttress	Cubic Yard

Add the following Section:

SECTION 514

PREFABRICATED BRIDGES

514-1.01 DESCRIPTION. This work consists of designing, fabricating, delivering, and installing prefabricated modular bridge superstructures; or transporting and installing Department-furnished prefabricated, modular superstructures and components; or repairing Department-furnished prefabricated, modular superstructures. The work also includes constructing curbs and railings, caps, bearings, and abutments, including excavation and backfill, anchoring bridge superstructures to abutments as required, riprap, and backwalls.

514-1.02 DESIGN DRAWINGS. When Department-furnished prefabricated bridge superstructure components are specified, material lists, installation information, and manufacturer's instructions will be furnished by the Department.

514-2.01 MATERIALS. Use materials that conform to the following unless noted otherwise in this section:

Structural Concrete	Section 501
Prestressed Concrete	Section 502
Reinforcing Steel	Section 503
Steel Structures	Section 504
Bridge Railing	Section 507
Timber Structures	Section 506
Paint / Painting	Section 513
Structural Timber	Section 506
Structural Steel	Section 716

Concrete compressive strength; structural steel tensile strength, finish and designation; timber species, grade, and treatment; and other material specifications shall be as required or if not listed in the contract documents, take them from the manufacturer's drawings, and have them approved by the Engineer prior to fabrication.

Steel:

Construct prefabricated steel bridge from ASTM A709 Grade 50T3 or ASTM A709 Grade 36T3 plate and structural shapes. ASTM A572 steel may be substituted for A709 if:

- It meets the Charpy V-notch, Zone 3 test requirements as specified in ASTM A709.
- Fabrication conforms to the most recent edition of the ANSI/AASHTO/AWS Bridge Welding Code D1.5 when welding new steel bridge girders, beams and stringers.

Galvanize all structural steel shapes, plates, and bars in accordance with AASHTO M 111. Repair damage to galvanized coatings according to ASTM A780 or AASHTO M 36.

Fasteners: ASTM A325. Galvanized per AASHTO M 232.

Decking:
If timber decking is used, bridge shall have a pressure treated deck of at least 4x12 timbers with an additional untreated running/wear surface of 3x12 untreated Doug-fir. Use Grade 1 or better for Decking and Grade #2 for running planks. Unless otherwise approved by the State, all wood shall be new pressure treated Pacific Doug-fir timbers or equivalent meeting the ADOT Standard Specifications for Highway Construction (SSHC) and the American Wood Preservers' Association (AWPA) use Category of UC4B. Penta based products will not be accepted. Fabricate timber (including all cutting, shaping, and boring) before treatment. Carefully trim all abrasions and treat all cuts in treated piles according to AWPA standard M 4. Before driving bolts, treat all holes bored after treatment according to the applicable AWPA standards. Plug remaining holes with treated plugs.

Concrete:
Use non corrosive, non metallic , cement based grout meeting ASTM C-1107, Grade C. Meet the requirements of ATM 520. Develop a compressive strength of 9,000 PSI.

All concrete shall conform to Class A concrete with a minimum compressive strength of 4,000 PSI at 28 days.

All reinforcing shall be ASTMA706, Grade 60.

CONSTRUCTION REQUIREMENTS

514-3.01 GENERAL. Perform excavation, backfill, and embankment work according to sections 205.

Dispose of all debris resulting from operations according to Section 203.

Notify the Engineer at least 14 days before delivering the bridge. If the prefabricated superstructure is not installed immediately upon delivery to the project site, provide appropriate equipment and labor to unload and stack, support, and store all material at the delivery point. Support and stack all components to prevent damage. Furnish and install blocking to support all components at least 12 inches above the ground during storage.

Furnish all tools, devices, special equipment, and material needed for installation in well-marked watertight containers suitable for long-term, outdoor storage.

514-3.02 ABUTMENTS AND APPROACHES. Construct required caps, bearing, abutments, and backwalls according to applicable sections. Construct approaches including excavation and backfill according to Sections 203 and 205. Construct riprap according to Section 611.

Excavate to bedrock or depth defined on the plans and backfill with suitable excavated material.

514-3.03 DEPARTMENT FURNISHED PREFABRICATED BRIDGE SUPERSTRUCTURE. For Department-furnished prefabricated bridge units, transport all material from the storage

site(s) to the bridge site, and install the superstructure complete and in place, including connection of all girders, diaphragms, railings, panels, transoms, and other elements. Install the substructure complete and in place including suitable material for fill, crushed aggregate bedding, sills, backwall, and riprap.

Upon taking possession of the Department-furnished units at the storage site, assume liability for damage resulting from handling, transporting, or erecting the units in place, until final acceptance of the project.

514-3.04 NON-PRESSURE EPOXY GROUT ANCHORS. Furnish non-pressure epoxy grout to cement anchor dowels and bolts. At least 15 days prior to use submit for approval manufacture's test information on the non-pressure epoxy grout proposed for use.

Immediately prior to placing dowels or bolts, clean drill hole of dust and other material. Fill hole halfway with grout. Insert dowels by rotating it though one complete turn while tapping it down. Insert bolts according to manufacture's instructions. If necessary add more grout to fill the hole.

514-3.05 CONTRACTOR FURNISHED PREFABRICATED BRIDGE SUPERSTRUCTURE.
Provide a prefaricated bridge structure that meets the following requirements:

DESIGN OF PREFABRICATED STEEL BRIDGE. The Design of the prefabricated steel bridge shall be in accordance with the latest edition of the "AASHTO LRFD Bridge Design Specifications." When using the "AASHTO LRFD Bridge Design Specifications," all occurrences of the word "should" shall be replaced with the word "shall."

All drawings, specifications, and project specific calculations shall be signed and sealed by a Professional Civil Engineer licensed in the State of Alaska.

Do not provide a fracture critical or non-redundant bridge such as a truss or two-girder bridge system.

The bridge shall be configured to be transportable to a site by standard highway log truck or "low boy" in multiple sections. The individual girder lengths shall be the State specified nominal bridge length. Girders shall be continuous and not spliced. Appropriate lifting points shall be integrated into the design to allow typical slinging and handling methods to ensure safe handling of the structure during installation and transportation to the site.

Bridge railing posts shall tie to the deck structure (deck or deck beams) of the bridge not the bridge girders. Crash worthy rail systems designed to the LRFD Test Level 2 standard are acceptable for submittal. Bridge railing shall be hot dip galvanized thrie beam guard rail meeting AASHTO Highway and Bridge specifications. Guard rail shall be designed to be compatible with Alaska Department of Transportation (ADOT) standard thrie beam guard rail configurations.

Clearly specify relevant information such as member sizes, geometry, bearing reactions, design loads, material properties and other design information on the drawings.

Design loading for the bridge on this project will conform to the following:

a.) Dead Load – use unit weights as defined in the "AASHTO LRFD Bridge Design Specifications" most recent edition with interim revisions.
b.) Vehicular Live Load – Use the Operating Stress level of the AASHTO Bridge Maintenance Manual for HL-93, and USFS defined loads U80, U102 and L90 loading.
c.) Wind Load – 130 mph.
d.) Fatigue – use a single lane average daily truck traffic (ADTT) of 20 for design
e.) Seismic – as defined in the "AASHTO Guide Specifications for LRFD Seismic Bridge Design."
f.) Erection – use a construction load factor of not less than 1.25 for all loads that are essentially static and not less than 1.50 for all other loads.
g.) There is no deflection criterion.

General:

1. Provide and secure a nameplate to the structure indicating the bridge manufacturer's name, maximum load limits, and year of fabrication.
2. Provide an Inventory and Operating load ratings of the bridge in the plan submittals according to the most recent version, including interim version, of the AASHTO Manual for Bridge Evaluation (MBE). Load rate steel and concrete elements using the Load Factor Rating (LFR) and Load and Resistance Factor Rating (LRFR) methods. Load rate timber elements using the Allowable Stress Rating (ASR) method and Load and Resistance Factor Rating (LRFR) methods.

514-3.06 Welding.

Perform all welding and Nondestructive Examination (NDE) as specified or shown on the Plans. Conform to the most recent edition of the ANSI/AASHTO/AWS Bridge Welding Code D1.5 when welding new steel bridge girders, beam and stringers. Conform to the most recent edition of the Structural Welding Code AWS D1.1 when welding all other steel structures.

At least 30 days prior to welding, submit for approval a welding plan stamped and signed by the Certified Welding Inspector (CWI) responsible for the Quality Control (QC) and consisting of the following documents:

A. Quality Control personnel qualifications including CWI number,
B. Welding Procedure Specifications (WPS) using forms in AWS D1.1, Sample Welding Forms,
C. Procedure Qualification Records (PQR), when applicable, using forms in AWS D1.1, Sample Welding Forms,
D. Welder Performance Qualification Records (WPQR) using forms in AWS D1.1, Sample Welding Forms with documentation of current welder certification,
E. Sample daily inspection sheet, and
F. Type and extent of NDE to be conducted, as required in the specifications.

Using a CWI, perform all Quality Control inspection necessary to ensure that the materials and workmanship meet the requirements of the contract documents.

Correct all deficiencies in materials and workmanship revealed by Quality Control and Quality Assurance representatives designated by the State.

Furnish all completed Quality Control inspection documents to the Engineer or when specified, the Quality Assurance representative designated by the State.

Do not weld or tack brackets, clips, shipping devices or other material not required by the Contract Documents to the permanent structure, unless shown on the working drawings and approved by the Engineer.

514-4.01 ACCEPTANCE SUBMITTAL. Furnish a production certification for timber, including glued-laminated lumber, structural steel, and fabricated steel. Furnish a certification for all wood treatment, fasteners, hardware, galvanizing processes, and non-pressure epoxy grout.
514-4.02 METHOD OF MEASUREMENT. Item 514(1) Modular Bridge will be measured for payment per linear foot of modular bridge accepted in place. All work described under this Section shall be considered subsidiary to Item 514(1) Modular Bridge.

514-5.01 BASIS OF PAYMENT. Item 514(1) Modular Bridge will be paid for at the contract unit price per linear foot of modular bridge approved and accepted in place. All work associated to Item 514(1) Modular Bridge as described under this Section shall be considered subsidiary.

Payment will be under:

Pay Item	Pay Unit
514(1) 40-foot Prefabricated Bridge, Contractor Furnished	Each
514(2) 50-foot Prefabricated Bridge, Contractor Furnished	Each
514(3) 80-foot Prefabricated Bridge, Contractor Furnished	Each

(05/01/06)FORESTRY-Special Provision

SECTION 603

CULVERTS AND STORMDRAINS

603-1.01 DESCRIPTION. Add the following: Install culverts and other drainage structures according to Section 603. Drainages structures will conform to the Best Management Practices of the Alaska Forest Resources and Practices Act and Regulations (FRPA). Unless approved by the Engineer the contractor will size the drainage structures as listed in Estimate of Quantities Sheets (Summary Table) When joining 2 pipes together, the minimum length of pipe to be joined shall be 6 feet. (05/01/06)FORESTRY-Special Provision

603-5.01 BASIS OF PAYMENT.

Payment will be under:

Pay Item	Pay Unit
603(17-18) 18 Inch Pipe	Linear Foot
603(17-24) 24 Inch Pipe	Linear Foot
603(17-36) 36 Inch Pipe	Linear Foot
603(17-48) 48 Inch Pipe	Linear Foot
603(17-60) 60 Inch Pipe	Linear Foot

(05/01/06)PARKS-Special Provision

Replace Section 641 with the following:

SECTION 641

EROSION, SEDIMENT, AND POLLUTION CONTROL

641-1.01 DESCRIPTION. Provide project administration and Work relating to control of erosion, sedimentation, and discharge of pollutants, according to this section and applicable local, state, and federal requirements, including the Alaska Forest Practices Act.

641-1.02 DEFINITIONS. These definitions apply only to Section 641.

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL). A person who has completed training, testing, and other requirements of, and is currently certified as, an AK-CESCL from an AK-CESCL Training Program (a program developed under a Memorandum of Understanding between the ADOT&PF and others). The Department recognizes AK-CESCLs as "qualified personnel". An AK-CESCL must be recertified every three years.

Alaska Department of Environmental Conservation (ADEC). The state agency authorized by EPA to administer the Clean Water Act's National Pollutant Discharge Elimination System.

Alaska Pollutant Discharge Elimination System (APDES). A system administered by ADEC that issues and tracks permits for storm water discharges.

Best Management Practices (BMPs). Temporary or permanent structural and non-structural devices, schedules of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or minimize the discharge of pollutants to waters of the United States. BMPs also include, but are not limited to, treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage.

Clean Water Act (CWA). Federal Water Pollution Control Amendments of 1972, as amended (33 U.S.C. 1251 et seq.).

Construction Activity. Physical activity by the Contractor, Subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into storm water. Construction Activity includes soil disturbing activities (e.g. clearing, grubbing, grading, excavating); and construction materials or equipment storage or maintenance (e.g. material piles, borrow area, concrete truck chute washdown, fueling); and other industrial storm water directly related to the construction process (e.g. concrete or asphalt batch plants).

Construction General Permit (CGP). A permit authorizing storm water discharges from Construction Activities, issued and enforced by ADEC. The CGP is not applicable for Department work in Project Area.

Detailed Erosion Sediment Control Plan (DESCP). The Contractor's detailed project specific plan to minimize erosion and contain sediment within the Project Area, and to prevent discharge of pollutants that exceed applicable water quality standards. The DESCP includes, but is not limited to, amendments, records of activities, inspection schedules and reports, qualifications of key personnel, and all other documentation, required by the DESCP and this specification, and other applicable local, state, and federal laws and regulations.

Environmental Protection Agency (EPA). A federal agency charged to protect human health and the environment.

Erosion and Sediment Control Plan (ESCP). The Department's project specific document that illustrates measures to control erosion and sediment on the project. The ESCP provides bidders with the basis for cost estimating and guidance for developing the DESCP for use during the construction activity. The FLUP is a part of the ESCP.

Final Stabilization. Final stabilization occurs when soil disturbing activities at the site have been completed and one of the following methods, as identified in the contract, has been completed: (a) establish a uniform and evenly distributed perennial vegetative cover with a density of 70 percent of the native background vegetative cover, or (b) construct non-erodible permanent stabilization measures (such as riprap, gabions, geotextiles, pavement, and crushed aggregate base course) where vegetative cover is not required.

Forest Land Use Plan (FLUP). The Department's management plan for the project that contains information on the resources and proposed resource management activities such as but not limited to location and type of surface waters, timber harvest and associated access activities (road's, sort yards, etc.).

Forest Resources and Practices Act and Regulations (FRPA). The Department's statutory authority for managing site conditions and the associated risks to water quality by non point pollution sources from forest operations. This is done through the use of best management practices as described in 11 AAC 95 or other Department approved methods.

Hazardous Material Control Plan (HMCP). The Contractor's project specific plan for prevention of pollution from storage, use, transfer, containment, cleanup, and disposal of hazardous material (including, but are not limited to, petroleum products related to construction activities and equipment). The HMCP is included as an appendix to the DESCP.

Inspection. An inspection required by the DESCP, usually performed together by the Contractor's Superintendent and Department's Project Engineer.

Pollutant. Any substance or item meeting the definition of pollutant contained in 40 CFR § 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt and industrial or municipal waste.

Project Area. The physical area provided by the Department for Construction. The Project Area includes the area of the facility under construction, project staging and equipment areas, and material and disposal sites; when those areas, routes and sites, are provided by the Department by the Contract and are directly related to the Contract.

Support Activities including material sites, material processing sites, disposal sites, haul routes, staging and equipment storage areas; that are furnished by the Contractor or a commercial operator, are not included in the Project Area.

Records. Any record, report, information, document, or photograph required to be created or maintained pursuant to the requirements of the DESCP, the FRPA, the contract; and applicable local, state, and federal laws and regulations regarding document preservation.

Spill Prevention, Control, and Countermeasure Plan (SPCC Plan). The Contractor's detailed plan for petroleum spill prevention and control measures that meet the requirements of 40 CFR 112.

Spill Response Field Representative. The Contractor's representative with authority and responsibility for managing, implementing, and executing the HMCP and SPCC Plan.

Subcontractor Spill Response Coordinator. The subcontractor's representative with authority and responsibility for coordinating the subcontractor's activities in compliance with the HMCP and SPCC Plan.

Superintendent. The Superintendent has responsibility and authority for the overall operation of the Project and for Contractor furnished sites and facilities directly related to the Project.

Support Activities. Further defined as construction activities in which the Department is not an operator and the activity is outside the Project Area.

DESCP Preparer. The Contractor's qualified representative who is responsible for developing the Contractor's initial DESCP.

641-1.03 PLAN SUBMITTALS.

1. Detailed Erosion Sediment Control Plan (DESCP). Submit one hard copy of the DESCP to the Project Engineer for approval. Deliver this document to the Project Engineer at least 15 days before beginning Construction Activity. Organize and bind the DESCP and related documents for submittal according to the requirements of Subsection 641-2.01.2. The Department will review the DESCP submittals within 15 days after they are received. Submittals will be returned to the Contractor, and marked as either "rejected" with reasons listed or as "approved" by the Department. When the submittal is rejected, the Contractor must revise and resubmit the DESCP. The 15 day review period will restart when the contractor submits an electronic copy and a hard copy of the revised DESCP to the Project Engineer for approval.

2. Hazardous Material Control Plan. Submit the HMCP, as an appendix to the DESCP, to

the Project Engineer for approval. The HMCP submittal and review timeline, and signature requirements are the same as the DESCP.

3. Spill Prevention, Control and Countermeasure Plan. When a SPCC Plan is required under Subsection 641-2.03, submit two signed hard copies of the SPCC Plan to the Project Engineer. Deliver these documents to the Project Engineer at least 21 days before beginning Construction Activity. The Department reserves the right to review the SPCC Plan and require modifications.

4. FRPA Coverage. The Department is the authorizing agency for best management practices used with in the project area. The Contractor is responsible for obtaining approval from the Department for Contractor and subcontractor Construction Activities related to the Project. The Contractor cannot use the DESCP for Support Activities outside the Project Area where the Department is not the land manager.

Do not begin Construction Activity until the conditions listed in Subsection 641-3.01.1 are completed.

641-1.04 PERSONNEL QUALIFICATIONS.

The DESCP Preparer must meet at least one of the following qualifications:

a. Current certification as a Certified Professional in Erosion and Sediment Control (CPESC);

b. Current certification as AK-CESCL, and at least two years experience in erosion and sediment control. Provide documentation including project names, project timelines, and work responsibilities demonstrating the experience requirement; or

c. Professional Engineer registered in the State of Alaska with current certification as AK-CESCL

The Superintendent must meet the following qualifications:

a. Current certification as AK-CESCL.

The Department accepts people having any of the following certificates as equivalent to AK-CESCL, if the certificates are current according to the sponsoring organization’s policies:

a. CPESC, Certified Professional in Erosion and Sediment Control; or

b. CISEC, Certified Inspector in Sediment and Erosion Control

641-1.06 RESPONSIBILITY FOR FRPA COVERAGE.

1. The Department and the Contractor are jointly responsible for complying with FRPA and the FLUP within the Project Area.

2. The Contractor is responsible for permitting and permit compliance outside the Project Area for Support Activities. The Contractor has sole responsibility for compliance with other applicable federal, state, and local requirements, and for securing all necessary clearances,

rights, and permits. Subsection 107-1.02 describes the requirement to obtain permits, and to provide permit documents to the Project Engineer.

3. An entity that owns or operates, a commercial plant (as defined in Subsection 108-1.01.3) or material source or disposal site outside the Project Area, is responsible for permitting and permit compliance. The Contractor has sole responsibility to verify that the entity has appropriate permit coverage. Subsection 107-1.02 describes the requirement to obtain permits, and to provide permit documents to the Project Engineer.

4. The Department is not responsible for permitting or permit compliance, and is not liable for fines resulting from noncompliance with permit conditions:

a. For areas or Support Activities outside the Project Area and
b. For commercial plants, commercial material sources, and commercial disposal sites.

641-2.01 DETAILED EROSION SEDIMENT CONTROL PLAN (DESCP) REQUIREMENTS.

1. DESCP Preparer and Pre-Construction Site Visit. Use qualified personnel to develop the DESCP and associated documents to meet the requirements of the FRPA. The DESCP Preparer must put their name, qualifications (including the expiration date of any certifications), title and company name in the DESCP.

The DESCP Preparer must conduct a pre-construction inspection of the Project site before construction activity begins. Site visits may be phased; the construction site must be visited by the preparer and an approved DESCP in place fifteen days prior to the Contractor working in the plan area.

If the DESCP Preparer is not a Contractor employee, the DESCP Preparer must visit the site accompanied by the Contractor. Give the Department at least seven days notice of the site visit, so that the Department may participate.

During the pre-construction inspection, the DESCP Preparer must identify, or if a draft of the DESCP has already been prepared verify that the DESCP fully addresses and describes:

a. Opportunities to phase construction activities;
b. Appropriate BMPs and their sequencing; and
c. Sediment controls that must be installed prior to beginning Construction Activities.

2. Developing the DESCP. Use the Department's ESCP and other Contract documents as a starting point for developing an approved DESCP. The Contractor's approved DESCP replaces the Department's ESCP.

Develop the DESCP framework according to the Departments ESCP outline with additional information as required.

Develop the DESCP according to this specification, and account for the Contractor's construction methods and phasing.

Design temporary BMPs for a 2 year 24 hour precipitation amount. Describe BMPs in the DESCP and in DESCP Amendments, including source controls, sediment controls, discharge points, and all temporary and permanent stabilization measures. Describe the design, placement, installation, and maintenance of each BMP, using words and drawings as appropriate. Provide a citation to the publication used as a source for the BMP, including the title of the BMP Manual or publication, the author (individual or agency), and date of publication. If no published source was used to select or design a BMP, then the DESCP or DESCP amendment must state that "No BMP manual or publication was used for this design."

Include BMPs in the DESCP that are specifically required by the Drawings and Specifications, such as seeding, silt fence, or special ditching.

Describe the sequence and timing of activities that disturb soils and of BMP implementation and removal. Phase earth disturbing activities to minimize unstabilized areas, and to achieve temporary or final stabilization quickly. Whenever practicable incorporate final stabilization work into excavation, embankment, and grading activities.

State in the DESCP that Inspections are conducted once every seven (7) days, and as required during continuous precipitation or sequential storm events.

The DESCP is a dynamic document. Keep the DESCP current by noting installation, modification, and removal of BMPs, and by using amendments, Inspection Reports, records of land disturbance and stabilization, and any other records necessary to document storm water pollution prevention activities and to satisfy the requirements of the FLUP and this specification. See Subsection 641-3.03 for more information.

3. Recording Personnel and Contact Information in the DESCP

Include in the DESCP, Records of the AK-CESCL cards or certificates for the Superintendent. If the Superintendent is replaced permanently or temporarily; record in the DESCP the names of the replacement personnel, the date of the replacement. For temporary personnel record their beginning and ending dates.

Provide 24 hour contact information for the Superintendent.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS. Prepare the HMCP for prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment. Include the HMCP as an appendix to the DESCP. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

Designate a Contractor's Spill Response Field Representative with 24 hour contact information. Designate a Subcontractor Spill Response Coordinator for each subcontractor. The Superintendent and Contractor's Spill Response Field Representative must have 24 hour contact information for each Subcontractor Spill Response Coordinator and the Utility Spill Response Coordinator.

List and give the location and estimated quantities of hazardous materials (Including materials or substances listed in 40 CFR 117 and 302, and petroleum products) to be used or stored on the Project. Hazardous materials must be stored in covered storage areas. Include secondary containment for all hazardous material storage areas.

Identify the locations where fueling and maintenance activities will take place, describe the activities, and list controls to prevent the accidental spillage of petroleum products and other hazardous materials. Controls include placing absorbent pads or other suitable containment under fill ports while fueling, and under equipment during maintenance or repairs.

Use secondary containment under all stationary equipment (equipment that does not have a seat for driving) that contains petroleum products. Use secondary containment under pumps, compressors, and generators.

List the types and approximate quantities of response equipment and cleanup materials available on the Project. Include a list and location map of cleanup materials, at each different work site and readily available off site (materials sources, material processing sites, disposal sites, staging areas, etc). Spill response materials must be stored in sufficient quantity at each work location, appropriate to the hazards associated with that site.

Describe procedures for containment and cleanup of hazardous materials. Describe a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by spills. Describe a plan for dealing with contaminated soil and water encountered during construction. Clean up of spills or contaminated surfaces must be initiated immediately and completed as soon as practicable.

Describe methods of disposing of waste petroleum products and other hazardous materials generated by the Project, including routine maintenance. Identify haul methods and final disposal areas. Assure final disposal areas are permitted for hazardous material disposal.

Describe methods of complying with the requirements of AS 46.04.010-900, Oil and Hazardous Substances Pollution Control, and 18 AAC 75. Include contact information for reporting hazardous materials and petroleum product spills to the Project Engineer and reporting to federal, state and local agencies.

641-2.03 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC Plan) REQUIREMENTS. Prepare and implement an SPCC Plan when required by 40 CFR 112; when both of the following conditions are present on the Project:

a. Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and
b. Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary onboard oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons)

Reference the SPCC Plan in the HMCP and DESCP.

641-2.04 RESPONSIBILITY AND AUTHORITY OF THE SUPERINTENDENT. The Superintendent is responsible for the overall operation of the Project and all Contractor furnished sites and facilities directly related to the Project. The Superintendent shall sign and certify the DESCP. The Superintendent may not delegate the task or responsibility of signing and certifying the DESCP submitted under Subsection 641-1.03.1 and DESCP Inspection Reports.

The Superintendent may assign certain duties to qualified personnel; those duties may include:

1. Ensuring Contractor's and subcontractor's compliance wit the DESCP and FLUP;
2. Ensuring the control of erosion, sedimentation, or discharge of pollutants;
3. Directing and overseeing installation, maintenance, and removal of BMPs;
4. Performing Inspections; and
5. Updating the DESCP including adding amendments and forms.

The Superintendent and the assigned personnel shall be knowledgeable in the requirements of this Section 641, the DESCP, BMPs, HMCP, SPCC Plan, environmental permits, environmental commitments, and historic preservation commitments.

The Superintendent shall have the Contractor's complete authority and be responsible for suspending construction activities that do not conform to the DESCP or the FLUP.

641-2.05 MATERIALS. Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments according to the requirements of the DESCP and the Specifications.

- Use the temporary seed mixture specified by special provision, or use annual rye grass if no temporary seed mix is specified.
- Use soil stabilization material as specified in Section 727 or as approved by the Project Engineer.
- Use silt fences as specified in Section 729.
- Use straw that is certified as free of noxious weed by the United States Department of Agriculture, Natural Resources Conservation Service, Local Soil and Water Conservative District. Alaska Weed Free Forage Certification Program must be used when available. Hay may not be substituted for straw.

641-2.06 CONTRACTOR REQUIREMENTS. The Contractor must be familiar with the requirements of the FRPA and the DESCP because Contractor's employees will be conducting duties that relate to compliance with the FRPA.

641-3.01 CONSTRUCTION REQUIREMENTS.

1. Before Construction Activity may Begin.

a. Confirm the following:

1) The DESCP Preparer must visit the Project, the visit must be documented in the DESCP, and the DESCP must be developed (or amended) with findings from the visit;
2) The DESCP must be approved by the Project Engineer;
3) The Contractor must be authorized to begin by the Project Engineer;

b. Install sediment controls and implement operational BMPs in a timely manner appropriate for the Construction Activity. The cutting of trees and brush is allowed without disturbing the vegetative mat, prior to installing sediment controls.

2. During Construction.

Make copies of the applicable portions of the DESCP available to subcontractors before they begin soil disturbing activities. Inform subcontractors of amendments that affect them in a timely manner. Ensure all subcontractors who engage in soil-disturbing activities understand and comply with the DESCP and the FLUP. Coordinate with subcontractors doing work in the Project Area so that BMPs, including temporary and permanent stabilization, are installed, maintained, and protected from damage.

Notify the Project Engineer immediately if the actions of any subcontractor do not comply with the DESCP.

Comply with Subsection 107-1.11 Protection and Restoration of Property and Landscape.

3. Pollutant and Hazardous Materials Reporting Requirements.

Fuel in designated areas. Place absorbent pads or other suitable containment under fill ports while fueling, and under equipment during maintenance or repairs. Install secondary containment under all stationary equipment that contains petroleum products.

Comply with requirements of the HMCP and SPCC Plan, and all local, state and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.

Keep the HMCP current.

4. Corrective Action and Maintenance of BMPs.

a. Implement corrective action:

1) If an incident of non-compliance with the DESCP, or FLUP is identified;
2) If an Inspection identifies the DESCP or any part of the DESCP is ineffective in preventing erosion, sedimentation or the discharge of pollutants;

3) If the Project Engineer determines the DESCP or any part of the DESCP is ineffective in preventing the erosion, sedimentation, or the discharge of pollutants;
4) If a required BMP was never installed, was installed incorrectly, or not in accordance with the FLUP;
5) If any BMP is not operating as intended, or has not been maintained in an effective operation condition, or is unable to effectively perform the intended function;
6) Before sediment or debris fills a BMP to the percentage of design capacity (or manufacturer's specifications or DESCP requirements, whichever is lower);
7) Whenever there is a change in conditions, design, construction, operation, or maintenance that could result in erosion, sedimentation, or the discharge of pollutants;
8) If a prohibited discharge is occurring or will occur; or
9) If there are accumulations and tracking of sediment or other pollutants, in or near any storm water conveyance channels, on roadways or parking lots within and adjacent to the project area, in the immediate vicinity of control measures or discharge points or in other areas within the project area.

b. Implement corrective actions so that all of the following time requirements are satisfied:
1) Conditions that are easily remedied (i.e. removal of tracked sediment, maintenance of control measure, or spill clean-up), initiate corrective action within 24 hours and complete as soon as possible;
2) Corrective action is completed in time to protect water quality; and
3) Corrective action is completed no later than the Complete-by-Date that was entered in an Inspection Report.

If a corrective action is not implemented within the time requirements of this section, notify the Project Engineer, and implement corrective action as soon as possible.

5. Stabilization.
Stabilization may be accomplished using temporary or permanent measures. Initiate stabilization of disturbed soils, erodible stockpiles, disposal sites, and of erodible aggregate layers so that all of the following conditions are satisfied:

a. As soon as practicable;
b. As soon as necessary to avoid erosion, sedimentation, or the degradation of water quality as defined in 11 AAC 95.900(19); and
c. As identified in the DESCP.

Land may be disturbed and stabilized multiple times during a project. Coordinate work to minimize the amount of disturbed soil at any one time. Do not disturb more soil than you can stabilize with the resources available.

Temporarily stabilize from wind and water erosion portions of disturbed soils, portions of stockpiles, and portions of disposal sites, that are not in active construction. Temporary stabilization measures may require a combination of measures including but not limited to vegetative cover, mulch, stabilizing emulsions, blankets, mats, soil binders, non-erodible cover, dust palliatives, or other approved methods.

6. Temporary or Permanent Seeding.

Before applying temporary or permanent seeding, prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetative cover. Apply seed and maintain seeded areas. Reseed areas where growth of temporary vegetative cover is inadequate to stabilize disturbed ground.

Apply permanent seed according to Sections 618 and 724, within the time periods allowed by the Contract, at locations where seeding is indicated on the plans and after land-disturbing activity is permanently ceased.

7. Streams.

When installing a culvert or other drainage structure where stream bypass is not used, install temporary or permanent stabilization concurrently or immediately after placing the culvert or drainage structure in a manner that complies with the DESCP, applicable project permits and prevents degradation of water quality as defined in 11 AAC 95.900(19).

Install temporary and permanent stabilization:

a. At the culvert or drainage structure inlet and outlet; and
b. In the areas upstream and downstream that may be disturbed by the process of installing the culvert, culvert end walls, culvert end sections, or drainage structure.
c. Under the bridge.

6. Ending BMP Maintenance.
The Project Engineer will determine the date that all the following conditions have been met within the Project Area:

a. Land disturbing activities have ceased;
b. Final Stabilization has been achieved (including at Department furnished material sources, disposal sites, staging areas, equipment areas, etc.); and
c. Temporary BMPs have been removed.

After the Project Engineer has determined the conditions have been met, the Department will:

a. Send written notice to the Contractor with the date that the conditions were met.

7. Transmit final DESCP.
Transmit one copy of the final DESCP, including all amendments and appendices, to the Project Engineer at the end of the project
.

641-3.02 DESCP DOCUMENTS, LOCATION ON-SITE, AVAILABILITY, AND RECORD RETENTION.
The DESCP and related documents maintained by the Contractor are the Record for demonstrating compliance with the FLUP and FRPA.

Keep the DESCP, HMCP and SPCC Plan at the on-site project office. If there is not an on-site project office, keep the documents at a location approved by the Project Engineer. Records may be moved to another office for record retention after the end of the project. Records may be moved to another office during winter shutdown. Provide the Department with copies of all Records.

The DESCP and related documents must be made available for review and copy, to the Department and other regulatory agencies that request them. The Project, including any related off-site areas or support activities, must be made available for inspection, or sampling and monitoring, by the Department and other regulatory agencies.

641-3.03 DESCP INSPECTIONS, AMENDMENTS, REPORTS, AND LOGS.
Perform and document inspections, prepare DESCP Amendments in compliance with the ESCP and the FLUP. For active projects update the Records daily.

1. Inspection during Construction.

Conduct Inspections at least every seven (7) days.

Inspections must be performed by the Contractor's DESCP Lead or Superintendent. The Department's Project Engineer shall be contacted 24 hours prior to an Inspection. The Department's Project Engineer shall be present during inspections if available. If Department's Project Engineer is unavailable to attend the Inspection, the Contractor shall provide a copy of the Inspection to Project Engineer within three days of the Inspection date and pictures taken during the inspection.

2. Inspection Reports.

Use only the ADNR DESCP Construction Site Inspection Report, Form 25D-100F to record Inspections. Changes or revisions to Form 25D-100F are not permitted; except for adding or deleting data fields that list: Location of Discharge Points and Site Specific BMPs. Complete all fields included on the Inspection Report form; do not leave any field blank.

Unless otherwise directed by the Project Engineer, insert a Complete-by-Date for each corrective action listed that is (1) a date that complies with the time requirements listed in Subsection 641-3.01.4, or (2) seven days from the date of the Inspection, whichever is sooner. Provide a copy of the completed, unsigned Inspection Report to the Project Engineer by noon of the day after inspection.

The Superintendent must review the Inspection Report. The Project Engineer may coordinate with the Superintendent to review the Inspection Report. Corrections are limited to adding

missing information or correcting entries to match field notes and conditions present at the time the Inspection was performed. Deliver a copy of the signed and certified Inspection Report to the Project Engineer with three days.

The Project Engineer may recommend corrections on the Inspection Report after the Superintendent has signed and certified the Inspection Report. If the Superintendent makes corrections, the Superintendent must recertify the Inspection Report by entering a new signature and date in the white space below the original signature and date lines. Send a copy of the recertified Inspection Report to the Project Engineer on the day it is recertified.

3. Inspection before Seasonal Suspension of Work.

Conduct an Inspection before seasonal suspension of work to confirm BMPs are installed and functioning according to the requirements of the DESCP and FLUP.

4. Reduced Inspection Frequencies.

Conduct Inspections according to the inspection schedule indicated in the approved DESCP. Any change in inspection frequency must be approved by the Project Engineer, and beginning and ending dates documented as an amendment to the DESCP.

Resume recording land disturbance and stabilization activities on the Grading and Stabilization Activities Log when Construction Activity resumes.

5. Inspection before Project Completion.

Conduct Inspection to ensure Final Stabilization is complete throughout the Project, and temporary BMPs that are required to be removed are removed. Temporary BMPs that are biodegradable and are specifically designed and installed with the intent of remaining in place until they degrade, may remain in place after project completion.

7. Items and Areas to Inspect.

Conduct Inspections of the areas near surface waters and as identified by the FLUP and DESCP.

8. DESCP Amendments.

The Superintendent and the DESCP Lead are the only persons authorized to amend the DESCP. The Superintendent or the DESCP Lead must sign and date amendments to the DESCP.

DESCP Amendments must be approved by the Project Engineer.

Amendments must occur:

a. Whenever there is a change in design, construction operation, or maintenance at the construction site that has or could cause erosion, sedimentation or the discharge of pollutants that has not been previously addressed in the DESCP;
b. If an Inspection identifies that any portion of the DESCP is ineffective in preventing erosion, sedimentation, or the degradation of water quality as defined in 11 AAC 95.900(19);
c. Whenever an Inspection identifies a problem that requires additional or modified BMPs
d. Whenever a BMP is modified during construction, or a BMP not shown in the original DESCP is added;
e. If the Inspection frequency is modified (note beginning and ending dates); or
f. When there is a change in personnel who are named in the DESCP, according to Subsection 641-2.01.4.

Amend the DESCP narrative as soon as practicable after any change or modification, but in no case, later than seven days following identification of the need for an amendment. Every DESCP Amendment must be signed and dated. Cross-reference the amendment DESCP page number, as applicable. When a BMP is modified or added, describe the BMP according to Subsection 641-2.01.2.

9. Site Maps.

Document installation, routine maintenance, and removal of BMPs by making notes on the DESCP Site Maps. Include the date and the recording person's initials by these notes. Identify areas where Construction Activities begin, areas where Construction Activities temporarily or permanently cease, and areas that are temporarily or permanently stabilized.

641-3.04 FAILURE TO PERFORM WORK. The Project Engineer has authority to suspend work and withhold monies, for an incident of non-compliance with the FLUP or DESCP that may endanger health or the environment. If the suspension is to protect workers, the public, or the environment from imminent harm, the Project Engineer may orally order the suspension of work. Following an oral order of suspension, the Project Engineer will promptly give written notice of suspension. In other circumstances, the Project Engineer will give the Contractor written notice of suspension before suspension of work. A notice of suspension will state the defects or reasons for a suspension, the corrective actions required to stop suspension, and the time allowed to complete corrective actions.

1. If the Contractor fails to take the corrective action within the specified time, the Project Engineer may:

a. Suspend the work until corrective action is completed;
b. Withhold monies due the Contractor until corrective action is completed;

c. Assess damages or equitable adjustments against the Contract Amount; and
d. Employ others to perform the corrective action and deduct the cost from the Contract amount.

2. Reasons for the Project Engineer to take action under this section include, but are not limited to, the Contractor's failure to:

a. Obtain appropriate permits before Construction Activities occur;
b. Perform DESCP Administration;
c. Perform timely Inspections;
d. Update the DESCP;
e. Transmit updated DESCP, Inspection Reports, and other updated DESCP forms to the Project Engineer;
f. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the DESCP, the FLUP, and applicable local, state, and federal requirements;
g. Perform duties according to the requirements of this Section 641; or
h. Meet requirements of the FLUP, DESCP, or other permits, laws, and regulations related to erosion, sediment, or pollution control.

No additional Contract time or additional compensation will be allowed due to delays caused by the Project Engineer's suspension of work under this subsection.

641-4.01 METHOD OF MEASUREMENT. See Section 109.

641-5.01 BASIS OF PAYMENT. See Subsection 641-3.04 Failure to Perform Work, for additional work and payment requirements.

The total value of this Contract will be adjusted as specified herein. Withholding will be determined by the Department and assessed under Pay Item 641(6) DESCP Price Adjustment, as follows:

TABLE 641-1 BMP VALUES
- RESERVED

TABLE 641-2 EROSION, SEDIMENT AND POLLUTION CONTROL – LIQUIDATED DAMAGES

Code	Specification Subsection Number and Description	DeductableDollars	Cumulative Deductable Dollars
A	641-1.04 Failure to have a qualified (AK- CESCL or equivalent) Superintendent or DESCP Manager	Calculated in Code B or F	
B	Failure to meet ESCP requirements of: (1) 641-2.01.1 Name of DESCP Preparer and Date of Pre-Construction Inspection (2) Not Applicable (3) 641-3.03.8 Sign and Date DESCP amendments with qualified person. 641-2.01.4 DESCP Include approving person's name and AK-CESCL expiration date. (4) 641-3.02 Records maintained at project and made available for review	$750 per omission	
C	641-2.01.3 and 641-303.8 Failure to either reference a BMP manual or publication, or state that no BMP manual or publication was used	$250 per omission	
D	641-3.03.5 Failure to stabilize a Project prior to Seasonal Thaw	$5,000 per Project per year	
E	641-2.01.1 Failure to conduct pre- construction inspections before Construction Activities	$2,000 per Project	
F	641-3.03. Failure to conduct and record Inspections 641-3.03.1 Personnel conducting Inspections and Frequency 641-3.03.2 Inspection Reports, use Form 25D-100, completed with all required information paragraph 7.c, parts (1) through (11)	$750 per Inspection	
G	641-3.01.4 Failure to timely accomplish BMP maintenance and/or repairs, In effect until BMP maintenance and/or repairs is completed.	$500 per Project per day	Not to exceed $250,000 per year for all projects
H	641-3.01.3 Failure to provide to the Project Engineer a timely oral endangerment report of violations or for a deficient oral endangerment report	$750 for the first day the report is late or deficient	Additional $750 for every 14 day period without the required information
I	641-3.01.3 Failure to provide to the Project Engineer a timely written endangerment report of violations or for a deficient written endangerment report	$750 for the first day the report is late or deficient	Additional $750 for every 14 day period without the required information

Item 641(1) Erosion, Sediment and Pollution Control Administration. At the Contract lump sum price for administration of all work under this Section. Includes, but is not limited to, DESCP and HMCP preparation, Storm Water Lead (when not included as a separate Pay Item under 641(7)) DESCP amendments, pre-construction Inspections, Inspections, monitoring, reporting, and Record keeping or copying Records related to the DESCP and required by FLUP, and Record retention.

Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Pay Item 641(1) Erosion, Sediment and Pollution Control Administration.

Item 641(2) Temporary Erosion, Sediment and Pollution Control. At the contingent sum prices specified for all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of approved temporary erosion, sedimentation, and pollution control BMPs required to implement the DESCP and SPCC Plan.

Item 641(3) Temporary Erosion, Sediment and Pollution Control. At the Contract lump sum price for all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs identified in the DESCP.

Item 641(4) Temporary Erosion Sediment and Pollution Control Additives. At the contingent sum prices specified in the Directive to authorize the work, for all labor, supervision, materials, equipment, and incidentals for extra, additional, or unanticipated work, to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs. All additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641(5) Temporary Erosion Sediment and Pollution Control by Directive. At the contingent sum prices specified in the Directive using time and materials to authorize the work, for all labor, supervision, materials, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs. Prices for this item will be by time and materials according to Subsection 109-1.05, or by mutual agreement between the Project Engineer and Contractor. All additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641(6) DESCP Price Adjustment. Withholding according to Section 641-3.04, equal to any penalties and fines levied against the Department by local, state, or federal agencies for pollutant violations, including violations of the CWA, FRPA, and any other Permit, except when due to the Department's sole negligence. The Contractor is also responsible for the payment of any and all penalties and fines levied against the Department or Contractor by entities (including agencies) other than the Department.

The Department will not release performance bonds until penalties and fines, assessed according to Section 641, are paid to the Department; and all requirements, according to Subsection 103-1.05, are satisfied.

Subsidiary Items. Temporary erosion, sediment, and pollution control measures that are required outside the Project Area are subsidiary. Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Item 641(1) Erosion, Sediment and Pollution Control Administration. Additional Ditch construction as shown in the Drawings is incidental to Item 641(2)

Work under other pay items. Work that is paid for directly or indirectly under other pay items will not be measured and paid for under Section 641. This work includes but is not limited to:

a. Dewatering;
b. Shoring;
c. Bailing;
d. Permanent seeding;
e. Installation and removal of temporary work pads;
f. Temporary accesses;
g. Temporary drainage pipes and structures;
h. Diversion channels;
i. Settling impoundment; and
j. Filtration.

Permanent erosion, sediment and pollution control measures will be measured and paid for under other Contract items, when shown on the bid schedule.

Work at the Contractor's Expense. Temporary erosion, sediment, and pollution control measures that are required due to carelessness, negligence, or failure to install temporary or permanent controls as scheduled or ordered by the Project Engineer, or for the Contractor's convenience, are at the Contractor's expense.

SECTION 643

TRAFFIC MAINTENANCE

Add the following:
The contractor shall take reasonable and prudent measures to secure the site from vehicle use by the public during the contract.

Add the following:

Gates shall be constructed at the following locations by the contractor:

1. On the FDR Road 8110 at approximately STA 800+00 The location must be approved by the engineer prior to installation.

The gate will be constructed, finished and signed as shown on the Drawings. Submit shop drawings to the Engineer for approval prior to fabrication. The gate will be adequately armored on either side as necessary with Rip Rap, Class IV, to block conventional four wheel drive highway traffic. The contractor will supply a lock for the gate and provide the State with two copies of the key for the lock at all times that it is locked during the period of the contract.

(12/18/15)FORESTRY-Special Provision

Add the following new Subsection:

643-4.01 METHOD OF MEASUREMENT. Replace the entire Subsection with the following:

Item 643(1) Gate will be measured by each completed unit installed per requirements of this Section and all other related parts of the Plans and Specifications. All other work described under this Section will not be measured for payment, and shall be considered subsidiary to all 203(20) Linear Grading items.

(04/01/15)Forestry

643-5.01 BASIS OF PAYMENT. Replace the entire Subsection with the following:

Payment will be made under:

Pay Item	Pay Unit
643(1) Gate	Each

All other work described under this Section will not be paid for separately but shall be considered subsidiary to Linear Grading pay items.

(05/01/06)FORESTRY-Special Provision

SECTION 703

AGGREGATES

703-2.07 SELECT MATERIAL. Add the following: "Aggregate" is defined as a fractured, angular, or crushed material, consisting of sound, tough, durable pebbles or rock fragments of uniform quality. Free from clay balls, vegetation, or other deleterious matters, and with no adherent films or coatings of dirt, clay, dust or other deleterious matter.

Add the following Subsections:

703-2.18 UNCLASSIFIED BORROW. Aggregate free of excess moisture containing no muck, frozen materials, roots, sod, or other deleterious material. Meeting the following properties:

(a) Maximum particle size 12 inches

(b) Well graded angular stone with a D50 of 3 inches or greater.

(04/24/15)FORESTRY-Special Provision

SECTION 706

CONCRETE AND PLASTIC PIPE

Insert subsection 706-2.07

706-2.07 CORRUGATED POLYETHYLENE PIPE. Meet the following:

Culverts	AASHTO M 294, Type S or Type D
Underdrains	AASHTO M 252

(01/01/16)STATEWIDE-SPECIAL PROVISION

APPENDIX A
SOIL REPORTS OR SPECIAL REPORTS

None Available

APPENDIX B
ADDITIONAL INFORMATION

1. **SURVEYOR'S REPORT ON THE LOCATION OF VALLENAR BAY ROAD, FEB 6, 2015 R&M Engineering Ketchikan**
2. **Erosion Sediment Control Plan for the Vallenar Bay Access Road**

Surveyor's Report on the location of the Vallenar Bay Road

In 2014 & 2015, R&M Engineering-Ketchikan, Inc. investigated the proposed location of the Vallenar Bay Road as flagged by the Alaska Division of Forestry and related it to the property boundaries in the area. Division of Forestry data from a mapping grade Trimble GPS receiver was used along with survey grade, differentially corrected, dual frequency data collected by R&M Engineering. Data from the record plats defining the property boundaries were imported and adjusted to a common coordinate system (Alaska State Plane, Zone 1, NAD 1983).

In general the data showed that the flagged line was well within the property owned by the Alaska Dept. of Natural Resources, administered by the Division of Forestry or within Lot 2-B-2 of ASLS 95-12. Lot 2-B-2 is owned by the Ketchikan Gateway Borough and has agreed to allow this road to be place on a portion of Lot 2-B-2. This report deals with two areas where the proposed road alignment gets close to private lands adjoining Lot 2-B-2 or state land.

The section of road from V-14 to V-49 lies close to and southwest of lines 8-9 and 9-10 of Lot 2-B-2, ASLS 95-12. The adjacent properties are within the Gravina Island Alaska Subdivision (Vol. 1 of Plats, #131, Ketchikan Recording District). Data analyzed for this report indicate that the flagged centerline of the Vallenar Bay Road lies at least 43 feet from the boundary of the Gravina Island Alaska Subdivision. We are confident to +/-10 feet in this assessment.

Another section of the road alignment, from V-184 to V-210, again gets close to the adjacent private property; in this instance, lots within the Vallenar Bay Subdivision, ASLS 85-86 (Plat 86-35, Ketchikan Recording District).

Our measurements indicate that the platted bearings for ASLS 85-86 are relative to the Alaska State Plane Zone 1 grid not relative to the true (geodetic) meridian through Tristation "Guard Island, 1921" as stated on Sheet 2 of the plat for ASLS 85-86. This difference in about 1½ °

Analysis of the initial GeoXH data and R&M's cursory survey of ASLS 85-86 indicated that the flagged center line between V-188 and V-190 (along the back line of Lot 10 and Tract F, Block 6) gets close to the adjacent property. Our subsequent visit to collect point features used longer occupation times and produced more accurate results. These results indicate that the flagged centerline gets as close as 40 ft. from Tract F; probably not a concern as Tract F is owned by the State.

One other area of concern was identified at V-202. Our investigation shows that the flagged centerline is about 55 ft. uphill from the boundary of Lots 16 and 17, which are owned by Andrew and Ardath Piston. I recovered and flagged the nearby monument marking the back corner common to Lots 16 and 17 to help to avoid an encroachment.

The data indicates that the other areas of the project maintain larger separations between the flagged centerline and adjacent properties.

Feb. 06, 2015

EROSION AND SEDIMENT CONTROL PLAN
For
VALLENAR BAY ACCESS ROAD
Gravina Island
3 / 05/ 2016

Estimated Project Dates
Start of Construction 04/ 30/2016
Completion of Construction 06 / 15/ 2017

State of Alaska DNR-DOF Area of Control: State of Alaska DNR-DOF is the land manager and contract manager for the project. The DNR-DOF has operational control over the project specifications and plans, including the ability to make changes to the project specifications. The DNR-DOF is represented on the job by the Project Engineer. The Project Engineer will do joint weekly inspections with the Contractor for the purpose of controlling water pollution. The power and duties associated with regulating and enforcing nonpoint pollution of forest operations is authorized and delegated to the Alaska Department of Natural Resources (ADNR) Division of Forestry (DOF) in the Alaska Forest Resources and Practices Act (FRPA) AS 41.17. The standard management practices identified in 11 AAC 95 are the sole enforcement mechanism for violations of water quality standards for forest operations. The project is the construction of forest road.

Contractor Area of Control: Contractor has day-to-day operational control of the project site including inspections, documentation, and application of the Best Management Practices at the site. Contractor is responsible for the maintenance and implementation of the Erosion Sediment Control Plan (ESCP). The ESCP shall be amended by the contractor as required to reflect the contractor's methods and means of construction and control of water pollution. The contractor's amended plan shall be referred to as the Detailed Erosion Sediment control Plan (DESCP).

The Contractor shall use this Erosion and Sediment Control Plan (ESCP) as the framework to develop the DESCP. The Contractor shall adapt it to the work site's conditions with the approval of the Project Engineer to meet the Alaska Department of Environmental Conservation requirements for maintaining water quality.

Contractor Responsibilities:

- This ESCP as shall be amended by the Contractor to incorporate Hazardous Material Control Plans, Spill Prevention Control, and Countermeasure Plan, and any other modification the contractor determines is necessary to maintain water quality and called a Detailed Erosion Sediment Control Plan (DESCP).
- Contractor shall develop specific best management practices (BMP's) based on the contractor's actual schedule and construction methods. The ECSP is a general plan guiding the development of the contractor's DESCP.
- Contractor shall be responsible for maintaining compliance of the DESCP, including installation of erosion and sediment controls. Any BMP changes that would trigger the need for a DESCP modification shall be promptly communicated to DNR-DOF.
- Contractor will maintain erosion and sediment control BMPs in all areas of the project under its day-to-day control.
- Contractor will provide copies of inspection reports to DNR-DOF within 24 hours following each inspection. Incidents of non-compliance will be immediately brought to the attention of the DNR-DOF Project Engineer.

- The contractor shall provide trained personnel to implement the DESCP. The superintendent shall have current certification as an Alaska Certified Erosion Sediment Control Lead (AK-CESCL), and be knowledgeable in the implementation of erosion control in the area of operations.
- Contractor is responsible for advising employees and subcontractors working on this project of the requirements in the DESCP. Particular emphasis should be placed on ensuring that employees and subcontractors do not damage BMPs and do not introduce pollutants into any water body.

Environmental Information

1. Receiving Waters: See Forest Land Use Plan: "Vallenar Bay Timber Sale Access SSE-1345K".
2. Impaired Water bodies: None.
3. Total Maximum Daily Load (TMDL)Waters: none
4. Threatened and Endangered Species (ESA): None.
5. Historic Impacts: None
6. Migratory Bird Act: Clearing and Grubbing Activities between May 1 and July 15 may interfere with migratory birds. Refer to the US Fish and Wildlife Service for details.
7. Contact the Project Engineer with additional questions/concerns regarding environmental matters.

Erosion and Sediment Control Notes

1. The contractor shall provide protection from degradation to all waters on the project from their operations. Degradation of water quality is defined in 11 AAC 95.900 (19). "Degradation of water quality" means a decrease in water quality such that the affected waters are unable to fully maintain existing or designated uses; "degradation of water quality" does not include changes that are temporary, localized, and reparable decreases in water quality; in this paragraph
   (A) "reparable" means an effect on, or change to, a use or aquatic system due to a decrease in water quality that is reversible by natural processes such that the use or system will return to a state functionally identical to the original;
   (B) "temporary" means 48 hours or less with respect to existing uses

2. Retain a vegetative buffer strip in upland areas where ever possible. Vegetative buffer strips may be used in lieu of silt fence or other temporary devices provided they are sufficient width for the catchment area.

3. The contractor is expected to minimize the amount of disturbed area that is open to erosion at any one time.

4. All disturbed ground capable of supporting vegetation located within 100 feet of ordinary high water of fish bearing waters, tributaries to fish bearing waters or surface waters identified by the Project Engineer to be at significant risk to water degradation by the contractor's operations shall be stabilized to the Project Engineer's approval.

5. Temporary perimeter controls shall be installed for any erodible fill placed within 20 feet of ordinary high water of fish bearing waters, tributaries to fish bearing waters or surface waters identified by the Project Engineer to be at significant risk to water degradation by the contractor's operations.

6. Temporary perimeter control BMP's shall be identified and functional before any up gradient soil disturbance occurs.

7. Sediment control measures and temporary erosion control features shall be based on this document and the specific BMP's as contained in the ADOT&PF's manual "Contractor Guidance for Preparing and Executing Storm Water Pollution Prevention Plans" or other equal as approved by the Project Engineer.

8. Erosion and sediment control BMP's shall be installed within 14 days in areas where earthwork disturbance of erodible material has temporarily or permanently ceased.

9. Avoid conditions which promote concentrated flows. Install velocity control BMPs when concentrated flows occur.

10. Provide perimeter controls in areas shown on the plans as needed to prevent sediment from leaving the project area.

11. Slope protection may include slope roughening, mulching, tackifying, velocity control blankets, seeding, rock lining, or other methods approved by the Project Engineer.

12. All stockpiles of erodible materials shall have perimeter control in place.

13. Erodible material shall not be stockpiled within 100 feet of ordinary high water.

Assumed Construction Sequence

This is a linear project with limited access points; the contractor is expected to take action as needed and in a timely manner to control erosion. Erosion control is expected to be an ongoing process that is concurrent with other work.

1. Clear vegetation as required for current activity.
2. Implement ESCP.
3. Conduct excavation and grading.
4. Install structures.
5. Install final erosion sediment control.

Contractor Signature and certification

Insert Company Name
(To be signed by Responsible Corporate Officer)

I certify under penalty of law that this document and all attachments were prepared under direction of Insert Company Name in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Insert Company Name

Signature	Date
Print name	Title

APPENDICES

Appendix A–Forest Land Use Plan

Appendix B–BMP Details

Appendix C–Project Schedule

Appendix D–Supporting Documentation

-Forest Resources and Practices Act, Regulations and Definitions.
-Permits (ADFG Fish Habitat Permits).

Appendix E–Not Used.

Appendix F– Not Used.

Appendix G– Not Used.

Appendix H–Personnel Qualifications and Training Certificates for:

- DESCP Preparer
- Project Superintendent

Appendix I– DESCP Pre-Construction Site Visit Reports

Appendix J–DESCP Amendment Log

Appendix K–Not Used

Appendix L–Not Used

Appendix M–Hazardous Material Control Plan/Spill Prevention Countermeasure Plan

Appendix N–Not Used

Appendix O–Not Used

Appendix P–Inspection Reports

Appendix Q–Not Used

Appendix R–Not Used

Appendix S–Not Used

Appendix A–Forest Land Use Plan and Site Maps

The Draft Forest Land Use Plan and maps for the Vallenar Bay Access SSE-1345 K can be found at: https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=180468
This section shall represent the most current forest land use plan in effect for the area of operations.

Appendix B–BMP Details added by the Contractor.

Appendix C-Project Schedule

Appendix D–Supporting Documentation

Alaska Forest Practices Act and Regulations Required Practices

Note: This is an excerpt from the Alaska Forest Practices Act and Regulations (FRPA). This project shall follow the all current requirements of the FRPA. The current FRPA may be found at http://forestry.alaska.gov/statutes.htm. These requirements are the minimum required by State law. For clarity of intent, sections of FRPA have been omitted that are regionally or by the nature of the work being performed as not applicable.

All roads shall be built to the FRPA standard best management practices unless site specific erosion and sediment control design has been approved by the project engineer as the representative of the Division of Forestry. The FRPA Standard Best Management Practices, the State Standard Highway Contract, the Special Provisions and the Civil Construction Plan for Vallenar Bay Road convey the intent of the Division of Forestry. In the event of a conflict between documents, the project engineer will determine the order of precedence.

Italics indicate an edit or note regarding the regulation.

Standard Best Management Practice Requirements

11 AAC 95.265. Classification of surface water bodies. (a) (a) Classification of surface water bodies by an operator or by an agency must be made.

Classification of known surface water bodies has been made by the agency.

They are documented in the Forest Land Use Plan titled:

Access of the Vallenar Bay Timber Sale SSE-1345 K.

11 AAC 95.275. Uses within a riparian area. (a) The following operations are allowed within a riparian area without the necessity of obtaining a variation under AS 41.17.087:

(1) road building and associated activities performed in accordance with 11 AAC 95.285(b);

(2) a water body crossing built in accordance with 11 AAC 95.300;

(3) felling and removal of hazardous trees along roadways as required by state or federal law;

(4) *omitted and not applicable to this project (3/26/2015)*;

(5) installation of blocks, or similar devices on a tree required for retention under this chapter if the device is installed to minimize damage to the tree;

(6) the use, as lift trees or tail holds, of trees required for retention under this chapter;

(7) the hanging of rigging through the riparian area if necessary to be consistent with operator safety requirements and to have a clear line of sight and working area for the rigging;

(8) in the case of a riparian area on land identified in AS 41.17.118 and 41.17.119 only, yarding corridors and other logging methods that do not cause a significant adverse impact to the riparian habitat.

(b) The operations identified in (a)(1), (2), and (4) of this section *shall be identified in the FLUP* and comply with AS 41.17 and this chapter.

(c) The felling of trees identified in (a)(3) of this section need not be identified in the *FLUP* or comply with AS 41.17 and this chapter.

(d), (e) and (f) *omitted and not applicable to this project (3/26/2015)*;

(g) Activities described in this section that are conducted within a riparian area must be done in compliance with the slope stability standards of 11 AAC 95.280(d).

11 AAC 95.280. Slope stability standards. (a) *omitted and not applicable to this project (3/26/2015).*

(b) The slope stability standards apply within 100 feet of an ordinary high water mark of an anadromous or high value resident fish water body, or a water body with a gradient of 12 percent or less that is tributary to an anadromous or high value resident fish water body, and within 50 feet of all other tributaries to anadromous and high value resident fish water bodies.

(c) The break of a slope is the point where the slope extending up from the top of the stream bank changes to the lower angle slope of the adjacent upland. For purposes of measurement, the break of a slope is where the degree of slope is reduced by 20 percent or more when measured away from the stream.

(d) An operator shall adhere to the following standards when conducting construction activity in an area identified in (b) of this section:

(1) avoid constructing a road that will undercut the toe of a slope that has a high risk of slope failure;

(2) omitted and not applicable 3/26/2015.;

(3) achieve full or partial suspension in yarding operations;

(4) fall timber away from streams in V-notches; and

(5) avoid sidecasting of displaced soil from road construction to the maximum extent feasible.

Article 3. Road construction

11 AAC 95.285. Road location.

(a) *omitted and not applicable to this project (3/26/2015).*

(b) A road may not be located in a riparian area except where access is needed to a water body crossing, or where there is no feasible alternative. A stream crossing or a road in any riparian area must be designed and located to minimize significant adverse effects on fish habitat and on water quality.

11 AAC 95.290. Road construction. (a) When constructing a forest road on a slope, an operator, where feasible, shall avoid locating a road on a slope greater than 67 percent or on an unstable slope. If avoiding that slope is not feasible, site-specific measures must be planned to address slope instability due to road construction. The measures must be approved by the division and must meet the requirements of (b) of this section.

(b) If constructing a road on a slope greater than 67 percent or on an unstable slope is necessary, an operator

(1) may not bury any of the following material except as puncheon across swampy ground or for culvert protection:

(A) a log chunk of more than five cubic feet in volume or a loose stump, in the load-bearing portion of a road;

(B) any significant amount of organic debris within the load-bearing portion of a road;

(C) excessive accumulation of debris or slash in the road-bearing portion of a road fill;

(2) shall balance cuts and fills so that as much of the excavated material as is feasible is deposited in the roadway fill section; however, unstable fill material may not be used, and cuts must be minimized where fine textured soils are known or encountered; and

(3) may not conduct excavation and blasting activities during saturated soil conditions if mass wasting is likely to result and cause degradation of surface or standing water quality.

(c) To prevent or minimize sedimentation, an operator shall treat unstable soils with effective and appropriate erosion control measures such as grass seeding, erosion control mats, or end-hauling of materials.

(d) An operator shall use end-hauling and full-bench construction techniques if mass wasting from overloading on an unstable slope or erosion of sidecast material is likely to occur and cause degradation of surface or standing water quality.

(e) Notwithstanding the provisions of 11 AAC 95.355, when constructing a forest road, an operator shall, where feasible, fell trees away from fish-bearing surface waters and from standing waters, and shall fell trees away from other surface where feasible and if necessary to avoid degradation of water quality. An operator shall comply with the following standards when constructing a forest road:

(1) an operator may not fell a tree into anadromous fish waters catalogued under AS 16.05.871 without prior written approval of the Department of Fish and Game;

(2) if a tree is felled into fish-bearing waters not catalogued under AS 16.05.871, the operator shall remove the limbs and other small debris within 48 hours, and shall remove the bole as soon as the necessary equipment is at the site;

(3) if a tree is felled into nonfish-bearing surface waters and standing waters, the operator shall remove debris at the earliest feasible time when necessary to avoid degradation of water quality.

(f) *omitted and not applicable to this project (3/26/2015).*

(j) Spoil, waste, and overburden that is generated during construction and not sidecasted shall be deposited in a suitable upland site stabilized by effective and appropriate erosion control measures. Disposal must also meet the standards set out in 11 AAC 95.325, 11 AAC 95.815, and 18 AAC 60.

(k) Where feasible, the running surface of a road must use material that will minimize erosion of the road surface and prevent degradation of water quality.

(l) A person may not operate construction equipment or machinery in

(1) an anadromous fish water catalogued under AS 16.05.871 without written approval of the Department of Fish and Game, or

(2) any other surface waters, without prior notice to the division.

11 AAC 95.295. Road drainage. (a) This section sets out the drainage standards that apply to a forest road.

(b) An operator shall minimize the erosion of a road bed, cut bank, and fill slope through the use of cross drains, ditches, relief culverts, bridges, water bars, diversion ditches, or other structures demonstrated to be effective. These drainage structures shall be installed at all natural drainages and must be spaced at least as frequently as set out in the following table:

SPACING OF DRAINAGE STRUCTURES (in feet)

PERCENT OF GRADE

REGION I

0 to 2	Meet other standards of this section	
2 to 7	1,000	1,500
8 to 15	800	1,000
Over 15	600	800

More frequent drainage structure spacing or other drainage improvements must be used where site-specific conditions of peak flows or soil instability makes additional drainage structures necessary to prevent degradation of standing or surface water quality. Less frequent drainage spacing is permissible if the parent material of the roadway is not erodible, such as rock or gravel; the topography or other local conditions are not conducive to erosion; or the degradation of surface or standing waters is not likely to occur.

(c) During road construction, an operator shall install the appropriate ditches, culverts, cross drains, drainage dips, water bars, and diversion ditches when the natural drainage is crossed with the roadbed material.

(d) A road shall be outsloped or ditched on the uphill side.

(e) In the event an incomplete road is left over the winter season or other extended period, an operator shall, before suspending operations, provide adequate interim drainage by outsloping or cross draining the road, or by the use of water bars and diversion ditches.

(f) An operator shall to the extent feasible direct ditchline water away from unstable soils and surface waters, and onto vegetated areas.

(g) To minimize sedimentation of standing and surface waters, marshes, and non-forested muskegs caused by drainage from road surfaces and ditches, an operator shall use measures such as settling basins, cross drains, or vegetated areas.

(h) A relief culvert installed on a forest road must be at least 18 inches in diameter or the equivalent capacity, and be installed sloping toward the downslope edge of the road at a minimum gradient of three percent.

(i) A cross drain, relief culvert, or diversion ditch may not discharge onto erodible soil or over fill slopes unless adequate outfall protection is provided and slope stability is ensured.

(j) A drainage structure must also comply with the directional and placement requirements of 11 AAC 95.305.

11 AAC 95.300. Bridge standards. (a) An operator shall install a bridge on a forest road according to the following standards:

(1) *omitted and not applicable to this project (3/26/2015)*;

(2) *omitted and not applicable to this project (3/26/2015)*;

(3) an earth embankment constructed for use as a bridge approach must be protected from erosion by using planted or seeded ground cover, bulkheads, rock riprap, retaining walls, or other equally effective means;

(4) *omitted and not applicable to this project (3/26/2015)*;

(5) *omitted and not applicable to this project (3/26/2015)*;

(6) a bridge must be installed to provide fish passage in accordance with AS 16.05.841;

(7) *omitted and not applicable to this project (3/26/2015)*;

(8) a bridge must be installed in such a way as to minimize disturbance to the bed and banks of a stream.;

(b) In addition to the requirements of (a) of this section, when installing a new bridge or replacing an existing bridge on a forest road that crosses anadromous fish waters, the installation must be in accordance with the standards set out in (c) of this section. In anadromous fish waters catalogued under AS 16.05.871, an operator may not cross the water body with equipment, install a bridge or conduct excavation for bridges, place sills or abutments, or place stringers or girders within the ordinary high-water marks without prior written approval from the Department of Fish and Game. If prior written approval is required by the Department of Fish and Game under AS 16.05.871, an operator shall comply with that department's requirements instead of the standards of (c) of this section.

(c) When installing a bridge over anadromous waters that have not been catalogued under AS 16.05.871, an operator shall:

(1) *omitted and not applicable to this project (3/26/2015)*;

(2) *omitted and not applicable to this project (3/26/2015)*;

(3) *omitted and not applicable to this project (3/26/2015)*;

(4) schedule bridge building activity to occur during a period that will avoid or reduce adverse impact on fish; and

(5) *omitted and not applicable to this project (3/26/2015).*

(d) An operator may not narrow an anadromous stream between its ordinary high water marks.

11 AAC 95.305. Culverts and other water crossing provisions. (a) An operator shall install a culvert on a forest road according to the following standards:

(1) *omitted and not applicable to this project (3/26/2015)*;

(2) *omitted and not applicable to this project (3/26/2015)*;

(3) for fish-bearing waters, the entrance, to the extent possible, and exit of a stream culvert must match the natural course of a stream channel; a culvert may not be perched at its inlet or outlet.

(4) a culvert must terminate on material that will not readily erode, such as riprap, the original streambed if stable, or other suitable materials;

(5) a change may not be made in the course or channel of anadromous fish waters catalogued under AS 16.05.871 without giving notice to the division and receiving written approval of the Department of Fish and Game; a change may not be made in the course or channel of other waters that are significant for protection of downstream water quality, without prior notice to the division;

(6) when a flume, downspout, downfall culvert, or similar structure is used to protect fill slopes or to return water to its natural course, the discharge point shall be protected from erosion by

(A) reducing the velocity of the water;

(B) using rock spillways, riprap, or splash plates; or

(C) using equally effective methods or structures;

(7) for nonfish-bearing waters, the area of a stream bed from a culvert inlet to 50 feet upstream from the culvert inlet must be cleared of mobile slash or debris that may be expected to plug a culvert;

(8) to prevent or minimize sedimentation, the entrance of a relief culvert must have adequate and appropriate catch basins, consistent with physical features of the ground; a headwall must be used to direct ditch water into cross drains;

(9) a culvert must be of sufficient length to prevent road overlay materials from blocking an end of the culvert.

(b) *omitted and not applicable to this project (3/26/2015)*;

11 AAC 95.315. Road maintenance. (a) For purposes of the road maintenance requirements of this section, a landing is considered part of a road.

(b) An operator shall conduct the following maintenance on an active road:

(1) keep culverts, flumes, and ditches functional;

(2) if a settling basin is used, keep an adequate reserve volume; sediment removed from a settling basin during maintenance operations must be deposited in a location where it is not likely to enter nearby surface waters;

(3) perform road surface maintenance as necessary to minimize erosion of the surface and the subgrade;

(4) during operations, keep the road surface crowned or outsloped, and keep the downhill side of the road free from berms except those intentionally constructed for protection of fill;

(5) when grading on a nonrock-decked bridge, minimize the deposit of road surface material on the bridge surface; and

(6) when grading on a rock-decked bridge, avoid pushing material over the rub rails or through gaps in the bridge surface.

(c) An operator or forest landowner shall conduct the following maintenance on an inactive road:

(1) as soon as feasible following termination of active use, keep ditches and drainage structures maintained as necessary to assure water flow and fish passage;

(2) keep the road surface crowned, outsloped, water barred, or otherwise left in a condition not conducive to erosion; and

(3) except as provided in (d) of this section, keep ditches and drainage structures clear and in good repair.

(d) An operator or forest landowner is not subject to the penalties or liable for the monetary damages under AS 41.17 for any damage occurring from a condition brought about by public use of a road, unless an operator or forest landowner fails to make repairs under a directive of the division.

(e) If necessary to prevent significant degradation of surface water quality or fish habitat, the division will, in its discretion, require an operator or forest landowner to perform the following activities:

(1) install additional or larger culverts or other drainage improvements as determined necessary by the division;

(2) provide additional road maintenance;

(3) *omitted and not applicable to this project (3/26/2015)*; and

(4) rehabilitate unstable or erodible exposed soils by a suitable method to minimize siltation of surface waters.

11 AAC 95.325. Material extraction and disposal sites. (a) If feasible, an operator must verify that suitable material is present at a proposed extraction site before stripping the entire site of surface soils. A material extraction site must be located in an area

(1) that is outside surface waters, standing waters, and marshes;

(2) that is outside non-forested muskegs, except with prior notice to the division;

(3) with a low risk of siltation to surface water;

(4) where the risk of causing significant harm to fish habitat through soil erosion and mass wasting is minimal;

(5) where there is adequate and appropriate sediment filtering vegetation or equivalent treatment;

(6) that is outside a riparian area unless inside a riparian area is authorized by the division; a material extraction site located in a braided, glacial flood plain may be subject to AS 41.14; and

(7) that will not cause hydrologic changes such as dewatering a stream.

(b) An operator shall locate an area to deposit material extraction site overburden and end hauling material

(1) that is outside surface waters, standing waters, marshes, and non-forested muskegs;

(2) with a low risk of siltation to surface water;

(3) where the risk of causing significant harm to fish habitat through soil erosion and mass wasting is minimal;

(4) where there is adequate and appropriate sediment filtering vegetation or equivalent treatment; and

(5) that is outside a riparian area.

(c) During the construction and use of a material extraction site or a soil disposal site, runoff water must either be diverted onto the forest floor or intercepted and passed through one or more settling basins. When a settling basin is used, it must be maintained to have an adequate reserve volume. Sediment removed from a settling basin during a maintenance operation must be deposited in a location where it is not likely to enter any nearby surface waters.

(d) An operator shall rehabilitate a material extraction site or a soil disposal site after the material source is exhausted or abandoned, or operations at the disposal site are completed. Within the first growing season after abandonment of an extraction site or completion of disposal operations, an operator shall

(1) remove and place in a stable location all material that has potential for entering surface or standing waters, or that would prevent reforestation of an otherwise plantable area; and

(2) where necessary to prevent erosion, stabilize a disposal site and all exposed erodible soils by

(A) revegetation with grass, clover, ground cover, or, if possible, native ground cover;

(B) compacting, rip rapping, water barring, benching, or mulching; or

(C) other means required by the division.

(e) If degradation of water quality occurs due to erosion from an abandoned material extraction or disposal site, the forest landowner, the operator, or the person responsible for creating the condition, must correct the problem.

11 AAC 95.330. Rehabilitation after mass wasting. (a) Where mass wasting is caused by operations, the operator shall, to the extent feasible, take effective and appropriate measures to stabilize the slide path and all associated exposed soils, such as grass seeding, erosion control mats, excavation of the head wall to the angle of repose, placement of ballast to control mass wasting, or other effective slope stabilization method.

(b) The division will, in its discretion, require an operator to remove debris from surface waters impacted by mass wasting, to the degree necessary to restore water quality or fish habitat.

(c) Ditchline water must be directed away from mass wasting and into vegetated areas.

11 AAC 95.335. Blasting standards. (a) A person may not discharge an explosive in the following areas without first obtaining a variation under 11 AAC 95.235:

(1) Type I-A or Type I-B stream riparian areas in Region I;

(b) During blasting, an operator shall minimize the amount of flyrock materials deposited into fish-bearing waters.

11 AAC 95.810. Measurement of distances. When a distance is specified in AS 41.17 or this chapter, the following applies:

(1) the distance measured must be horizontal distance rather than slope distance;

(2) the distance from a tidal zone is measured from the line of mean higher high water mark; and

11 AAC 95.815. Disposal of waste material. (a) A petroleum product may not be disposed of onto land or into waters.

(b) Waste material, such as crankcase oil, fuel, grease, filters, hydraulic fluid and their containers, machine parts, wire rope, oil-contaminated soils, scrap culverts, or similar scrap wastes resulting from forest operations, must be disposed of in accordance with 18 AAC 60 and 18 AAC 62.

(c) Petroleum products and waste material as identified in this section must be handled in a manner that does not violate the water quality standards of 18 AAC 70.

11 AAC 95.900. Definitions. In this chapter, unless the context specifically states otherwise:

(1) **"active road"** means a forest road being actively used for hauling logs, pulpwood, chips, or other major forest products, or rock and other road building materials;

(2) **"agencies"** means the Department of Fish and Game, the Department of Environmental Conservation, and the Division of Forestry within the Department of Natural Resources;

(3) **"agency"** means the Department of Fish and Game, Department of Environmental Conservation, or the Division of Forestry within the Department of Natural Resources;

(4) **"angle of repose"** means the angle at which a cut or fill slope will stand naturally;

(5) **"appropriate"** means warranted in light of potential effects on public resources;

(6) **"approved device"** includes conventional and portable stoves, fireplaces, and incinerators with adequate safeguards to prevent escapement of fire;

(7) **"bedrock"** means solid rock or accumulation of material more than three feet in diameter that predominate within a streambed or streambank;

(8) **"burning"** includes setting fires and excludes smoking;

(9) *omitted and not applicable to this project (3/26/2015)*;
(10) *omitted and not applicable to this project (3/26/2015)*;
(11) **"commercial tree species"** means any species that is capable of producing a merchantable stand of timber on a particular site or is being grown as part of a Christmas tree or ornamental tree-growing operation;

(12) **"commissioner"** means the commissioner of natural resources or the commissioner's authorized designee;

(13) **"conversion"** means a bona fide land use conversion to a use that is incompatible with timber growing;

(14) **"cribbing"** means brush, small poles, or small diameter logs used to increase the structural integrity of a snow ramp or ice bridge;

(15) **"cross drain"** means a cross ditch used to move water from one side of a road to the other to prevent accumulation of runoff without the need of a culvert or bridge;

(16) **"crowned"** means the running surface of a road is made higher in the center to direct runoff away from the centerline and into roadside ditches;

(17) **"DBH"** means the diameter of a tree at breast height (commonly four and one-half feet);

(18) **"debris"** means woody vegetative residue less than four inches in diameter and less than three feet in length resulting from a forest practice operation;

(19) **"degradation of water quality"** means a decrease in water quality such that the affected waters are unable to fully maintain existing or designated uses; "degradation of water quality" does not include changes that are temporary, localized, and reparable decreases in water quality; in this paragraph

(A) "reparable" means an effect on, or change to, a use or aquatic system due to a decrease in water quality that is reversible by natural processes such that the use or system will return to a state functionally identical to the original;

(B) "temporary" means 48 hours or less with respect to existing uses;

(20) **"department"** means the Department of Natural Resources;

(21) **"designated uses"** means those protected water uses specified in 18 AAC 70.020 for each water body or segment of a water body;

(22) **"division"** means the division of forestry in the department;

(23) **"end hauling"** means the removal and transportation of excavated material, pit or quarry overburden, or landing or road cut material from an excavation site to a deposit site not adjacent to the point of removal;

(24) **"erodible soils"** means soils exposed or displaced by a forest practice operation and soils that would be readily moved by the erodible force of moving water;

(25) **"estuarine area"** means that area at the mouth of a Type I-A, II-A, II-B, II-C, or II-D stream where fresh and salt water mix; the landward extent of an estuary is the limit of salt-tolerant vegetation, and the seaward extent is a stream's delta at mean lower low water;

(26) **"existing uses"** means those uses actually attained in a water body on or after November 28, 1975;

(27) **"fall"** means a free fall or precipitous descent of water or a fast white water cascade;

(28) **"fatally damaged tree"** means a tree that is damaged to the extent that it is unlikely to survive; breakage of limbs or tips, bark scrapes, or notching of a tree for tail holds does not constitute fatal damage as long as the tree is likely to survive;

(29) **"feasible"** means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, technical, and safety factors;

(30) **"first entry"** means the initial period of entry during a rotation or cutting cycle;

(31) **"fish-bearing waters"** means waters containing anadromous or high-value resident fish at any time

during the year;

(32) **"forest practices forester"** means the field person assigned by the commissioner to implement AS 41.17;

(33) **"full suspension"** means lifting the load completely clear of the ground, including obstacles;

(34) **"gravel"** means streambed and streambank material ranging in size from 0.16 inches to 2.5 inches in diameter;

(35) **"half holiday"** means an agency office is closed a portion of a day for circumstances beyond the control of the agency;

(36) **"inactive road"** means a forest road on which commercial hauling is discontinued for one or more logging seasons, and the forest landowner desires continuation of access for fire control, forest management activities, occasional or incidental use for forest products harvesting, or similar activities;

(37) **"incised channel"** means a channel having banks that, when viewing a vertical cross section through the water body, are sharply angular or perpendicular to water flow, are capable of containing the flow of the stream at annual high water, and in which the top of the embankment is at least six feet above the water surface during normal flow;

(38) **"infestation"** means attack and invasion by macroscopic organisms in considerable concentration;

(39) **"lake or pond"** means

(A) a confined fresh water body with perennial water, defined shorelines, and an identifiable inlet and outlet; and

(B) a confined fresh water body with perennial standing water and defined shorelines, and without an identifiable inlet or outlet, if the water body contains a population of anadromous or high value resident fish;

(40) **"landing"** means the location where logs are deposited by yarding or skidding equipment, including helicopters;

(41) **"load-bearing portion"** means that part of a road, landing, or other surface that consists of supportive soil, earth, rock, or other material directly below the working surface and the associated earth structure necessary for support of a part of a road;

(42) **"low value"** has the meaning given in AS 41.17.116(d)(1);

(43) **"marsh"** means a frequently or continually inundated area of saturated soils characterized by emergent reeds, grasses, and sedges;

(44) **"mass wasting"** means the slow to rapid downslope movement of significant masses of earth material of varying water content, primarily under the force of gravity;

(45) **"material"** means the same as in 11 AAC 71.910;

(46) **"material extraction site"** means an excavation site outside the limits of construction where material necessary for that construction, such as fill material, are extracted;

(47) **"mean higher high water mark"** means, for estuaries, an elevation below which the presence of marine water is so common and of sufficient duration as to prevent establishment of forest floor mosses and other salt-intolerant vegetation;

(48) **"mineral soil"** means a soil containing insufficient organic material to sustain fire;

(49) **"minimize"** means to limit to the extent feasible, and does not include the requirement of improving naturally existing conditions;

(50) **"non-forested muskeg"** means an expanse of saturated, poorly drained soil, including a swamp or bog, that is characterized by accumulation of peat or partially decayed plant matter, has no significant inflows or outflows, supports acidophilic mosses, and is not stocked with trees;

(51) **"normal channel flow conditions"** means that a stream's discharge is approximating mean flow as determined by a nonquantitative field assessment; this condition would usually occur no earlier than 2 days after a significant rain event; this condition would not occur during active snow melt, a distinct drought period, freeze up, or any other extraordinary conditions;

(52) **"operation"** means the same as in AS 41.17.950; except that in 11 AAC 95.340 -- 11 AAC 95.390, "operation" also includes land clearing activities on forest land;

(53) **"ordinary high water mark"** or "OHWM" means the mark along the bank or shore up to which the presence and action of the tidal or nontidal water are so common and usual, and so long continued in all ordinary years, as to leave a natural line impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics;

(54) **"organic mat"** means the dead and living layer of plant material that has accumulated over time on the surface of the mineral soil;

(55) **"outsloping"** means to shape the running surface of a road in a manner that carries runoff to the downslope side of the road; "outsloping" is used for roads without roadside ditches;

(56) **"partial cut"** means tree removal other than a clear cutting, such as removing only part of a stand;

(57) **"permanent,"** when used to describe a road, or when used to describe a bridge, culvert, or other crossing structure, means a road or structure that will be left in place for at least seven years from the date of original construction;

(58) **"physical blockage"** means a natural feature or an authorized artificial structure that prevents upstream migration of fish, including a presumed physical blockage under 11 AAC 95.265(g)(4);

(59) **"presence or evidence of anadromous fish"** means the documented occurrence of live anadromous fish, eggs, or their remains;

(60) **"project"** means

(A) for private and other public land as defined under AS 41.17.950, a detailed plan of operation as described under 11 AAC.95.220,

(B) for state land, an activity or use under a forest land use plan adopted under the authority of AS 38.05.112; and

(C) an activity subject to federal consistency review under 33 U.S.C. 1329 (Clean Water Act,

sec. 319), as amended February 4, 1987;

(61) **"prudent"** has the meaning given in AS 41.17.116 (d)(2);

(62) **"puncheon"** means a slab of timber used for flooring or footing, or woody material used as a mat in overlay road construction;

(63) **"reforest"** means the successful reestablishment of commercial tree species following harvest;

(64) **"Region I," "Region II," and "Region III"** have the meanings given in AS 41.17.950.

(65) **"rehabilitate"** means to control and stabilize erodible material to the extent feasible, through construction of a control structure, revegetation, or another method;

(66) **"relief culvert"** means a structure to relieve surface runoff from roadside ditches to prevent excessive buildup in water volume and velocity;

(67) **"residual trees"** means commercial tree species left standing in a harvest unit or other specified area after completion of harvest or, for purposes of 11 AAC 95.375, immediately before beginning reforestation activities in that unit or area;

(68) **"road reconstruction"** means the process of making an inactive or closed road useable, including reinstalling drainage structures, removing vegetation, and resurfacing;

(69) **"rubble"** means streambed or streambank material ranging in size from 2.5 inches to 3 feet in diameter;

(70) **"sand"** means streambed or streambank material with a diameter of 0.1 mm to 0.4 mm;

(71) **"sapling"** means a live tree 1.0 inch to 5.0 inches in DBH;

(72) **"saturated soil"** means soil that has all of its voids completely filled with water, to the point where the addition of any further water will result in a rising surface water table;

(73) **"seedling"** means a live tree less than 1.0 inches in DBH, or under 10 feet tall;

(74) **"sidecasting"** means the act of moving excavated material to the side and depositing that material within the limits of construction or dumping it over the side and outside the limits of construction;

(75) **"silt"** means streambed or streambank material with a diameter of less than 0.1 mm;

(76) **"skid trail"** means a route used by tracked or wheeled skidders to move logs to a landing or road;

(77) **"slash"** means pieces of woody vegetative residue greater than five inches in diameter or longer than three feet in length resulting from a forest practice operation;

(78) **"spoil"** means excess material removed as overburden or generated during road or landing construction that is not used within the limits of construction;

(79) **"spring"** means a place where subterranean water naturally flows from a rock or soil upon the land or into a body of surface water;

(80) **"standing water"** means a water body, one half acre or larger, that has defined banks but no surface outlet;

(81) **"state forester"** means the same as in AS 41.17.020 and, for the purposes of administering this chapter, includes division employees to whom the state forester has delegated responsibility for carrying out AS 41.17 and this chapter;

(82) **"stream"** means a perennial flow of water along a defined channel, or an intermittent flow of water along a defined channel that is significant for protection of downstream water quality;

(83) **"substantial factor"** means a proximate or direct cause among two or more causes operating to bring about or give rise to an injury and that is a cause which reasonable persons would regard as a basis for responsibility for that injury;

(84) **"surface waters"** means fresh water springs, lakes, or ponds, or a freshwater stream the designated uses of which are protected under 18 AAC 70, regardless if those waters are classified under AS 41.17.950(31) – (41);

(85) **"temporary,"** when used to describe a road, or when used to describe a bridge, culvert, or other stream crossing structure, means a road or structure that will be left in place for a period of less than seven years from the date of original construction;

(86) **"timber"** means merchantable trees, standing or down, of a commercial tree species;

(87) **"vegetative reproduction"** means coppice, suckering, or sprouting from the roots or stump sprouts or from buds around the root collar;

(88) **"vigorous"** means live, free of disease or gross defects, exhibiting terminal or annual growth, capable of continued growth, and appears able to survive until the end of rotation; a conifer must contain a minimum of one third live crown;

(89) **"water bar"** means a diversion ditch or hump created in a trail or road for the purpose of carrying surface water runoff into the vegetation duff, ditch, or other dispersion area so that it does not gain the volume and velocity that cause soil movement and erosion;

(90) **"well distributed"** means that average stocking levels meet or exceed the minimum standards with no more than 10 percent of the harvest unit excluding roads, landings, and material sites, below minimum standards;

(91) **"windthrown"** means a natural process by which trees are uprooted or sustain severe damage by the wind;

(92) **"winter road"** means a road that has a load-bearing capacity derived from a combination of frost, snow, or ice that can seasonally support highway vehicles and logging equipment;

(93) **"fine textured soil"** means mineral soil with a texture of silty-clay, sandy-clay, or clay;

(94) **"unstable fill material"** means organic debris, organic soil, or fine textured soil;

(95) **"unstable slope"** means a slope exhibiting mass wasting or where mass wasting is likely to occur.

AS 41.17.950. Definitions. In this chapter, unless the context otherwise requires,

(1) "anadromous water body" means the portion of a fresh water body or estuarine area that

(A) is cataloged under AS 16.05.041 as important for anadromous fish; or

(B) is not cataloged under AS 16.05.871 as important for anadromous fish but has been determined by the Department of Fish and Game to contain or exhibit evidence of anadromous fish in which event the anadromous portion of the stream or waterway extends up to the first point of physical blockage;

(2) *omitted and not applicable to this project (3/26/2015)*;

(3) "board" means the Board of Forestry established in AS 41.17.041;

(4) "broadcast chemicals" includes pesticides, herbicides, fungicides, fertilizers, poisons, and any other substances

(A) used for silvicultural management or related purposes;

(B) not native to the ecosystem in which they are being applied; and

(C) having a foreseeable adverse impact on the welfare of renewable resources, as determined by the commissioner of environmental conservation;

(5) *[Repealed §38, E.O. No. 114 (2008))*

(6) "division" means the division of forestry;

(7) "forest land" means land stocked or having been stocked with forest trees of any size and not currently developed for nonforest use, regardless of whether presently available or accessible for commercial purposes, and includes any such land under state, municipal, or private ownership;

(8) "forest landowner" means a person who owns forest land, but does not include the owner of mineral or subsurface rights only;

(9) "glacial," with respect to a water body, as used in the phrases "glacial high value resident fish water body" and "glacial anadromous water body," means that, under normal conditions, a water body receives significant surface flow from a glacier; "glacial," with respect to a water body, includes a water body that receives a mix of glacial water and water from other sources;

(10) "high value resident fish" means resident fish populations that are used for recreational, personal use, commercial, or subsistence purposes;

(11) "multiple use" means

(A) the management of all the various resources of forest land so that they are used in the combination that will best meet the needs of the citizens of the state, making the most judicious use of the land for some or all of these resources or related values, benefits, and services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions;

(B) that some land will be used for less than all of the resources; and

(C) harmonious and coordinated management of the various resources, each with the other, without significant impairment of the productivity of the land and water, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output;

(12) "nonglacial," with respect to a water body, as used in the phrases "nonglacial high value resident fish water body" and "nonglacial anadromous water body," means that, under normal conditions, a water body does not receive significant surface flow from a glacier;

(13) "operations" means timber harvesting or activities associated with timber harvesting or forest development unless exempted under AS 41.17.900(a) - (c);

(14) "operator" means a person who is engaged in timber harvesting or activities associated with timber harvesting or forest development, or who contracts with others to conduct operations for that

person, except a person who is engaged in an operation as an employee with wages or piecework as the sole compensation;
(15) "ordinary high water mark" means the mark along the bank or shore up to which the presence and action of the tidal or nontidal water are so common and usual, and so long continued in all ordinary years, as to leave a natural line impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics;
(16) "other public land" means state land managed by state agencies other than the department, land owned by a municipality, and land owned by the University of Alaska;
(17) *omitted and not applicable to this project (3/26/2015)*;
(18) "person" has the meaning given in AS 01.10.060 and also includes a joint venture;
(19) *omitted and not applicable to this project (3/26/2015)*;
(20) "Region I" means all land in Southeast Alaska, plus all land that is south of the crest of the Chugach Mountains and Saint Elias Mountains and east of a line running from the crest of the Chugach Mountains to O'Malley Peak, then southerly to Gull Rock, then southwesterly to the eastern junction of Skilak Lake Road and the Sterling Highway, then southwesterly to the mouth of the Fox River, then southwesterly through Kachemak Bay to Mt. Douglas, plus all land on the Alaska Peninsula between Mt. Douglas and Cape Kumliun that is east of the crest of the Aleutian Range, plus all islands in the Gulf of Alaska north of 56 degrees 23 minutes North latitude;
(21) *omitted and not applicable to this project (3/26/2015)*;
(22) *omitted and not applicable to this project (3/26/2015)*;
(23) "riparian area" means
(A) the areas subject to riparian protection standards in AS 41.17.116(a) and (c) on private land in Region I;
(B) *omitted and not applicable to this project (3/26/2015)*; (C) the area 100 feet from the shore or bank of an anadromous or high value resident fish water body on state land managed by the department and on other public land in Region I;
(24) "significant impairment of the productivity of the land and water" means an activity that may foreseeably result in prolonged or substantial damage to renewable resources or prolonged or substantial reduction of the continuing capability of the land or water to produce renewable resources at their natural or historic levels;
(25) "silviculture" means the art of producing and tending a forest, the application of the knowledge of silvics in the treatment of a forest, and the theory and practice of controlling and managing forest establishment, composition, and growth;
(26) "state forest" means an area designated by the legislature and retained in state ownership in order to
(A) provide a base for sustained yield management of renewable resources; and
(B) permit a variety of beneficial uses;
(27) "sustained yield" means the achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of forest land and water without significant impairment of the productivity of the land and water, but does not require that timber be harvested in a non-declining yield basis over a rotation period;
(28) *omitted and not applicable to this project (3/26/2015)*;
(29) *omitted and not applicable to this project (3/26/2015)*;
(30) "timber owner" means a person who owns timber on forest land or who has the rights to timber, but does not own the land itself;
(31) "Type I-A water body" means, in Region I, an anadromous water body that
(A) is a stream or river of any size having an average gradient of eight percent or less, with banks held in place by vegetation, channels that are not incised, and a substrate composed of rubble, gravel, sand, or silt;
(B) consists of wetlands and lakes, including their outlets; and

(C) is an estuarine area delimited by the presence of salt-tolerant vegetation;

(32) "Type I-B water body" means, in Region I, an anadromous water body that does not meet the definition of a Type I-A water body;

(33) "Type I-C water body" means, in Region I, a water body that is not anadromous, that is a tributary to a Type I-A or Type I-B water body, and that has a gradient of 12 percent or less.

(34) "Type I-D water body" means, in Region I, a water body that is not anadromous, that is tributary to a Type I-A or Type I-B water body, and that has a gradient greater than 12 percent.

11 AAC 71.910. Definitions.

(8) "material" includes, but is not limited to, the common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay, topsoil, peat, and sod.

Attached Permits (ADFG Fish Habitat Permits)

FH-15-VII-0018
FH-15-VII-0019
FH-15-VII-0020
FH-15-VII-0021

Appendix E- Not Used.
Appendix F-Not Used.
Appendix G- Not Used.

Appendix H– Personnel Qualifications and Training Certificates for:

- DESCP Preparer
- Project Superintendent
- Department's Project Engineer

Appendix I– DESCP Pre-Construction Site Visit(s)

State of Alaska
Department of Natural Resources
Division of Forestry

PRE-CONSTRUCTION SITE VISIT

Project Name: _____

Project Number: _____

Date of Site Visit: _____

1. PERSONS CONDUCTING THE VISIT

Name:	**Name:**
Title:	Title:
Company:	Company:
Name:	**Name:**
Title:	Title:
Company:	Company:
Name:	**Name:**
Title:	Title:
Company:	Company:

2. DESCP PREPARER STATEMENTS AND SIGNATURE:

		Yes	No
1.	Did you identify or verify opportunities to phase construction activities at the project?		
2.	Did you identify or verify appropriate BMPs and their sequencing for the project?		
3.	Did you identify or verify which sediment controls must be installed at the project prior to commencing activities?		

If you answered No to any of the questions above, explain:

Printed Name: _____

Title: _____

Company: _____

Signature: _____

Date: _____

Appendix J– Amendment Log

State of Alaska
Department of Natural Resources
Division of Forestry

DESCP AMENDMENT LOG PAGE ____

Project Name:

Amendment Number	Description of the Amendment	Page or Sheet Number	Date of Amendment	Amendment Approved by (Sign Full Name)

Form 25D-114F (12/15) DNR

Appendix K– Not Used.

Appendix L– Not Used.

Appendix M– Hazardous Material Control Plan

Appendix N–Not Used

Appendix O– Not Used

Appendix P– Inspection Reports

FRPA Construction Site Inspection Report

General Information	
Project Name	
Date of Inspection	**Start/End Time**
Contractor Inspector's Name(s)	
Contractor Inspector's Title(s)	
Contractor Inspector's Contact Information	
Contractor Inspectors Qualifications	
DNR Inspector's Name(s)	
DNR Inspector's Title(s)	
DNR Inspector's Contact Information	
DNR Inspectors Qualifications	
Describe present phase of construction	
Type of Inspection **Regular** ❑ **Pre-storm event** ❑ **During storm event** ❑ **Post-** **Weather Information**	

Weather at time of this inspection?
Do you suspect that water quality may have been degraded since the last inspection? ❑Yes ❑No
Is water quality degraded at the time of inspection? ❑Yes ❑No

Site-specific BMPs

Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of this numbered site map with you during your inspections. This list will help ensure that you are inspecting all required BMPs at your site. Customize this section as needed.

	BMP Description	**BMP Installed and Operating Properly?**	**Corrective Action Needed**	**Date for corrective action/responsible person**
1		❑Yes ❑No		
2		❑Yes ❑No		
3		❑Yes ❑No		
4		❑Yes ❑No		
5		❑Yes ❑No		
6		❑Yes ❑No		
7		❑Yes ❑No		
8		❑Yes ❑No		
9		❑Yes ❑No		
10		❑Yes ❑No		
11		❑Yes ❑No		
12		❑Yes ❑No		
13		❑Yes ❑No		
14		❑Yes ❑No		
15		❑Yes ❑No		
16		❑Yes ❑No		
17		❑Yes ❑No		
18		❑Yes ❑No		
19		❑Yes ❑No		
20		❑Yes ❑No		

Overall Site Issues

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	❑Yes ❑No	❑Yes ❑No		
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	❑Yes ❑No	❑Yes ❑No		
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	❑Yes ❑No	❑Yes ❑No		
4	Are discharge points and receiving waters free of sediment deposits?	❑Yes ❑No	❑Yes ❑No		
5	Are storm drain inlets properly protected?	❑Yes ❑No	❑Yes ❑No		
6	Is there evidence of sediment being tracked into the street?	❑Yes ❑No	❑Yes ❑No		
7	Is trash/litter from work areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No		

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	❑Yes ❑No	❑Yes ❑No		
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No		
10	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No		
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No		
12	(Other)	❑Yes ❑No	❑Yes ❑No		

Compliance with DESCP Conditions and Certification Statement

Check one of the following statements:

❑ I did not identify any incidents of non-compliance with the FRPA and the DESCP. The _____ _____ project is in compliance with FRPA. or

❑ I identified incidents of non-compliance with FRPA and the DESCP conditions. These incidents are noted in the preceding checklist and corrective action will be taken to bring the project into permit compliance.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Contractor Print name:

Signature:

Date:

DNR DOF
Print name:

Signature:

Date:

Appendix Q– Not Used

Appendix R– Not Used

Appendix S– Not Used

APPENDIX C
PERMITS

ADFG Fishway Permits, FH15-VII-0018-21_install_permits, May 1, 2015

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF HABITAT
Craig Area Office
PO Box 668
Craig, Alaska 99921-0668
Main: 907.826-2560
Fax: 907.826-2563

FISH HABITAT PERMIT FH-15-VII-0018

ISSUED: May 1, 2015
EXPIRES: End of Life of Project

Alaska Department of Natural Resources, Division of Forestry
Attn: Greg Staunton
2417 Tongass Ave., Suite 213
Ketchikan, AK 99901

Dear Mr. Staunton:

RE: Bridge Installation
ADF&G Stream #101-47-10550
Sta. V-65 Gravina Island Road
T.75S, R.90E, Section 6, on Gravina Island

Pursuant to AS 16.05.871(b), the Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed your request to install a bridge at the above referenced location near Ketchikan, Alaska on Gravina Island.

Project Description
The project will install a 40-foot modular steel, clear-span bridge over cataloged stream 101-47-10550, as part of the development of your Gravina Island/Vallenar Bay Road. The bridge would be located above the upper extent of the cataloged portion of the stream. The project will require an excavator to cross the creek in order to manipulate the bridge into position. Log dunnage will be used in the stream channel in order to minimize bed and bank disturbance. The equipment crossing will represent the only work conducted below ordinary high water. The bridge sills will be located above ordinary high water and the stream will not be narrowed. Silt fence will be used to intercept all runoff from soils exposed during construction. In the event that stream banks cannot be maintained during construction, riprap will be used to reinforce banks between the bridge sills and the stream. The project is proposed to take place during the fall of 2015 to the fall of 2016.

Anadromous Fish Act
Stream 101-47-10550, has been found to be important for the spawning, rearing, and migration of coho salmon downstream of the project. Cutthroat trout use the portion of the waterbody in the vicinity of the project.

In accordance with AS 16.05.871, project approval is hereby given subject to the project description above and the following condition:

1. *All dunnage placed in the stream to accommodate the equipment crossing(s) shall be removed upon completion of the project.*

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

For the purpose of inspecting or monitoring compliance with any condition of this permit, you shall give an authorized representative of the state free and unobstructed access, at safe and reasonable times, to the permit site. You shall furnish whatever assistance and information as the authorized representative reasonably requires for monitoring and inspection purposes.

This letter constitutes a permit issued under the authority of AS 16.05.871 and must be retained on site during project activities. Please be advised that this determination applies only to activities regulated by the Division of Habitat; other agencies also may have jurisdiction under their respective authorities. This determination does not relieve you of your responsibility to secure other permits; state, federal, or local. You are still required to comply with all other applicable laws.

In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which was a direct result of the failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

This permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

Please contact me if you have any questions or concerns about this permit.

Sincerely,

Sam Cotten, Commissioner

By Mark Minnillo

Email cc:

Al Ott, ADF&G/Habitat, Fairbanks
Kelly Piazza, ADF&G/SF, Ketchikan
Gillian O'Doherty, ADF&G/Habitat, Anchorage
Boyd Porter, ADF&G/WC, Ketchikan
Scott Walker, ADF&G/CF, Ketchikan

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF HABITAT
Craig Area Office
PO Box 668
Craig, Alaska 99921-0668
Main: 907.826-2560
Fax: 907.826-2563

FISH HABITAT PERMIT FH-15-VII-0019

ISSUED: May 1, 2015
EXPIRES: End of Life of Project

Alaska Department of Natural Resources, Division of Forestry
Attn: Greg Staunton
2417 Tongass Ave., Suite 213
Ketchikan, AK 99901

Dear Mr. Staunton:

RE: Bridge Installation
Vallenar Creek Tributary
ADF&G Stream #101-29-10060-2001
Sta. V-249 Gravina Island Road
T.75S, R.89E, Section 13, on Gravina Island

Pursuant to AS 16.05.871(b), the Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed your request to install a bridge at the above referenced location near Ketchikan, Alaska on Gravina Island.

Project Description
The project will install a 40-foot modular steel, clear-span bridge over cataloged stream 101-29-10060-2001, as part of the development of your Gravina Island/Vallenar Bay Road. The bridge would be located over an unnamed tributary to Vallenar Creek. The project will require an excavator to cross the creek in order to manipulate the bridge into position. Log dunnage will be used in the stream channel in order to minimize bed and bank disturbance. The equipment crossing will represent the only work conducted below ordinary high water. The bridge sills will be located above ordinary high water and the stream will not be narrowed. Silt fence will be used to intercept all runoff from soils exposed during construction. In the event that stream banks cannot be maintained during construction, riprap will be used to reinforce banks between the bridge sills and the stream. The project is proposed to take place during the fall of 2015 to the fall of 2016.

Anadromous Fish Act

Stream 101-29-10060-2001, has been found to be important for the spawning, rearing, and migration of coho salmon in the vicinity of the project. Cutthroat trout and Dolly Varden char also use this waterbody.

In accordance with AS 16.05.871, project approval is hereby given subject to the project description above and the following condition:

1. *All dunnage placed in the stream to accommodate the equipment crossing(s) shall be removed upon completion of the project.*

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

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In addition to the penalties provided by law, this permit may be terminated or revoked for failure to comply with its provisions or failure to comply with applicable statutes and regulations. The department reserves the right to require mitigation measures to correct disruption to fish and game created by the project and which was a direct result of the failure to comply with this permit or any applicable law.

You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Mr. Greg Staunton
FH-15-VII-0019

Issued: May 1, 2015
Expires: End of Life of Project

This permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

Please contact me if you have any questions or concerns about this permit.

Sincerely,

Sam Cotten, Commissioner

By Mark Minnillo

Email cc:

Al Ott, ADF&G/Habitat, Fairbanks
Kelly Piazza, ADF&G/SF, Ketchikan
Gillian O'Doherty, ADF&G/Habitat, Anchorage
Boyd Porter, ADF&G/WC, Ketchikan
Scott Walker, ADF&G/CF, Ketchikan

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF HABITAT
Craig Area Office
PO Box 668
Craig, Alaska 99921-0668
Main: 907.826-2560
Fax: 907.826-2563

FISH HABITAT PERMIT FH-15-VII-0020

ISSUED: May 1, 2015
EXPIRES: End of Life of Project

Alaska Department of Natural Resources, Division of Forestry
Attn: Greg Staunton
2417 Tongass Ave., Suite 213
Ketchikan, AK 99901

Dear Mr. Staunton:

RE: Bridge Installation
Vallenar Creek Tributary
ADF&G Stream #101-29-10060-2001
Sta. V-252 Gravina Island Road
T.75S, R.89E, Section 13, on Gravina Island

Pursuant to AS 16.05.871(b), the Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed your request to install a bridge at the above referenced location near Ketchikan, Alaska on Gravina Island.

Project Description

The project will install a 40-foot modular steel, clear-span bridge over cataloged stream 101-29-10060-2001, as part of the development of your Gravina Island/Vallenar Bay Road. The bridge would be located over an unnamed tributary to Vallenar Creek. The project will require an excavator to cross the creek in order to manipulate the bridge into position. Log dunnage will be used in the stream channel in order to minimize bed and bank disturbance. The equipment crossing will represent the only work conducted below ordinary high water. The bridge sills will be located above ordinary high water and the stream will not be narrowed. Silt fence will be used to intercept all runoff from soils exposed during construction. In the event that stream banks cannot be maintained during construction, riprap will be used to reinforce banks between the bridge sills and the stream. The project is proposed to take place during the fall of 2015 to the fall of 2016.

Anadromous Fish Act

Stream 101-29-10060-2001, has been found to be important for the spawning, rearing, and migration of coho salmon in the vicinity of the project. Cutthroat trout and Dolly Varden char also use this waterbody.

In accordance with AS 16.05.871, project approval is hereby given subject to the project description above and the following condition:

1. *All dunnage placed in the stream to accommodate the equipment crossing(s) shall be removed upon completion of the project.*

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

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You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Mr. Greg Staunton
FH-15-VII-0020

Issued: May 1, 2015
Expires: End of Life of Project

This permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

Please contact me if you have any questions or concerns about this permit.

Sincerely,

Sam Cotten, Commissioner

By Mark Minnillo

Email cc:

Al Ott, ADF&G/Habitat, Fairbanks
Kelly Piazza, ADF&G/SF, Ketchikan
Gillian O'Doherty, ADF&G/Habitat, Anchorage
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THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF HABITAT
Craig Area Office
PO Box 668
Craig, Alaska 99921-0668
Main: 907.826-2560
Fax: 907.826-2563

FISH HABITAT PERMIT FH-15-VII-0021

ISSUED: May 1, 2015
EXPIRES: End of Life of Project

Alaska Department of Natural Resources, Division of Forestry
Attn: Greg Staunton
2417 Tongass Ave., Suite 213
Ketchikan, AK 99901

Dear Mr. Staunton:

RE: Bridge Installation
Vallenar Creek
ADF&G Stream #101-29-10060
Sta. V-268 Gravina Island Road
T.75S, R.89E, Section 14, on Gravina Island

Pursuant to AS 16.05.871(b), the Alaska Department of Fish and Game (ADF&G), Division of Habitat has reviewed your request to install a bridge at the above referenced location near Ketchikan, Alaska on Gravina Island.

Project Description
The project will install a 80-foot modular steel, clear-span bridge over cataloged stream 101-29-10060, as part of the development of your Gravina Island/Vallenar Bay Road. The project will require an excavator to cross the creek in order to manipulate the bridge into position. Log dunnage will be used in the stream channel in order to minimize bed and bank disturbance. The equipment crossing will represent the only work conducted below ordinary high water. The bridge sills will be located above ordinary high water and the stream will not be narrowed. Silt fence will be used to intercept all runoff from soils exposed during construction. In the event that stream banks cannot be maintained during construction, riprap will be used to reinforce banks between the bridge sills and the stream. The project is proposed to take place during the fall of 2015 to the fall of 2016.

Anadromous Fish Act
Vallenar Creek, ADF&G stream 101-29-10060, has been found to be important for the spawning, rearing, and migration of pink, chum, and coho salmon; and steelhead trout in the vicinity of the project. Cutthroat trout and Dolly Varden char also use this waterbody.

Mr. Greg Staunton
FH-15-VII-0021

Issued: May 1, 2015
Expires: End of Life of Project

In accordance with AS 16.05.871, project approval is hereby given subject to the project description above and the following condition:

1. *All dunnage placed in the stream to accommodate the equipment crossing(s) shall be removed upon completion of the project.*

You are responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project. For any activity that significantly deviates from the approved plan, you shall notify the Division of Habitat and obtain written approval in the form of a permit amendment before beginning the activity. Any action that increases the project's overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of the Division of Habitat. Therefore, it is recommended you consult the Division of Habitat immediately when a deviation from the approved plan is being considered.

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You shall indemnify, save harmless, and defend the department, its agents, and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from permitted activities or your performance under this permit. However, this provision has no effect if, and only if, the sole proximate cause of the injury is the department's negligence.

Mr. Greg Staunton
FH-15-VII-0021

Issued: May 1, 2015
Expires: End of Life of Project

This permit decision may be appealed in accordance with the provisions of AS 44.62.330-630.

Please contact me if you have any questions or concerns about this permit.

Sincerely,

Sam Cotten, Commissioner

By Mark Minnillo

Email cc:

Al Ott, ADF&G/Habitat, Fairbanks
Kelly Piazza, ADF&G/SF, Ketchikan
Gillian O'Doherty, ADF&G/Habitat, Anchorage
Boyd Porter, ADF&G/WC, Ketchikan
Scott Walker, ADF&G/CF, Ketchikan

FORESTRY MATERIALS CERTIFICATION LIST

(current 1/20/2016)

Project Name Vallenar Bay Road

Project Number 34050-4

Project Engineer Signature

Unshaded boxes indicate who approves the manufacturer's certificate of compliance or materials submittals. If two boxes not shaded, either approving authority may be used.

Materials Item	Specification	Construction			Design		Statewide Materials		Certificate
	2004 or Std. Mod. if noted	Approved Products List	DOF Project Engineer	Materials or QA Engineer	Design Engineer of Record	State Bridge Engineer	State Materials or QA Engineer	Manufacturer/ Remarks	Location e.g. Binder #
106 CONTROL OF MATERIALS									
Rock Borrow Sources	106-1.02								
252 ROCK BUTTRESS									
Riprap, Class IV	611-2.01								
501 PRECAST CONCRETE, ECOLOGY BLOCK									
Concrete Mix Design	501-3.01								
Reinforcing Steel	709-2.01								
514 PREFABRICATED BRIDGES									
Steel Structures	716-2.02								
Welding Plan	514-3.06								
Arc Welding Electrodes	AWS Specifications								
Galvanizing	716-2.07								
Thrie Beam Guardrail	722-2.01								
Elastomeric Pads	720-2.01								
Epoxy Adhesive	504-3.02.8								
Epoxy Grout Anchors	514-3.04								
Paint/Painting	708-2.01								

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.
See Section 106-1.05 for submittal requirements.

Unshaded boxes indicate who approves the manufacturer's certificate of compliance or materials submittals. If two boxes not shaded, either approving authority may be used.

Materials Item	Specification	Construction			Design		Statewide Materials		Certificate
	2004 or Std. Mod. if noted	Approved Products List	DOF Project Engineer	Materials or QA Engineer	Design Engineer of Record	State Bridge Engineer	State Materials or QA Engineer	Manufacturer/ Remarks	Location e.g. Binder #
Bolts									
High Tensile Strength Bolts, Nuts and Washers	716-2.03								
Machine Bolts	716-2.05								
Timber Decking									
Structural Timber	713-2.01								
Preservative for Timber	714-2.01								
603 CULVERTS									
Corrugated Polyethylene Pipe	706-2.07								
Corrugated Steel Pipe	707-2.01								
615 STANDARD SIGNS									
Sheet Aluminum	730-2.01								
Reflective Sheeting	730-2.03								
Sign Posts	730-2.04								
631 GEOTEXTILE FOR SUBSURFACE DRAINAGE AND EROSION CONTROL									
Geotextiles and Sewing Thread									
Erosion Control	729-2.01								
641 EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION									
Detailed Erosion Sediment Control Plan	641-2.01								
Hazardous Material Control Plan	641-2.02								
Spill Prevention, Control, and Countermeasure Plan	641-2.03								
Seed	724-2.02								
Fertilizer	725-2.02								

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.
See Section 106-1.05 for submittal requirements.

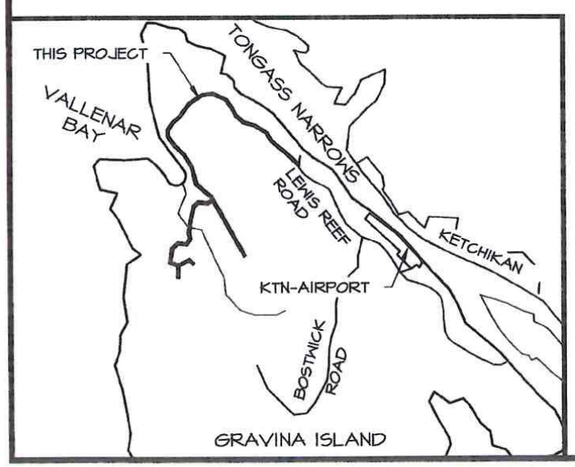
Unshaded boxes indicate who approves the manufacturer's certificate of compliance or materials submittals. If two boxes not shaded, either approving authority may be used.

Materials Item	Specification	Construction			Design		Statewide Materials		Certificate
	2004 or Std. Mod. if noted	Approved Products List	DOF Project Engineer	Materials or QA Engineer	Design Engineer of Record	State Bridge Engineer	State Materials or QA Engineer	Manufacturer/ Remarks	Location e.g. Binder #
Topsoil	726-2.02								
Soil Stabilization Material	727-2.01								
Silt Fence	729-2.04								
643 TRAFFIC MAINTENANCE									
Gate	Plan								
Paint	504								

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.
See Section 106-1.05 for submittal requirements.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY

VALLENAR BAY ROAD
MP 0-8.5
PROJECT NO. 34050-4



INDEX

The following D.O.T.(Highways) standard drawings apply to this project: S-00.11

STATE OF ALASKA 49th CASEY W WITT NO CE 13552 REGISTERED PROFESSIONAL ENGINEER
12/23/2015

Revisions			
No.	Date	Description	By

STATE OF ALASKA
Department of Natural Resources
Division of Forestry

Approved:

Project Engineer or Forester — 12/28/2015 Date

Project or Contract No. 34050-4

LEGEND

EXISTING	PROPOSED	
		ROAD CENTERLINE
		EDGE OF GRAVEL
		OBLITERATION
		ESTIMATED LIMITS OF CUT SLOPE
		ESTIMATED LIMITS OF FILL SLOPE
100		CONTOUR MAJOR
		CONTOUR MINOR
		EDGE OF VEGETATION/CLEARING LIMITS
OE OE OE	OHE OHE	OVERHEAD ELECTRICAL LINE
	X	SILT FENCE
		ADDITIONAL DITCH
		DIRECTION OF FLOW
		TOP OF BANK (TOP)
		EDGE OF WATER
		THALWEG (TLWG)
		ORDINARY HIGH WATER MARK (OHW)
		KNOWN SURFACE WATERS
		CONTROL POINT
V#		DNR STAKED ALIGNMENT V-POINT
		UTILITY POLE
GP	GP	GUY POLE
		GUY ANCHOR
		BOULDER OR BOULDERS
		CULVERT
		RIPRAP
		BRIDGE
		POINT OF INTERSECTION (PI)
		POINT OF CURVATURE/TANGENCY (PC/PT)

ABBREVIATIONS

DOF	DIVISION OF FORESTRY
ADNR	ALASKA DEPARTMENT OF NATURAL RESOURCES
DR	DRAINAGE
RP	REFERENCE POINT
GRD	EXISTING GROUND
AWC	ANADROMOUS WATER CATALOG

Revisions			
No.	Date	Description	By

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER
6/5/2015

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY
STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

LEGEND AND ABBREVIATIONS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
A2

FOREST ROAD PERFORMANCE STANDARDS

1. ALL ROADS SHALL BE BUILT TO THE STANDARDS LISTED WITHIN THIS PERFORMANCE STANDARD UNLESS THE PROJECT ENGINEER HAS DETERMINED THAT A SITE SPECIFIC DESIGN IS PRUDENT. THE PERFORMANCE STANDARD FOR ADNR FOREST ROADS AND THE ADNR FOREST ROADS STANDARD DRAWINGS CONVEY THE DEPARTMENT'S INTENT. IN THE EVENT OF A CONFLICT BETWEEN DOCUMENTS, THE PROJECT ENGINEER WILL DETERMINE THE ORDER OF PRECEDENCE.

2. REFERENCE THE FOLLOWING RESOURCES FOR ADDITIONAL INFORMATION:
   A. ALASKA FOREST RESOURCES & PRACTICES REGULATIONS (FRPA), 11 AAC 95, OCTOBER 2013;
   B. ALASKA STATUTE 41.17, FOREST RESOURCES AND PRACTICES.
   C. THIS PROJECT IS LOCATED WITHIN DOF REGION I.

3. THIS ROAD IS A MODERATE TO LOW USE, YEAR ROUND, PERMANENT ROAD WITH THE FOLLOWING CHARACTERISTICS:
   I. MINIMUM 14 FOOT WIDE RUNNING SURFACE;
   II. SINGLE LANE;
   III. VERTICAL GRADE: MAXIMUM FAVORABLE GRADE IS 10%, MAXIMUM ADVERSE GRADE IS 8%, MAXIMUM ADVERSE GRADE WITH PROJECT ENGINEER APPROVAL IS 10%;
   IV. MINIMUM HORIZONTAL CURVE RADIUS OF 140 FEET; AND
   V. DESIGN SPEED OF 25 MPH, POSTED SPEED OF 20 MPH.

4. CROWN TRAVELED WAY OR ROADBED 3-5% FOR ALL SECTIONS.

5. ALL FILL SLOPES SHALL BE 2:1 (OR FLATTER) AND ALL CUT SLOPES SHALL BE 1.5:1 (OR FLATTER) IN COMMON MATERIAL OR 1/4:1 (OR FLATTER) IN BEDROCK. TERRACED SLOPES ARE PERMITTED IF THEY FIT WITHIN THE RIGHT-OF-WAY.

6. UTILIZE APPROVED MATERIAL LOCATED WITHIN THE RIGHT-OF-WAY TO CONSTRUCT THE ROAD. IF SUFFICIENT MATERIAL IS NOT AVAILABLE OR OF SUITABLE QUALITY, THE PROJECT ENGINEER MAY AUTHORIZE THE IMPORT OF BORROW. IN GENERAL, THE ROAD WILL BE TYPICALLY CONSTRUCTED AS FOLLOWS:
   A. THE ROAD SHALL TYPICALLY HAVE A 24" MINIMUM SUBGRADE CONSISTING OF UNCLASSIFIED BORROW. MATERIAL SHALL BE WELL-GRADED ANGULAR STONE WITH A D50 OF 3 INCHES OR GREATER (SHOT ROCK) OR A POORLY GRADED NATURAL SAND AND GRAVEL MIX WITH A MAX GRAIN SIZE OF 12" (PIT RUN GRAVEL). IF AUTHORIZED BY THE PROJECT ENGINEER, THAT MATERIAL MAY ALSO BE USED AS THE RUNNING SURFACE.

7. CLEARING LIMITS WILL VARY WITH GROUND CONDITIONS. CLEAR AS NECESSARY TO MEET ROAD TYPICAL CROSS SECTIONS AND SAFE SIGHT DISTANCE AS DIRECTED BY THE PROJECT ENGINEER AND SUBJECT TO THE CONDITIONS IN THE CONTRACT DOCUMENTS.

8. DURING ROAD CLEARING OPERATIONS, ALL MERCHANTABLE TIMBER WITHIN THE CLEARING LIMITS SHALL BE FELLED, LIMBED AND DECKED. MERCHANTABLE TIMBER SHALL BE DECKED ALONG THE ROAD IN A MANNER THAT DOES NOT CREATE A HAZARD TO THE PUBLIC. LOGS SHALL BE DECKED IN AN ORDERLY MANNER AND NOT OBSTRUCT SURFACE WATERS. LOG DECKS SHALL BE CONFIGURED TO EFFICIENTLY AND SAFELY LOAD LOG TRUCKS; LOG DECKS GENERALLY SHALL BE CONSOLIDATED IN A MANNER THAT FACILITATES THE LOADING OF FULL LOADS WITHOUT LOG TRUCK MOVEMENT. UNMERCHANTABLE TIMBER AND DEBRIS SHALL BE TREATED AS APPROVED IN THE OPERATING PLAN UNLESS DIRECTED OTHERWISE IN WRITING BY THE PROJECT ENGINEER.

9. PRIOR TO BURNING CONSTRUCTION DEBRIS, CONTACT DOF AND THE LOCAL WILDLAND FIRE JURISDICTIONAL AGENCY FOR WRITTEN APPROVAL.

10. DITCHES SHALL BE 2' WIDE MINIMUM OR AS REQUIRED FOR ADEQUATE DRAINAGE AND SNOW STORAGE AS DETERMINED BY THE PROJECT ENGINEER.

11. APPROXIMATE LOCATION OF DRAINAGE STRUCTURES ARE IDENTIFIED IN THE BID DOCUMENTS. ADDITIONAL DRAINAGE STRUCTURES MAY BE REQUIRED.
   A. MINIMUM CULVERT DIAMETER IS 18".
   B. CULVERTS MUST EXTEND A MINIMUM OF 18" BEYOND THE TOE OF FILL ON BOTH SIDES OF THE ROAD.
   C. CULVERT ENDS SHALL BE CONSTRUCTED TO PREVENT SCOUR OF THE ROAD BED.

12. FISH PASSAGE LOCATIONS SHALL CONFORM TO THE FOLLOWING:
   A. FISH PASSAGE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALASKA DEPARTMENT OF FISH AND GAME PERMIT AND GUIDELINES.
   B. CHANGES TO THE COURSE OF ANY ANADROMOUS FISH BEARING WATERWAY MUST BE APPROVED, IN WRITING, BY THE ALASKA DEPARTMENT OF FISH AND GAME.
   C. OBTAIN WRITTEN PERMISSION FROM THE ENGINEER AND ALASKA DEPARTMENT OF FISH AND GAME PRIOR TO FORDING FISH BEARING WATERS.

   FISH BEARING WATERS ARE IDENTIFIED AS FOLLOWS:
   V65 (AWC# 101-47-10550), V249 (AWC# 101-29-10060-200), V252 (AWC# 101-29-10060-200), AND V268 (AWC# 101-29-10060)

13. THE CONTRACTOR SHALL CONTROL OR PREVENT EROSION, SEDIMENTATION, AND POLLUTION BY UTILIZING SECTION 641 OF THE SPECIAL PROVISIONS, AND THE EROSION AND SEDIMENT CONTROL PLAN FOR THE VALLENAR BAY ACCESS ROAD FOUND IN APPENDIX B OF THE SPECIAL PROVISION.

14. TURNOUTS AND/OR TURNAROUNDS, SEE SPECIFICATION SECTION 203-3.03

GEOMETRIC STANDARDS		
ROAD CLASSIFICATION	POSTED SPEED (MPH)	MIN. HORIZONTAL CURVE RADIUS
SECONDARY ROAD	20	140'

MINIMUM HORIZONTAL CURVE RADIUS TAKEN FROM EXHIBIT 16 OF THE AASHTO *GUIDELINES FOR GEOMETRIC DESIGN OF VERY LOW VOLUME LOCAL ROADS (ADT≤400)* USING A TRACTION COEFFICIENT OF 0.5.

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

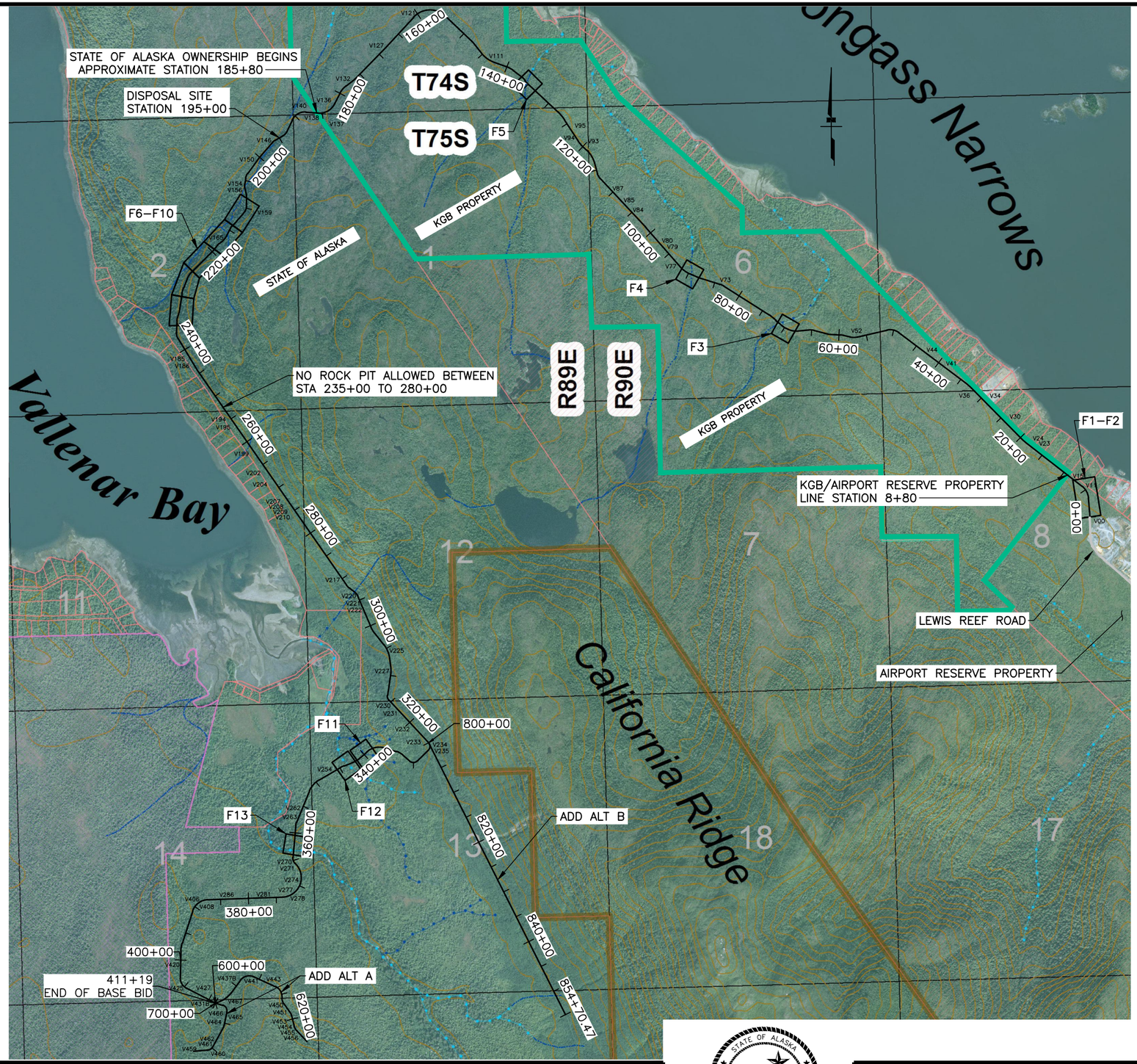
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA — 49th — CASEY W. WITT — No. CE 13552 — REGISTERED PROFESSIONAL ENGINEER — 10/27/15

FOREST ROAD PERFORMANCE STANDARDS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET A3



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FORESTRY

STATE OF ALASKA

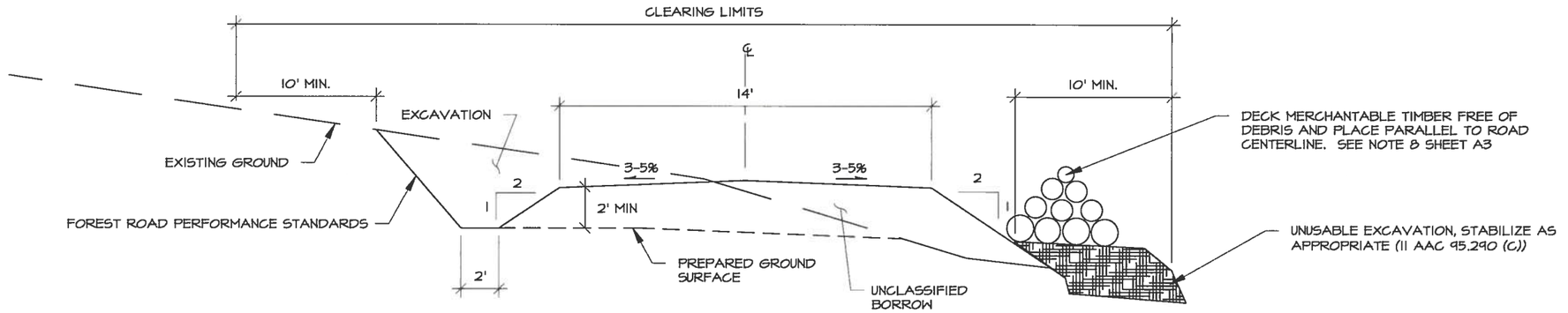
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER
1/6/2016

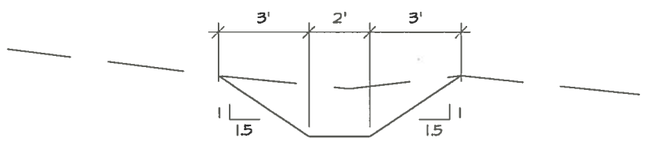
SHEET LAYOUT

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 1/5/2016

SHEET
A4



TYPICAL SIDEHILL SECTION - WITH DITCH
NOT TO SCALE



ADDITIONAL DITCH
NOT TO SCALE

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

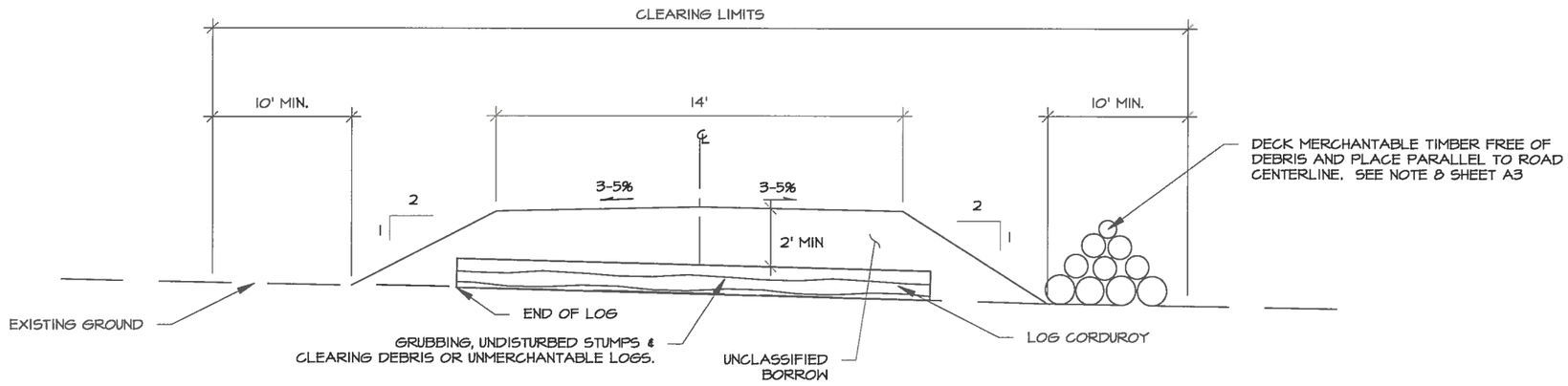
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · No. CE 13552 · REGISTERED PROFESSIONAL ENGINEER
Casey Witt 6/5/2015

TYPICAL SECTIONS

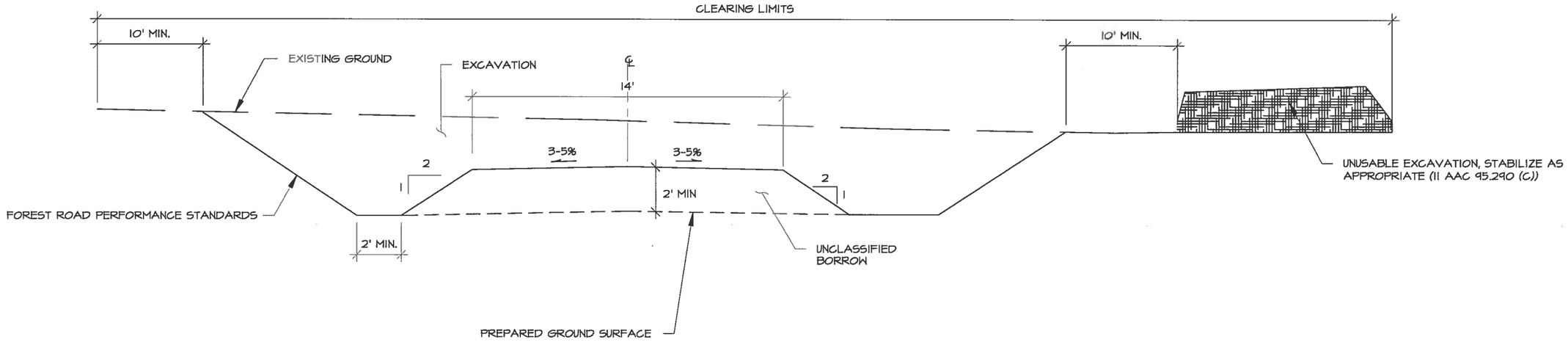
PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
B1



TYPICAL OVERLAY SECTION

NOT TO SCALE



TYPICAL THROUGH-CUT SECTION

NOT TO SCALE

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

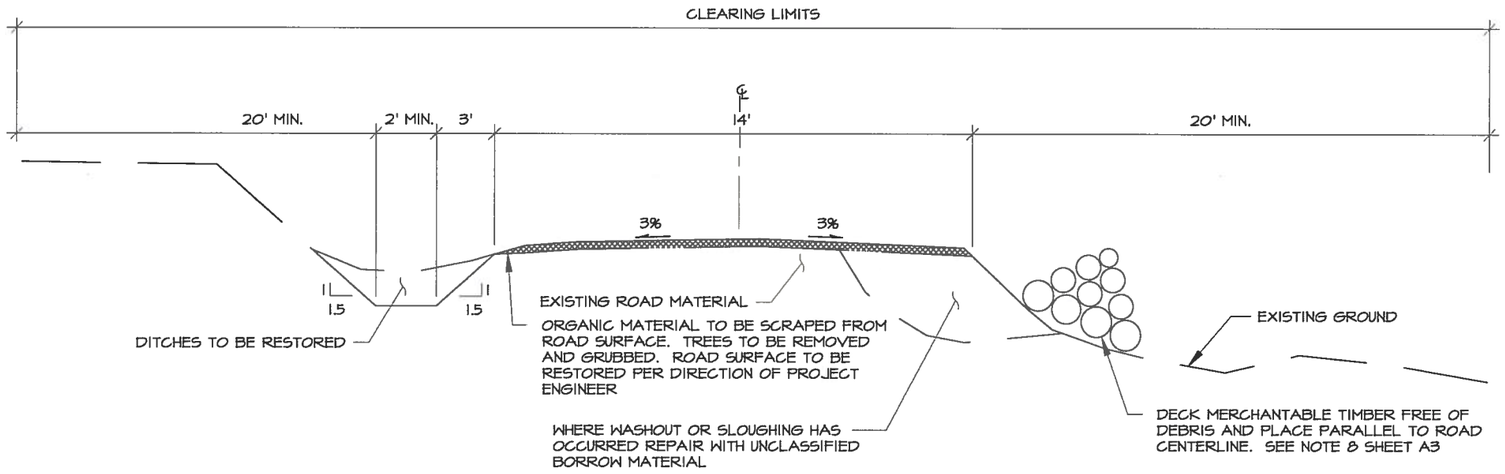
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · No. CE 13552 · REGISTERED PROFESSIONAL ENGINEER
Casey Witt 6/5/2015

TYPICAL SECTIONS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET B2



TYPICAL ROAD RESTORATION SECTION

NOT TO SCALE

STATION 315+00 TO 325+00*

*OR AS DIRECTED BY PROJECT ENGINEER

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

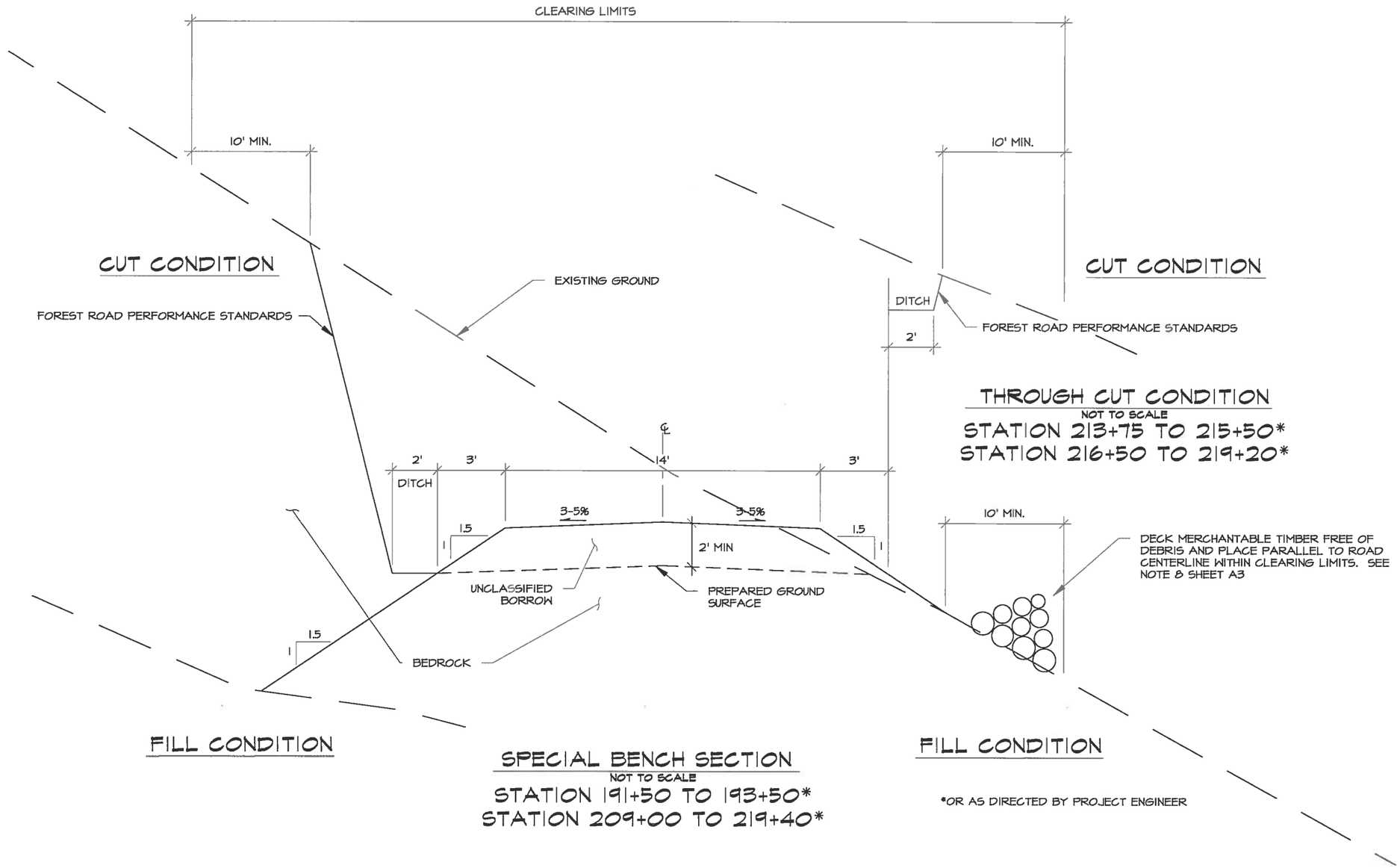
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
PROFESSIONAL ENGINEER
6/5/2015

TYPICAL SECTIONS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
B3



THROUGH CUT CONDITION
NOT TO SCALE
STATION 213+75 TO 215+50*
STATION 216+50 TO 219+20*

SPECIAL BENCH SECTION
NOT TO SCALE
STATION 191+50 TO 193+50*
STATION 209+00 TO 219+40*

*OR AS DIRECTED BY PROJECT ENGINEER

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

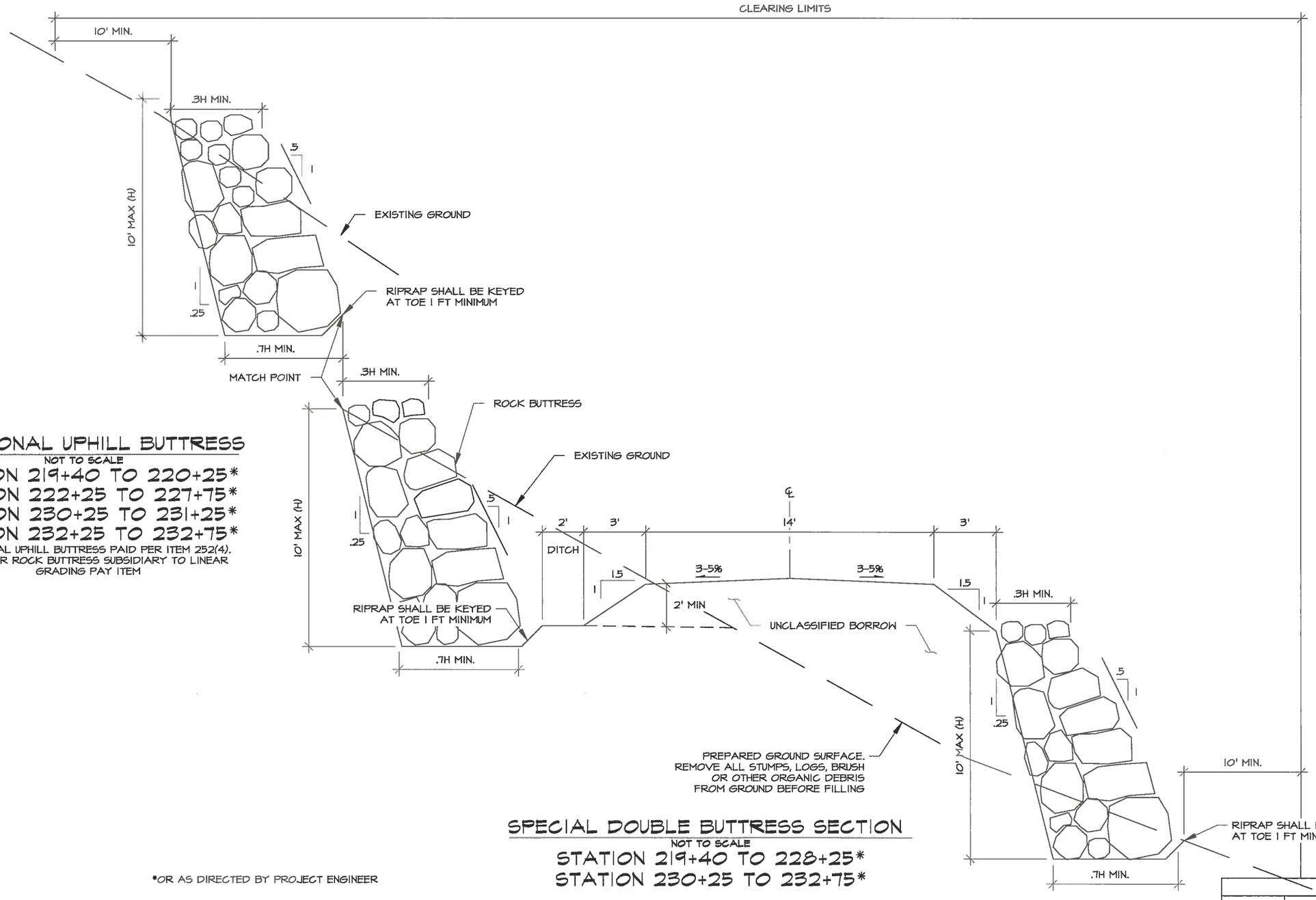
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · No. 15-10552 · REGISTERED PROFESSIONAL ENGINEER

SLOPE EXCEPTION SECTIONS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET B4



ADDITIONAL UPHILL BUTTRESS

NOT TO SCALE

STATION 219+40 TO 220+25*
STATION 222+25 TO 227+75*
STATION 230+25 TO 231+25*
STATION 232+25 TO 232+75*

ADDITIONAL UPHILL BUTTRESS PAID PER ITEM 252(4). ALL OTHER ROCK BUTTRESS SUBSIDIARY TO LINEAR GRADING PAY ITEM

SPECIAL DOUBLE BUTTRESS SECTION

NOT TO SCALE

STATION 219+40 TO 228+25*
STATION 230+25 TO 232+75*

*OR AS DIRECTED BY PROJECT ENGINEER

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

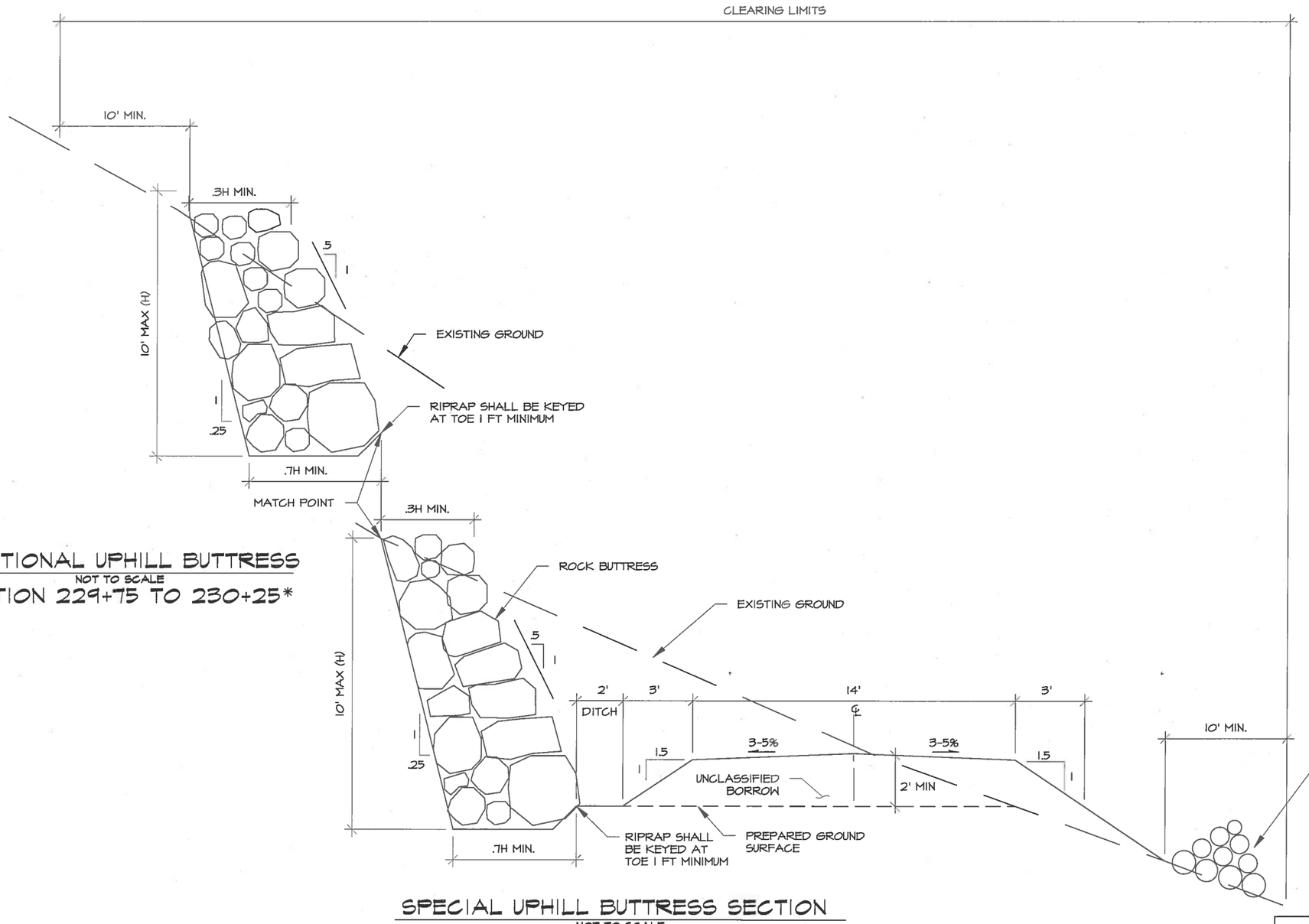
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. 12552
REGISTERED PROFESSIONAL ENGINEER

SLOPE EXCEPTION SECTIONS

PREPARED:CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
B5



ADDITIONAL UPHILL BUTTRESS
NOT TO SCALE
STATION 229+75 TO 230+25*

SPECIAL UPHILL BUTTRESS SECTION
NOT TO SCALE
STATION 228+25 TO 230+25*
STATION 232+75 TO 235+50*

*OR AS DIRECTED BY PROJECT ENGINEER

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA 49th CASEY W. WITT No. CE 13552 REGISTERED PROFESSIONAL ENGINEER 6/5/2015

SLOPE EXCEPTION SECTIONS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET B6

1/5/2016 1:42 PM

ESTIMATE OF QUANTITIES - BASE BID

ITEM NUMBER	ITEM	UNIT	TOTALS
203(20A)	LINEAR GRADING - TYPICAL SECTION	MI	7.15
203(20B)	LINEAR GRADING - SPECIAL UPHILL BUTTRESS SECTION	LF	475
203(20C)	LINEAR GRADING - SPECIAL DOUBLE BUTTRESS SECTION	LF	1,135
203(20D)	LINEAR GRADING - SPECIAL BENCH SECTION	LF	1,275
203(20E)	LINEAR GRADING - TYPICAL ROAD RESTORATION SECTION	LF	1,000
252(4)	ROCK BUTTRESS	CY	1,455
501(7A)	PRECAST CONCRETE MEMBER, ECOLOGY BLOCK	EA	120
501(7B)	PRECAST CONCRETE MEMBER, HALF ECOLOGY BLOCK	EA	24
501(7C)	PRECAST CONCRETE MEMBER, ECOLOGY BLOCK CAP	EA	72
514(1)	40-FOOT PREFABRICATED BRIDGE, CONTRACTOR FURNISHED	EA	4
514(2)	50-FOOT PREFABRICATED BRIDGE, CONTRACTOR FURNISHED	EA	1
514(3)	80-FOOT PREFABRICATED BRIDGE, CONTRACTOR FURNISHED	EA	1
603(17-18)	18 INCH PIPE	LF	1,385
603(17-24)	24 INCH PIPE	LF	680
603(17-36)	36 INCH PIPE	LF	150
603(17-48)	48 INCH PIPE	LF	300
603(17-60)	60 INCH PIPE	LF	74
615(1)	STANDARD SIGNS	SF	262
631(2)	GEOTEXTILE, EROSION CONTROL, CLASS 1	SY	550
640(1)	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
641(1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641(2)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	CS	ALL REQ'D
641(6)	DESCP PRICE ADJUSTMENT	CS	ALL REQ'D
643(1)	GATE	EA	1

ESTIMATE OF QUANTITIES - ADD ALT A

ITEM NUMBER	ITEM	UNIT	TOTALS
203(20A)	LINEAR GRADING-TYPICAL SECTION	MI	0.73
603(17-18)	18 INCH PIPE	LF	420
603(17-24)	24 INCH PIPE	LF	90
641(1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641(2)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	CS	ALL REQ'D
641(6)	DESCP PRICE ADJUSTMENT	CS	ALL REQ'D

ESTIMATE OF QUANTITIES - ADD ALT B

ITEM NUMBER	ITEM	UNIT	TOTALS
203(20E)	LINEAR GRADING-TYPICAL ROAD RESTORATION SECTION	LF	6,000
603(17-18)	18 INCH PIPE	LF	360
603(17-24)	24 INCH PIPE	LF	120
603(17-36)	36 INCH PIPE	LF	100
641(1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641(2)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	CS	ALL REQ'D
641(6)	DESCP PRICE ADJUSTMENT	CS	ALL REQ'D

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER
1/5/2016

ESTIMATE OF QUANTITIES

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 1/5/2016

SHEET
C1

H:\Jobs\15-007 Vallenar Bay Road Design (DNR-DOF)\01-Design\Civil\CAD\DRAWINGS\15-007_01_C1-CX.dwg CWITT

CULVERT SUMMARY TABLE - BASE BID

POINT ID	STATION	SIZE (IN)	LENGTH (FT)
V11	"V" 5+37	18	30
V15	"V" 8+54	18	30
V23	"V" 16+98	18	30
V24	"V" 18+07	18	30
V30	"V" 24+03	48	50
V34	"V" 29+29	18	30
V36	"V" 31+28	18	30
V41	"V" 38+47	48	50
V44	"V" 42+92	18	30
V52	"V" 55+61	24	30
V55	"V" 60+41	18	30
V73	"V" 84+11	24	30
V77	"V" 92+25	24	30
V79	"V" 96+51	24	30
V80	"V" 97+61	18	30
V84	"V" 105+08	18	30
V85	"V" 107+56	18	30
V87	"V" 110+58	48	50
V93	"V" 120+21	18	30
V94	"V" 121+64	18	30
V95	"V" 122+96	24	30
V111	"V" 143+76	18	30
V121	"V" 158+68	18	30
V127	"V" 168+32	36	50
V132	"V" 176+77	18	30
V136	"V" 183+00	18	30
V137	"V" 183+98	36	50
V138	"V" 185+30	24	30
V140	"V" 187+42	18	30
V146	"V" 196+19	24	30
V150	"V" 200+80	18	30
V154	"V" 206+03	24	30

INSTALL ADDITIONAL CULVERTS AS REQUIRED BY SHEET E1

CULVERT SUMMARY TABLE - BASE BID

POINT ID	STATION	SIZE (IN)	LENGTH (FT)
V156	"V" 207+29	48	50
V159	"V" 210+49	24	20
V165	"V" 216+58	60	74
N/A	"V" 220+25	18	30
N/A	"V" 225+50	18	30
N/A	"V" 228+00	18	35
N/A	"V" 233+25	18	60
V185	"V" 241+63	18	30
V186	"V" 242+98	18	30
V194	"V" 254+86	18	30
V195	"V" 256+37	18	30
V199	"V" 261+99	48	50
V202	"V" 266+26	18	30
V204	"V" 268+67	24	30
V207	"V" 272+35	18	30
V208	"V" 273+18	18	30
V209	"V" 274+11	18	30
V210	"V" 276+90	18	30
V217	"V" 290+36	18	30
V220	"V" 294+24	48	50
V221	"V" 295+70	24	30
V222	"V" 296+82	18	30
V225	"V" 305+50	18	30
V227	"V" 309+21	18	30
V230	"V" 315+74	24	30
V231	"V" 317+54	24	30
V232	"V" 320+89	24	30
V233	"V" 323+86	24	30
V234	"V" 325+04	18	30
V235	"V" 326+07	24	30
V254	"V" 346+46	24	30
V262	"V" 355+48	24	30
V270	"V" 365+50	24	30

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY
STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER

SUMMARY TABLES

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
D1

CULVERT SUMMARY TABLE - BASE BID

POINT ID	STATION	SIZE (IN)	LENGTH (FT)
V271	"V" 366+29	18	30
V274	"V" 369+04	24	30
V277	"V" 371+40	18	30
V278	"V" 372+68	18	30
V281	"V" 375+78	36	50
V286	"V" 382+27	24	30
V406	"V" 388+68	24	30
V408	"V" 389+58	24	30
V420	"V" 401+13	18	30
V425	"V" 405+25	18	30
V427	"V" 407+25	18	30
V429	"V" 409+16	18	30
V431B	"V" 410+79	18	30

CULVERT SUMMARY TABLE - ADD ALT A

POINT ID	STATION	SIZE (IN)	LENGTH (FT)
V437B	"V" 605+35	18	30
V441	"V" 609+93	18	30
V443	"V" 611+25	24	30
V450	"V" 617+47	18	30
V451	"V" 618+71	18	30
V453	"V" 620+43	18	30
V454	"V" 621+73	18	30
V455	"V" 622+09	18	30
V456	"V" 623+05	24	30
V467	"V" 701+99	18	30
V466	"V" 702+49	18	30
V465	"V" 703+93	24	30
V464	"V" 704+93	18	30
V462	"V" 708+33	18	30
V461	"V" 709+60	18	30
V460	"V" 710+50	18	30
V459	"V" 712+68	18	30

INSTALL ADDITIONAL CULVERTS AS REQUIRED BY SHEET E1

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

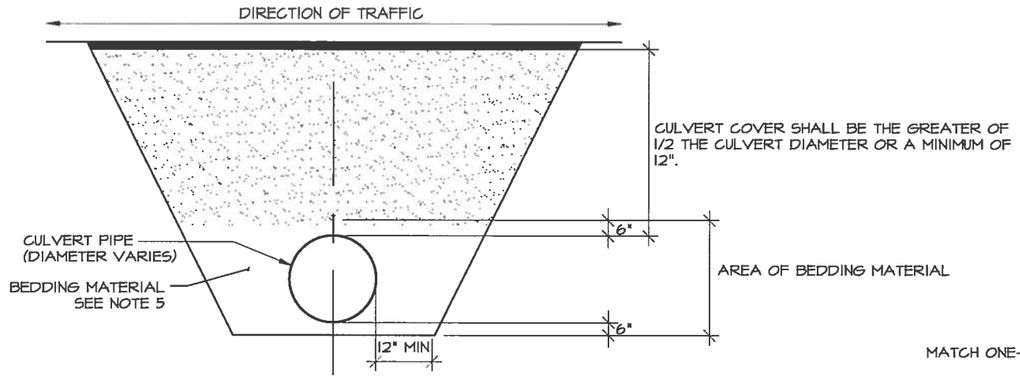
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA 49th CASEY W. WITT No. 12 13252 REGISTERED PROFESSIONAL ENGINEER

SUMMARY TABLES

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET D2

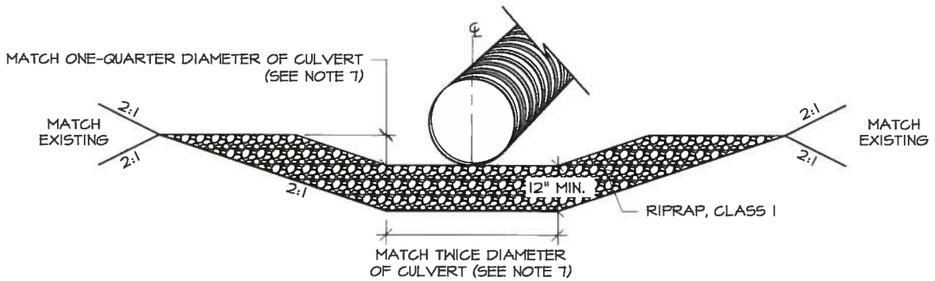


TYPICAL CULVERT TRENCH SECTION

NOT TO SCALE

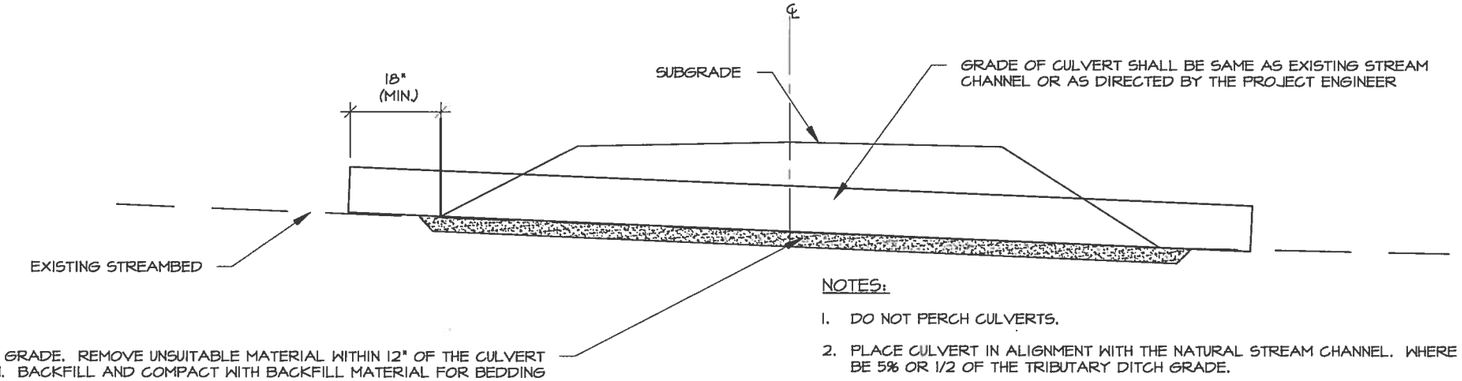
NOTES:

1. CULVERT JOINTS SHALL HAVE WATERTIGHT GASKETS AND SHALL NOT LEAK.
2. CULVERT PLACEMENT SHALL BE APPROVED BY THE PROJECT ENGINEER BEFORE BACKFILLING.
3. ALL USABLE MATERIAL (COMMON EXCAVATION) SHALL BE USED AS BACKFILL FOR EMBANKMENT CONSTRUCTION.
4. SIDE SLOPES SHALL BE EXCAVATED IN ACCORDANCE WITH ALL APPLICABLE SAFETY REQUIREMENTS.
5. BEDDING MATERIAL SHALL MEET THE SAME REQUIREMENTS AS THE APPLICABLE LIFT OF MATERIAL. DO NOT PLACE ROCKS LARGER THAN 6 INCHES IN THEIR LARGEST DIMENSION AGAINST CULVERT.
6. ROCK ENERGY DISSATOR SHALL BE INCIDENTAL TO CULVERT INSTALLATION.
7. PROJECT ENGINEER MAY ADJUST TO MATCH EXISTING DRAINAGE CHANNEL.
8. LENGTH OF ENERGY DISSIPATOR SHALL BE 6 TIMES THE DIAMETER OF THE CULVERT.



ROCK ENERGY DISSIPATOR SECTION

NOT TO SCALE



MAXIMUM CULVERT SPACING	
PERCENT OF LONGITUDINAL GRADE	REGION I
0 TO 2	SEE NOTE #6
2 TO 7	1,000
8 TO 15	800
OVER 15	600

NOTES:

1. DO NOT PERCH CULVERTS.
2. PLACE CULVERT IN ALIGNMENT WITH THE NATURAL STREAM CHANNEL. WHERE NO CHANNEL EXISTS, INSTALL CULVERTS AT SKEW AND SLOPE SHALL BE 5% OR 1/2 OF THE TRIBUTARY DITCH GRADE.
3. CAMBER WILL DEPEND ON SITE CONDITIONS. MAXIMUM CAMBER IS 2% (STEEL OR ALUMINUM CULVERTS) OR 1% (POLYETHYLENE CULVERTS) OF CULVERT LENGTH BY NO MORE THAN 2.5 INCHES AT CENTER.
4. MINIMUM CULVERT DIAMETER IS 18".
5. CULVERT INLETS AND OUTLETS SHALL EXTEND 18 INCHES BEYOND THE TOE OF THE FILL UNLESS OTHERWISE AGREED TO BY THE PROJECT ENGINEER.
6. CULVERTS MUST BE SPACED TO PREVENT POOLING OF WATER CAUSED BY THE PRESENCE OF THE ROADBED.
7. PROVIDE ENERGY DISSAPATORS AT OUTLETS OF STORM DRAIN CULVERTS (FRPA 11 AAC 95.305 (C)).
8. RELIEF CULVERT SPACING SHALL FOLLOW MAXIMUM CULVERT SPACING TABLE.

TYPICAL CULVERT INSTALLATION

NOT TO SCALE

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

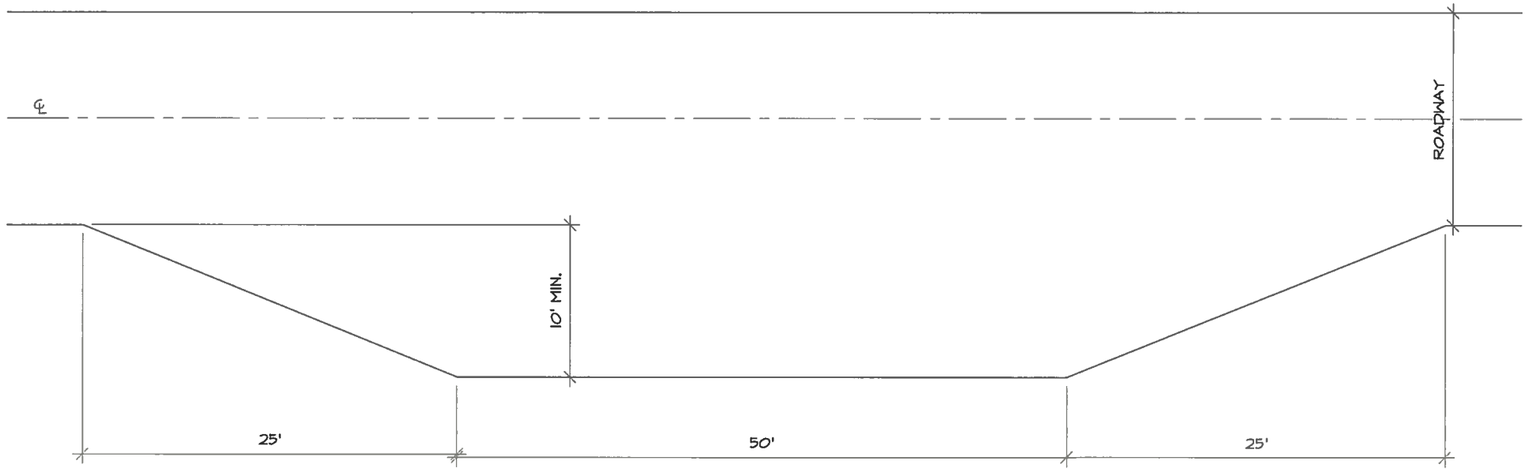
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · No. CE 13552 · REGISTERED PROFESSIONAL ENGINEER · 6/5/2015

CULVERT DETAILS

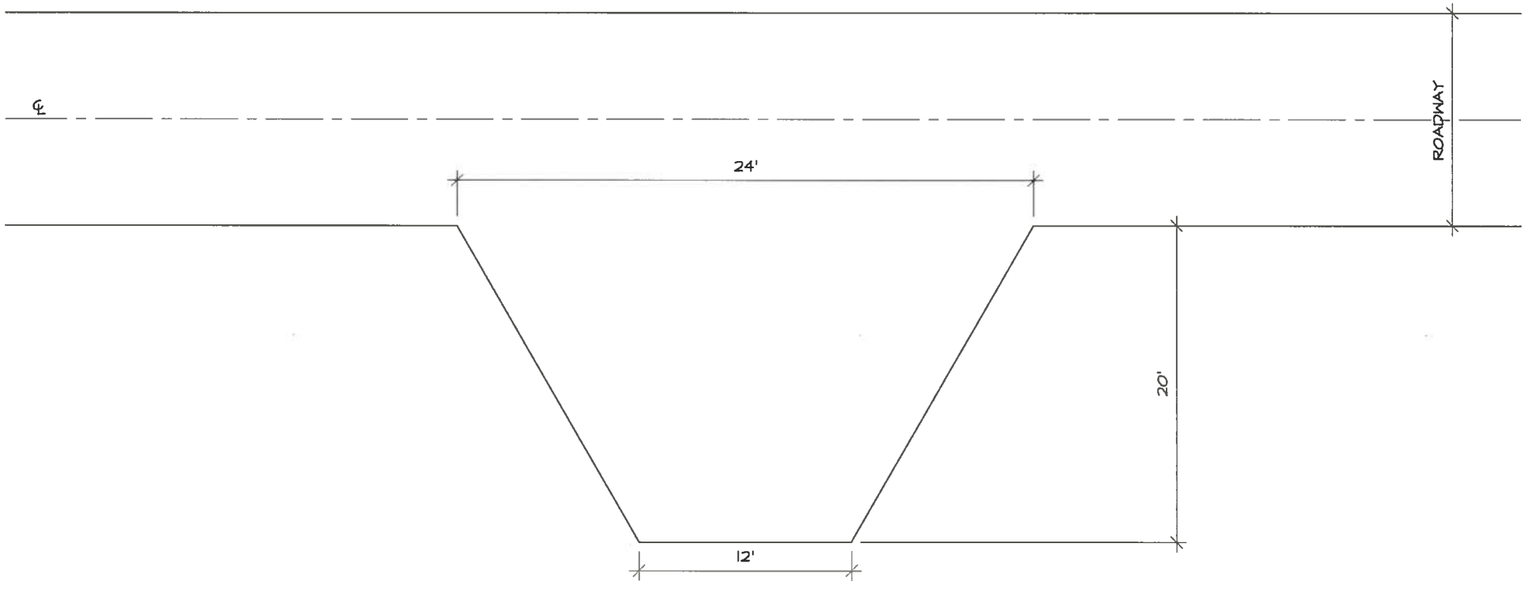
PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET E1



TURNOUT DETAIL

NOT TO SCALE



TURNAROUND DETAIL

NOT TO SCALE

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

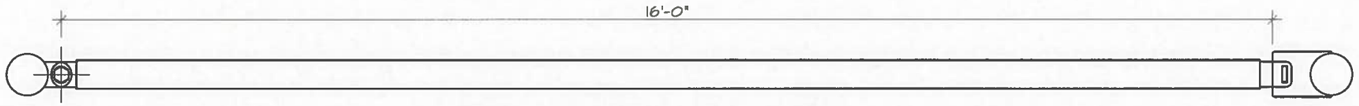
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA 49th CASEY W. WITT No. CE 13552 REGISTERED PROFESSIONAL ENGINEER 6/5/2015

TURNOUT/TURNAROUND DETAILS

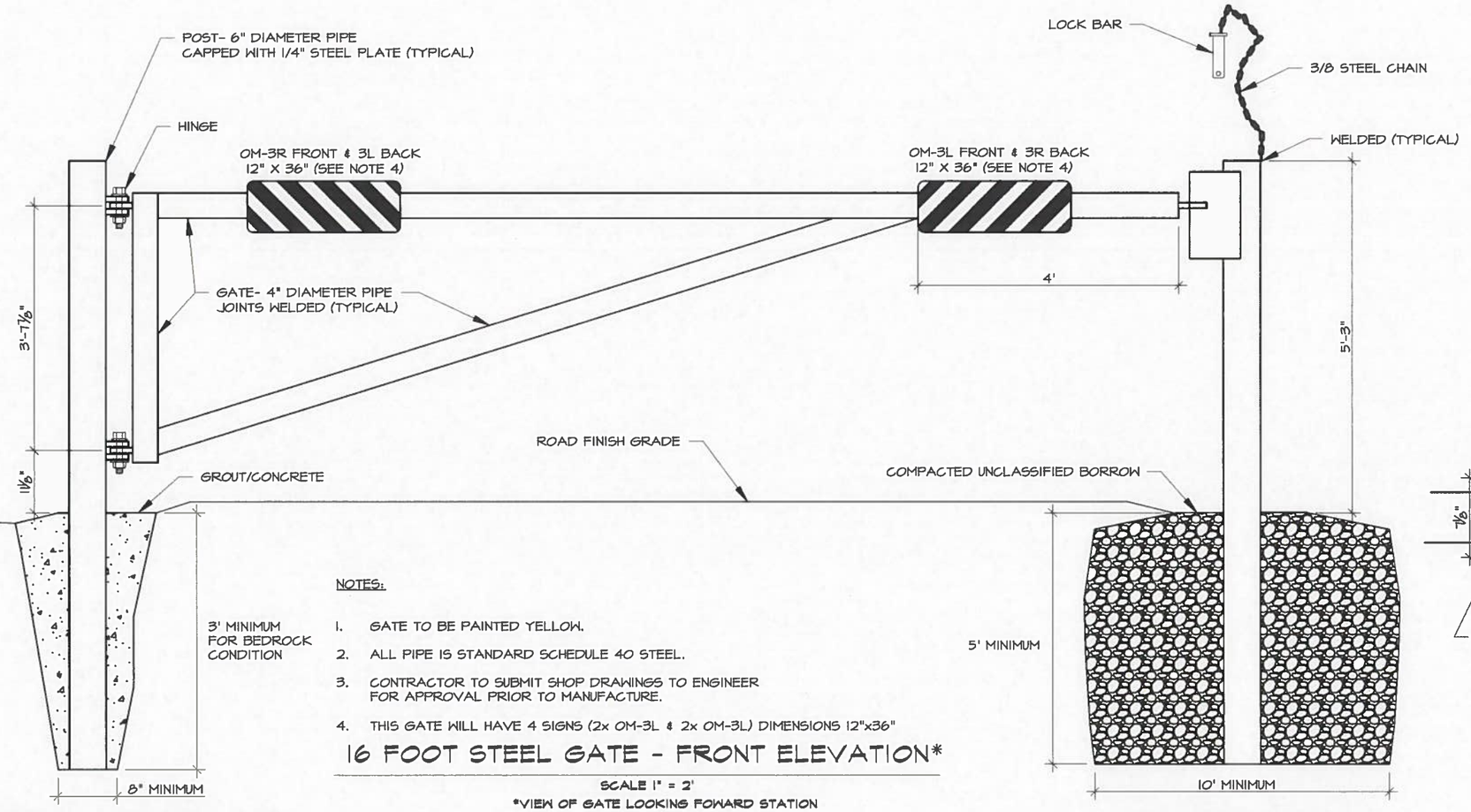
PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET E2



STEEL GATE - PLAN VIEW

SCALE 1" = 2'



NOTES:

1. GATE TO BE PAINTED YELLOW.
2. ALL PIPE IS STANDARD SCHEDULE 40 STEEL.
3. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE.
4. THIS GATE WILL HAVE 4 SIGNS (2x OM-3L & 2x OM-3L) DIMENSIONS 12"x36"

16 FOOT STEEL GATE - FRONT ELEVATION*

SCALE 1" = 2'

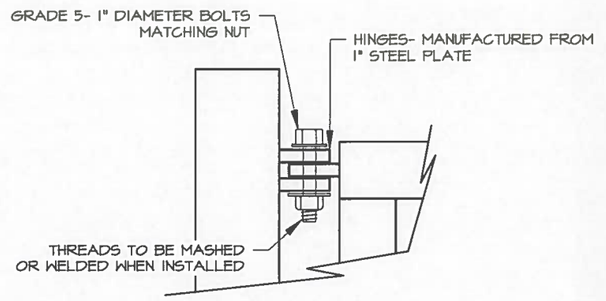
*VIEW OF GATE LOOKING FOWARD STATION

BEDROCK FOUNDATION

NOT TO SCALE

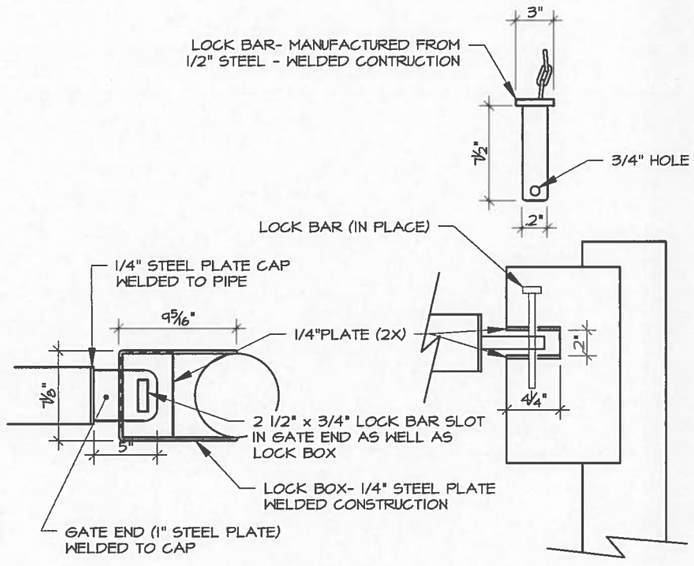
SOIL FOUNDATION

NOT TO SCALE



HINGE DETAIL

NOT TO SCALE



LOCK BOX DETAIL

NOT TO SCALE

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY
STATE OF ALASKA

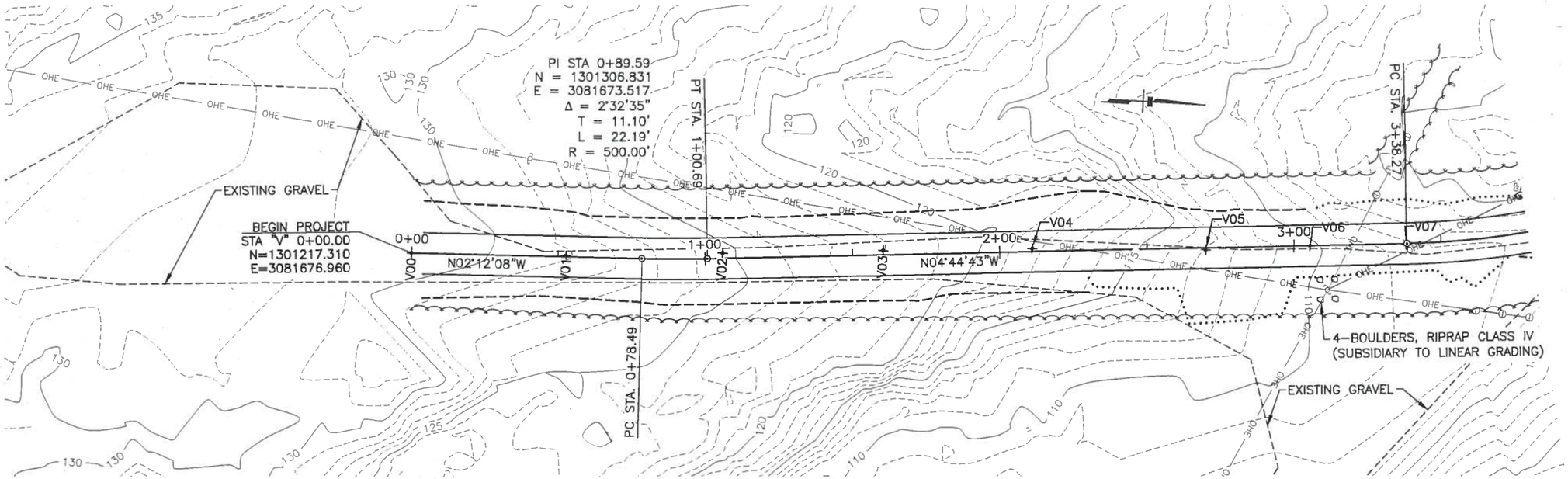
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

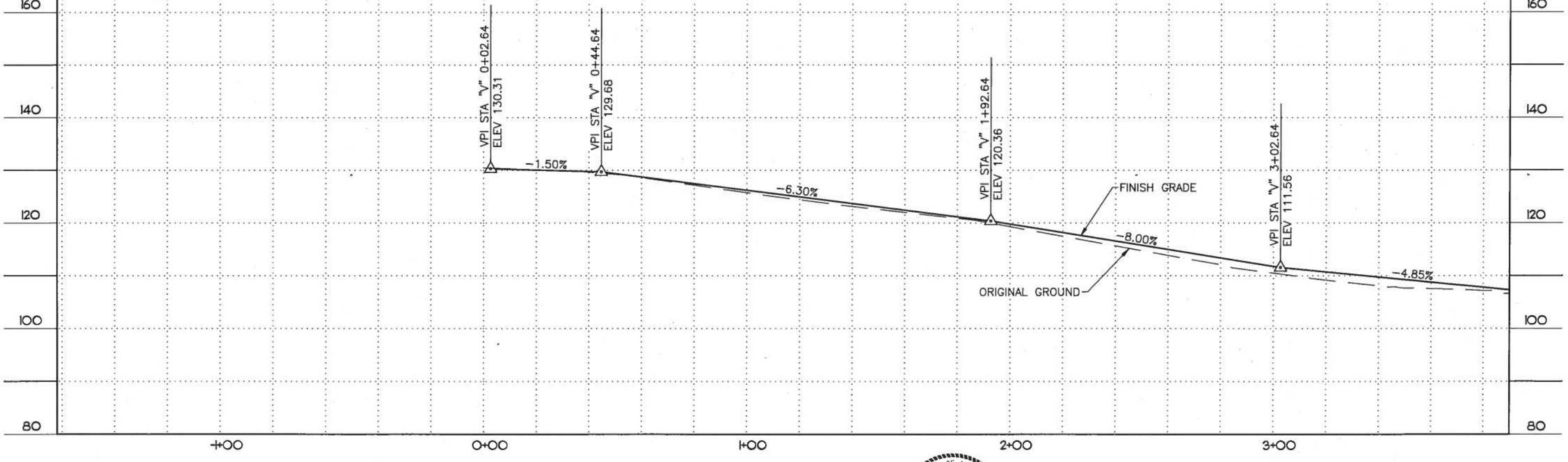
STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER

GATE DETAILS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
E3





DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FORESTRY — STATE OF ALASKA

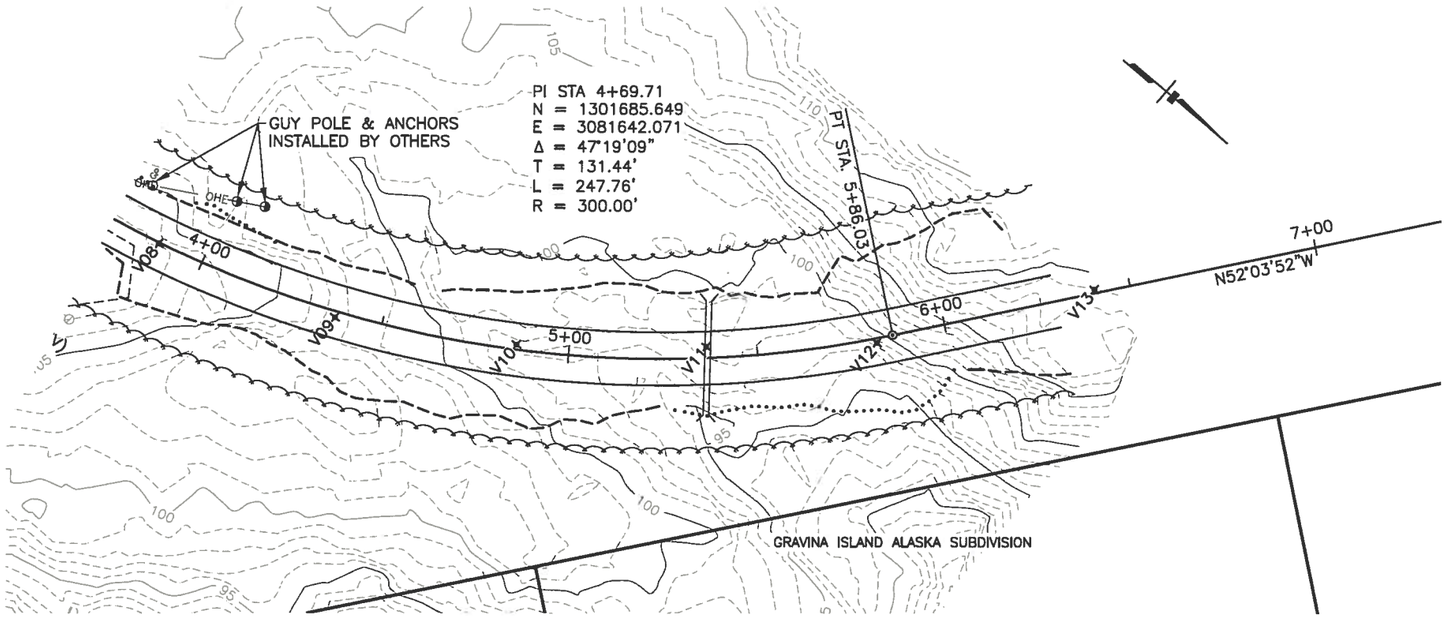
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

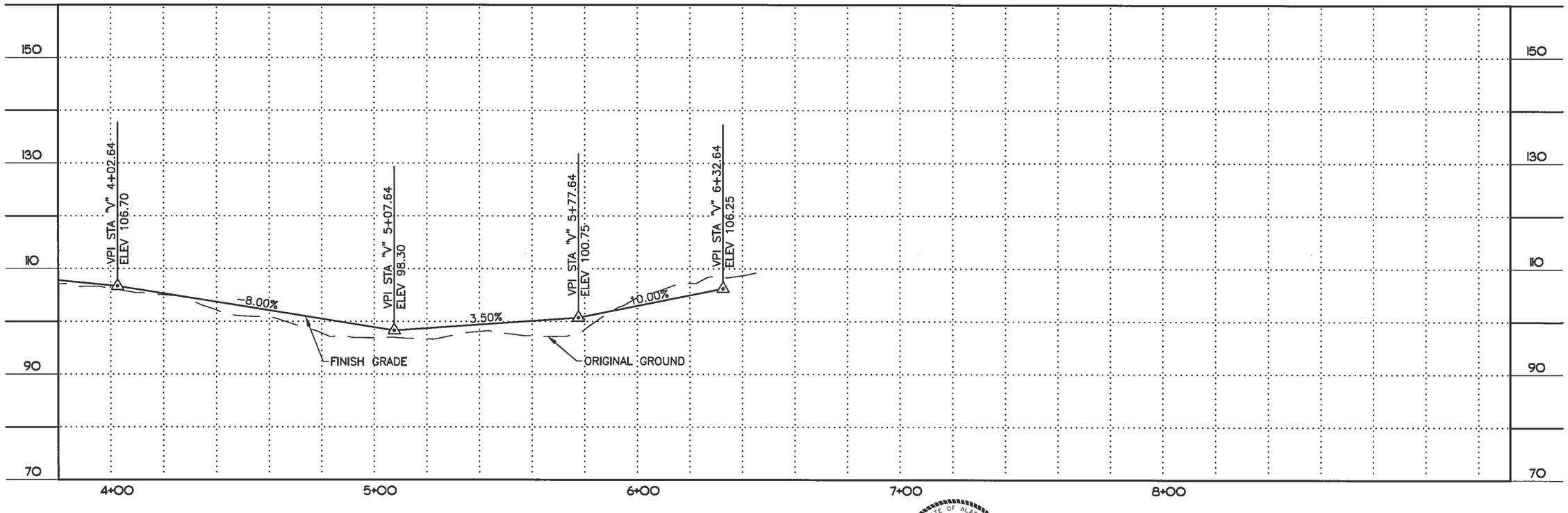
STATE OF ALASKA
49th
CASEY W. WITT
No. EE 13552
REGISTERED PROFESSIONAL ENGINEER
6/5/2015

BOP V00-V11
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET F1





DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FORESTRY — STATE OF ALASKA

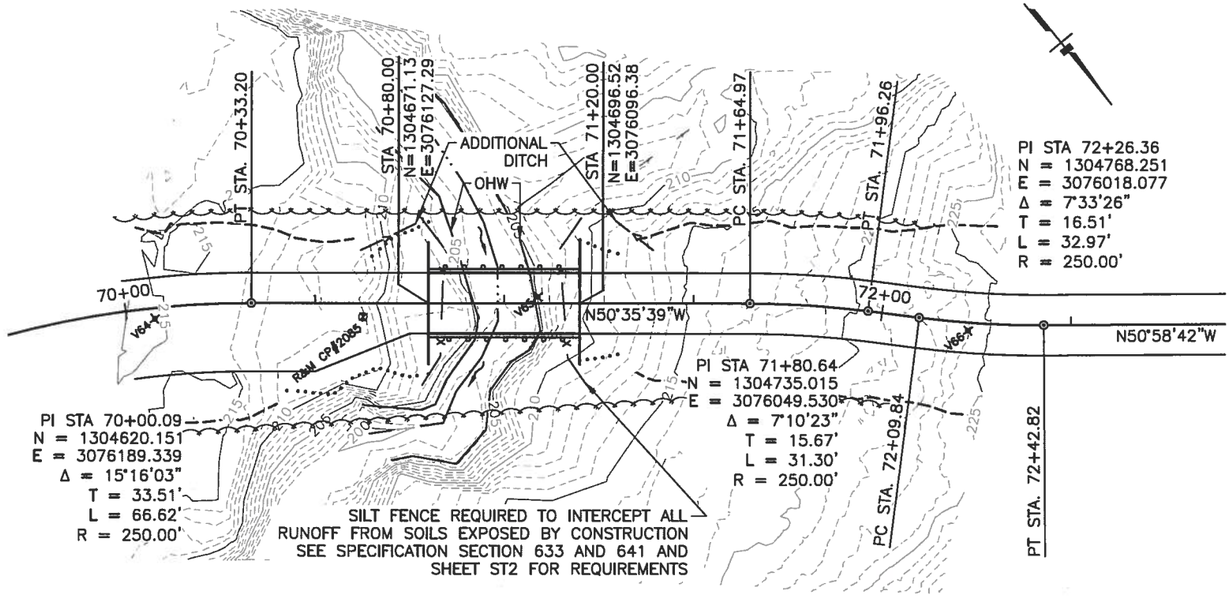
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13550
REGISTERED PROFESSIONAL ENGINEER

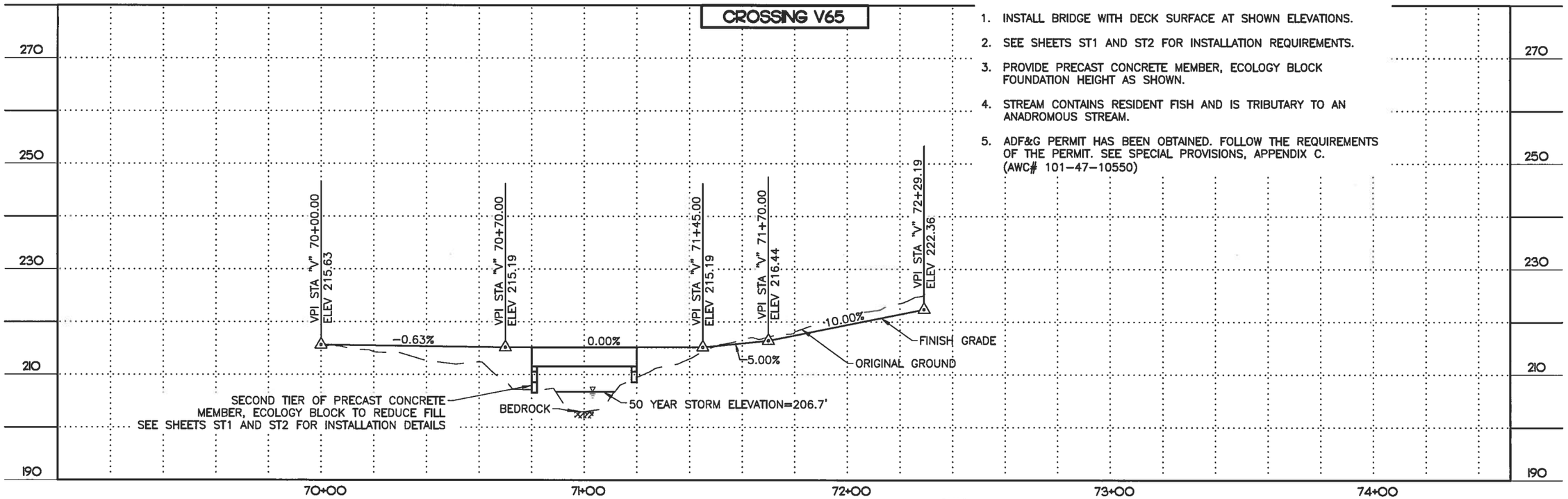
BOP V00-V11
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F2



CROSSING V65



NOTES:

1. INSTALL BRIDGE WITH DECK SURFACE AT SHOWN ELEVATIONS.
2. SEE SHEETS ST1 AND ST2 FOR INSTALLATION REQUIREMENTS.
3. PROVIDE PRECAST CONCRETE MEMBER, ECOLOGY BLOCK FOUNDATION HEIGHT AS SHOWN.
4. STREAM CONTAINS RESIDENT FISH AND IS TRIBUTARY TO AN ANADROMOUS STREAM.
5. ADF&G PERMIT HAS BEEN OBTAINED. FOLLOW THE REQUIREMENTS OF THE PERMIT. SEE SPECIAL PROVISIONS, APPENDIX C. (AWC# 101-47-10550)

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

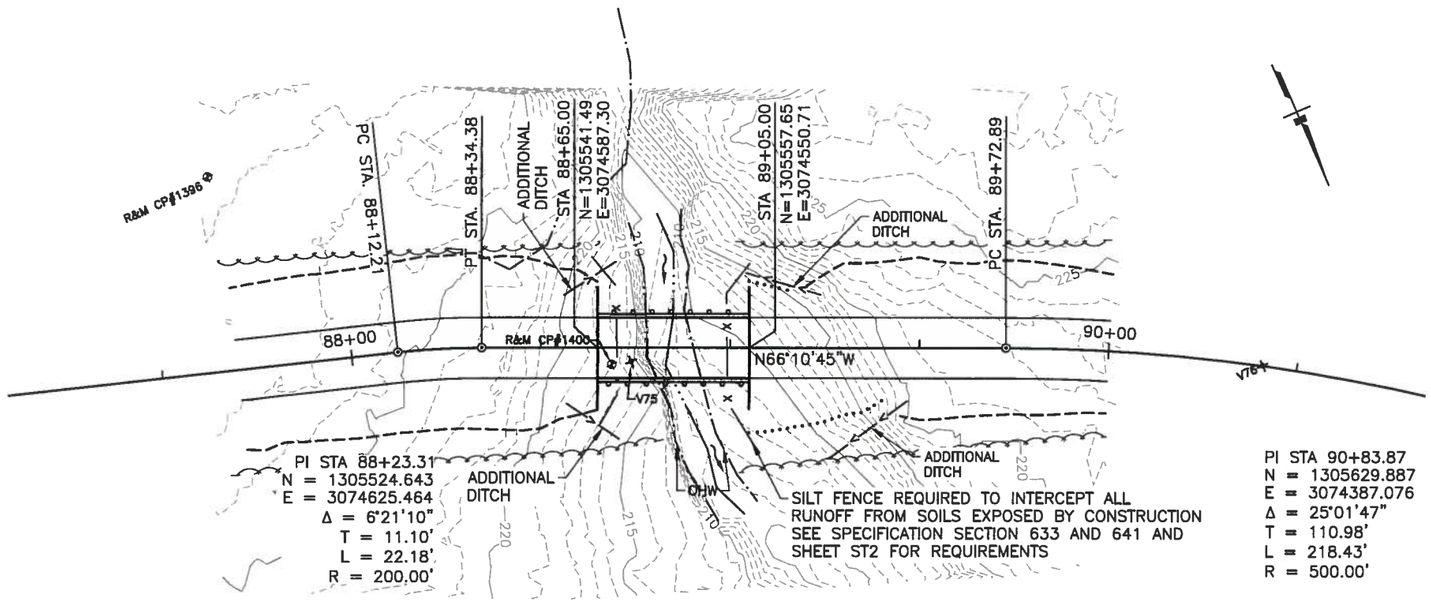
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA 49th — CASEY W. WITT No. CE 13552 REGISTERED PROFESSIONAL ENGINEER — 6/5/2015

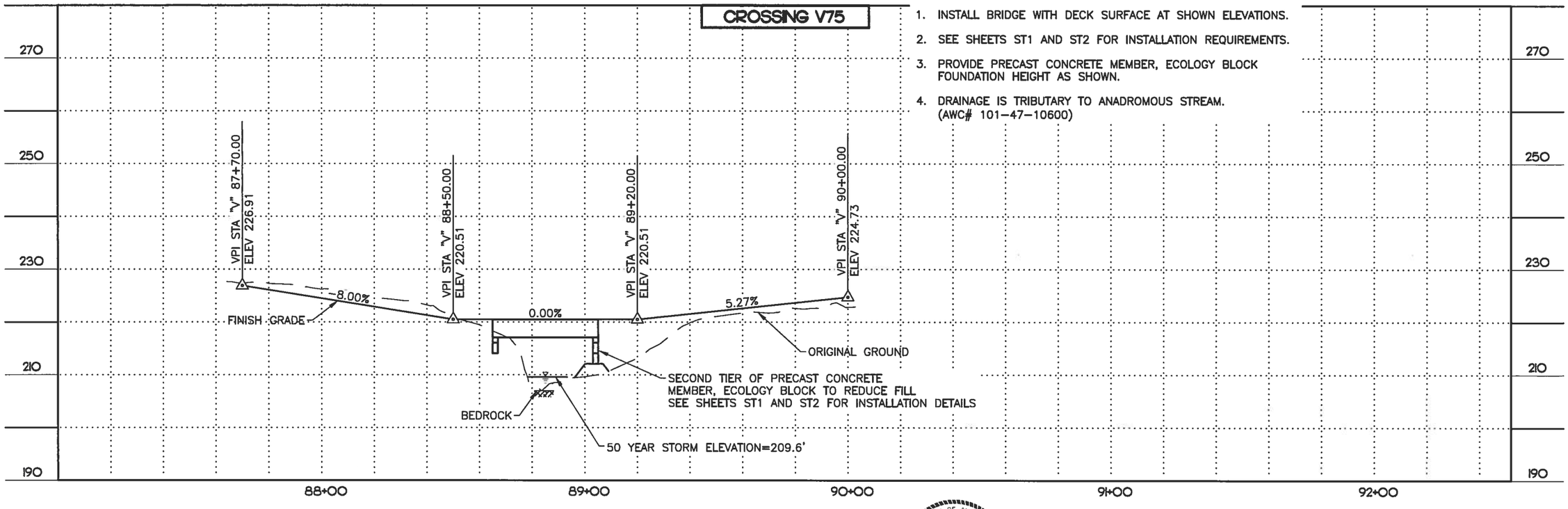
STREAM CROSSING V65
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET F3



CROSSING V75



NOTES:

1. INSTALL BRIDGE WITH DECK SURFACE AT SHOWN ELEVATIONS.
2. SEE SHEETS ST1 AND ST2 FOR INSTALLATION REQUIREMENTS.
3. PROVIDE PRECAST CONCRETE MEMBER, ECOLOGY BLOCK FOUNDATION HEIGHT AS SHOWN.
4. DRAINAGE IS TRIBUTARY TO ANADROMOUS STREAM. (AWC# 101-47-10600)

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

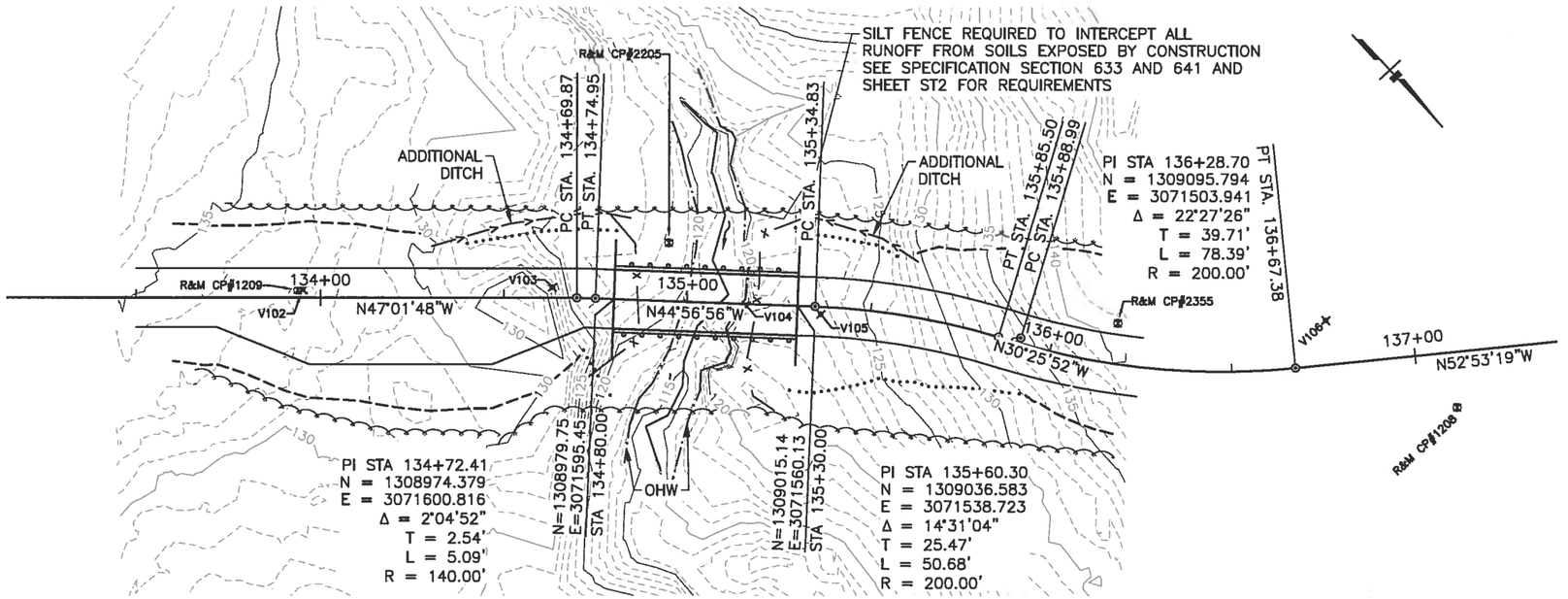
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA
49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER
6/5/2015

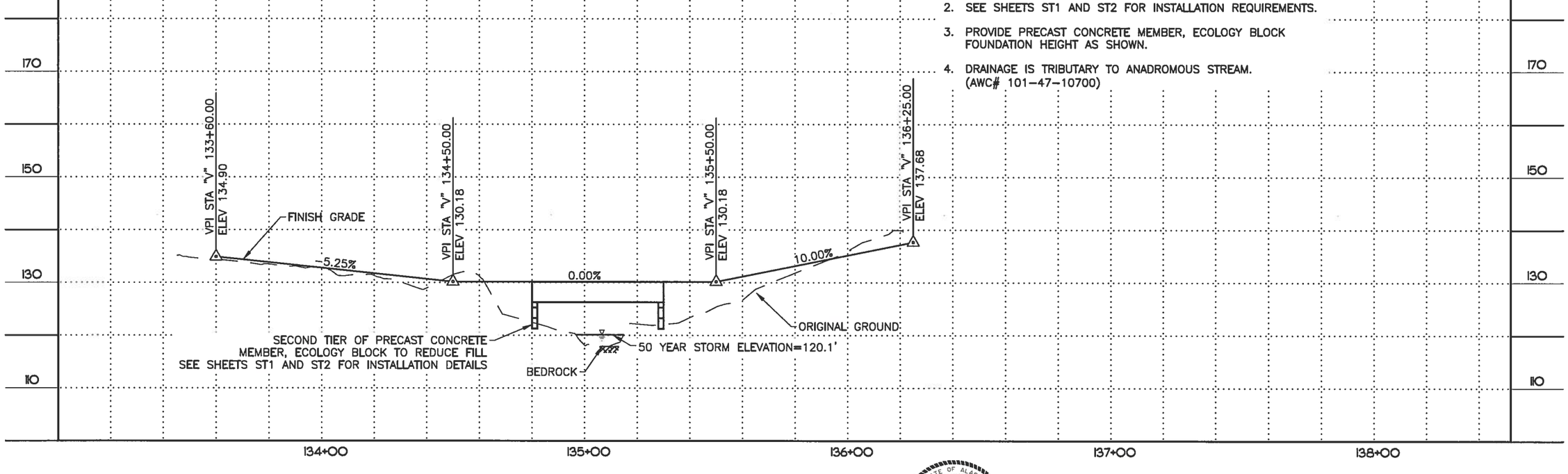
STREAM CROSSING V75
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F4



CROSSING V104



NOTES:

1. INSTALL BRIDGE WITH DECK SURFACE AT SHOWN ELEVATIONS.
2. SEE SHEETS ST1 AND ST2 FOR INSTALLATION REQUIREMENTS.
3. PROVIDE PRECAST CONCRETE MEMBER, ECOLOGY BLOCK FOUNDATION HEIGHT AS SHOWN.
4. DRAINAGE IS TRIBUTARY TO ANADROMOUS STREAM. (AWC# 101-47-10700)

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

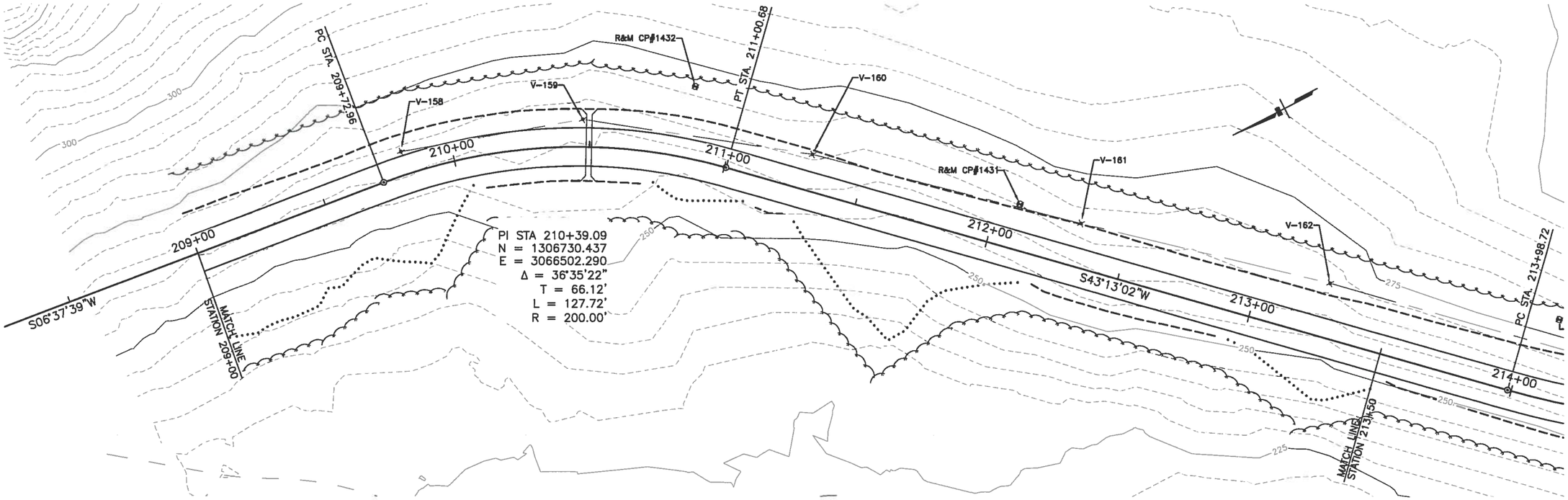
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

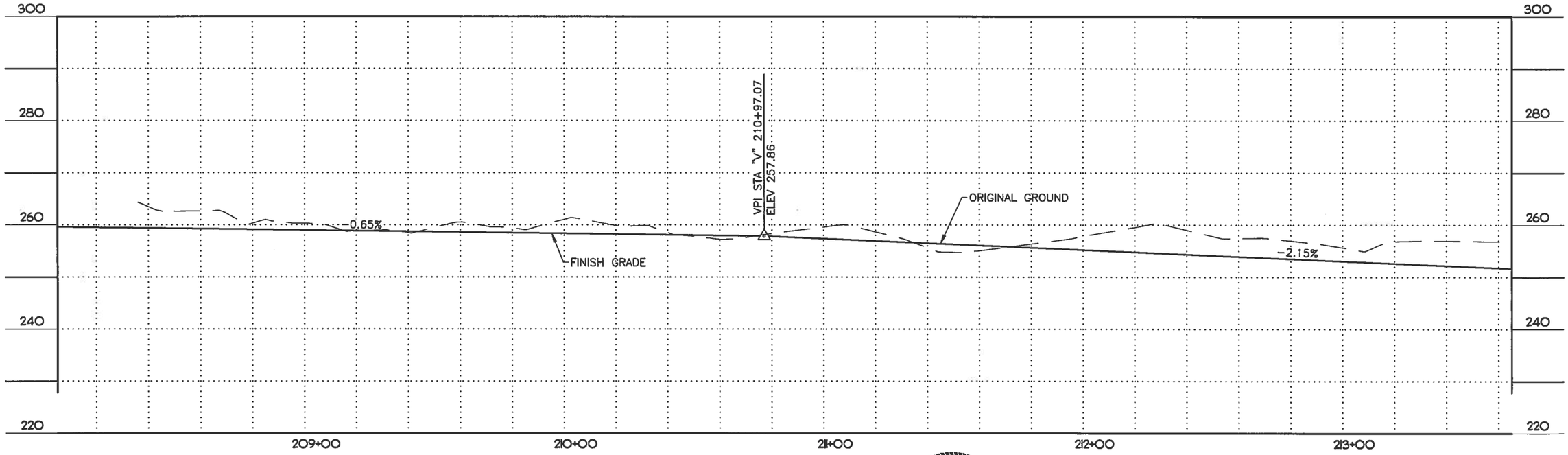
STATE OF ALASKA 49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER

STREAM CROSSING
V104
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F5





DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

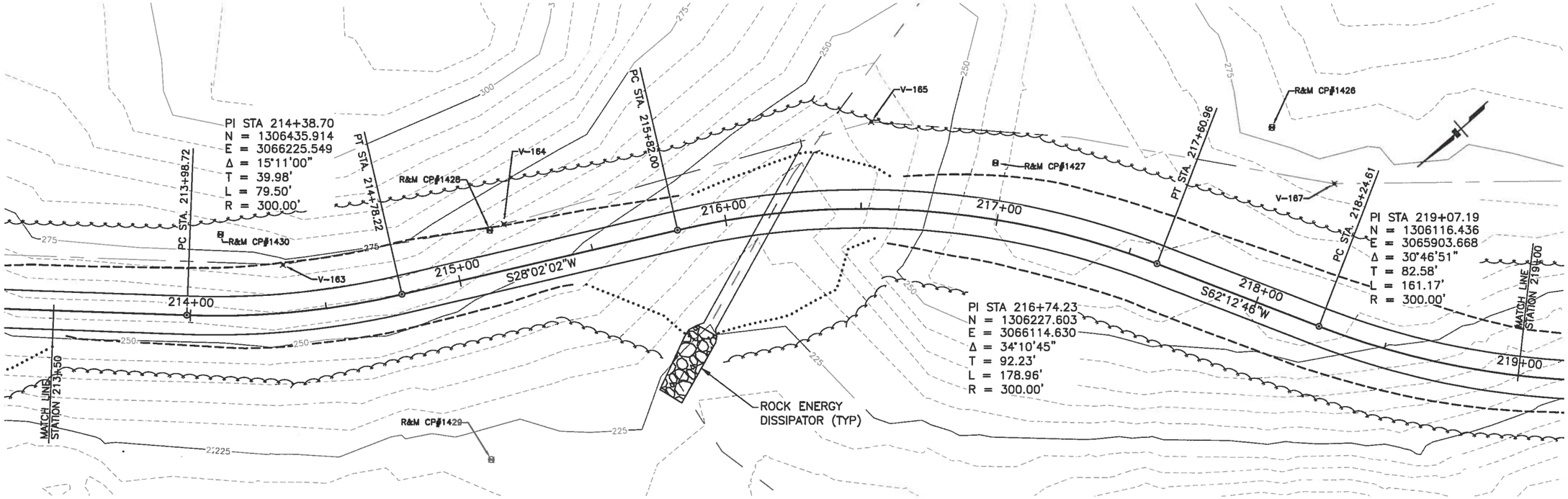
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

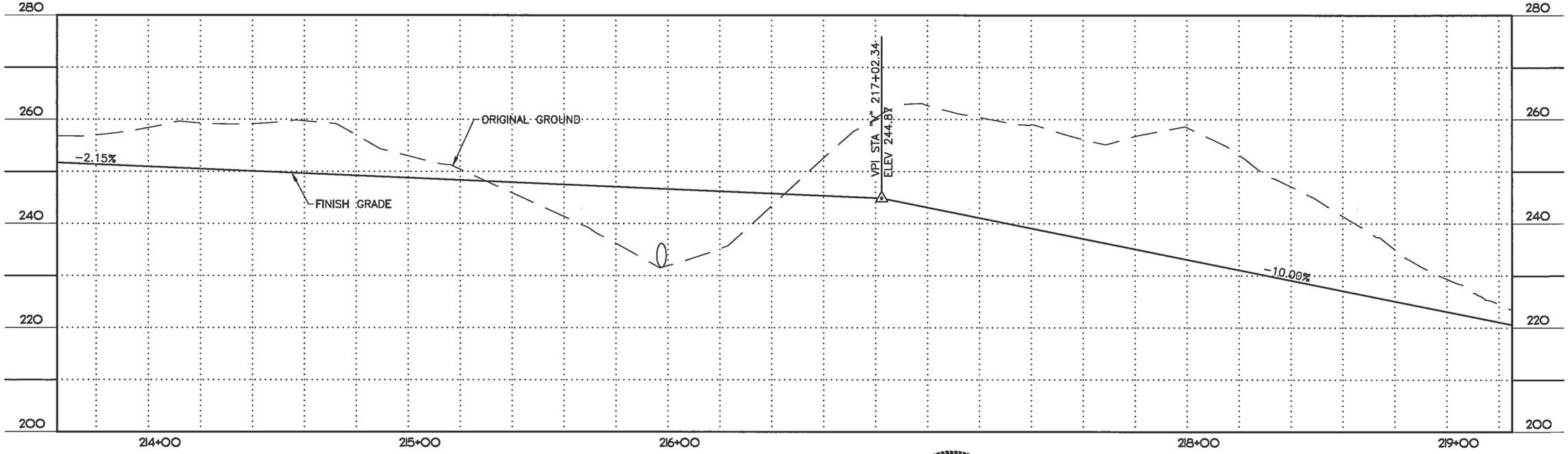
STATE OF ALASKA
49th
Casey Witt
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER
6/5/2015

V158-V178
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F6





DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FORESTRY — STATE OF ALASKA

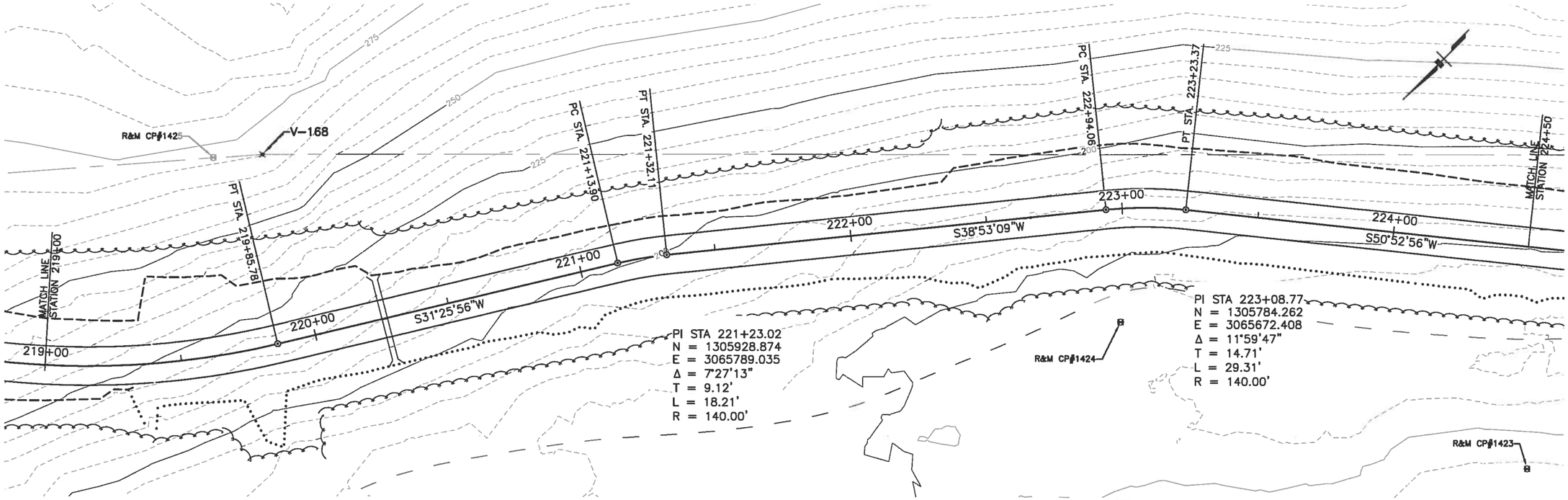
VALLENAR BAY ROAD CIVIL CONSTRUCTION PLAN

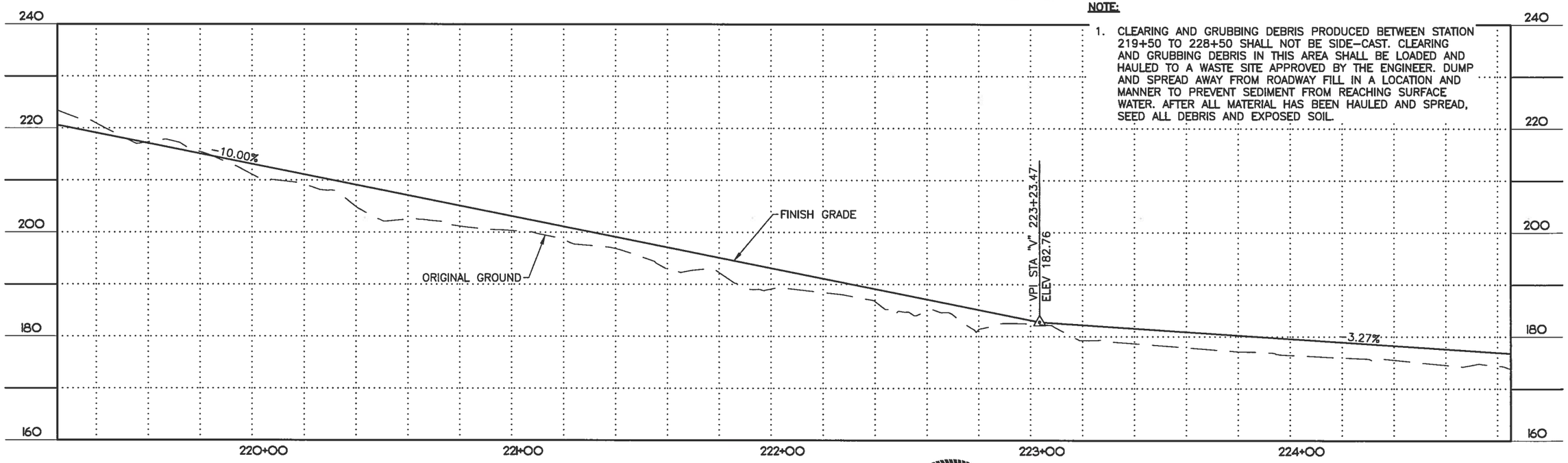
STATE OF ALASKA 49th — CASEY W. WITT No. CE 13552 REGISTERED PROFESSIONAL ENGINEER — 6/5/2015

V158-V178 PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET F7





NOTE:

1. CLEARING AND GRUBBING DEBRIS PRODUCED BETWEEN STATION 219+50 TO 228+50 SHALL NOT BE SIDE-CAST. CLEARING AND GRUBBING DEBRIS IN THIS AREA SHALL BE LOADED AND HAULED TO A WASTE SITE APPROVED BY THE ENGINEER. DUMP AND SPREAD AWAY FROM ROADWAY FILL IN A LOCATION AND MANNER TO PREVENT SEDIMENT FROM REACHING SURFACE WATER. AFTER ALL MATERIAL HAS BEEN HAULED AND SPREAD, SEED ALL DEBRIS AND EXPOSED SOIL.

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

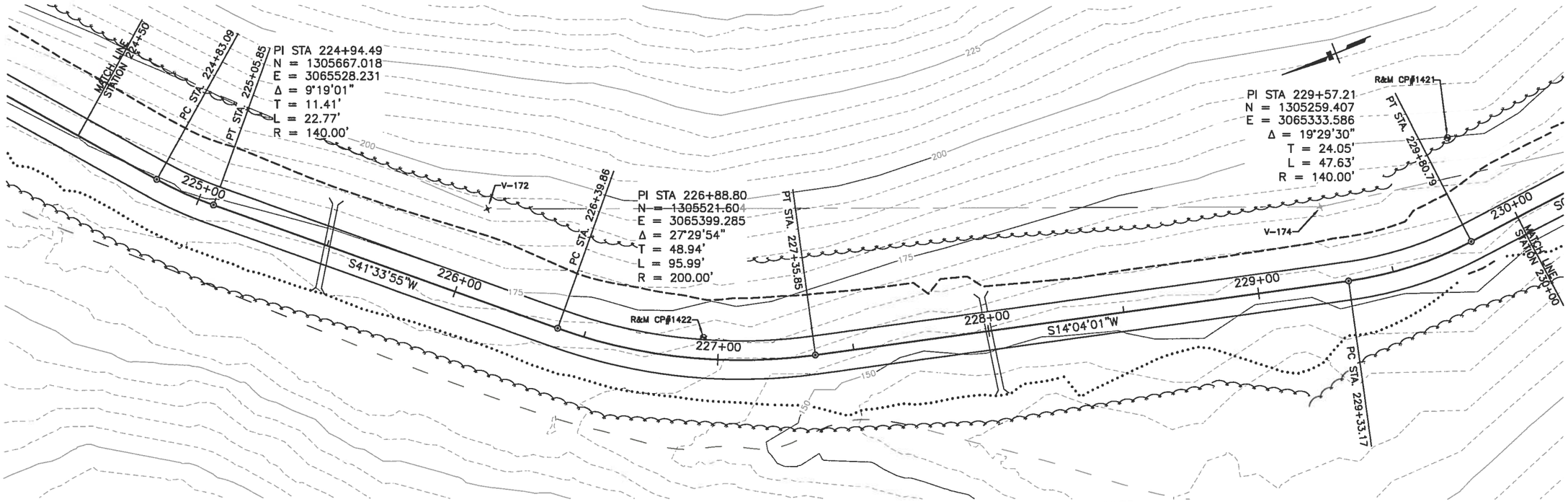
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

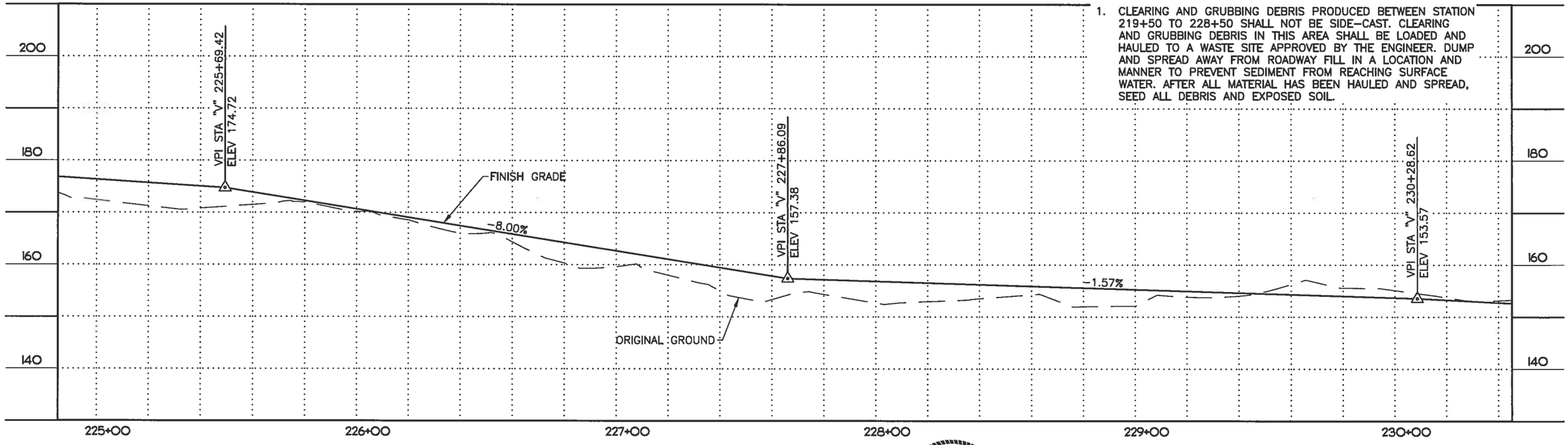
STATE OF ALASKA — 49th — CASEY W. WITT — No. CE 13052 — REGISTERED PROFESSIONAL ENGINEER — 6/5/2015

V158-V178
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F8





NOTE:

1. CLEARING AND GRUBBING DEBRIS PRODUCED BETWEEN STATION 219+50 TO 228+50 SHALL NOT BE SIDE-CAST. CLEARING AND GRUBBING DEBRIS IN THIS AREA SHALL BE LOADED AND HAULED TO A WASTE SITE APPROVED BY THE ENGINEER. DUMP AND SPREAD AWAY FROM ROADWAY FILL IN A LOCATION AND MANNER TO PREVENT SEDIMENT FROM REACHING SURFACE WATER. AFTER ALL MATERIAL HAS BEEN HAULED AND SPREAD, SEED ALL DEBRIS AND EXPOSED SOIL.

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

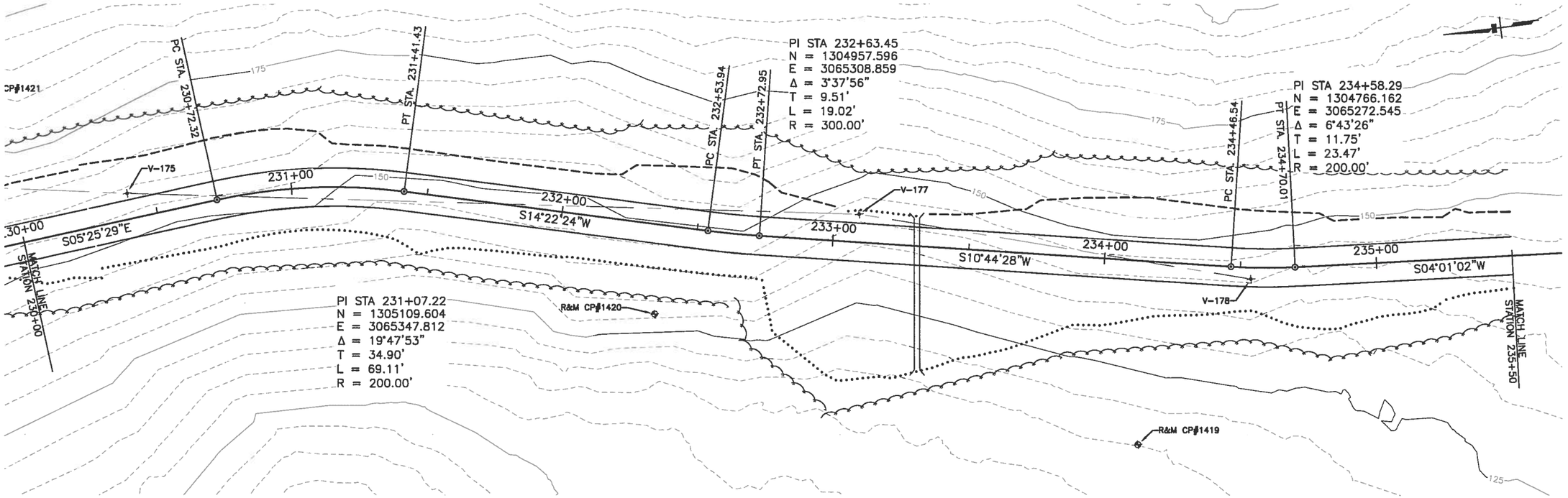
STATE OF ALASKA — 49th — CASEY W. WITT — No. AE-13552 — REGISTERED PROFESSIONAL ENGINEER — 6/5/2015

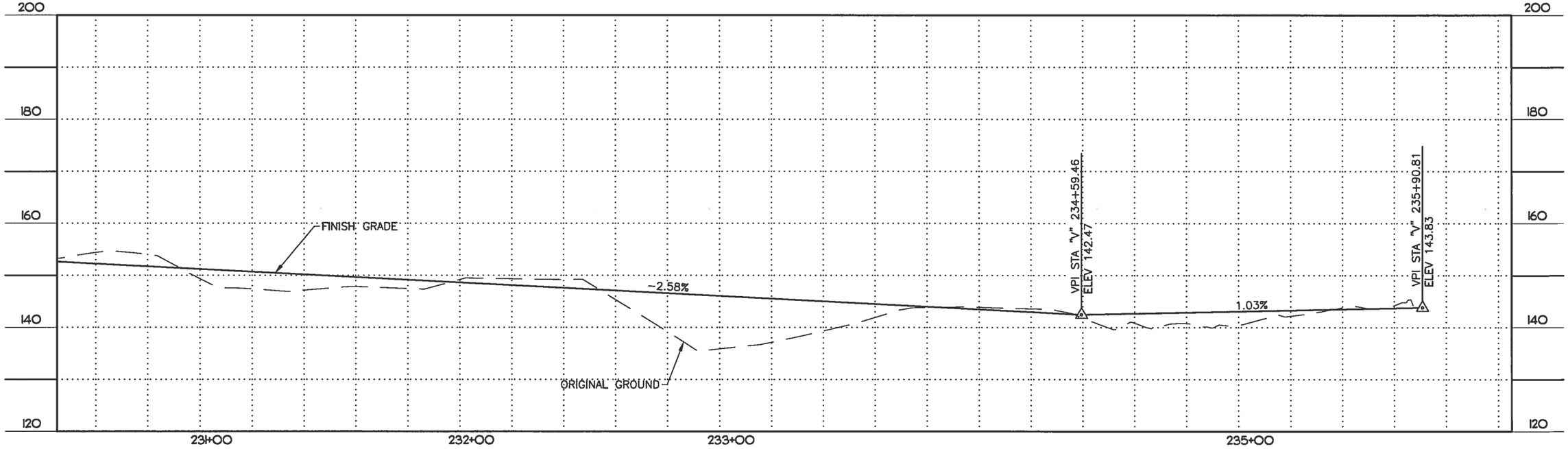
V158-V178
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F9

6/5/2015 10:34 AM
H:\Jobs\15-007 Vallenar Bay Road Design (DNR-DOF)\01-Design\Civil\CAD\DRAWINGS\15-007_01_F6-F10.dwg CWITT





DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

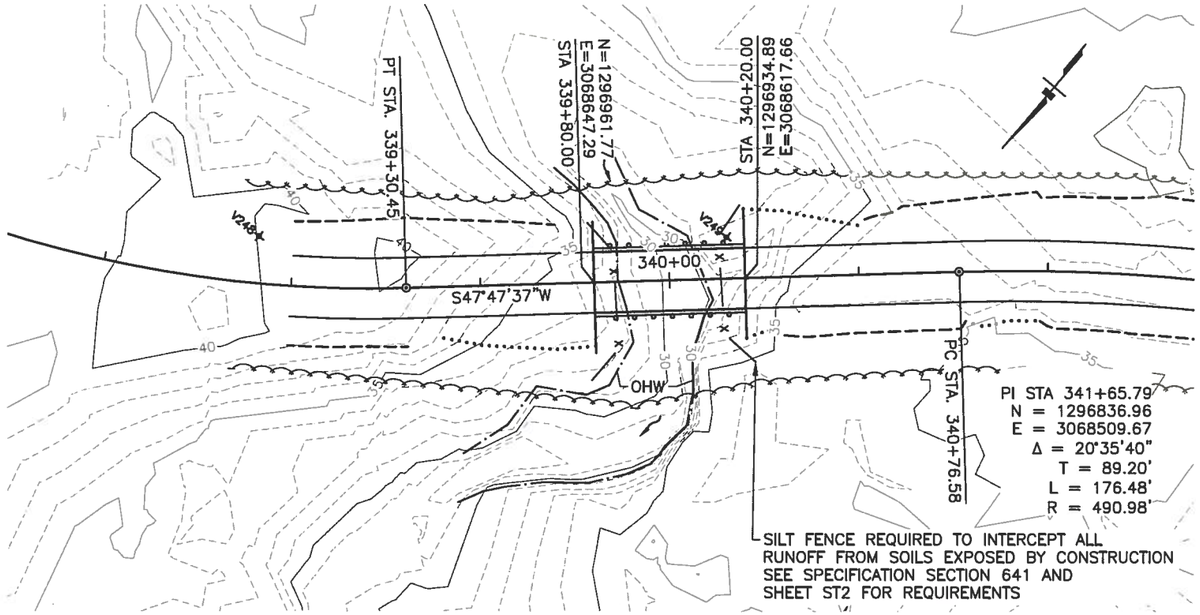
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · NO. CE-13552 · REGISTERED PROFESSIONAL ENGINEER · 6/5/2015

V158-V178
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

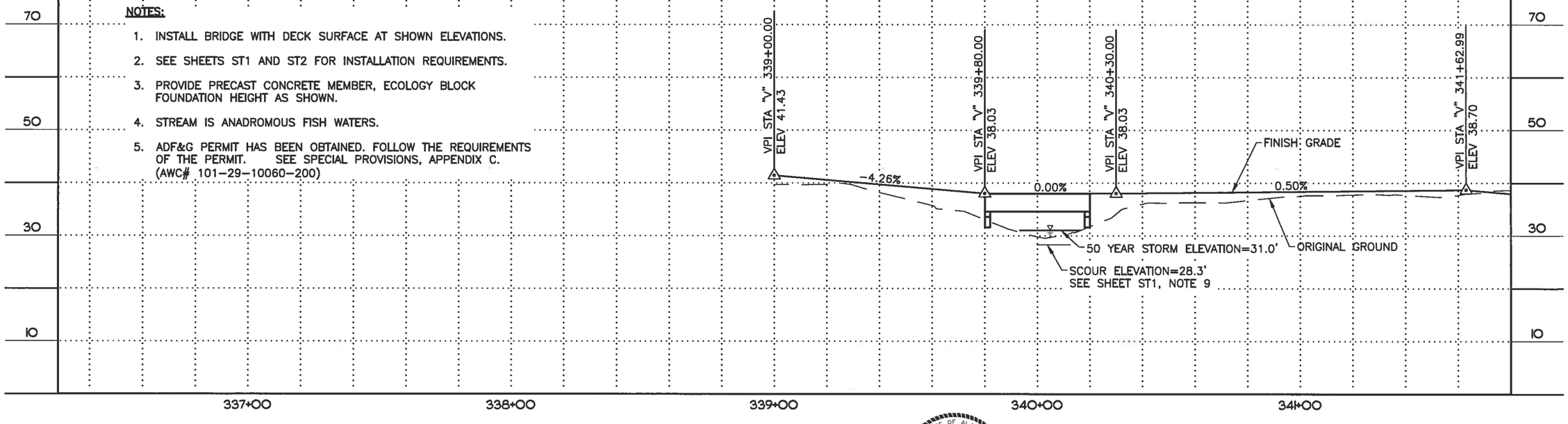
SHEET
F10



CROSSING V249

NOTES:

1. INSTALL BRIDGE WITH DECK SURFACE AT SHOWN ELEVATIONS.
2. SEE SHEETS ST1 AND ST2 FOR INSTALLATION REQUIREMENTS.
3. PROVIDE PRECAST CONCRETE MEMBER, ECOLOGY BLOCK FOUNDATION HEIGHT AS SHOWN.
4. STREAM IS ANADROMOUS FISH WATERS.
5. ADF&G PERMIT HAS BEEN OBTAINED. FOLLOW THE REQUIREMENTS OF THE PERMIT. SEE SPECIAL PROVISIONS, APPENDIX C. (AWC# 101-29-10060-200)



DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

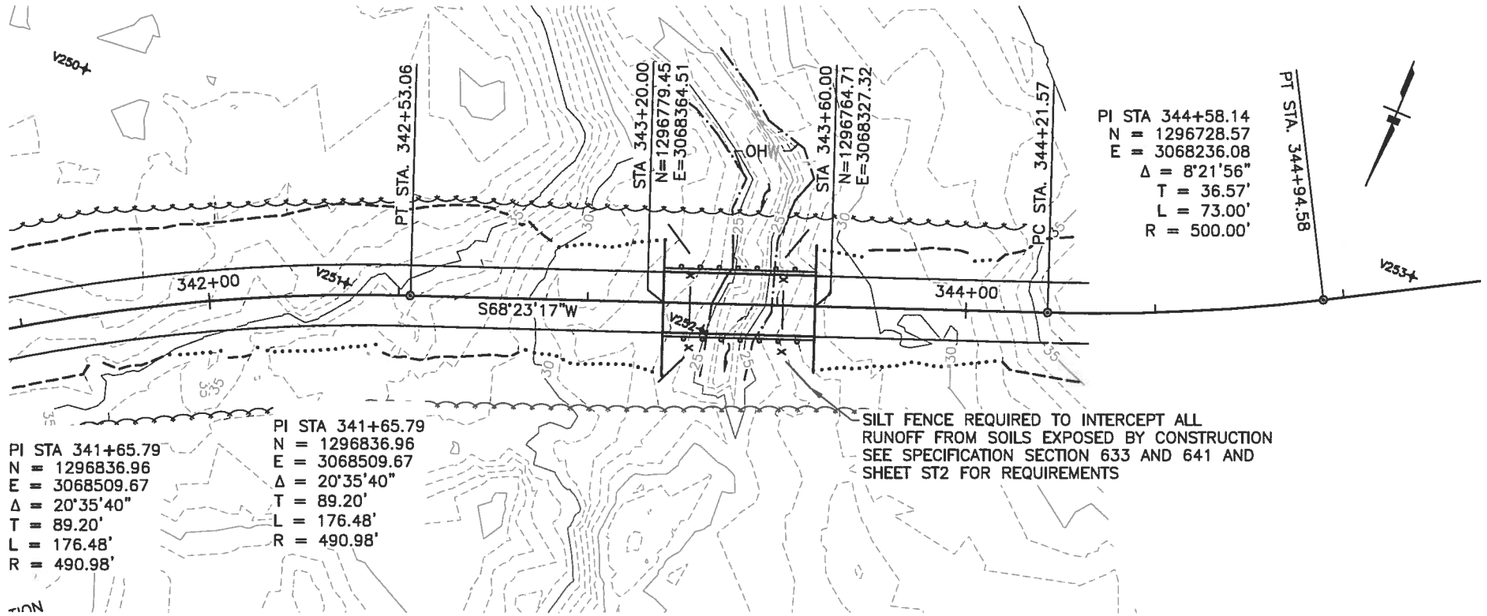
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA — 49th — CASEY W. WITT — No. CE 13552 — REGISTERED PROFESSIONAL ENGINEER — 6/5/2015

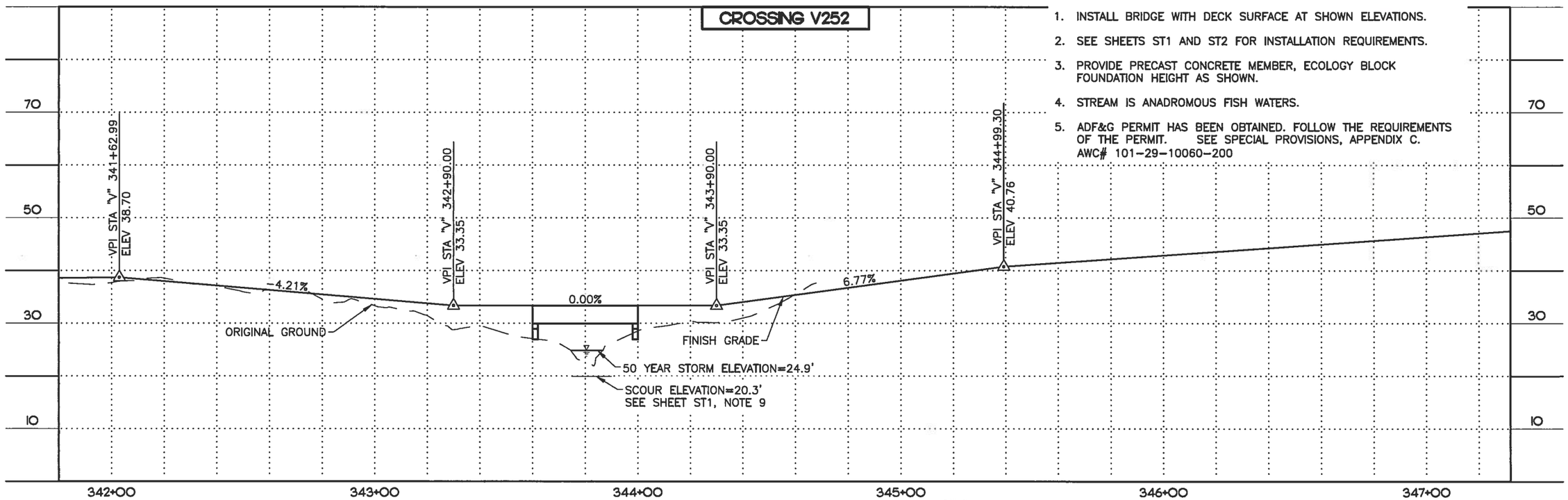
STREAM CROSSING
V249
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F11



CROSSING V252



NOTES:

1. INSTALL BRIDGE WITH DECK SURFACE AT SHOWN ELEVATIONS.
2. SEE SHEETS ST1 AND ST2 FOR INSTALLATION REQUIREMENTS.
3. PROVIDE PRECAST CONCRETE MEMBER, ECOLOGY BLOCK FOUNDATION HEIGHT AS SHOWN.
4. STREAM IS ANADROMOUS FISH WATERS.
5. ADF&G PERMIT HAS BEEN OBTAINED. FOLLOW THE REQUIREMENTS OF THE PERMIT. SEE SPECIAL PROVISIONS, APPENDIX C. AWC# 101-29-10060-200

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

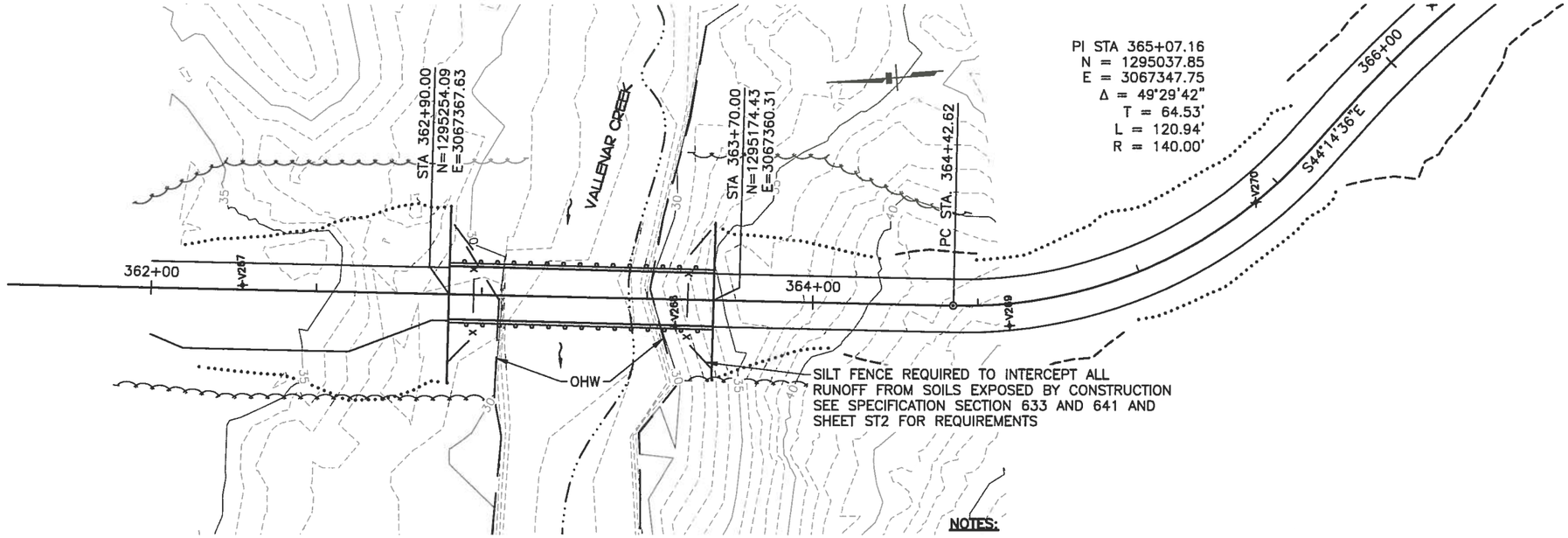
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA 49th — CASEY W. WITT — No. FE 13552 — REGISTERED PROFESSIONAL ENGINEER — 6/5/2015

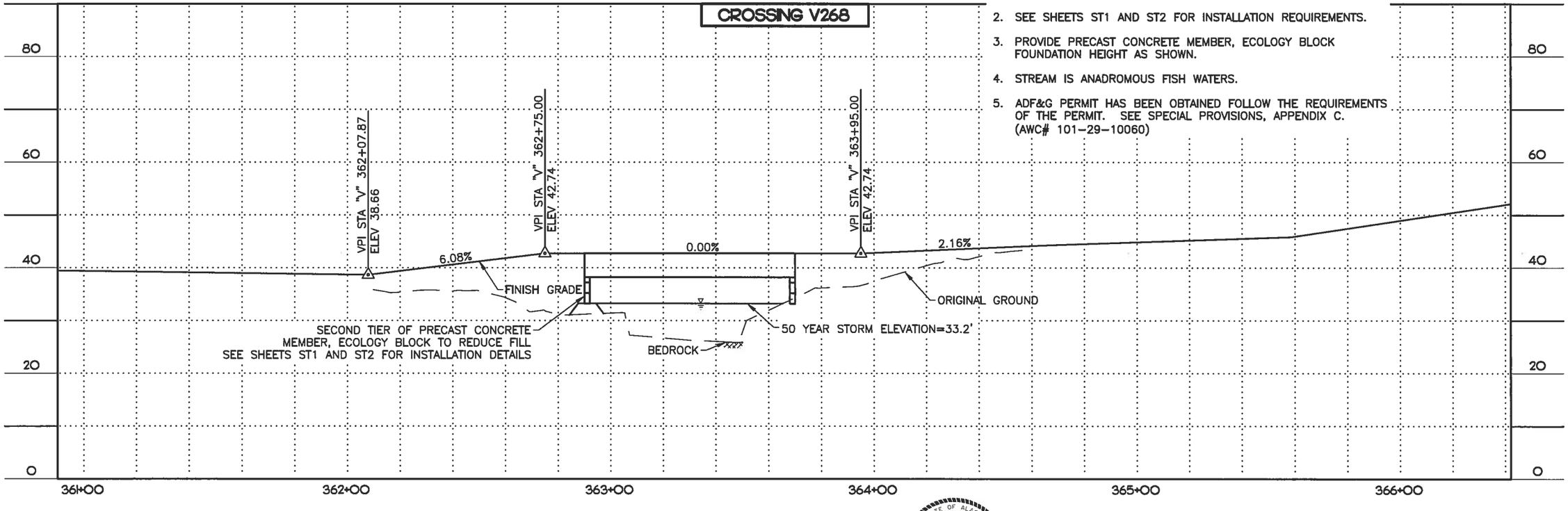
STREAM CROSSING
V252
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F12



CROSSING V268



NOTES:

1. INSTALL BRIDGE WITH DECK SURFACE AT SHOWN ELEVATIONS.
2. SEE SHEETS ST1 AND ST2 FOR INSTALLATION REQUIREMENTS.
3. PROVIDE PRECAST CONCRETE MEMBER, ECOLOGY BLOCK FOUNDATION HEIGHT AS SHOWN.
4. STREAM IS ANADROMOUS FISH WATERS.
5. ADF&G PERMIT HAS BEEN OBTAINED FOLLOW THE REQUIREMENTS OF THE PERMIT. SEE SPECIAL PROVISIONS, APPENDIX C. (AWC# 101-29-10060)

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

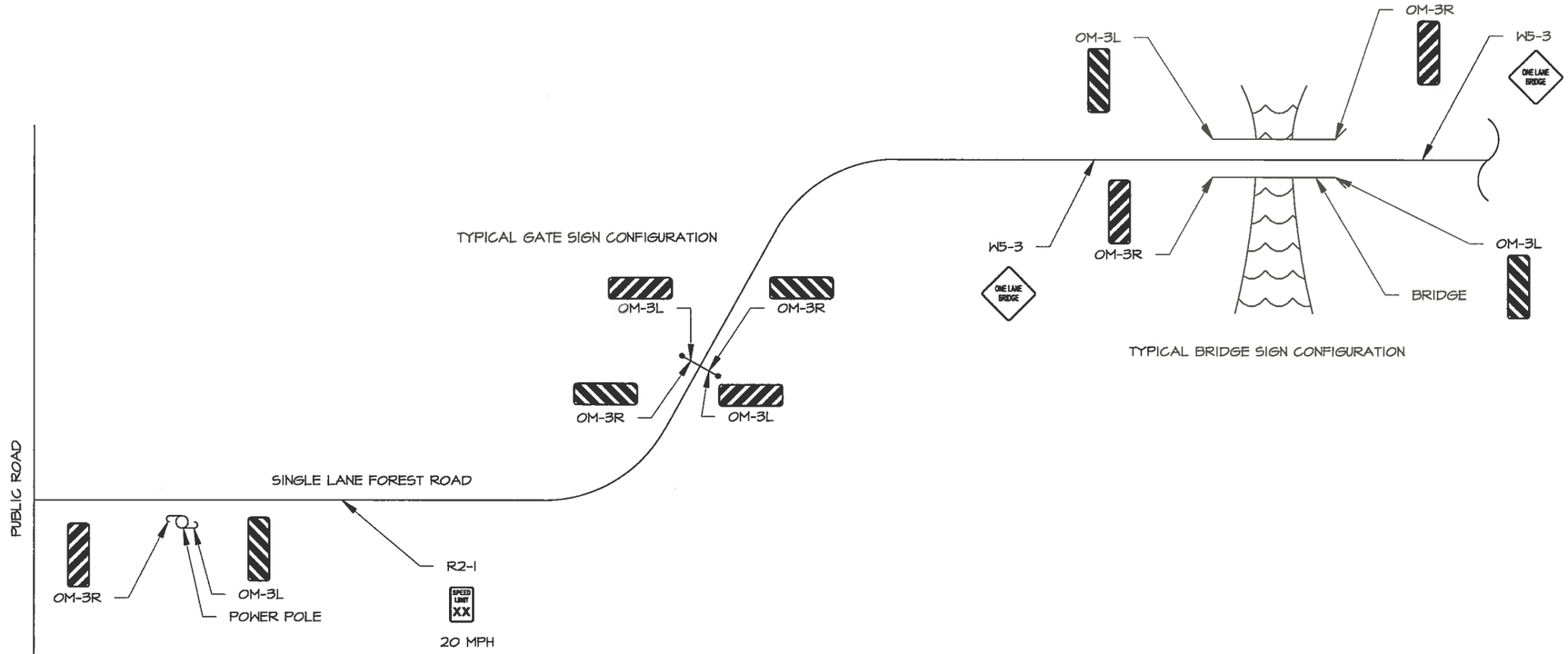
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · No. CE 13552 · REGISTERED PROFESSIONAL ENGINEER · 6/5/2015

STREAM CROSSING V268
PLAN AND PROFILE

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
F13



NOTES:

1. DIAGRAM ABOVE SHOWS APPROXIMATE PLACEMENT OF SIGNS. PROJECT ENGINEER TO DETERMINE FINAL PLACEMENT BASED ON SITE CONDITIONS.
2. PLACE D10-1 MILE MARKERS AND CU-2 "DO NOT BLOCK PULLOUTS" SIGNS EVERY MILE RIGHT OF CENTERLINE. STARTING POINT AND "MILE 0" SIGN LOCATION SHALL BE AT STATION 3+10.
3. PLACE CU-1 "FOREST ROAD YIELD" SIGNS FACING BACK STATION AT STATION 5+00 AND FACING BOTH DIRECTIONS AT STATION 40+00 AND 280+00.

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA · 49th · CASEY W. WITT · No. CE 13552 · REGISTERED PROFESSIONAL ENGINEER · 6/5/2015

TYPICAL SIGN PLACEMENT

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
H1

R2-1 (MUTCD)
18"W X 24"H

D10-1 (MUTCD)
10" X 18"

OM-3L (MUTCD)
12" X 36"

OM-3R (MUTCD)
12" X 36"

W5-3 (MUTCD)
24" X 24"

SINGLE LANE FOREST
ROAD YIELD TO
LOGGING TRUCKS
TRUCKS USE CB
CHANNEL XX

CU-1 (CUSTOM)
72"X54" BLACK MESSAGE AND BORDER ON WHITE BACKGROUND

SINGLE LANE ROAD
DO NOT BLOCK
PULLOUTS WHEN
PARKED

CU-2 (CUSTOM)
36"X24" BLACK MESSAGE AND BORDER ON WHITE BACKGROUND

NOTE: FOR SIGN FRAMING AND POST SPACING SEE ALASKA DEPARTMENT OF TRANSPORTATION STANDARD DETAIL S-00.11

Revisions			
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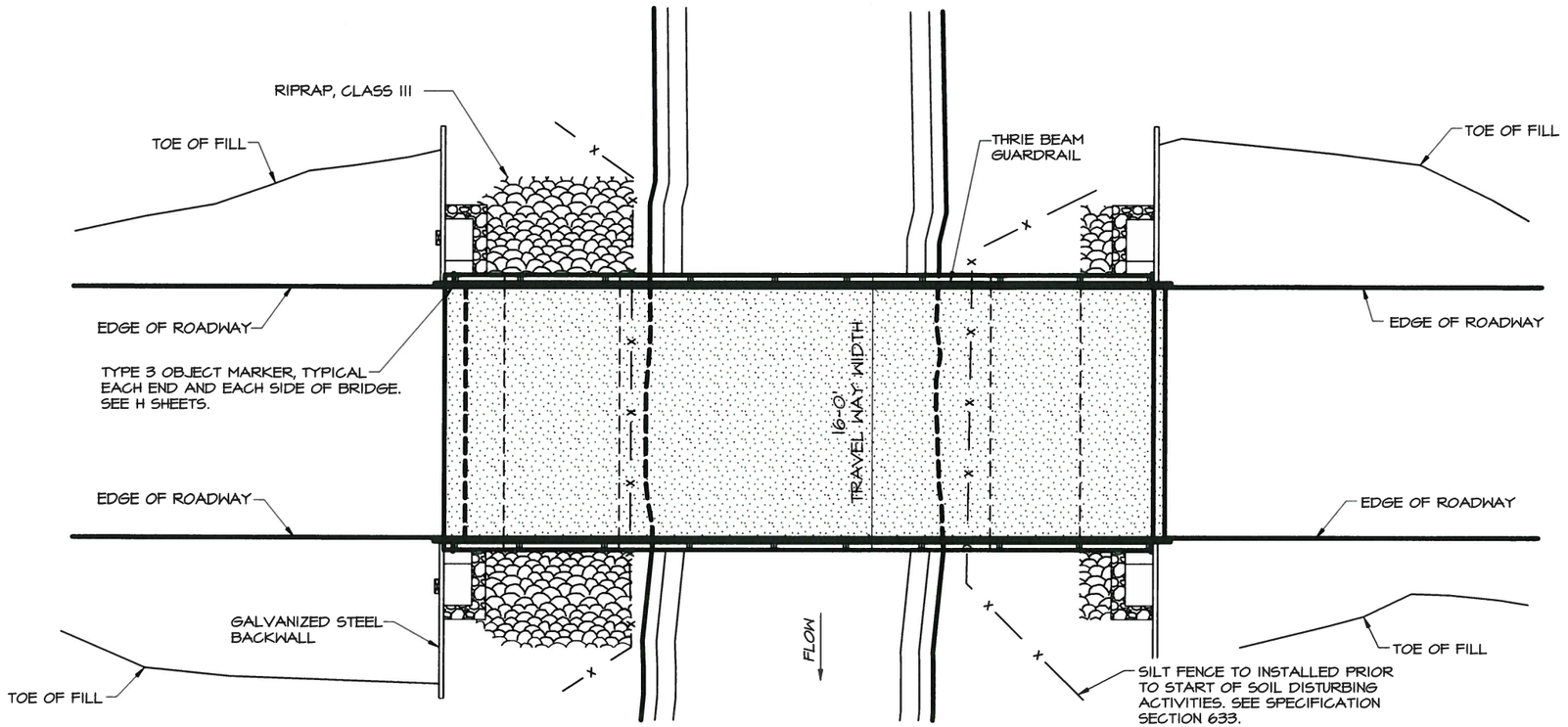
VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

STATE OF ALASKA 49th
CASEY W. WITT
No. CE 13552
REGISTERED PROFESSIONAL ENGINEER
6/5/2015

SIGN DETAILS

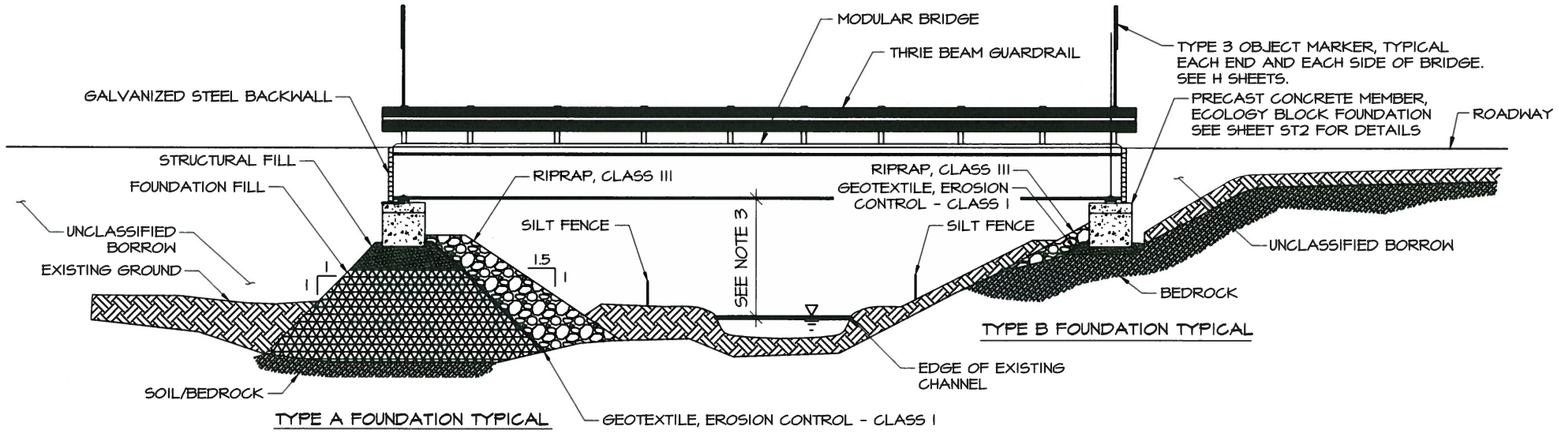
PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
H2



PLAN VIEW

NOTE:
THIS DRAWING SHOWS A TYPICAL INSTALLATION.



ELEVATION

BRIDGE DESIGN NOTES:

1. DRAWING IS APPLICABLE FOR SINGLE LANE BRIDGE ONLY, UNLESS OTHERWISE NOTED.
2. SEE SHEET ST2 FOR FOUNDATION DETAILS AND SILL MATERIAL NOTES.
3. PROVIDE 5 FT. MIN CLEARANCE ABOVE 50-YEAR FLOOD ELEVATION FOR ICE AND DEBRIS PASSAGE.
4. WHERE STRUCTURAL EXCAVATION IS REQUIRED, REFER TO DOT & PF SPECIFICATION 205.
5. SPREAD AND IMMEDIATELY SEED EXCAVATED MATERIAL AWAY FROM STREAM IN A LOCATION TO PREVENT RUNOFF FROM REACHING STREAM.
6. DO NOT DISTURB STREAM BANKS OR EXCAVATE WITHIN 3' OF OHW LINE EXCEPT WHERE NECESSARY TO PROVIDE CLEARANCE FOR STRUCTURES. CONSULT WITH PROJECT ENGINEER PRIOR TO STREAM BANK DISTURBING ACTIVITIES.
7. SEE STREAM CROSSING PLAN AND PROFILE SHEETS FOR ASSUMED LOCATION OF OHW. CONSULT THE PROJECT ENGINEER TO VERIFY THE ASSUMED LOCATION OF OHW.
8. ALL BRIDGE FOUNDATIONS SHALL HAVE RIPRAP AS SHOWN ON THE PLANS EXTENDING ABOVE THE 50 YEAR FLOOD ELEVATION.
9. RIPRAP SHALL EXTEND TO BEDROCK OR BELOW THE SCOUR ELEVATION, WHICHEVER OCCURS FIRST.
10. EACH END OF THE BRIDGE MUST BE SECURED TO THE ABUTMENT STRUCTURE.
11. EARTH EMBANKMENT CONSTRUCTED FOR USE AS A BRIDGE APPROACH MUST BE PROTECTED FROM EROSION BY BULKHEADS, ROCK RIPRAP, RETAINING WALLS, OR OTHER EQUALLY EFFECTIVE MEANS.
12. BRIDGE MUST BE INSTALLED IN SUCH A WAY AS TO MINIMIZE DISTURBANCE TO THE BED AND BANKS OF A STREAM. NO PART OF THE SUPERSTRUCTURE MAY BE BELOW THE HIGH WATER MARK OF THE STREAM OR OBSTRUCTING THE STREAM'S FLOW BETWEEN ORDINARY HIGH WATER.
13. EQUIPMENT STREAM CROSSINGS ALLOWED WITH SITE SPECIFIC PLAN APPROVAL BY ENGINEER.

GENERAL NOTES:

THE "BIDDER OR OPERATOR" WILL HAVE THE STRUCTURE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ALASKA. PLANS OF THE PROPOSED STRUCTURE WILL BE SUBMITTED AND BE SUBJECT TO APPROVAL OF THE PROJECT ENGINEER BEFORE FINAL ACCEPTANCE.

FOUNDATION NOTES:

FOUNDATION DESIGN AND DETAILS ASSUME SUBSTRUCTURE UNITS WILL BE PLACED ON COMPETENT SOIL OR BEDROCK CAPABLE OF ACHIEVING THE FOLLOWING FACTORED BEARING RESISTANCE VALUES:

SOIL: 1.5 TONS PER SQUARE FOOT.

BEDROCK: 15 TONS PER SQUARE FOOT.

THE FACTORED BEARING RESISTANCE ASSUMES A RESISTANCE FACTOR OF 0.5.

THE SOIL AND BEDROCK ENCOUNTERED SHALL BE EVALUATED TO CONFIRM THAT THE ASSUMED FACTORED BEARING RESISTANCE CAN BE ACHIEVED. IF THE ASSUMED FACTORED BEARING RESISTANCE CANNOT BE ACHIEVED, THE SUBSTRUCTURE SHALL BE REDESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY
STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

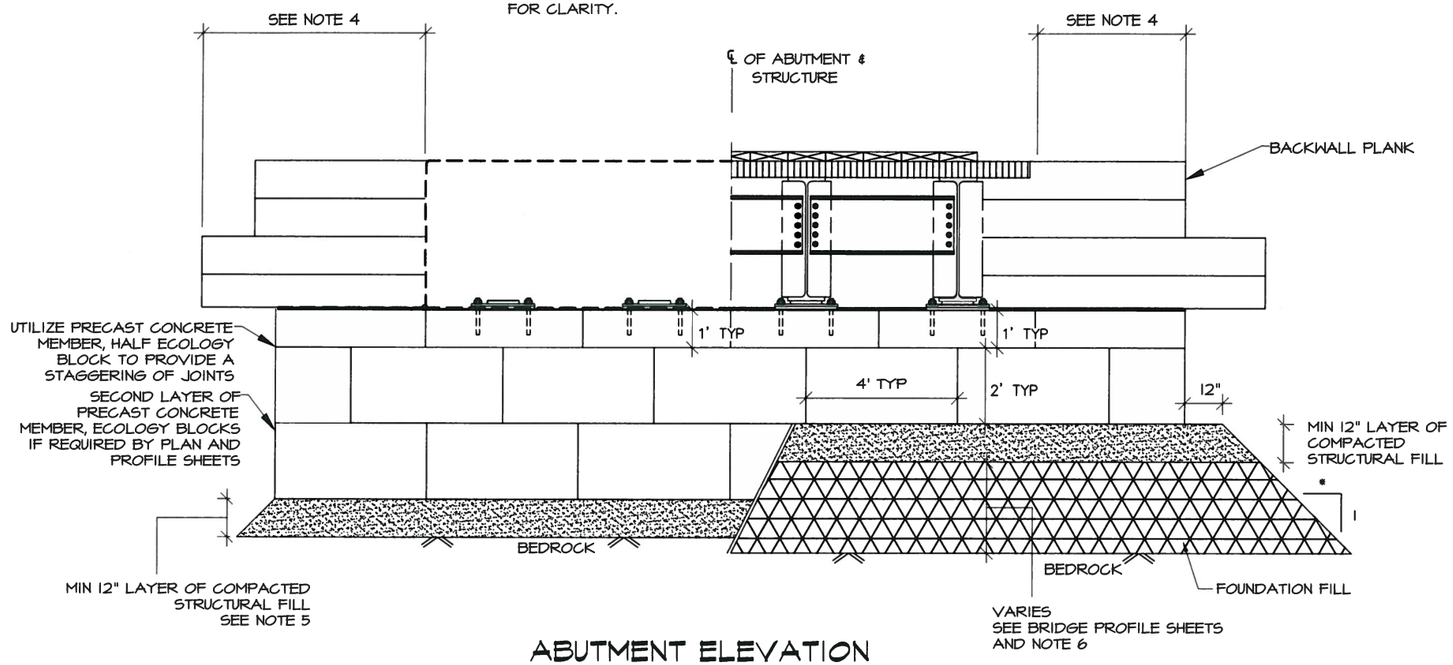
STATE OF ALASKA
DOUGLAS P. SMITH
REGISTERED PROFESSIONAL ENGINEER
No. CE-13943

BRIDGE FOUNDATION
PLAN AND ELEVATION TYPICALS

PREPARED: CHW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
ST1

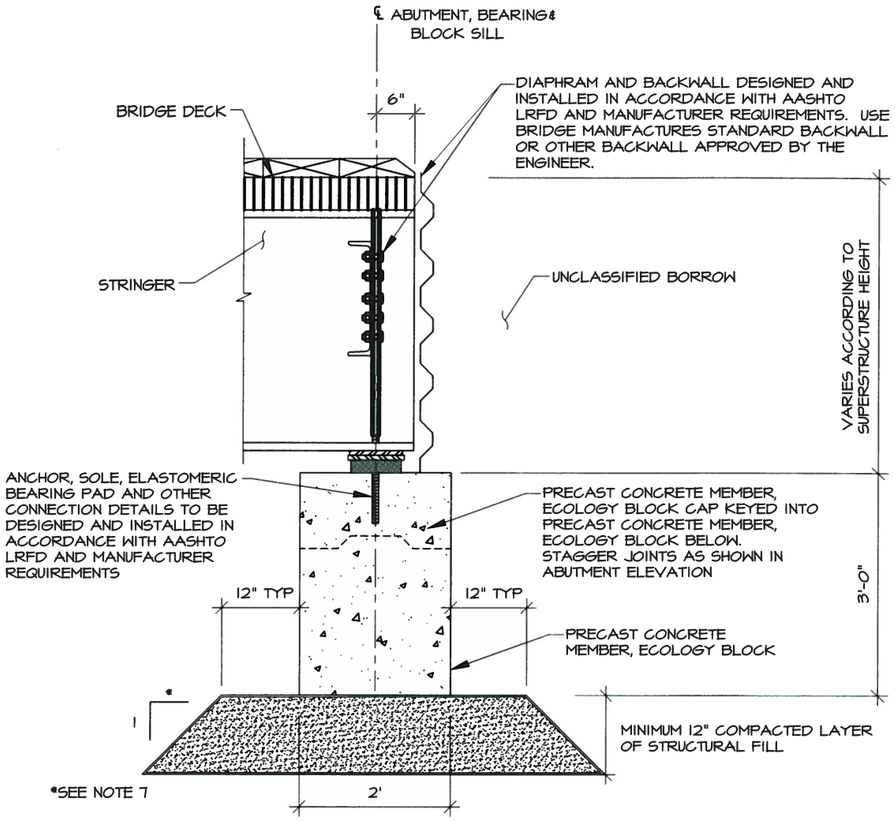
NOTE:
BRIDGE SUPERSTRUCTURE AND RIPRAP NOT SHOWN THIS SIDE FOR CLARITY.



ABUTMENT ELEVATION

2 0 2 4 6 8 10
scale feet

SCALE : 1/4"=1'-0"



ABUTMENT SECTION

1 0 1 2 3 4 5
scale feet

SCALE : 1/2"=1'-0"

GENERAL NOTES:

1. ALL PRECAST CONCRETE SHALL BE CLASS A CONCRETE MEETING DOT & PF STANDARD SPECIFICATION 501 WITH A MINIMUM F'C = 4000 PSI AT 28 DAYS.
2. ALL BOLTS SHALL TO BE ASTM A325, GALVANIZED IN ACCORDANCE WITH AASHTO M232.
3. ALL METAL COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
4. BACKWALL LENGTH SHALL BE EXTENDED TO MEET SITE CONDITIONS AND RETAIN ROADWAY APPROACH FILL.
5. IF BEDROCK IS LESS THAN 12" BELOW BOTTOM OF CONCRETE BLOCK FOUNDATION, RIP BEDROCK TO PROVIDE MINIMUM 12" LAYER OF STRUCTURAL FILL MATERIAL, SEE SECTION 205 OF THE SPECIFICATIONS.
6. WHERE BEDROCK IS NOT ENCOUNTERED, FOUNDATION FILL SHALL EXTEND A MINIMUM OF 3.5 FEET BELOW BASE OF PRECAST CONCRETE MEMBER, ECOLOGY BLOCKS.
7. SLOPE SHOULD BE 1H:1V OR FLATTER WHERE CONFINED AND 1.5H:1V OR FLATTER OTHERWISE.

Revisions			
No.	Date	Description	By

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY STATE OF ALASKA

VALLENAR BAY ROAD
CIVIL CONSTRUCTION PLAN

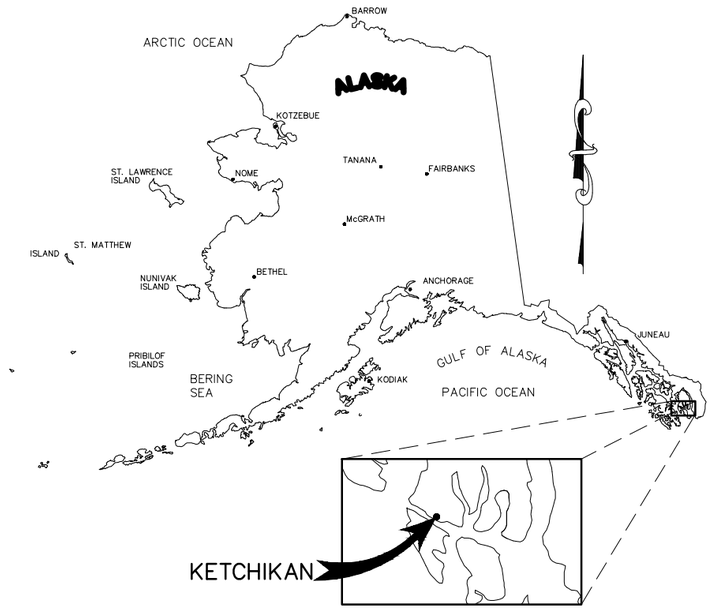
STATE OF ALASKA
DOUGLAS P. SIMON
No. CE-13943
REGISTERED PROFESSIONAL ENGINEER

BRIDGE
FOUNDATION DETAILS

PREPARED: CWW
DRAWN: JAM
REVIEWED: DRL
DATE: 6/5/2015

SHEET
ST2

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
VALLENAR BAY ROAD SURVEY SUPPORT PROJECT



PROJECT LOCATION MAP

INDEX OF SHEETS		
SV1	TITLE SHEET	
SV2	V65 STREAM CROSSING	PLAN AND PROFILE
SV3	V75 STREAM CROSSING	PLAN AND PROFILE
SV4	V104 STREAM CROSSING	PLAN AND PROFILE
SV5	V158 – V166	PLAN AND PROFILE
SV6	V167 – V172	PLAN AND PROFILE
SV7	V173 – V178	PLAN AND PROFILE
SV8	V249 STREAM CROSSING	PLAN AND PROFILE
SV9	V252 STREAM CROSSING	PLAN AND PROFILE
SV10	V268 STREAM CROSSING	PLAN AND PROFILE
SV11	V00–V12 UTILITY SURVEY	PLAN
SV12	V00–V12 UTILITY SURVEY	PLAN

LEGEND

- *CONTOUR MINOR*
- *CONTOUR MAJOR*
- *TOP OF BANK*
- *EDGE OF WATER*
- *THALWEG*
- *ORDINARY HIGH WATER MARK*
- *TRIBUTARY STREAM*
- *EDGE OF GRAVEL ROAD*
- *OVER HEAD UTILITY LINE*
- *GUY POLE*
- *UTILITY POLE*
- *CONTROL POINT*
- *REFERENCE POINT (NAIL W/ PLASTIC TAG IN TREE)*
- *LiDAR TOPO POINT*
- *DNR STAKED ROAD ALIGNMENT POINT*
- *CONVENTIONAL TOPOGRAPHIC SURVEY POINT*

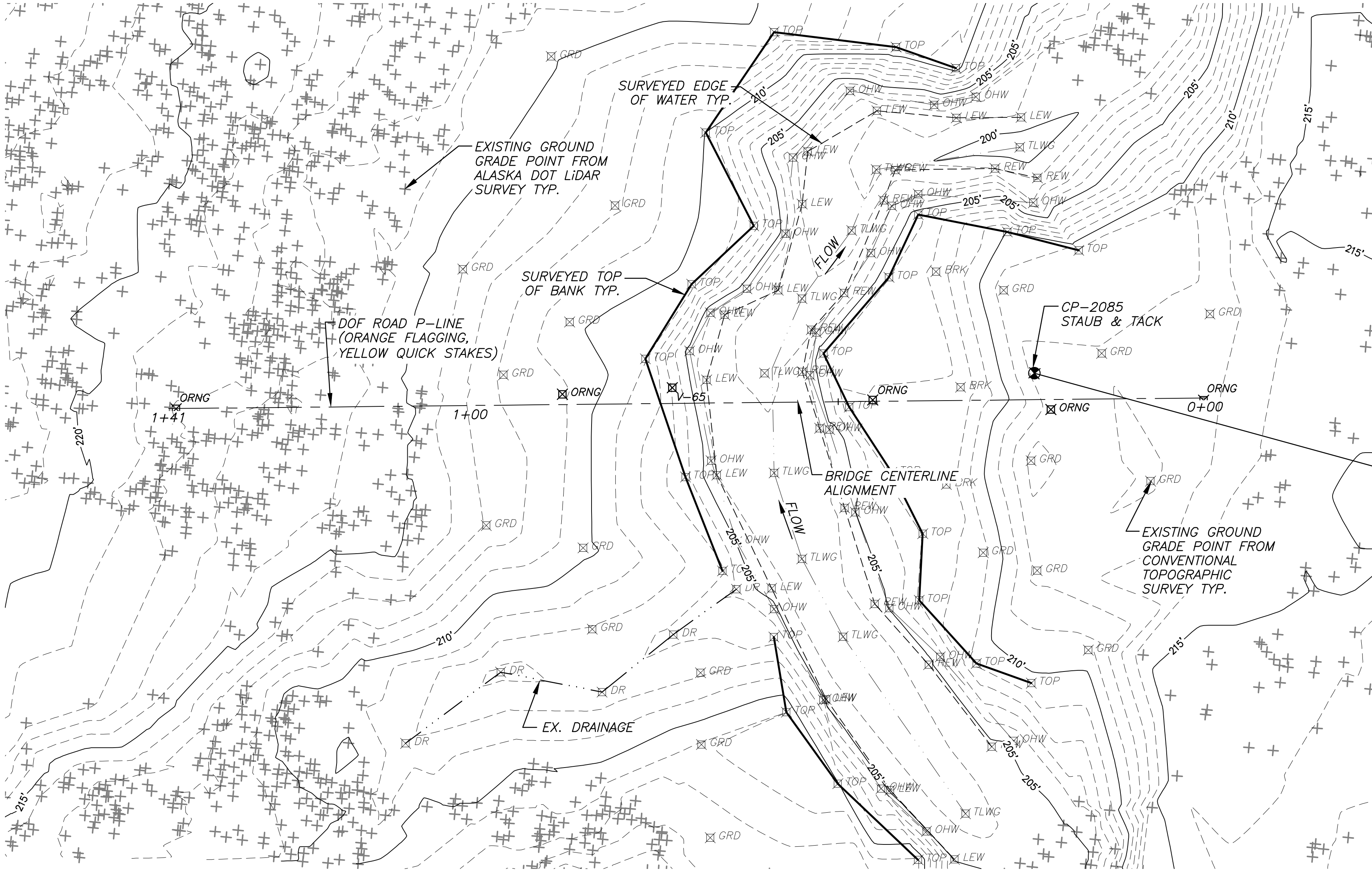
ABBREVIATIONS

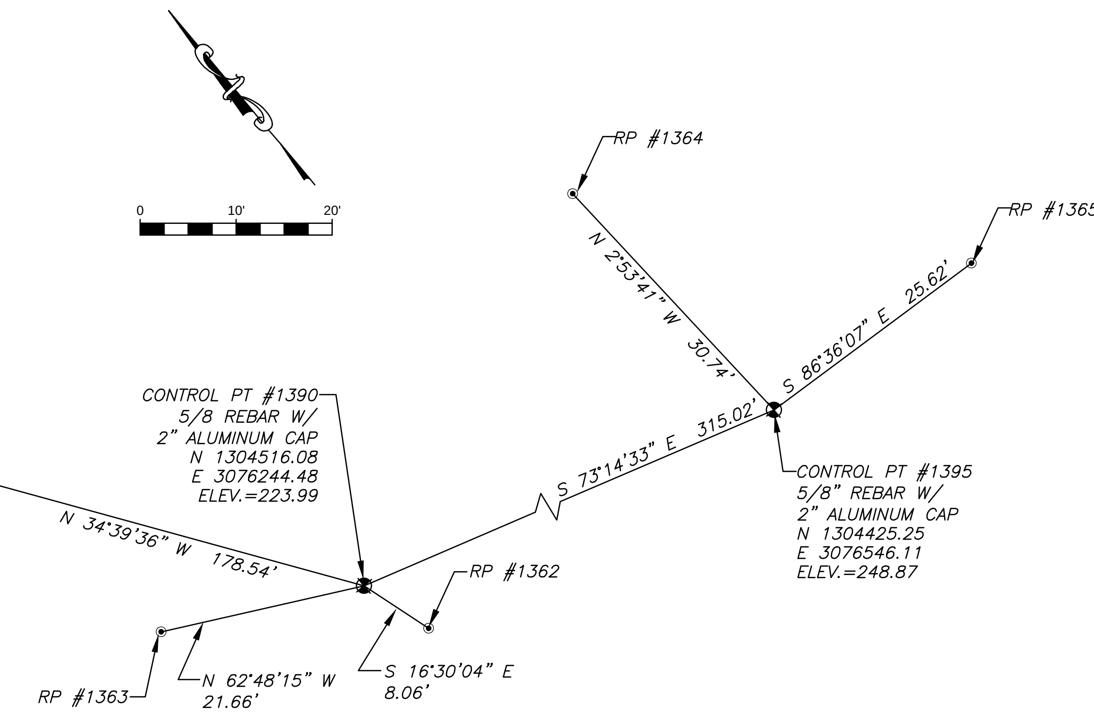
TOP = TOP EDGE OF BANK
LEW = LEFT EDGE OF WATER
REW = RIGHT EDGE OF WATER
DR = DRAINAGE
RP = REFERENCE POINT
OHW = ORDINARY HIGH WATER
TLWG = THALWEG
GRD = EXISTING GROUND
ORNG= DNR ROAD CENTER LINE AT STREAM CROSSING
RD_SHD= EDGE OF ROAD
V–# = DNR STAKED ROAD ALIGNMENT STAKE
V–#–O = DNR ROAD ALIGNMENT OFFSET STAKE

STATE OF ALASKA 49TH
Gregory G. Schultz
1/23/15
#LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

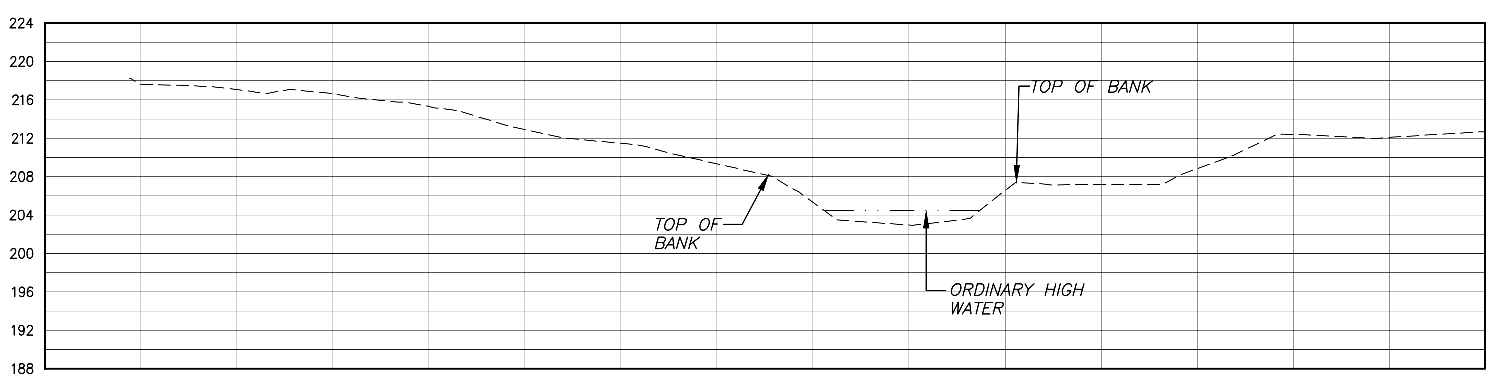
PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		TITLE / SHEET INDEX	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 3/6/15	SHEET SV1





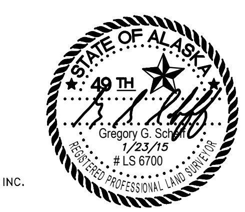
NOTE: THE EXISTING TOPOGRAPHY DEPICTED WAS GENERATED BY USING A COMBINATION OF CONVENTIONAL SURVEY DATA AND SPRING 2013 LiDAR POINT DATA SUPPLIED BY THE ALASKA DOT & PF.



THIS PROJECT USES THE ALASKA STATE PLANE COORDINATE SYSTEM, ZONE 1, NORTH AMERICAN DATUM OF 1983. LINEAR UNITS ARE U.S. SURVEY FEET.

VERTICAL POSITIONS ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, DETERMINED BY DIFFERENTIALLY CORRECTED, DUAL FREQUENCY GPS OBSERVATIONS WITH GEOID 12A (ALASKA) APPLIED. MEASUREMENTS MADE ON THIS PROJECT INDICATE THAT A + 3.27 FEET SHIFT SHOULD BE ADDED TO ELEVATIONS ON THIS PROJECT TO OBTAIN ELEVATIONS RELATIVE TO MEAN LOWER LOW WATER AT VALLENAR POINT, ALASKA.

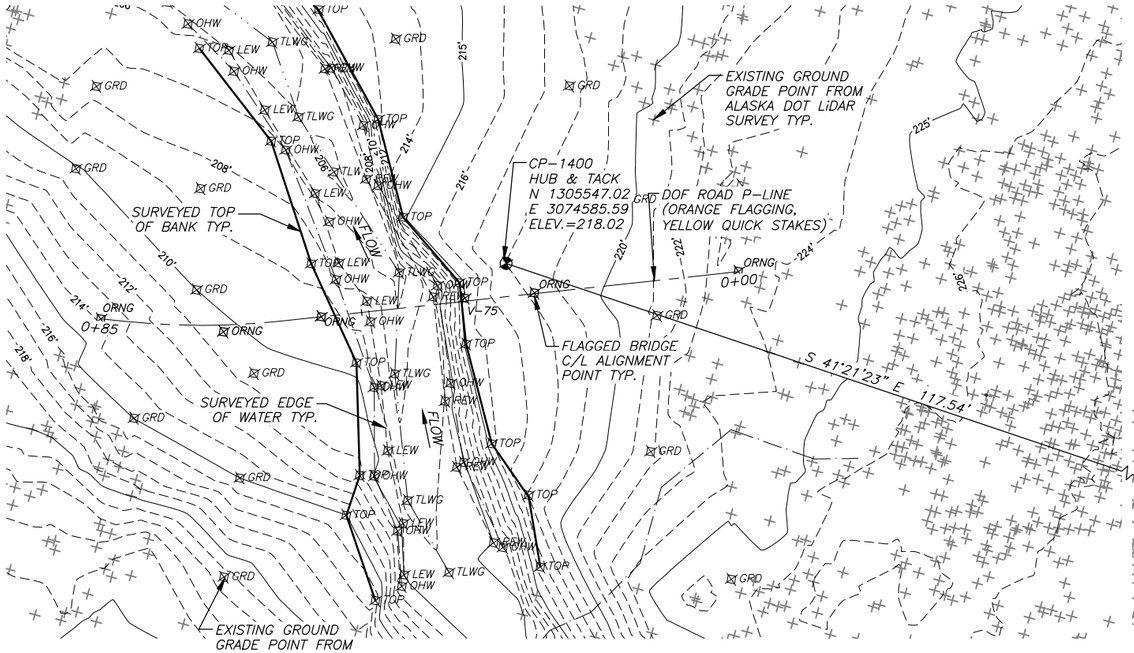
HORIZONTAL AND VERTICAL COORDINATES ORIGINATE FROM POSITIONS DETERMINED AND PROVIDED BY THE ALASKA DEPT. OF TRANSPORTATION & PUBLIC FACILITIES FOR THEIR STATION VBAK01, AN ALUMINUM CAP, 2 INCHES DIAMETER, ON A REBAR, SET FLUSH WITH THE GROUND IN A MUSKEG OFF THE WEST SIDE OF THE BOSTWICK ROAD ON GRAVINA ISLAND. THIS STATION BEARS 175° MAGNETIC, ABOUT 150 FEET FROM THE CENTER OF THE GRAVINA ISLAND ROAD – BOSTWICK ROAD INTERSECTION.



PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY — STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT	STREAM CROSSING V65 PLAN AND PROFILE	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 1/23/15

SHEET SV2



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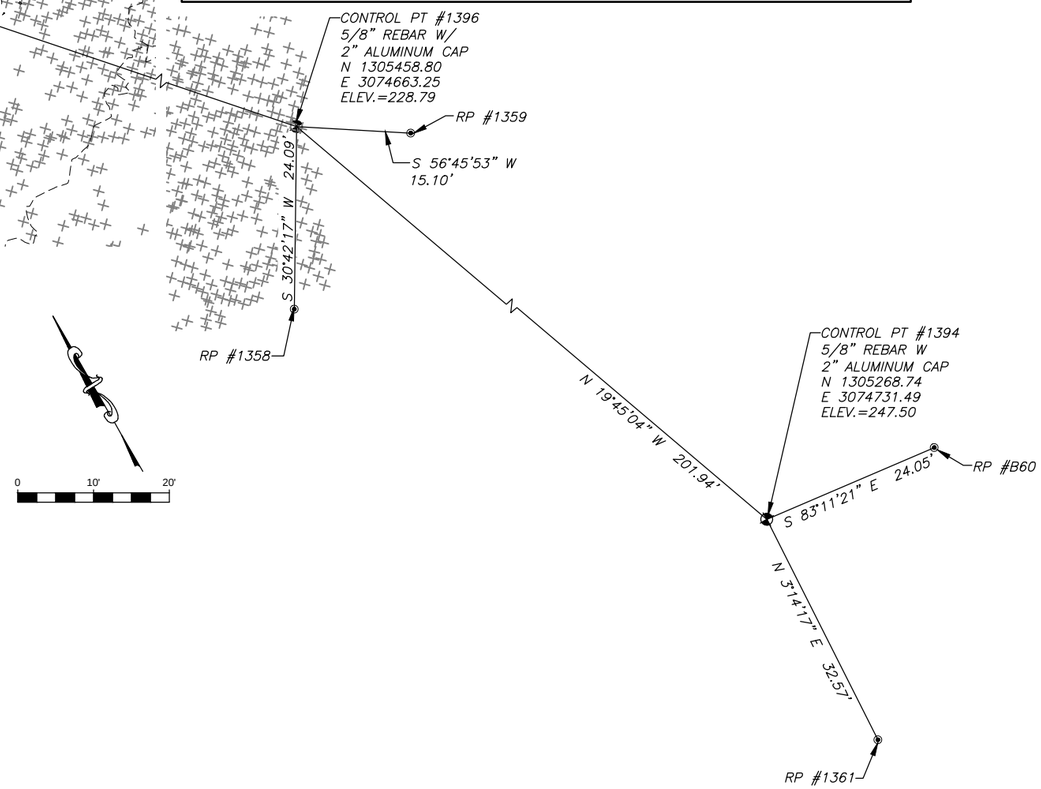
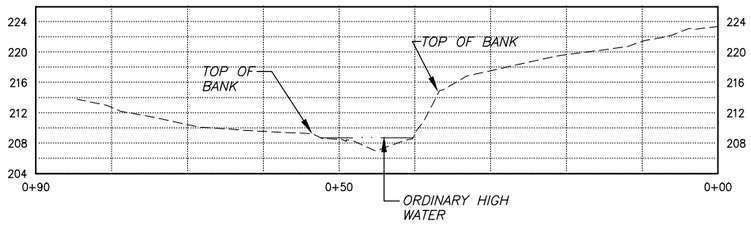




PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

STATE OF ALASKA 49TH
Gregory G. Sengel
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		STREAM CROSSING V75 PLAN AND PROFILE	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 1/23/15	SHEET SV3

CONTROL PT #1388
5/8" REBAR W/
2" ALUMINUM CAP
N 1309013.61
E 3071629.95
ELEV=117.58

S 20°33'28" W 13.94'

RP #1369

EXISTING GROUND GRADE POINT FROM ALASKA DOT LiDAR SURVEY TYP.

EXISTING GROUND GRADE POINT FROM CONVENTIONAL TOPOGRAPHIC SURVEY TYP.

SURVEYED TOP OF BANK TYP.

SURVEYED EDGE OF WATER TYP.

FLOW

N 58°02'23" E 65.86'

DOF ROAD P-LINE (ORANGE FLAGGING, YELLOW QUICK STAKES)

V-104

V-103

1+31

1+00

0+00

S 33°13'17" E, 95.12'

S 36°57'21" E, 124.15'

N 54°20'59" W 101.90'

N 33°29'44" W, 89.38'

CP#1208
STAUB AND TACK
N 1309157.53
E 3071447.32
ELEV.=143.57

CP#2355
STAUB AND TACK
N 1309077.96
E 3071499.43
ELEV.=140.76

CP#2205
STAUB AND TACK
N 1308978.75
E 3071574.07
ELEV.=122.10

CP#1209
STAUB AND TACK
N 1308919.36
E 3071656.88
ELEV.=133.23

CP#1210
STAUB AND TACK
N 1308844.83
E 3071706.20
ELEV.=140.46

EX. DRAINAGE

EX. DRAINAGE

S 56°23'33" W 58.65'

N 59°08'47" W 8.56'

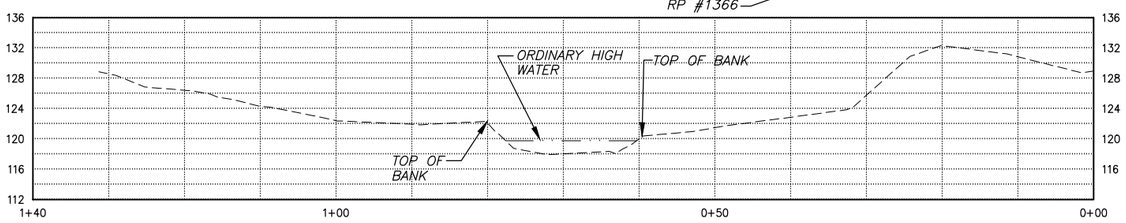
RP #1367

S 8°28'25" W 13.86'

RP #1366

CONTROL PT #1389
5/8" REBAR W/
2" ALUMINUM CAP
N 1308946.29
E 3071525.22
ELEV=125.40

0 10' 20'



NOTE: THE EXISTING TOPOGRAPHY DEPICTED WAS GENERATED BY USING A COMBINATION OF CONVENTIONAL SURVEY DATA AND LiDAR POINT DATA FROM THE SPRING OF 2013 SUPPLIED BY THE ALASKA DOT & PF.

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STATE OF ALASKA
49 TH
Gregory G. Schultz
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES

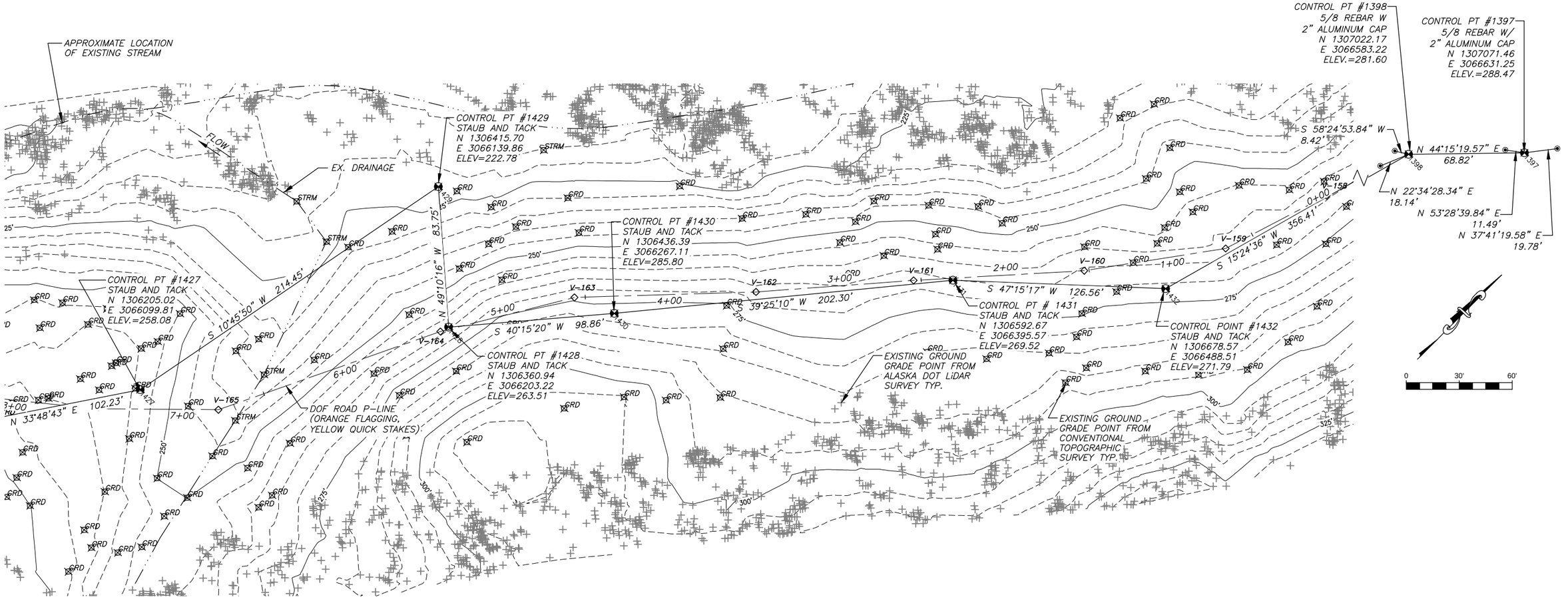
DIVISION OF FORESTRY **STATE OF ALASKA**

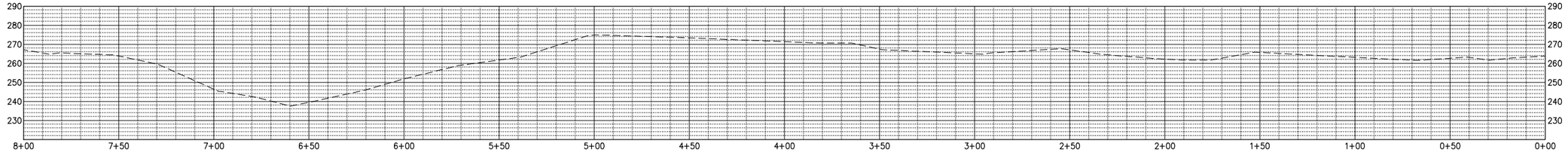
ALASKA DNR
VALLENAR BAY ROAD
SURVEY SUPPORT

STREAM CROSSING V104
PLAN AND PROFILE

PREPARED: RKB
DRAWN: RKB
REVIEWED:
DATE: 1/23/15

SHEET
SV4





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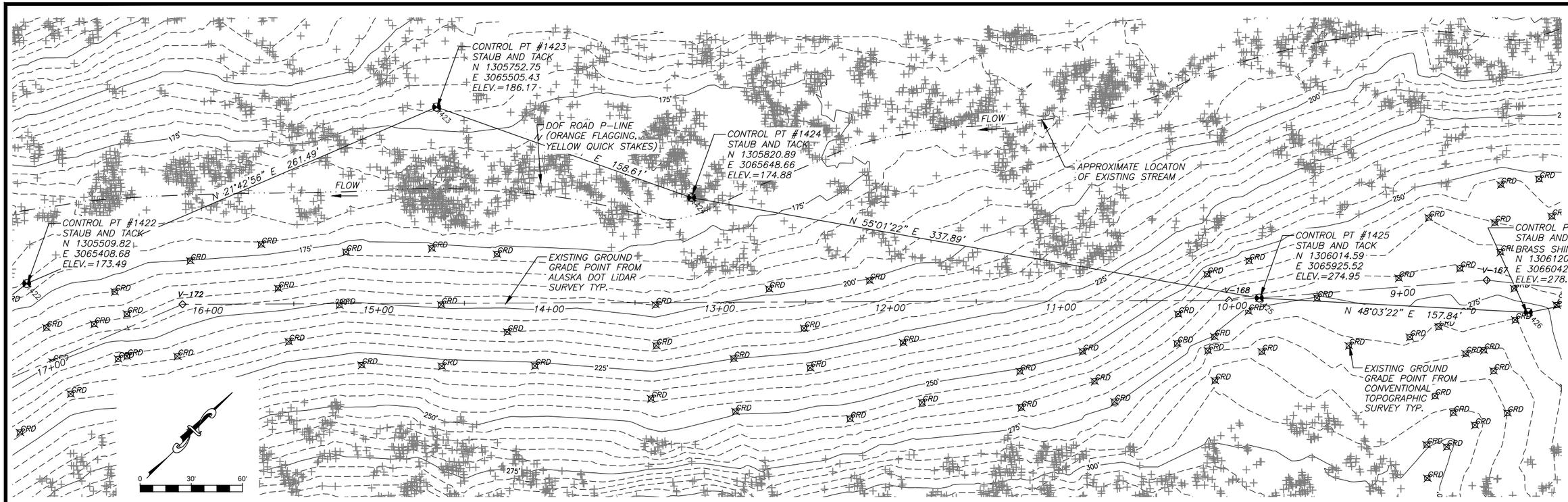
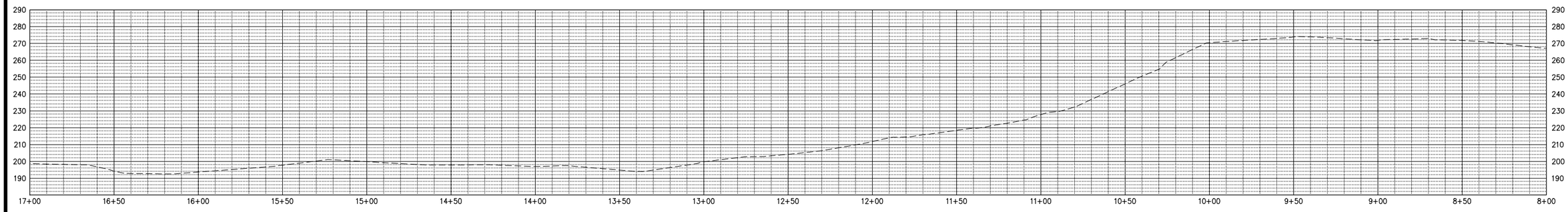
HORIZONTAL AND VERTICAL COORDINATES ORIGINATE FROM POSITIONS DETERMINED AND PROVIDED BY THE ALASKA DEPT. OF TRANSPORTATION & PUBLIC FACILITIES FOR THEIR STATION VBAK01, AN ALUMINUM CAP, 2 INCHES DIAMETER, ON A REBAR, SET FLUSH WITH THE GROUND IN A MUSKEG OFF THE WEST SIDE OF THE BOSTWICK ROAD ON GRAVINA ISLAND. THIS STATION BEARS 175° MAGNETIC, ABOUT 150 FEET FROM THE CENTER OF THE GRAVINA ISLAND ROAD – BOSTWICK ROAD INTERSECTION.

STATE OF ALASKA 49TH
Gregory G. Sayles
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

PREPARED BY:
R&M ENGINEERING-KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		V158 – V166 PLAN AND PROFILE	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 1/23/15	SHEET SV5





NOTE: THE EXISTING TOPOGRAPHY DEPICTED WAS GENERATED BY USING A COMBINATION OF CONVENTIONAL SURVEY DATA AND LiDAR POINT DATA FROM THE SPRING OF 2013 SUPPLIED BY THE ALASKA DOT & PF.

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STATE OF ALASKA
49 TH
Gregory G. Scott
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

PREPARED BY:
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KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES

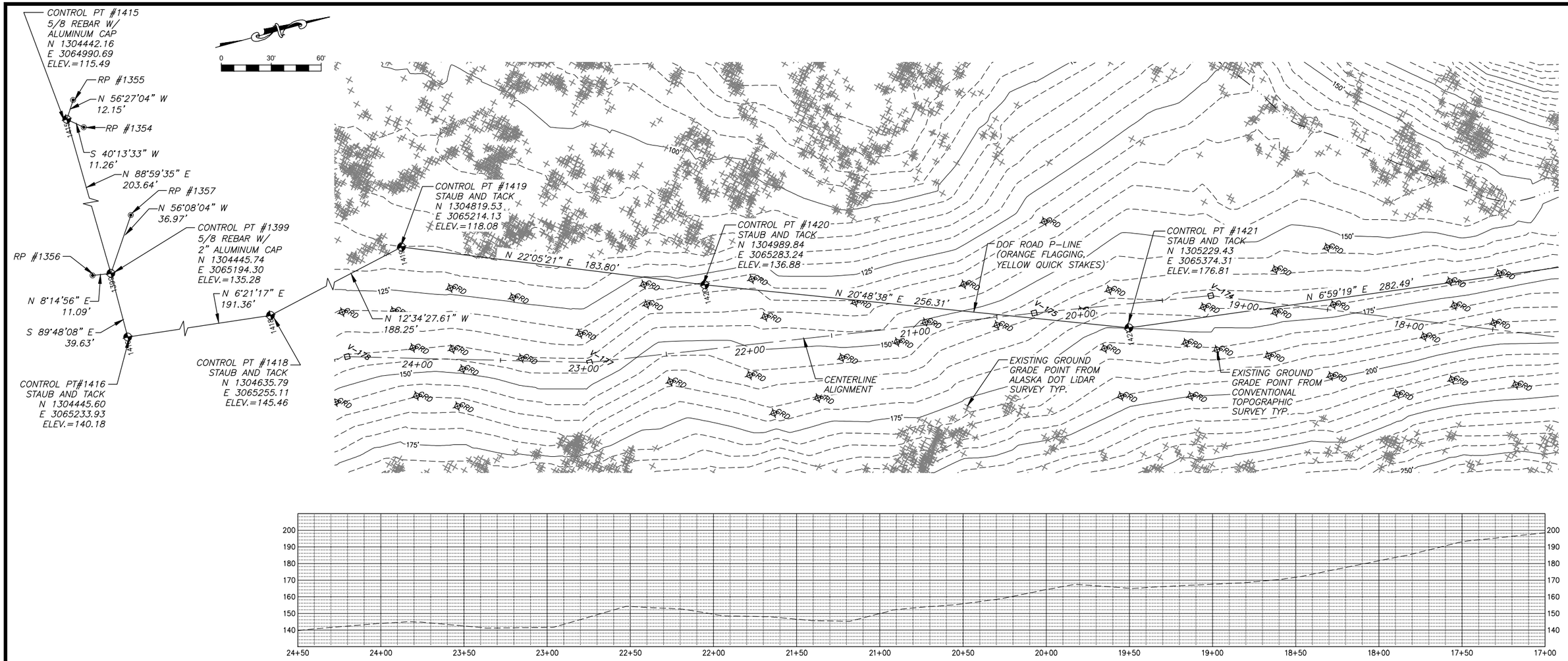
DIVISION OF FORESTRY **STATE OF ALASKA**

ALASKA DNR
VALLENAR BAY ROAD
SURVEY SUPPORT

V167 – V172
PLAN AND PROFILE

PREPARED: RKB
DRAWN: RKB
REVIEWED:
DATE: 1/23/15

SHEET
SV6



NOTE: THE EXISTING TOPOGRAPHY DEPICTED WAS GENERATED BY USING A COMBINATION OF CONVENTIONAL SURVEY DATA AND LiDAR POINT DATA FROM THE SPRING OF 2013 SUPPLIED BY THE ALASKA DOT.

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STATE OF ALASKA
49TH
Gregory G. Schau
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

PREPARED BY:
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355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		V173 – V178 PLAN AND PROFILE	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 1/23/15	SHEET SV7

NOTE: THE EXISTING TOPOGRAPHY DEPICTED WAS GENERATED BY USING A COMBINATION OF CONVENTIONAL SURVEY DATA AND LiDAR POINT DATA FROM THE SPRING OF 2013 SUPPLIED BY THE ALASKA DOT & PF.

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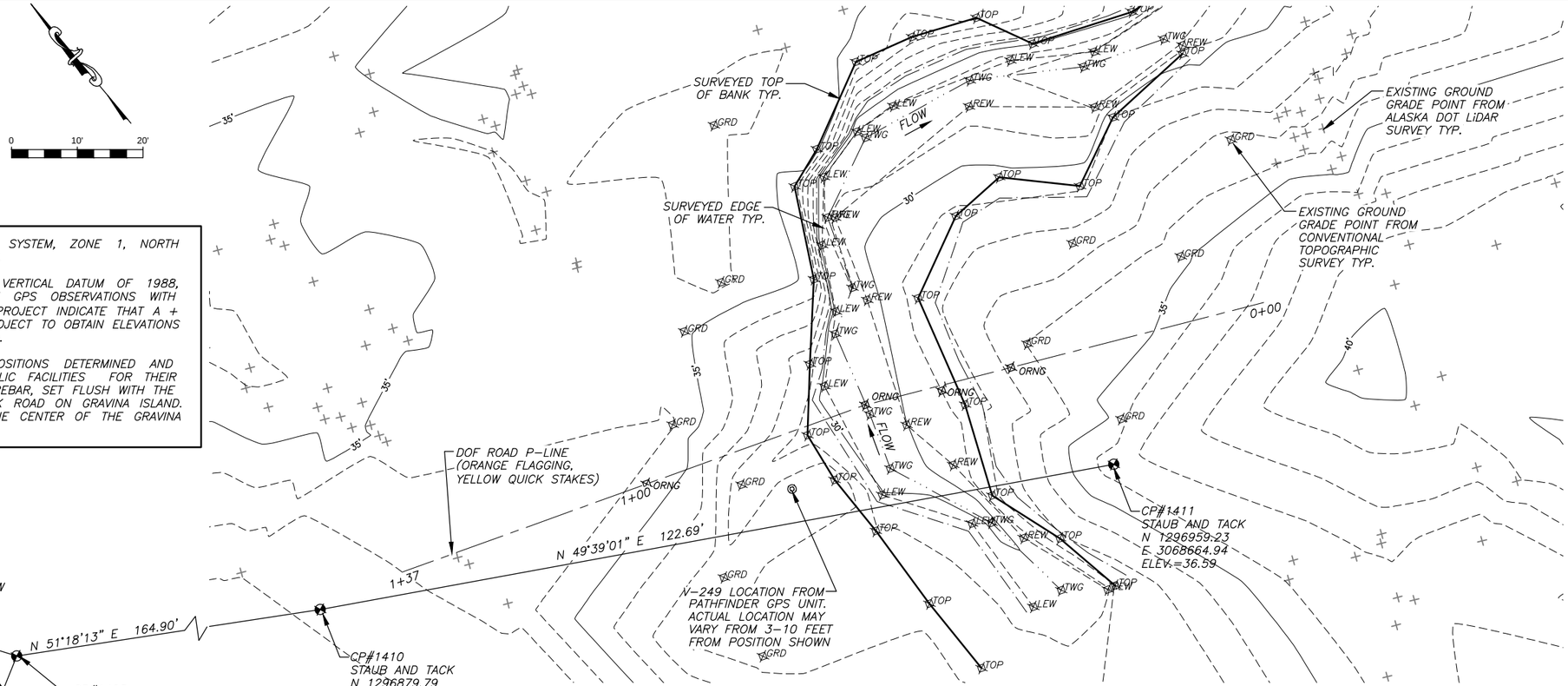

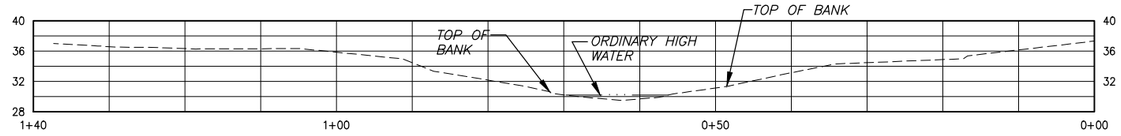

PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
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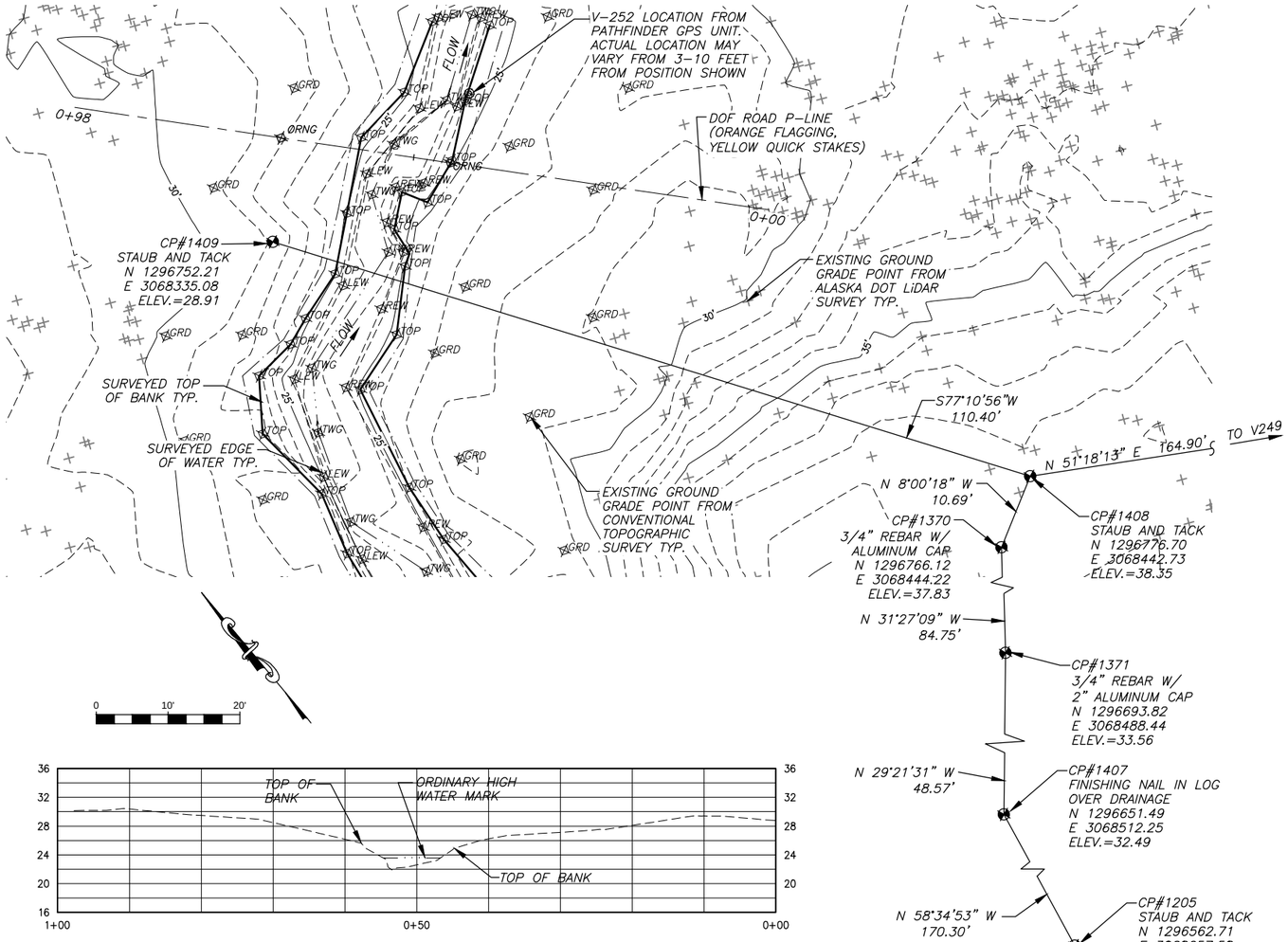
KETCHIKAN, ALASKA 99901

STATE OF ALASKA 49TH
Gregory G. Seitz
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		STREAM CROSSING V249 PLAN AND PROFILE	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 12/18/15	SHEET SV8



NOTE: THE EXISTING TOPOGRAPHY DEPICTED WAS GENERATED BY USING A COMBINATION OF CONVENTIONAL SURVEY DATA AND LiDAR POINT DATA FROM THE SPRING OF 2013 SUPPLIED BY THE ALASKA DOT & PF.

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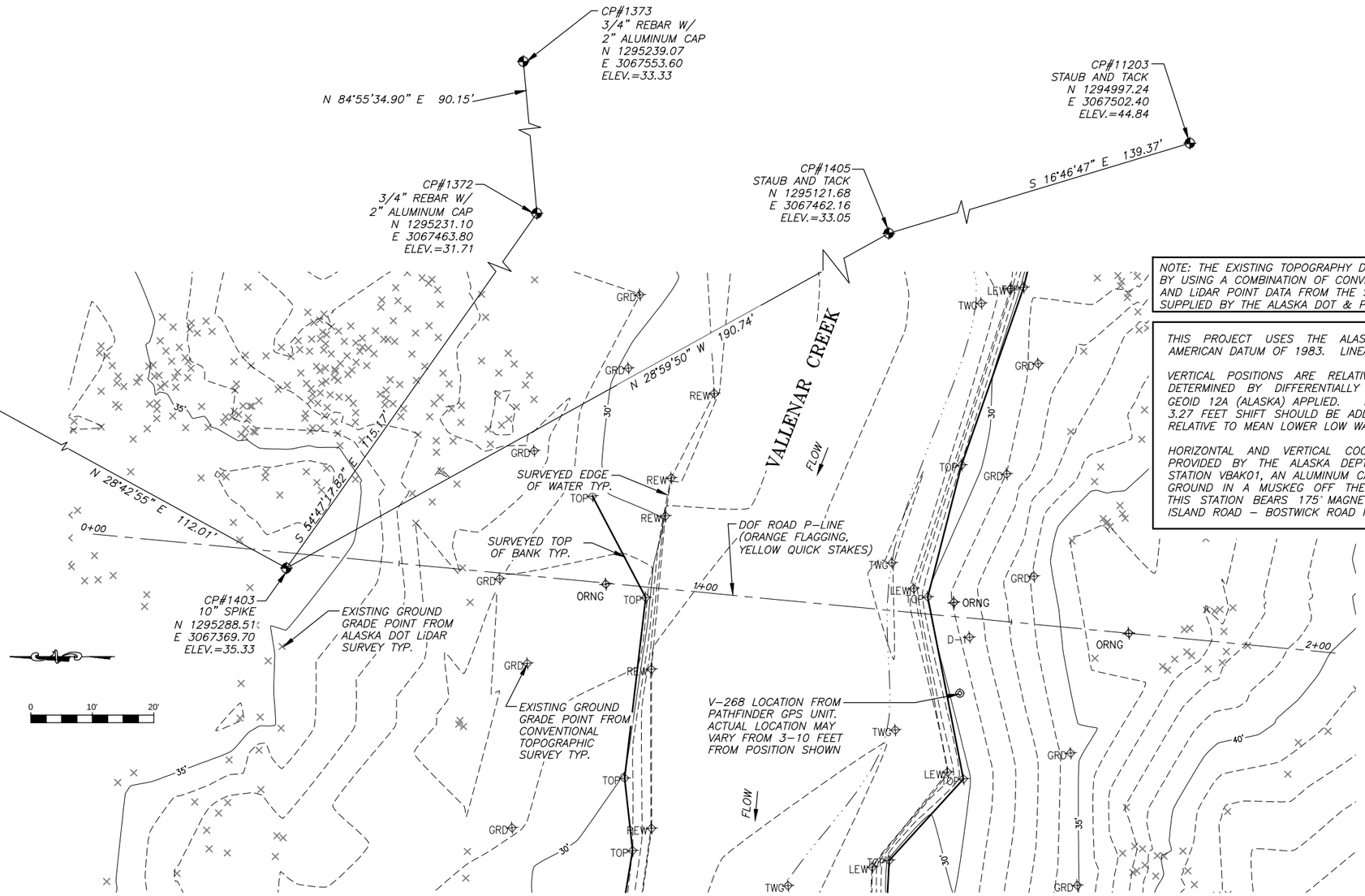
PREPARED BY:
R&M ENGINEERING-KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

STATE OF ALASKA 49TH
Gregory G. Staub
1/23/15
#LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		STREAM CROSSING V252 PLAN AND PROFILE	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 12/18/15	SHEET SV9



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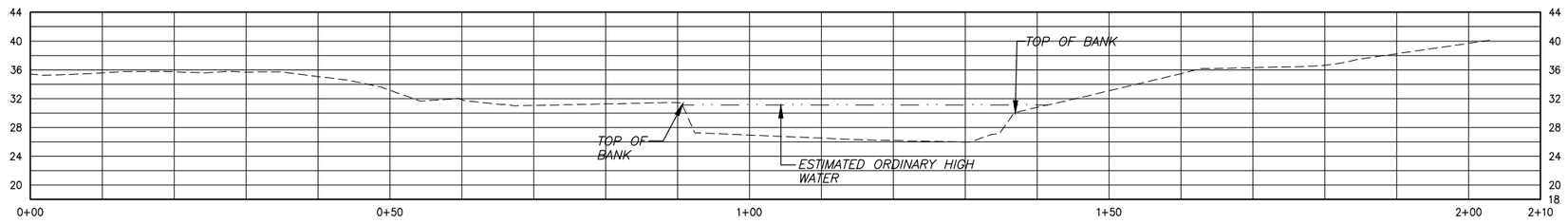

PREPARED BY:
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355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

STATE OF ALASKA 49TH
Gregory G. Schmidt
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

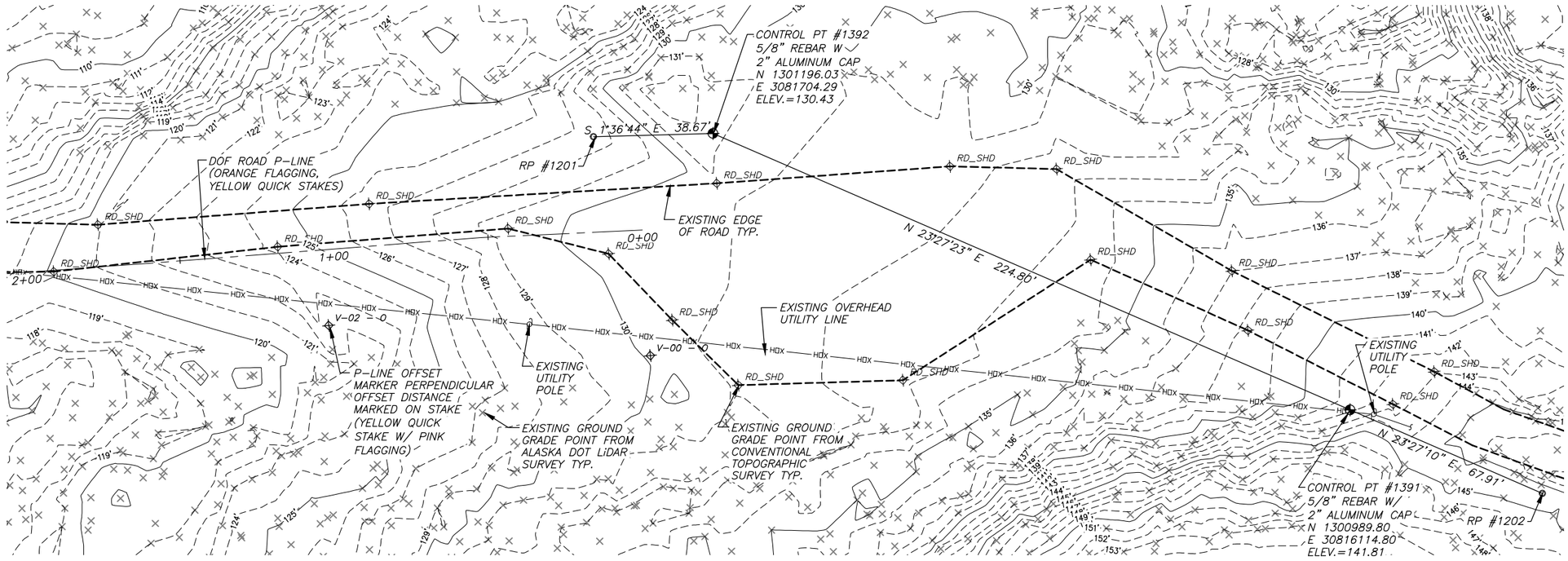
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY — STATE OF ALASKA

ALASKA DNR
VALLENAR BAY ROAD
SURVEY SUPPORT

STREAM CROSSING V268
PLAN AND PROFILE

PREPARED: RKB
DRAWN: RKB
REVIEWED:
DATE: 12/18/15

SHEET
SV10



0 20' 40'

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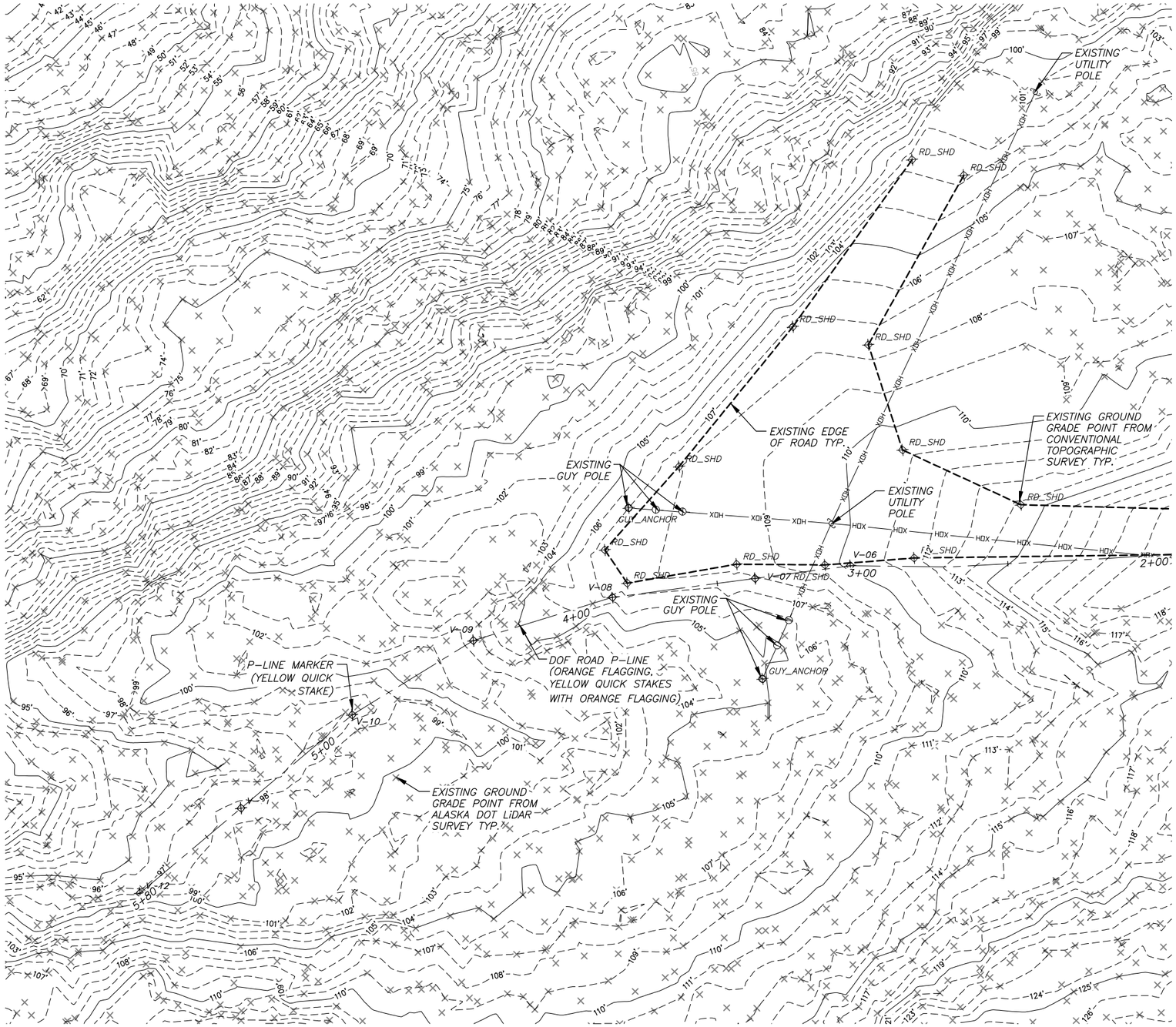
PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

DEPARTMENT OF NATURAL RESOURCES DIVISION OF FORESTRY STATE OF ALASKA	ALASKA DNR VALLENAR BAY ROAD SURVEY SUPPORT		V00 – V12 EXISTING UTILITY TOPOGRAPHIC SURVEY BOP – STA 2+00	PREPARED: RKB DRAWN: RKB REVIEWED: DATE: 3/3/15	SHEET SV11



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0 20' 40'

PREPARED BY:
R&M ENGINEERING–KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

STATE OF ALASKA 49TH
Gregory G. Schaff
1/23/15
LS 6700
REGISTERED PROFESSIONAL LAND SURVEYOR

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY STATE OF ALASKA

ALASKA DNR
VALLENAR BAY ROAD
SURVEY SUPPORT

V00 – V12 EXISTING UTILITY
TOPOGRAPHIC SURVEY
STA 2+00 – STA 5+83

PREPARED: RKB
DRAWN: RKB
REVIEWED:
DATE: 3/3/15

SHEET
SV12