

INVITATION TO BID 20-088B

MATANUSKA-SUSITNA BOROUGH
PURCHASING DIVISION
PALMER, ALASKA



BID AND CONTRACT DOCUMENTS FOR

CARILLON DRIVE IMPROVEMENTS

OPENING DATE & TIME:

Thursday, February 13, 2020 @ 2:00 PM

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BID #20-088B

SECTION I

ADVERTISEMENT

MATANUSKA-SUSITNA BOROUGH
350 East Dahlia
Palmer, Alaska 99645

ADVERTISEMENT

VENDOR		ACCOUNT #	DATE FOR ADVERTISEMENT
Anchorage Daily News		MATA 0070	1/22/2020
TYPE OF AD:	<input type="checkbox"/> Display	<input checked="" type="checkbox"/> Classified	<input type="checkbox"/> Public Information

The material herein must be printed in its entirety on the dates shown above. Affidavit of publication is required prior to payment.

MATANUSKA-SUSITNA BOROUGH
BID #20-088B
CARILLON DRIVE IMPROVEMENTS

The Matanuska-Susitna Borough is soliciting bids from qualified contractors to improve the road and drainage along 2,545 linear feet of Carillon Drive. This project will involve, but is not limited to, clearing, excavation, import and placement of borrow material, import and placement of aggregate surface course, installation of guardrail, installing drainage culverts and placing topsoil and seed.

Bid documents are available to download for free beginning **Tuesday, January 21, 2020** from the MSB Purchasing Division's website, at <https://www.matsugov.us/contractopportunities>. For more information call (907) 861-8601, Fax (907) 861-8617, or e-mail purchasing@matsugov.us.

Deadline for Questions: **Thursday, February 6, 2020 at 5:00 PM**

Bids open: **Thursday, February 13, 2020 at 2:00 PM in the Purchasing Division**

Bids must be received in the Purchasing Division prior to the time fixed for opening of the bids to be considered. Time of receipt will be determined by the time stamp in the Purchasing Division.

Persons needing accommodation in order to participate should contact the borough ADA coordinator at (907) 861-8404.

The Matanuska-Susitna Borough reserves the right to accept or reject any or all bids, waive any and all technicalities or informalities it deems appropriate. Award of this project is subject to the availability of funding.

Page 1 of 1	Approved by: Signature on File
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DEPARTMENT ACCOUNT NO.: **265.000.000 422.000**

BID #20-088B

SECTION II

INSTRUCTIONS TO BIDDERS

BID #20-088B

CARILLON DRIVE IMPROVEMENTS

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - DEFINITIONS

1.1 Bidding Documents include the Advertisement or Invitation to Bid, Instructions to Bidders, bid form, other sample bidding and contract forms, proposed Contract Documents, including any Addenda issued prior to receipt of bids and bond forms. Contract Documents proposed for the work consist of the Borough-Contractor Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, and all Addenda issued prior to and all Modifications issued after execution of the Contract.

1.2 All definitions set forth in the General Conditions of the Construction Agreement or in other Contract Documents are applicable to the Bidding Documents.

1.3 Addenda are written or graphic instruments issued by the Borough prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.

1.4 A Bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein, submitted in accordance with the Bidding Documents.

1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the work described in the Bidding Documents as the base, to which work may be added, or from which work may be deleted for sums stated in Alternate Bids.

1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid, if the corresponding change in the work, as described in the Bidding Documents, is accepted.

1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials or services, as described in the Bidding Documents or in the proposed Contract Documents.

1.8 A Bidder is a person or entity who submits a Bid.

1.9 A Sub-bidder is a person or entity who submits a Bid to a Bidder for materials or labor for a portion of the work.

1.10 Any interested party submitting a bid on Matanuska-Susitna Borough (MSB) projects should first review the MSB Debarment/Suspension List. This listing is available on the MSB web page under Economy and Bids. Any submission of a bid, with participation or involvement of an individual, company, firm or corporation on this list will render the bid as non-responsible.

ARTICLE 2 - BIDDER'S REPRESENTATIONS

2.1 Each Bidder by making a Bid represents that:

2.1.1 The Bidder has read and understands the Bidding Documents and the Bidder's Bid is made in accordance therewith.

2.1.2 The bidder has visited the site and has taken other steps as may be necessary to ascertain the nature and local conditions of the work, the general and local conditions which could affect the work or costs thereof. Failure to do so will not relieve Bidders of responsibility for estimating properly or the difficulty or cost of successfully performing the work. The submission of a Bid shall be an admission that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements and accuracy of the Bidding Documents.

2.1.3 The Borough assumes no responsibility for any understanding or representations concerning conditions made by any of its officers, agents, or employees prior to the execution of this Contract, unless such understanding or representations are expressly stated in the Bidding Documents or Addenda.

2.1.4 The Bidder shall include in their Bid sums sufficient to cover all items required by the Contract and the conditions of the site(s), and shall rely entirely upon their own examination in making their Bid. The submission of a Bid shall be taken as a prima facie evidence of compliance with this paragraph.

2.1.5 The Bidder's Bid is based upon the materials, systems, and equipment required by the Bidding Documents without exception.

ARTICLE 3 - BIDDING DOCUMENTS

3.1 Copies

3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office's webpage as designated in the Advertisement or Invitation to Bid.

3.1.2 Bidders shall use complete sets of Bidding Documents in preparing Bids; the Borough does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents. If material required for bidding purposes by these documents is absent, the Bidder is required to notify the Purchasing Officer.

3.1.3 The Borough in making electronic copies of the Bidding Documents available on the above terms does so only for the purpose of obtaining Bids on the work, and does not confer a license of grant for any other use.

3.2 Interpretation or Correction of Bidding Documents

3.2.1 Bidders and Sub-bidders shall promptly notify the Purchasing Officer by fax at 861-8617, or by e-mail at purchasing@matsugov.us of any ambiguity, inconsistency, or error which they may discover upon examination of the Bidding Documents or of the site and local conditions.

3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Purchasing Officer at least five work days prior to the date for receipt of Bids. Questions or requests for clarifications shall be directed to the borough's Purchasing Officer at purchasing@matsugov.us. Questions or requests for clarification directed to any other member of the borough staff, or consultant may be grounds for rejection of bid as being irregular

3.2.3 Any interpretation, correction, or change of the Bidding Documents will be made by Addendum. Interpretations, corrections, or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections, and changes.

3.3 Addenda

3.3.1 Addenda will be posted on the Borough's Purchasing webpage, notice will be emailed to all known by the Purchasing Division to have requested to be added to a plan holders list for the solicitation.

3.3.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

3.3.3 No Addenda will be issued later than four work days prior to the date for receipt of Bids, except an Addendum withdrawing the request for Bids, or one which includes postponement of the date for receipt of Bids.

3.3.4 Each Bidder shall be responsible for ascertaining prior to submitting their Bid that they have received all Addenda issued, and they shall acknowledge their receipt in their Bid.

ARTICLE 4 - BIDDING PROCEDURE

4.1 Form and Style of Bids

4.1.1 A Bid shall constitute an irrevocable offer to enter into a contract with the Borough on the terms of the Bid and the Bidding Documents. Bids shall be submitted on forms provided in the Bidding Documents.

4.1.2 All blanks on the Bid form shall be filled in, typed or written legibly in ink (preferably in **blue** ink).

4.1.3 Where required on the Bid, Bidders must quote on all items and they are warned that failure to do so may disqualify the Bid. When quotations on all items are not required, Bidders should insert the words "no bid" in the space provided for any item where no quotation is made.

4.1.4 Bids shall specify a unit or lump sum price, typed or written legibly in ink for each Bid item called for. In case of error in the extension of prices, the unit price will govern. Bids may be rejected if they show any omissions, alteration of the forms, additions not called for, conditional or alternate Bids not called for, qualified bids, or irregularities of any kind.

4.1.5 Any interlineation, alteration or erasure must be initialed by the signer of the Bid.

4.1.6 All requested Alternates shall be Bid. If no change in the Base Bid is required, enter "No Change."

4.1.7 Where two or more Bids for designated portions of the work have been requested, the Bidder may, without forfeiture of their Bid Guarantee, state their refusal to accept award of less than the combination of Bids they so stipulate. The Bidder shall make no additional stipulations on the Bid form nor qualify their Bid in any other manner.

4.1.8 Each copy of the Bid shall include the legal name of the Bidder and a statement that the Bidder is a sole proprietor, a partnership, a corporation, or some other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid submitted by an agent shall have a current power of attorney attached, certifying the agent's authority to bind the Bidder. The full name, address, and corporate or partnership title, including status of each person signing shall be typed or printed below the signature.

4.2 Bid Guarantee

4.2.1 Any bid exceeding \$50,000 for total of all base items and alternates shall be accompanied by a certified check, money order, cashier's check, or Bid Bond in the amount of at least 5% of the total Base Bid amount, made payable to the Matanuska-Susitna Borough, Palmer, Alaska, with good and sufficient surety or sureties acceptable to the Borough. Bid Guarantees will be held until the Agreement is executed or for 60 days whichever is less. Power-of-Attorney for the person signing the Bid Bond for the Surety must be submitted with the Bid Bond.

4.2.2 If a surety bond is submitted, it shall be written on the form included in the Bidding Documents and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of their power of attorney.

4.3 Submission of Bids

4.3.1 All copies of the Bid, the Bid Guarantee, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed envelope. The envelope shall be addressed to: Matanuska-Susitna Borough, Purchasing Division, 350 East Dahlia Avenue, Lower Level, Palmer, Alaska, 99645, and shall be identified with the Project name, Bid Number, and Bidder's name and address. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

4.3.2 Bids shall be deposited at the designated location **prior** to the time and date for opening of Bids indicated in the Advertisement or Invitation to Bid, or any extension thereof made by Addendum. Bids received after the time and date for receipt of Bids are late Bids, will not be considered, and will be returned unopened.

4.3.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

4.3.4 Oral, telephonic, email or faxed Bids are invalid and will not receive consideration.

4.3.5 Bids will not be considered if the following documents are not completely filled out and submitted with the bid: See documents listing on "Bid Form".

4.3.6 A checklist is provided on the Submittal Page as a courtesy to prospective bidders. The checklist may not be all inclusive; it is the Bidder's responsibility to make sure they comply with all requirements within the solicitation documents.

4.3.7 If more than one Bid is offered by any one party, by or in the name of their clerk. Partner, or other person, all such Bids will be rejected. A party who has quoted prices to a Bidder is not thereby disqualified from quoting prices to other Bidders, or from submitting a Bid directly for the work.

4.4 Modification or Withdrawal of Bid

4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the opening of Bids, and each Bidder so agrees in submitting their Bid.

4.4.2 Prior to the time and date designated for opening of Bids, any Bid submitted may be modified or withdrawn by notice to the Borough at the place designated for receipt of Bids. Such notice shall be in writing with the signature of the Bidder, so worded as not to reveal the amount of the original Bid, and delivered in person, by email or by fax. If by fax or email, the properly notarized notice shall be received before the time and date set for opening of Bids. Notices may be sent by fax to 907-861-8617 or email to purchasing@matsugov.us. The Borough shall not be responsible for the opening or security of modifications or withdraws submitted by fax or email. Contractors are advised to call the Purchasing Division at 907-861-8601 to verify receipt of faxed or emailed notices.

4.4.3 Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids, provided that they are then fully in conformance with these Instructions to Bidders.

4.4.4 Bid Guarantee, if any is required, shall be in an amount sufficient for the Bid as modified or resubmitted.

ARTICLE 5 - CONSIDERATION OF BIDS

5.1 Opening of Bids

5.1.1 The properly identified Bids received on time will be opened publicly and will be read aloud. An abstract of the Base Bids and Alternate Bids, if any, will be made available to Bidders upon request after the Purchasing Officer has tabulated or summarized the results.

5.1.2 No responsibility will attach to the Borough or its representatives for the premature opening of, or the failure to open, a Bid not properly addressed and identified.

5.1.3 When vendors and/or contractors propose equal pricing (or tie bids), bids will be reviewed by the Purchasing Officer to determine responsiveness. If all requirements for the bid being responsive are met, then the award or recommendation of the award will be made in favor of the bid which received the earliest time stamp prior to bid opening.

5.2 Rejection of Bids

5.2.1 The Borough shall have the right to reject any or all Bids and to reject a Bid not accompanied by any required Bid Guarantee or by other data required by the Bidding Documents, or to reject a Bid which is in anyway incomplete or irregular.

5.3 Acceptance and Award

5.3.1 This Contract, if awarded, shall be awarded to the lowest qualified, responsive and responsible Bidder. The Borough shall determine whether a Bidder is qualified, responsive and responsible on the basis of the following criteria:

- A. The skill and experience demonstrated by the Bidder in performing contracts of a similar nature;
- B. The Bidder's record of honesty and integrity;
- C. The Bidder's capacity to perform in terms of facilities, personnel, and financing;
- D. Whether the Bidder has been debarred or suspended under Section 3.08.235 of the Matanuska-Susitna Borough Code.
- E. At all times the best interests of the Borough shall be recognized in awarding bids.

5.3.2 The Borough may waive any informality or irregularity or correct any purely arithmetical or clerical error apparent on the face of the Bid in any Bid or Bids received, when such waiver or correction is in the interest of the Borough. The Borough reserves the right to reject any and all Bids.

5.3.3 The Borough further reserves the right to accept or reject any or all items of any Bid, unless the Bidder qualifies such Bid by specific limitation; also to make an award to the Bidder whose aggregate Bid or any combination of Bid items is lowest.

5.3.4 The Borough shall have the right to select and accept Alternates in any order or combination, and to determine the low Bidder on the basis of the sum of the Base Bid and the Alternates accepted.

5.3.5 The Bidders past performance under Borough Agreements; If the Bidder has failed in any material way to perform its obligations under any Agreement with the Borough, the Bidder may be determined as a non-responsible Bidder.

ARTICLE 6 - POST BID INFORMATION

6.1 Contractor's Qualification Statement

6.1.1 Bidders to whom award of a Contract is under consideration shall submit to the Purchasing Officer upon request, a properly executed Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

6.1.2 Bidders shall attach to the Qualification Statement a sheet listing the following four additional requirements and submit to the Purchasing Officer:

- A. Names of surety companies utilized in the last five years.
- B. Estimate Progress Schedule for the completion of the work.
- C. A resume of the Company and of the job Superintendent for the project.
- D. A list of other projects planned to be concurrent with the construction phase of this project.

ARTICLE 7 – PAYMENT AND PERFORMANCE BONDS

For any bid exceeding \$50,000 for total of all base items and alternates, the successful Bidder shall furnish the Purchasing Officer a Performance and Payment Bond in the full amount of the Agreement and shall maintain the Bond in force during the continuance of the Agreement including the one-year warranty period, unless otherwise specified. The Bond shall be for the faithful performance of the Agreement in all respects including, but not limited to, payments for all materials and labor. All alterations, extensions of time, additional work and other changes authorized by the Agreement Documents may be made without securing the consent of the Surety or Sureties. Power-of-Attorney for the person signing the Bond for the Surety must be submitted with the Bond. Local Bond Exemptions under MSB 3.08.530 will NOT be considered for this project.

ARTICLE 8 - FORM OF AGREEMENT BETWEEN BOROUGH AND CONTRACTOR

The Contract shall be in the form provided with the Bidding Documents.

ARTICLE 9 - SUBSTITUTION OF MATERIALS AND METHODS

There will be no substitutions prior to award of contract unless otherwise specified.

ARTICLE 10 - TYPE OF SPECIFICATIONS

10.1 Technical Provisions

10.1.1 The technical provisions of these Specifications are the abbreviated or "streamlined" type and include incomplete sentences. Omission of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the drawings", "according to the plans", "a", and/or "the", are intentional. Omitted words or phrases shall be supplied by inference in the same manner as they are when a note occurs on the Drawings.

10.1.2 The Contract shall provide all items, articles, materials, operations, or methods listed, mentioned, or scheduled on the Drawings and/or herein, including labor, necessary equipment and parts, for adequate performance and sound construction as intended by these documents.

10.1.3 Wherever the word "approved", "satisfactory", "directed", "submitted", "inspected", "notify" or similar words or phrases are used, it shall be assumed that the word "Purchasing Officer" follows the verb as the object to the clause, such as "approved by the Purchasing Officer" or "submitted to the Purchasing Officer".

10.1.4 Wherever "or equal" or similar phrases are used, it shall be assumed that decisions as to quality and design shall rest with the Purchasing Officer. All equal items shall be approved in writing.

ARTICLE 11 - SUBCONTRACTORS

The apparent low bidder shall list the names of the proposed subcontractors and suppliers as provided on the form under, "Proposed Subcontractors and Suppliers". A list of all other subcontractors and suppliers who are to furnish the principal items of labor, equipment, and material proposed for the work shall be submitted within 24 hours of being requested. If none are utilized, state "None".

ARTICLE 12 - PREPARATION OF BIDS

12.1 Follow instructions in Article 4.3.1 of these Instructions to Bidders.

12.2 To be considered responsive, all of the required documents must be included in the sealed envelope with the Bid Form.

ARTICLE 13 - BIDDER VIOLATIONS OF TAX OBLIGATIONS

13.1 No Contract shall be awarded to any individual, firm, corporation, or business that is found to be delinquent in any area of taxation, lease or rental agreement with the Borough which has not been remedied within ten calendar days of receipt of written notice.

13.2 This Contract can be terminated for cause if it is determined that the individual, firm, corporation or business is in arrears of any taxation, lease or rental agreement that is due to the Borough that is not remedied within ten calendar days of notification by certified mail.

13.3 The Borough reserves any right it may have to offset amounts owed by an individual, firm, corporation, or business for delinquent Borough taxes against any amount owing to the same under a Contract between the Borough and the same.

ARTICLE 14 - EXECUTION OF CONTRACT

14.1 The Bidder whose Bid is accepted shall execute the Contract and furnish the required bonding and insurance within five working days after Notice of Intent to Award of the Contract is issued. The Contract shall be considered executed by the successful Bidder when the Contract is signed by an authorized representative of the Bidder and the bond(s) and insurance certificate(s) are received by the Purchasing Officer. Failure or neglect of the Bidder to execute the Contract within the time specified may result in a forfeiture of the Bid Guarantee and award of the Contract to the next lowest Bidder.

14.2 The Borough will execute the Contract within ten calendar days after execution by the Bidder as set forth above. The date the Contract is executed by the Borough is the Contract Date. The rights and obligations provided for in the Contract shall become effective and binding upon the parties as of the Contract Date.

ARTICLE 15 - INSURANCE REQUIREMENTS

See Insurance Requirements in Sample Agreement.

ARTICLE 16 - STATE OF ALASKA PREVAILING WAGE SCALE/CERTIFIED PAYROLL

The Contractor shall comply with the Provisions of Title 36 of the Alaska Statutes for any construction projects awarded by the State of Alaska or its political subdivisions, such as local governments. To obtain the latest regulations and prevailing rate for wages. <http://labor.alaska.gov/lss/pamp600.htm>.

It is the Contractor's responsibility to meet and comply with all mandated submissions and documentation required by the Alaska Department of Labor, Wage and Hour Administration, Labor Standards and Safety Division, 1251 Muldoon Road, Suite 113, Anchorage, AK 99504.

ARTICLE 17 - LOCAL BIDDER PREFERENCE

Purchase orders shall be awarded to the lowest qualified, responsive and responsible Bidder, provided that, if the lowest bids are approximately equal, that is, within the lesser of \$2,000 or 5% of each other, preference may be given to local Bidders who maintain and operate businesses within the boundaries of the Borough. MSB 3.08.240

ARTICLE 18 - MATANUSKA-SUSITNA BOROUGH BUSINESS LICENSE

Matanuska-Susitna Borough Code, Chapter 3.36, requires that all entities conducting business within the Borough boundaries have a current business license issued by the Matanuska-Susitna Borough. MSB §3.36.040.

ARTICLE 19 - ALASKA AND CONTRACTORS LICENSES

All bidders must be in compliance with state of Alaska Statutes 08.18 and 45.70.

ARTICLE 20 - PROTEST OF AWARD OF BID

Within two days of service of the Purchasing Officer's determination of the apparent successful bid, a Bidder who wishes to protest the determination shall lodge a protest with the Purchasing Officer. The protest shall be in writing on a form provided by the Purchasing Officer. The protest shall describe with particularity the alleged errors in the award recommendation. The Purchasing Officer shall conduct a review and, within three working days of receipt of the protest, issue a determination. Full text of the protest and appeal procedures, as well as the protest form, can be downloaded from the Borough's web site at www.matsugov.us, selecting "Services", then selecting "Forms" under Forms and Documents, then selecting "Purchasing Forms". A copy can also be obtained by contacting the Purchasing Division at (907) 861-8601.

In order to receive notice of the apparent successful bid, the Bidder must provide the Borough with an email address. It is the responsibility of the Bidder to follow the selection process and stay apprised of the bid due date, the date notice of apparent successful bidder is issued and the period in which protests can be filed.

ARTICLE 21 - ACCEPTANCE OF CONTRACT/AGREEMENT TERMS AND CONDITIONS

By signing the Bid Submittal Form, the bidder certifies that they have examined and accept the terms and conditions of the contract or agreement contained in this solicitation. The acceptance is inclusive of, but not limited to, all CONTRACT REQUIREMENTS, TERMS AND CONDITIONS, GENERAL PROVISIONS, AND SUPPLEMENTAL CONDITIONS along with any and all conditions contained in the INSTRUCTIONS TO BIDDERS associated with this solicitation. Submission of a bid in response to this solicitation, certifies that the bidder is willing to accept these terms and understands that failure to accept these terms will subject the bidder to forfeiture of the contract/agreement and loss of any bid guarantee as liquidated damages as outlined in the bid documents.

Bidders are encouraged to carefully examine the insurance requirements, any bonding requirements, and any Defense and Indemnification clause contained in the sample contract/agreement.

ARTICLE 22 - FLOW DOWN PROVISIONS

This Contract may include flow down provisions. This Contract may be issued in connection with another government agency and may include flow down or contract provisions required by that agency. In the event of a conflict between the terms and conditions of the general agreement and any flow down terms and conditions, the flow down terms and conditions shall govern. The Consultant agrees to comply with any and all flow down or contract provisions required by the Borough or another government agency that are included in the Contract. In the event that flow down or contract provisions required by other agencies or by Law are inadvertently omitted from this Contract, both parties agree to negotiate in good faith for that provisions inclusion into the Contract.

ARTICLE 23 - CONTRACTORS WARRANTY

All work under the Agreement shall be under warranty by the Contractor for one year from the Final Acceptance Date except when a different period is identified in the SPECIFICATIONS/SCOPE OF WORK. This warranty shall require the Contractor to remedy promptly, without cost to the Owner, any and all defects in material and workmanship including any consequential damages resulting from defective materials or workmanship. If the defect, in the opinion of the Borough Representative, is of such nature as to demand immediate repair, the Borough shall have the right to take corrective action and the cost thereof shall be borne by the Contractor.

ARTICLE 24 - ENVIRONMENTAL SPILLS

Reporting or clean-up of any spills of oil and/or hazardous substances larger than one gallon must be reported to ADEC by the Contractor. Any quantity of a spilled hazardous substance must be cleaned up, containerized, and disposed of in a proper manner. All spills in the water must be reported immediately to ADEC. Clean-up procedures are specified in ADEC's Oil and Hazardous Substances Pollution Control Regulations, 18AAC75. All inquiries may be directed to the Wasilla ADEC office at 376-5038.

BID #20-088B

SECTION III

**SCOPE OF WORK &
MODIFICATIONS AND SPECIAL PROVISIONS TO STANDARD SPECIFICATIONS**

BID #20-088B
CARILLON DRIVE IMPROVEMENTS
SCOPE OF WORK

General

This project's purpose is to improve the road and drainage along 2,545 linear feet of Carillon Drive. This project will involve, but is not limited to, clearing, excavation, import and placement of borrow material, import and placement of aggregate surface course, installation of guardrail, installing drainage culverts and placing topsoil and seed.

This project is located South of Wasilla just off of the Knik-Goose Bay Road. The project may be accessed by proceeding to the Parks Highway/Knik-Goose Bay Rd. intersection in Wasilla, and following the Knik-Goose Bay Rd. to the intersection with Sunset Dr. at MP 7.4. Follow Sunset Dr. and then Cormorant Way for approximately 1.6 miles to the Carillon Dr. intersection. See project location and vicinity maps.

All construction shall be completed in accordance with the current Alaska Department of Transportation and Public Facilities (ADOT&PF) Standard Specifications for Highway Construction (SSHHC) 2015 Edition. Project specific special provisions are provided in the following sections. The requirements contained in these specifications and special provisions are hereby made a part of this solicitation and resultant contract.

Work Description

- Supply labor, equipment, materials and supplies to perform the required work as shown on the construction plans for MSB project number 18-17-0457.
- Contractor is to provide resources to complete this project without any adjustments in the original bid amount or contract time.
- Contractor is required to obtain an ADEC APDES permit prior to utility relocation activities. Utility relocation work done by the utility companies will be performed under this permit.
- Work Zone speed limit: Limit speed of vehicles associated with construction to 20 miles per hour within project limits.
- Contractor shall coordinate the road improvements with all utility relocation work. Request locates from the utilities having facilities in the area. Use the Alaska Digline, Inc. Locate Call Center. See Section 105-1.06 for digline number and a list of utility companies in the area.
- Contractor shall complete ROW and utility easement staking and clearing and all necessary SWPPP items for utility relocation support upon NTP. This work shall be included in items 201(3B), 642(1), 641(1), and 641(3). Additional stump removal for utility support will be directed if needed and is not included in these items. The anticipated additional utility support areas are as follows:
 - None outside of ROW. See attached Enstar plans for reference.
- Time is of the essence. Work shall be completed in one continuous timeframe after utility relocations are completed. Substantial completion shall be achieved by September 15, 2020 and Final completion shall be achieved by October 1, 2020.
- Estimated project magnitude is less than \$375,000.

MATANUSKA-SUSITNA BOROUGH
STANDARD MODIFICATIONS
to the
ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STANDARD
SPECIFICATIONS
FOR HIGHWAY CONSTRUCTION
2015 EDITION



SECTION 101

DEFINITIONS AND TERMS

101-1.02 ACRONYMS.

Add the following:

ADEC Alaska Department of Environmental Conservation

MSB Matanuska-Susitna Borough

101-1.03 DEFINITIONS

Add the following definitions:

BOROUGH -The Matanuska-Susitna Borough (MSB)

QUALIFIED PRODUCTS LIST. A list of companies and products that the Department has found conforms to the SSHC.

NON-FROST SUSCEPTIBLE. Material that contains 6 percent or less passing the No. 200 screen as determined by sieve analysis performed with ATM T-7 WAQTC FOP for AASHTO T 27/T 11 on minus 3-inch material.

Amend the following definitions:

CONTRACTING OFFICER. *Delete in its entirety and substitute the following:* The Contracting Officer shall be the Matanuska-Susitna Borough Purchasing Officer or his/her designee authorized to enter into and administer the contract on behalf of the Matanuska-Susitna Borough. He has the authority to make findings, determinations and decisions with respect to the contract and, when necessary, to modify or terminate the contract.

DEPARTMENT. *Delete and substitute:* BOROUGH. The Matanuska-Susitna Borough acting through its authorized representatives.

HOLIDAYS. *Delete Items 2, 8, and 13 and substitute the following:*

- 2. Friday after Thanksgiving
- 8. Christmas Eve, December 24

INTERIM WORK AUTHORIZATION. *Delete in its entirety and substitute the following:* A written order by the Engineer initiating changes to the Contract within its general scope, without increasing cost or time of performance, until a subsequent Change Order is executed.

PLANS. *Delete text of PLANS and replace with:* The Borough's Contract drawings, profiles, typical cross sections, standard drawings, and supplemental drawings or reproductions showing the location, character, dimensions and details of the work.

Replace the definition of SUBGRADE with the following:

SUBGRADE. The soil or embankment upon which the pavement structure or surface course is to be constructed.

MSB 010913

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

102-1.01 QUALIFICATION OF BIDDERS.

DELETE IN ITS ENTIRETY

REPLACE WITH:

102-1.01 QUALIFICATION OF BIDDERS.

1. Bidders shall submit evidence of Matanuska-Susitna Borough Business License, Alaska Business License and Contractor Registration prior to award; and
2. When requested, submit a completed Contractor's Questionnaire stating previous experience in performing comparable work, business and technical organization, financial resources, and equipment available to be used in performing the work.

The bidder, by signing the bid and under penalty of perjury under the laws of the United States, certifies that, except as may be noted on the bid, the bidding firm or any person associated therewith is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against (it) by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

Exceptions to the above shall be noted by the bidder on the bid or on an attachment thereto.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency, and dates of action.

Providing false information may result in criminal prosecution or administrative sanctions.

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE.

Replace the second paragraph with the following: the records of geotechnical investigations including boring logs, test results, geology data reports, soil reports, material site reports and geotechnical reports included in a bid package or made accessible to bidders or Contractors, are for information purposes only. These records are not part of the Contract. These records indicate subsurface conditions only at specific locations and times, and only to the depths penetrated. They do not necessarily reflect variations in soil, rock, or groundwater conditions that may exist between or outside such locations. Actual conditions may differ from what is shown in the records. Material Sources referenced in these records may not contain materials of sufficient quantity or quality to meet the project requirements. The accessibility of these records does not constitute approval, nor guarantee suitability of soils or sources, or the rights to use sources for this project except as specifically provided in subsections 106-1.02.4.b Mandatory Sources and 106-1.02.4.c Designated Sources. The records shall not substitute for independent investigations, interpretation, or judgment of the bidder or Contractor. The Department is not responsible for any interpretation or conclusion drawn from its records by the bidder or contractor.

Bidders and Contractors shall examine subsection 106-1.02 Material Sources for further information about material source development

If material required for bidding purposes by these documents is absent, the bidder is required to notify the Purchasing Officer by facsimile (907) 861-8617, or by e-mail to purchasing@matsugov.us.

Any interested party submitting a bid/proposal on Matanuska-Susitna Borough (MSB) projects should first review the MSB Debarment/Suspension List. This listing is available off of the MSB Purchasing Division web page. Any submission of a bid/proposal, with participation or involvement of an individual, company, firm or corporation on this list will render the bid/proposal as non-responsible.

Bidders shall notify the Purchasing Officer promptly of any error, omission, or inconsistency that may be discovered

during examination of the Bidding Documents and the proposed construction site.

Questions or requests for clarifications shall be directed to the person(s) designated on the Invitation To Bid. Questions or requests for clarification directed to any other member of the borough staff or consultants may be grounds for rejection of bid as being irregular.

102-1.05 PREPARATION OF BID.

Modify the second sentence in the third paragraph, after: "If a bidder is a corporation, the bid must be signed by a corporate officer, add: or agent.

DELETE THE FOLLOWING:

For multiple-project bid openings, bidders may limit the total dollar amount or number of projects to be accepted by completing the following statement and adding it to the Bid Form for at least one of the projects being bid. The Department will then determine which of the low bids it will accept, up to the total indicated.

"We wish to disqualify all of our successful bids at this bid opening which exceed the total of \$ _____ or _____ contracts and hereby authorize the Department to determine which bids to disqualify, based on this limit."

102-1.06 NONRESPONSIVE BIDS. 1.C.

DELETE THE FOLLOWING:

"except for an award limitation under Subsection 102-1.05"

102-1.07 BID GUARANTY

DELETE "State of Alaska"

SUBSTITUTE "Matanuska-Susitna Borough"

DELETE "(Form 25D-14)"

SUBSTITUTE "as provided in the ITB"

102-1.08 DELIVERY OF BIDS. Delete this subsection and substitute the following: Bid delivery shall be as required by the Instructions to Bidders.

102-1.10 PROTEST OF INVITATION TO BID

DELETE IN ITS ENTIRETY

102-1.13 RESPONSIBILITY OF BIDDERS

DELETE "11. Engaging in any activity that constitutes a cause for debarment or suspension under the State Procurement Code (AS 36.30) or submitting a bid during a period of debarment;"

SUBSTITUTE "11. Engaging in any activity that constitutes a cause for debarment or suspension under MSB 3.08.235 or submitting a bid during a period of debarment;"

DELETE "state regulations"
SUBSTITUTE "Borough Code"

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SECTION 103

AWARD AND EXECUTION OF CONTRACT

103-1.01 CONSIDERATION OF BIDS

DELETE: "A bidder may request withdrawal of a bid after opening and before the Award only in accordance with AS 36.30.160(b) and State procurement regulations. Submit the request to the Contracting Officer."

DELETE "An interested party, as defined in AS 36.30.699, may protest a proposed Award of contract as per AS 36.30.560 and AS 36.30.565. Submit the protest to the Contracting Officer."

SUBSTITUTE: "Within two days of service of the Purchasing Officer's determination of the apparent successful bid, a bidder who wishes to protest the determination shall lodge a protest with the Purchasing Officer in accordance with MSB 3.08.342 Bid Protest and Appeal Procedures.

In order to receive notice of the apparent successful bid, the Bidder must provide the borough with a facsimile number. It is the responsibility of the Bidder to follow the selection process and stay apprised of the bid or proposal due date, the date notice of apparent successful bidder is issued and the period in which protests can be filed."

DELETE: **103-1.05 PERFORMANCE AND PAYMENT BONDS.**

SUBSTITUTE THE FOLLOWING:

103-1.05 PERFORMANCE AND PAYMENT BONDS.

For any bid exceeding \$50,000 for total of all base items and alternates, the successful Bidder shall furnish the Purchasing Officer a Performance and Payment Bond in the full amount of the Agreement and shall maintain the Bond in force during the continuance of the Agreement including the one-year warranty period, unless otherwise specified. The Bond shall be for the faithful performance of the Agreement in all respects including, but not limited to, payments for all materials and labor. All alterations, extensions of time, additional work and other changes authorized by the Agreement Documents may be made without securing the consent of the Surety or Sureties. Power-of-Attorney for the person signing the Bond for the Surety must be submitted with the Bond. Local Bond Exemptions under MSB 3.08.530 will NOT be considered for this project.

103-1.06 INSURANCE REQUIREMENTS. Delete 1. 2. 3. and 4. and refer to Construction Agreement SECTION 23. INSURANCE.

After 4, replace "State of Alaska" with "Matanuska-Susitna Borough".

Add the following:

Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

SECTION 104

SCOPE OF WORK

104-1.02 CHANGES. *Replace Item 1 with the following:* The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the Contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

If the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.

The term "significant change" shall be construed to apply only when the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction.

DELETE: 2. OUTSIDE CONTRACT SCOPE

SUBSTITUTE THE FOLLOWING:

2. OUTSIDE CONTRACT SCOPE

Changes determined to be outside of the general scope of the contract shall be done through the use of a supplemental agreement in accordance with MSB 3.08

104-1.03 DIFFERING SITE CONDITIONS. *Delete this subsection in its entirety and substitute the following:* During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

Upon written notification, the Engineer will investigate the conditions, and if he determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding loss of anticipated profits, will be made and the Contract modified in writing accordingly. The Engineer will notify the Contractor of his determination whether or not an adjustment of the Contract is warranted.

No Contract adjustment that results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.

104-1.05 CLEANUP. *Delete in its entirety and substitute the following:*

Upon completion of the work and before final acceptance and payment, the work area and all ground occupied by the Contractor in connection with the work, shall be cleared of all rubbish, excess materials and equipment, and all parts of the work shall be left in a condition acceptable to the Borough Inspector.

All stakes used for stationing layout and all string lines used during paving shall be picked up and removed from the work site by the Contractor.

SECTION 105

CONTROL OF WORK

105-1.01 AUTHORITY OF THE ENGINEER. *Add the following paragraph:*

When, in the opinion of the Engineer, conditions are such that the safety and/or convenience of the traveling public are adversely affected, the Contractor will be immediately notified in writing. The notice will state the defect(s), the corrective action(s) required, and the time required to complete such action(s). In no case shall this time exceed 24 hours. In the event that the Contractor fails to take the corrective action within the specified time, the Engineer reserves the right to have corrective action taken by outside forces. The cost of work by outside forces shall be deducted from any monies due or that may become due under the terms of this Contract.

105-1.06-UTILITIES. *This section is modified as follows:*

2. Cooperation with Utility Owners. Add the following:

The Contractor shall request locates from all the companies and organizations having utilities in the area. The Contractor shall use the Locate Call Center for the following utilities:

Locate Call Center	
Anchorage Area	278-3121
Statewide	1-800-478-3121
Call Center will notify the following:	
AT&T Alascom, Inc.	
Alaska Fiber Star	
Anchorage Telephone Utility	
Chugach Electric Association	
ENSTAR Natural Gas, Inc.	
GCI Communications	
Matanuska Electric Assn.	
Matanuska Telephone Assn.	
PTI Communications, Inc.	

There are various utility appurtenances located within the project limits. Cooperate with these utilities and coordinate schedule of work to allow them access to the project for their adjustments and/or relocation.

2. Cooperation with Utility Owners, delete the first sentence of the fourth paragraph, starting with the words "The Department has..." and ending with the words "...within State right-of-way." In its entirety, and substitute the following new sentence:

"The Matanuska-Susitna Borough has sole discretion to grant permits for utility work within Borough rights-of-way."

3. Utility Work. Add the following:

t. Work around those utilities not designated for relocation on the plans. Contractor shall bear the expense for any changes or additional relocation requested for Contractor convenience. Work around all utility facilities, either existing or relocated, throughout the project unless advised by the utility that the facility is abandoned in place.

- u. Contractor is solely responsible for any changes in contract scheduling and contractor time, which result in the conditions in this specification not being met Schedule and coordinate the utility relocations with project construction as set forth in Section 108-1.03, Prosecution and Progress.
- v. When Right of Way and/or Construction surveying is required prior to utility relocation, payment will be made as follows:
 - a. Subsidiary to Item 642(1), Construction Surveying, if the Contractor is required to provide the surveying as part of the contract and/or
 - b. Under Item 642(3), Three Person Survey Party, if the construction or Right of Way staking required by the utility is either in advance of the Contractor's two (2) week work plan, or not already required by the contract
 - c. Utility owner shall give the Contractor, through the Engineer; fifteen (15) calendar days advance written notice for required staking.
 - d. Provide the Utility owners fifteen (15) calendar days advance written notice of the relocations described below to begin. The Utility owners will not be required to work in more than one location at a time, and will be allowed to complete a specific section of work prior to commencing with another section.

Relocation or adjustment of underground utility appurtenances will not normally be performed when the ground is frozen. In addition, the utility companies may prohibit the Contractor, through the Engineer, from working near the utility's facilities when the ground is frozen.

Add the following new subsection:

5. Utility Relocation Requirements

Provide Traffic Control Plans and all traffic control as required for utility relocations, to promote safety and efficiency of public travel through the project area and safety of utility relocation work, all to the satisfaction of the Engineer.

105-1.13 MAINTENANCE DURING CONSTRUCTION. *Delete the first paragraph and substitute the following:* The Contractor shall maintain the work, and those portions of the project affected by the work, from the date physical construction begins until project completion. This maintenance shall be a continual and effective effort prosecuted day by day, with adequate equipment and forces to the end that the work, and those portions of the project affected by the work, are kept in satisfactory condition at all times. The Contractor may be relieved of specified portions of this maintenance responsibility during a seasonal suspension of work.

The existing road systems, when utilized as haul roads, shall be maintained at the Contractor's expense. Upon completion of hauling over a road, it shall be left in as good or better condition than prior to commencing of hauling operations. This determination shall be made by the Borough's inspector.

105-1.17 CLAIMS. *Delete in its entirety and replace with the following:*

If the Contractor wishes to make a claim for an increase in the Contract Sum (Change Order), he shall give the Project Manager written notice thereof as soon as possible but at least within ten days of the first observance or awareness or notice of the basis for the claim, whichever is earlier. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed as needed. No such claim shall be valid unless so made and the claim must comply with and is governed by the terms of this section. Any change in the Contract Sum resulting from such claim shall be authorized only by a written fully executed Change Order.

Except for claims which have been waived by acceptance of final payment, and except as otherwise provided in this Contract, any claims, any disputes, or other questions arising out of, or relating to, this Contract shall be presented in writing by the Contractor to the Project Manager. In presenting any claim, the Contractor shall clearly and specifically state in writing:

1. The specific contract provision under which the claim is made.
2. The contract item on which the claim is based.
3. A description of the specific nature and cause of the claim.

4. The specific relief including additional time and/or compensation to which the Contractor believes he is entitled.
5. The detailed factual basis of any additional costs or time claimed and all verifiable documentation necessary to support those actual costs or additional time.
6. A certification by the Contractor under penalty of perjury the claim(s) is made in good faith, the supporting data are accurate and complete to the best of the Contractor's knowledge and belief, and the amount requested accurately reflects the contract adjustment for which the Contractor believes the Borough is liable.

Claims must be submitted as soon as possible, but not later than ten (10) days after the first observance or awareness or notice of the basis for the claim, whichever is earlier; in no case shall a claim be made more than ten (10) days after the date of completion and acceptance of the entire contracted work. If the amount of time and/or compensation cannot be readily ascertained at the time the claim is submitted, the Contractor shall so advise the Borough and such amounts shall be submitted as soon as they are discernible. In any case, the amount of time and/or compensation claimed together with all necessary supporting data, which could not have reasonably been available to the Contractor or a reasonably sophisticated contractor at the time of notice of claim, shall be submitted no later than 20 days after completion of the contract item of work on which the claim is based.

The Contractor represents to the Borough and the Borough relies upon the following representations to enter in this contract with the Contractor:

Borough and Contractor recognize claims and litigation concerning claims result in increased contract costs for both parties. Further, both parties recognize both parties are subjected to increased risk when stale claims are in dispute or are litigated.

Borough and Contractor agree separately from the Contract that compliance with this section is necessary to enhance identification of disputes, processing of claims, negotiations and settlement of disputed issues. Further, both parties agree verbal, written or any other notice not in full compliance with the terms of this section will not meet the terms and spirit of this section.

Failure to comply with this section shall constitute a waiver and abandonment of the right to make any claim not fully compliant with this section.

CLAIM TO THE PROJECT MANAGER

As soon as received from the Contractor a claim shall be acknowledged in writing by the Project Manager. If the claim is not disposed of by agreement, the claim shall be reviewed by the Project Manager who shall, unless he notifies the Contractor otherwise, within fourteen (14) days of receiving the Contractor's final submittal of the claim advise the Contractor of his final decision and communicate his final decision to the Contractor in writing. This final decision of the Project Manager shall, unless otherwise determined on administrative appeal to the Purchasing Officer or then determined by appeal to the Superior Court of Alaska, be final and conclusive. Any appeal from the Contractor of the Project Manager's decision to the Purchasing Officer shall be commenced within fourteen (14) days of the decision. In the event no such appeal to the Purchasing Officer is timely made, the decision of the Project Manager shall be final and conclusive as to the dispute.

Pending final decision of any dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract, and after the Project Manager's final decision is made, the Contractor shall proceed diligently with the performance of the Contract and in accordance with the Project Manager's final decision.

The parties agree at every level, including administrative appeal and litigation, all claims made will be made by the actual cost method, supported by actual invoices, payroll records and the like, and may not be made by the total cost method or any modifications thereof; or by the jury verdict method.

APPEAL OF DECISION BY PROJECT MANAGER

An appeal of a decision of the Project Manager may be filed with the Purchasing Officer. The appeal shall be filed within fourteen (14) days after the decision is served on the Contractor. An appeal by the Contractor may not raise any new factual issues, theories of recovery or claims for damages in amount or character or for additional time not presented to and decided by the Project Manager in the decision appealed from except upon the showing of extraordinary circumstances not due to the fault or neglect of the Contractor or his agents. If allowed to make amended or additional claims, no such claims may be made unless they arise out of the same operative facts on which the original claim was based.

An appeal must contain a copy of the Project Manager decision being appealed and identification of all factual or legal errors in the decision that form the basis for the appeal.

Upon receipt, the Purchasing Officer shall advise the parties of the procedures that will be utilized to determine the appeal (i.e. briefing, hearing etc.) and any pertinent deadlines related thereto. The Purchasing Officer shall handle the appeal of a claim expeditiously.

The Purchasing Officer shall serve all parties personally or by certified mail with his Final Decision within twenty (20) days after the hearing has ended or his receipt of the final brief, unless he notifies the Contractor otherwise. In his Final Decision the Purchasing Officer shall notify all parties that the final decision of the Purchasing Officer under this section may be appealed to the superior court in Palmer, Alaska in accordance with the Alaska Rules of Appellate Procedure. In the event no such appeal to the court is made within thirty (30) days, the decision of the Project Manager or the Purchasing Officer shall be final and conclusive as to the dispute.

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SECTION 106

CONTROL OF MATERIAL

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. In fifth paragraph, in two Places remove the text "Approved Products List" and replace with: Qualified Products List

106-1.02 MATERIAL SOURCES.

1. a. General. Within Item a. delete text and replace with: Utilize Useable Excavation according to subsection 104-1.04 before using material sources listed in subsection 106-102.4. When there is insufficient useable excavation, furnish additional required materials from sources of the Contractor's choice, except that the Contractor shall use a mandatory source when identified in the contract.
2. Delete Item 2 and substitute the following: The Contractor shall provide process control for reasonable assurance, that all materials submitted for acceptance conform to the contract specifications. Sampling and testing of all materials for process control, including screening, crushing, blending, stockpiling of aggregates, production and lay down of aggregate courses or mixtures, asphalt concrete mixtures, and monitoring of compaction, is the responsibility of the Contractor. Process control tests shall be made in accordance with the applicable test methods specified in the contract.

A process control plan shall be submitted at the pre-construction conference. The process control plan shall include, for each item being produced, the methods to be used for sampling and testing, the proposed testing frequency, personnel qualifications, and equipment descriptions. Process control will not be measured for payment but will be subsidiary to the applicable items being processed.

The Borough has the exclusive right and responsibility for determining the acceptability of the construction and all incorporated materials. Acceptance testing by the Borough is not to be considered as a replacement for process control testing by the Contractor. When the specified grading and other qualities of the product do not conform to the specifications, the Borough reserves the right to reject the material.

4. Type of Sources. Replace the first paragraph with the following: The Contractor shall utilize Useable Excavation according to Subsection 104-1.04 before using material sources listed in this subsection. When there is insufficient Useable Excavation, the Contractor shall furnish additional require materials from sources of the Contractor's choice, except that the Contractor shall use a mandatory source when identified in the Contract.

When there is insufficient Useable Excavation, the Contractor shall supply additional required material from the following sources:

- d. Available Sources. Replace the second paragraph with the following: When the Department furnishes copies of existing boring logs, test results, or other data in its possession concerning Available Sources, the Contractor is responsible for determining the accuracy and completeness of this data, for assumptions the Contractor makes based on this data, and for exploring Available Sources to the Contractor's satisfaction.
- e. Excluded Material Sources. Replace the paragraph with the following: Some material sources may not be considered acceptable regardless of location or ownership. The bid documents may identify some material sources excluded from use. The Department reserves the right to exclude a material source or any portion of a material source, at any time after Contract award that is determined by material testing to be unsuitable for use on the project.

Add new subsection 106-1.08:

106-1.08 SUBMITTAL PROCEDURE. The Contractor shall complete a Submittal Register, and shall submit it to the Engineer on forms provided by the Department. The intent of the Submittal Register is to provide a blueprint for the smooth flow of specified project documents. The Contractor shall fill it out sequentially by bid item and allow at least three spaces between bid items. The Submittal Register shall list working drawings, schedules of work, and other items required to be

submitted to the Department by the Contractor including but not limited to Progress Schedule, anticipated dates of material procurement, Construction Phasing Plan, Traffic Control Plan, Storm Water Pollution Prevention Plan, Quality Control Program, Utility Progress Schedule, Blasting Plan, Mining Plan, annual EEO reports DBE payment documentation and subcontracts.

The Contractor shall submit materials (product) information to the Engineer for review, as required by the Materials Certification List and the Contract.

Then number of copies required for submittals may be included in the specifications for individual bid items. If the number of copies of a submittal is not otherwise specified, three copies shall be required. On each sheet submitted to the Department, including working drawings, catalog cuts, manufacturer's certifications, etc., space shall be provided for Contractor and Department review stamps.

Each copy of each submittal shall include a Submittal Summary sheet. The Contractor may use forms provided by the Department or a similar form of the Contractor's choice as approved by the Department. The Contractor shall sign submittals and submit them to the Engineer. The Department will review submittals within 30 days after they are received. The Department will return submittals to the Contractor as either: approved, conditionally approved with the conditions listed, or rejected with the reasons listed. The contractor may resubmit a rejected submittal to the Engineer with more information or corrections. The Department will review resubmittals within 30 days after they are received.

The Contractor shall not order material or use working drawings that have not been approved by the Department. The Contractor shall be responsible for timely submittals. Failure by the Department to review submittals within the time given may be the basis for a request for extension of Contract time but not for additional compensation.

Payment for a specific Contract item will not be made until the Department has received the Submittal Register for all items and approved all required submittals for that specific Contract item.

When material invoices, freight bills and mill certificates are submitted, they shall provide sufficient information for the Engineer to identify the date, company and location of invoice (bill, certificate); project name, and number where material will be incorporated; manufacturer, product number, quantity and cost.

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SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-1.02 PERMITS, LICENSES AND TAXES.

Add the following:

It is the Contractor's responsibility to obtain all permits required for actions not permitted previously by the Borough. The Contractor is responsible for complying with all permit stipulations, conditions and/or terms. Agencies to contact for permit information may include, but are not limited to, the U.S. Army Corps of Engineers, the Alaska Department of Fish and Game, the Alaska Department of Environmental Conservation, the Alaska Department of Natural Resources, and local or regional governments. The Contractor shall provide timely notification of such actions and permit acquisitions as may be required by federal, state, regional, and local authorities. The Contractor shall provide copies of all permits, and applicable notifications to the Project Engineer.

Prior to removing, stockpiling, staging or disposing of any material or equipment in, on or from a location not previously permitted by the contract, the Contractor shall obtain all necessary permits and clearances required. These permits and clearances may include, but are not limited to, State Historic Preservation Office clearance, a Division of Governmental Coordination Coastal Consistency Determination, Alaska Department of Environmental Conservation permits, Alaska Department of Fish and Game Title 16 permit, US Army Corps of Engineers clearances and permits regarding wetlands, City or Borough Flood Hazard permit, local development permits, permission of property owner, etc.

The Contractor shall provide a copy to the Engineer, of all permits or clearances received prior to Contractor's use of any site outside of the project limits. Additionally, the Contractor shall provide the Engineer a written statement that all permits or clearances necessary have been obtained.

If water for any construction purpose is required from a non-municipal water source, the Contractor shall obtain a Temporary Water Use Permit from the Water Resource Manager, and provide a copy to the Engineer.

Add the following:

Obtain a written statement from the State Historic Preservation Officer stating that material disposal, extraction, stockpiling or staging, on off project site, is not expected to impact cultural resources. The State Historic Preservation Officer is with the Department of Natural Resources in Anchorage, and may be contacted at (907) 269-8715. If cultural resources are discovered during construction activities, stop work at the site and notify the Engineer.

Provide a wetland specialist able to conduct wetlands determinations and delineations according to the Corps of Engineers 1987 Wetland Delineation Manual. The wetland specialist shall conduct the determination and delineations of sites outside the project limits of not previously permitted, impacted by the Contractor's operations. These delineations will be subject to Corps of Engineers approval.

Provide the Engineer a copy of permits or clearances received before using sites outside the project limits. Additionally, provide the Engineer a written statement that permits or clearances have been obtained. Also provide a written statement to the Engineer listing agencies or office contacted that responded that no additional action is required.

Add the following:

Provide information to comply with the US Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) General Permit for Alaska to Discharge storm water from the construction site. Refer to Section 641, Erosion, Sediment, and Pollution Control for requirements for this permit.

107-1.06 SANITARY, HEALTH, SAFETY PROVISIONS. Add the following: The Contractor shall provide and maintain restroom facilities for employees at all work sites.

107-1.07 ARCHAEOLOGICAL, OR HISTORICAL DISCOVERIES.

Change the first sentence to the following:

When operations encounter historic or prehistoric artifacts, burials, remains of dwelling sites, paleontological remains (shell heaps, land or sea mammal bones or tusks, or other items of historical significance), cease operations immediately and notify the Engineer.

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.

Under Item 5. Protected areas. Add the following: All clearing and/or grubbing activities shall take place outside of the Migratory Bird Treaty Act (MBTA) window as determined by the U.S. Fish and Wildlife Service (FWS) under the website publication for the construction year: http://alaska.fws.gov/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf

Add the following:

When working near designated wetlands the Contractor shall place no fill, nor operate equipment outside the slope limits. Refueling and servicing of equipment shall not be performed within 100 feet of wetlands.

The Contractor shall report immediately to the Engineer any hazardous material discovered, exposed, or released into the air, ground, or water during construction of the project. The Contractor shall also report any containment, cleanup, or restoration activities anticipated or performed as a result of such release or discovery. Hazardous materials include, but are not limited to, petroleum products, oils, solvents, paints, and chemicals that are toxic, corrosive, explosive, or flammable.

Add the following:

If required to obtain water for construction purposes from a non-municipal water source, obtain a Temporary Water Use Permit from the Water Resource Manager, and provide a copy to the Engineer.

The Water Resource Manager is with the Department of Natural Resources in Anchorage and may be contacted at (907) 269-8624.

Add the following paragraphs:

7. Restoring Areas. Areas used by the Contractor, including haul routes, shall be restored to their original condition after the Contractor's operations are completed. The original condition of the area shall be determined as follows: Before beginning operations, the Engineer and the Contractor shall inspect each area and haul route that will be used by the Contractor and take photographs to document their condition. After construction operations are completed, the condition of each area and haul route will be compared to the earlier photographs. Before demobilization the Contractor shall repair damages attributed to its operations. The Contractor agrees that costs associated with repairs shall be subsidiary to other items of work and will not be paid for directly.
8. Material Disposal Sites. Offsite disposal areas may be at locations of the Contractor's choice, provided the Contractor obtains from the owner of such land written permission for such dumping and a waiver of all claims against the Borough for any damage to such land which may result there from, together with permits required by law for such dumping. A copy of such permission, waiver of claims, and permits shall be filed with the Engineer before beginning work on private property. The Contractor's selected disposal sites shall also be inspected and approved by the Engineer before use of the sites.

107-1.16 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES. Add the following before the last paragraph: Where the Contractor's operations meet any of the following conditions, the Contractor shall advise the owning Utility in writing at least 24 hours in advance of the work.

1. Operations anticipated to be within 10 feet of an overhead electrical line.
2. Operations anticipated to be within 3 feet of an underground electrical line according to locates provided by the owning Utility.
3. Operations requiring use of equipment which is capable of coming within 10 feet of an overhead electrical line.

The notice shall indicate the location and duration of the work to be performed.

The Contractor shall provide an attendant whose sole responsibility is to perform as a safety observer while equipment is operating such that any part is capable of reaching within 15 feet of an overhead line.

Providing a safety observer for overhead electrical facilities, or a cable watch for buried electrical facilities, will not be paid for separately, but will be subsidiary to the item(s) of work being performed requiring these services.

MSB 010913

Special Provisions

SECTION 108

PROSECUTION AND PROGRESS

108-1.01 SUBLETTING OF CONTRACT. Delete paragraph four and replace with the following:

Submit the Contractor Self Certification for Subcontractors and Lower Tier Subcontractors, Form 25D-042, before the Contractor or a subcontractor sublets any portion of the Contract. The certification will be accepted by the Borough in lieu of written approval of subcontracts. The Borough maintains the authority to review subcontracts, to require prior written approval of subcontracts, and to deny permission to sublet work. The Borough may penalize the Contractor for false statements or omissions made in connection with Form 25D-042.

1. The Contractor shall ensure the following for each subcontract (agreement):
 - a. The Borough is furnished with one completed Contractor Self Certification, Form 25D-

042, and two copies of the subcontract signed by both parties and including item descriptions and prices of the subcontracted work before the subcontracted work begins;

- b. The subcontractors have submitted a Bidder Registration, Form 25D-6;
- c. The required prompt payment provisions of AS 36.90.210, as well as other items listed in Form 25D-042, are included in the subcontracts;
- d. The subcontractors pay current prevailing rate of wages according to subsection 107-1.04 and file certified payrolls with the Engineer and DOLWD for work performed on the project; and
- e. Upon receipt of a request for more information regarding subcontracts, the requested information is provided to the Borough within 5 calendar days.

108-1.03 PROSECUTION AND PROGRESS. Delete the last sentence of the first paragraph and substitute the following: Submit the following at the Preconstruction Conference:

Delete the last sentence of the first paragraph in item 1. A progress schedule, and substitute the following:

- 1. A Critical Path Method (CPM) Schedule is required, in a format acceptable to the Engineer, showing the order the work will be carried out and the contemplated dates the Contractor and subcontractors will start and finish each of the salient features of the work, including scheduled periods of shutdown. Indicate anticipated periods of multiple shift work in the CPM Schedule. Revise to the propose CPM Schedule promptly. Promptly submit a revised CPM Schedule if there are substantial changes to the schedule, or upon request of the Engineer.

Add the following under item no. 1: Use the schedule for coordination and monitoring of all work under the contract including all activity of subcontractors, manufacturers, suppliers, utility companies and review activity of the Department.

Add the following: In addition to the progress schedule, the Contractor shall, every two weeks during construction, submit a work plan detailing his proposed operations for the forthcoming two weeks. This plan shall detail the following:

- 2. A completed Material Source Verification Form

SECTION 109

MEASUREMENT AND PAYMENT

109-1.02 MEASUREMENT OF QUANTITIES. Under subtitle Electronic Computerized Weighing System item (1) add following to the end of the first sentence: ". CD, or a USB device."

109-1.05 COMPENSATION FOR EXTRA WORK. Add the following: The rental rate area adjustment factors for this project shall be as specified on the adjustment maps for the Alaska - South Region.

109-1.08 FINAL PAYMENT. Add the following sentence to the first paragraph:
The Borough will not process the final estimate until the Contractor completes Items 1 through 4 in the first paragraph of subsection 105-1.16.

Add the following subsection:

109-1.10 EQUIPMENT RENTAL CONTRACTS.

- 1. Hourly Rate Basis.

Scope. Under this subsection, the Contractor shall furnish fully operated equipment, tools, materials, and laborers required in the performance of the work on the project as specifically designated and directed by the Engineer.

The work is to be performed and paid for on an hourly rate basis.

All personnel furnished by the Contractor under this specification shall be, and shall remain during the work hereunder, employees solely of the Contractor.

General Requirements. The work is to be done under the direction of the Engineer, and the Contractor's operations shall at all times be in accordance with the Engineer's instructions. These instructions by the Engineer shall be to the Contractor's supervisory personnel only, not to the operators or laborers. In no case shall these instructions by the Engineer be construed as making the Borough liable for the Contractor's operation of equipment and/or personnel. It is the Contractor's responsibility to prosecute the work in the safest and most expeditious manner.

2. Equipment

General. In the performance of the work to be done under this specification, the Contractor shall furnish, operate, maintain, service and repair equipment of the kinds, sizes, capacities and quantities set forth in the bid schedule or as directed by the Engineer.

The kinds, sizes, capacities and other requirements set forth shall be understood to be minimum requirements. The number of pieces of each equipment to be furnished and used shall be as the Engineer considers necessary for economical and expeditious performance of the work. The equipment shall be used only at such times and places as the Engineers may direct.

All equipment shall be fully operated by skilled operators, which operating shall be understood to include the operators, oilers, tenders, fuel, oil, air hose, lubrication, repairs, maintenance, insurance and all incidental items and expenses.

When the required equipment as a working unit is comprised of tractors and attachments, or of combinations of equipment, the attachments or combinations of equipment shall be of recognized standard sizes and capacities for efficient and economical performance with the tractor or power unit to which they are attached, or with which they are used in combination.

All equipment shall be in first-class working conditions and capable of full output and production. The minimum ratings of various types of equipment shall be as manufactured and based on manufacturer's specifications. Alterations of blowers, rack settings or other modifications will not be considered acceptable in achieving the minimum rating.

Tools. The Contractor shall provide manual equipment, hand tools, and small tools as required for the performance of the work and as considered by the Engineer as necessary for efficient operations.

The Contractor shall designate, without direct compensation, by the Borough, one (1) job superintendent He shall also furnish such other personnel as required to satisfy Union, Borough or State regulations. Further, he shall furnish such other personnel required to provide servicing, maintenance, repair and other care essential for the upkeep of his equipment, tools, supplies and materials provided by him and involved in the performance of the work. The Contractor shall furnish, without direct compensation, all transportation of his personnel required in the performance of the work.

Unless otherwise set forth in the special provisions, the Borough will not furnish, provide or make available for the work anything other than right-of-way, engineering, directions and inspection.

3. Construction.

General. The performance of the work shall be in accordance with the instructions of the Engineer.

The work shall be performed in accordance with recognized standard and efficient methods. Operators of equipment and all personnel shall be conscientious and skilled in their duties.

Equipment and tools shall be maintained in first-class working condition and shall be replaced at any time when, in the opinion of the Engineer, their condition is below that normal for efficient output and production.

Timing and Sequence of Operations. The Contractor shall furnish equipment, tools, labor and materials in the kinds and number and at the times directed by the Engineer, and shall commence, continue, and stop any of the several operations

involved in the work only as directed by the Engineer.

Normally, the work is to be done when weather conditions are reasonably favorable, up to six days per week, Mondays through Saturdays, holidays excepted.

Protection of Work and Provisions for Traffic. The Contractor shall furnish signs, lights, barricades and other protective devices at the sites of his operations to protect the work from damage, and to safeguard traffic passing or in proximity of work.

4. Measurement.

General. The number of hours of equipment operation to be paid for shall be the actual number of hours each fully-operated specified unit of equipment or each fully-operated specified combination of units of equipment, is actually engaged in the performance of the specified work on the designated areas in accordance with the instruction of the engineer, provided that the pay time will not include idle periods and standby time and provided further that no payment will be made for time used in oiling, servicing, or repairing of equipment, or in making changeovers of parts to the equipment.

The number of hours of equipment operation to be paid for, as determined above, will be paid for at the pertinent contract price per hour for each of the particular pay items for equipment shown in the bid schedule, which price and payment shall be full compensation for furnishing, operating, maintaining, servicing and repairing the equipment and for all incidental costs related to the equipment as specified. The furnishing and operating of equipment of heavier type, or of larger capacity, or horsepower than specified will not entitle the Contractor to any extra compensation over his applicable contract unit price. Deviation from estimated quantities is normal and will not be considered as a basis for change in unit prices.

MSB 010913

SECTION 201

CLEARING AND GRUBBING

Special Provisions

201-3.01 GENERAL. *Add the following:*

The Contractor shall perform the work necessary to preserve and/or restore land monuments and property corners from damage. A land monument or property corner that is disturbed shall be restored according to Section 642 at the Contractor's expense. An undisturbed area five feet in diameter may be left around existing monuments and property corners. A list of land monuments and property corners is shown on the Right of Way maps.

Any vegetation, trees, down timber, stubs, brush, bushes, stumps, tree roots, debris and other objectionable material left in the construction zone from clearing operations shall become the property of the contractor and shall be removed from the Project site.

All tree felling and cutting of brush and bushes should be completed within the time frame specified by the Migratory Bird Treaty Act to avoid destruction of active bird nests, eggs, or nestlings. Tree cutting/felling and cutting of brush and bushes during the period of May 1st through July 15th requires written authorization from the Owner's Representative.

201-4.01 METHOD OF MEASUREMENT. *Add the following:*

The work required to preserve and restore land monuments and property corners will be subsidiary to Pay Item 201(3B) Clearing and Grubbing.

SECTION 202

REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Special Provision

202-3.01 GENERAL. Add the following:

Carefully remove fences designated by the Engineer to the right-of-way limit, or to the end of the span beyond the right-of-way limit. These materials belong to the property owners, and shall be salvaged and stacked neatly in their yards.

SECTION 203

EXCAVATION AND EMBANKMENT

Special Provision

203-2.01 MATERIALS. Add the following to the end of item 3. Borrow: Borrow, Type B, will meet the requirements for Selected Material, Type B.

Add the following:

1. Borrow, Type II-A. See subsection 703-2.13

203-4.01 METHOD OF MEASUREMENT. Add the following: Borrow, Type B and Borrow, Type IIA quantities are calculated using neat line plus a 10% contingency. Contractor will be required to monitor depth (yield) and waste to not exceed the 10% contingency. Contractor will not be compensated over the amount listed unless work is added by a field directive and issued by the inspector.

203-5.01 BASIS OF PAYMENT. Add the following: Special ditches and the removal of duff in fill areas will be measured and paid for as 203(3) Unclassified Excavation.

Add the following: If material is being paid by the cubic yard (compacted in place), truck count will be used during quantity disputes to determine cubic yards of material. Quantity per truck will be 15 cubic yards per belly dump or side dump, and 8.5 cubic yards per end dump. Trucks will meet capacity requirements and be fully loaded. Submittals for payment will include all truck tickets, a spreadsheet organizing the truck load count, and legal load data sheets for all trucks involved. Material maximum dry density (pounds per cubic foot) will be determined using the ASTM D1557 proctor method (corrected). The estimating factor for borrow is 144 pounds per cubic foot.

Add the following pay items:

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
203(19)	Borrow, Type II-A	Ton

SECTION 204

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

Special Provisions

204-5.01 BASIS OF PAYMENT. Delete the third paragraph and substitute the following: When item 204(1), Structure Excavation, does not appear in the bid schedule, structure excavation required to complete other items of work is subsidiary except that excavation and disposal of unsuitable material required from below a plane 12 inches below the invert elevation of conduits and 12 inches below the bottom of structures will be paid for under pay item 203(1), Common Excavation.

Delete the fourth paragraph and substitute the following: Any backfill or bedding material required whose source is other than project excavation will be paid for at the contract price for pay item 203(5) Borrow, Type B.

SECTION 301

AGGREGATE BASE AND SURFACE COURSE

Special Provision

301-4.01 METHOD OF MEASUREMENT. Add the following: Aggregate Surface Course, Grading E-1 quantities are calculated using neat line plus a 10% contingency. Contractor will be required to monitor depth (yield) and waste to not exceed the 10% contingency. Contractor will not be compensated over the E-1 or D-1 amount listed unless work is added by a field directive and issued by the inspector.

MSB

SECTION 603

CULVERTS AND STORM DRAINS

Standard Modification

603-1.01 DESCRIPTION. *Add the following:* This work shall also consist of installing culvert marker posts.

603 2.01 MATERIALS. Add the following: Culvert marker posts shall meet the requirements of subsection 730-2.05, Flexible Delineator Posts. The color shall be blue with no other markings. The 2.5 inch by 6 foot post shall be rectangular in cross section with reinforcing ribs capable of a minimum bending radius of 9 inches.

Add the following:

603 3.06 CULVERT MARKER POSTS. Culvert marker posts shall be installed on the approach side of the storm drain outfalls 30 inches and smaller, field inlets not in paved parking lot, all end sections to cross culverts, or as directed by the Engineer. Forty two inches of post shall remain above the ground after driving.

603 5.01 BASIS OF PAYMENT. Culvert Marker posts, excavation, bedding and backfill are subsidiary.

MSB 020714

SECTION 610

DITCH LINING

Special Provision

610-2.01 MATERIALS. *Add the following:*

Bone Rock shall be clean aggregate graded between 3" - 12".

Geotextile, Drainage, Class 2, selected for use in detention basins will be of a non-woven construction, and designed to accommodate soils with 15% to 50% fines.

610-5.01 BASIS OF PAYMENT.

Add the following:

Geotextile, Drainage, Class 2, used in detention basins is subsidiary to pay item 610 (4) Bone Rock.

Add the following pay item:

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
610(4)	Bone Rock	Cubic Yard

SECTION 618

SEEDING

Special Provisions

618-1.01 DESCRIPTION. Add the following: Topsoil and seed new or disturbed slopes and other areas directed by the Engineer. Track the soil and apply seed, mulch, fertilizer, and water. Provide a living ground cover on slopes as soon as possible.

618-2.01 MATERIALS. Add the following to the list of material specifications:

Mulch subsection 727-2.01

618-3.01 SOIL PREPARATION. Delete the fourth paragraph and replace with the following:

Roughen the surface to be seeded by grooving the soil in a uniform pattern that is perpendicular to the fall of the slope. Use one or more of the following grooving methods with associated equipment before the application of seed:

1. Manual raking with landscaping rakes;
2. Mechanical track walking with track equipment; or
3. Mechanical raking with a scarifying slope board. Form one inch wide grooves spaced no more than six inches apart.

Rounding the top and bottom of slopes to facilitate tracking or raking and to create a pleasant appearance is acceptable, but disrupting drainage flow lines is not.

Add the following: Apply seed as detailed in subsection 618-3.03 immediately after the shaping of the slopes. Cover all slopes to be seeded with topsoil according to Section 620. Complete slope preparation as soon as topsoil is placed on the slopes.

618-3.02 SEEDING SEASONS. Add the following: Seed disturbed areas that require seeding within 14 days of the permanent cessation of ground disturbing activities in that area.

Seed between May 15 and August 15, or obtain written approval from the Engineer to seed at a different date.

618-3.03 APPLICATION. Add the following: Apply seed, mulch, and fertilizer as follows per MSF. Apply seed and mulch in one application if using the hydraulic method. Apply fertilizer with the hydraulic method.

Component	Ingredients	Application Rate (per MSF)
Seed	Slender Wheatgrass (Wainwright) Red Fescue (Arctared) Annual Ryegrass (Lolium)	1.00 lbs. 0.80 lbs. 0.20 lbs. Total = 2.00 lbs
Soil Stabilizer Slope ≤ 3:1 Slope >3:1	Mulch Mulch with tackifier	46 lbs. 45-58 lbs.
Fertilizer	20-20-10	12.0 lbs.

Do not remove the required tags from the seed bags.

Upon the Engineer's approval, Nortran Tufted Hairgrass may be used as a substitute for Slender Wheatgrass (Wainwright) if Slender Wheatgrass (Wainwright) is commercially unavailable. If this substitution is made, apply at the same application rate.

Water and fertilizer required for application are subsidiary to the Contract Price.

Delete Subsection 618-3.04 in its entirety, and add the following new subsections:

618-3.04 MAINTENANCE AND WATERING. Protect seeded areas against traffic by approved warning signs or barricades. Repair surfaces gullied or otherwise damaged following seeding. Maintain seeded areas in a satisfactory condition until final acceptance of work.

Water and maintain seeded areas. If, in the opinion of the Engineer, too much water is being applied, reduce amount of water as directed.

Reseed areas not showing evidence of satisfactory growth within 3 weeks of seeding. Bare patches of soil more than 10 square feet in area must be reseeded. Erosion gullies over 4 inches deep must be filled and reseeded. Fill the entire erosion gully to surrounding grade, including the portions less than 4 inches deep.

Contact ADNR for advice or corrective measures, when seeded areas are not showing evidence of satisfactory growth. The Contractor is responsible for re-tracking, reseeding, re-fertilizing, and re-mulching areas that do not show satisfactory growth, and those actions are subsidiary.

618-3.05 ACCEPTANCE. During final inspection, the Engineer will perform a visual inspection of seeding to determine final stabilization. During the visual inspection, each station and each side of the road will be considered a separate area. The Engineer will accept seeding that has become a vegetative mat with 70% cover density in the inspection area.

Reseed areas that are not acceptable to the Engineer.

618-3.06 PERIOD OF ESTABLISHMENT. Establishment periods extend for one complete growing season following acceptable seeding. Employ all possible means to preserve/maintain the new vegetative mat in a healthy and vigorous condition to ensure successful establishment. Reseed areas that do not meet the specifications. Watering and reseeding after the final inspection are subsidiary to the Contract Price.

The Engineer may, but is not required to, determine the Project is complete except for the period of establishment, and issue a letter of final acceptance. After final acceptance, work or materials due under this subsection during any remaining period of establishment are considered warranty obligations that continue to be due following final acceptance in accordance with subsection 105-1.16.

618-4.01 METHOD OF MEASUREMENT.

The quantity of seeding shall include all cultivation, seeding, limestone, if required, fertilizer and mulching.

618-5.01 BASIS OF PAYMENT. Delete paragraphs beginning: "Seeding by the Acre" and "Seeding by the Pound" and replace with:

Seeding by the Acre. Payment is for established vegetative mat. Soil preparation, fertilizer, mulching (if required), water required for hydraulic method, and water applied for growth of vegetative mat are subsidiary.

Seeding by the Pound. Payment is for established vegetative mat. Soil preparation, fertilizer, mulching (if required), water required for hydraulic method, and water applied for growth of vegetative mat are subsidiary.

Replace Section 639 with the following:

SECTION 639

DRIVEWAYS

639-1.01 DESCRIPTION. Construct approaches, residential or commercial driveways at the locations shown in the Plans.

639-2.01 MATERIALS. Use materials that conform to the standards for the main roadway.

639-3.01 CONSTRUCTION. Construct driveways and approaches to the dimensions shown on the Plans.

639-4.01 METHOD OF MEASUREMENT. By the number of driveways and approaches constructed as shown on the Plans or as directed. Pavement removal and excavation required beyond the limits of the adjacent mainline will be subsidiary.

639-5.01 BASIS OF PAYMENT. At the contract unit price shown in the bid schedule. The contract unit price for driveways and approaches shall be full compensation for furnishing equipment and labor necessary to complete the work as specified.

Materials required to construct driveways and approaches will be paid for separately under the respective items listed in the bid schedule.

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
639(1)	Residence Driveway	Each
639(2)	Public Approach	Each

SECTION 641

EROSION SEDIMENT AND POLLUTION CONTROL

Standard Modifications

Delete Section 641 in its entirety and substitute the following:

641-1.01 DESCRIPTION. As approved by the Engineer, provide project administration and construction activities to control erosion, sedimentation, and pollution from the Project, according to this section and applicable local, state and federal requirements, including the Construction General Permit.

Utilities will be relocated by others concurrently with construction of this project. The Contractor will be responsible for controlling sediment and erosion and stabilizing areas disturbed during underground and aboveground utility relocation.

The Borough will develop a Storm Water Pollution Prevention Plan (SWPPP) necessary to cover certain utility relocation work that may precede issuance of a Notice to Proceed. The Contractor will incorporate the provisions of that SWPPP document into any documents prepared by the Contractor under this Section.

641-1.02 DEFINITIONS.

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL). Certification documenting the person has completed training, testing and other requirements recognized by the Borough to satisfy the APDES Construction General Permit for “qualified personnel”. AK-CESCL certificates issued in conformance with, and under authority of the AK-CESCL Memorandum of Understanding are recognized by the Borough as meeting this standard. An AK-CESCL certification must be recertified every three years. CPESC, Certified Professional in Erosion and Sediment Control; CISEC, Certified Inspector in Sediment and Erosion Control; and CESCL, Washington Department of Ecology Certified Erosion and Sediment Control Lead are the only other recognized substitution for the AK-CESCL certification.

Alaska Department of Conservation (ADEC). The State Department that has been authorized to administer the Clean Water Act’s National Pollutant Discharge Elimination System in a phased process.

Alaska Pollutant Discharge Elimination System (APDES). The Alaska Pollutant Discharge Elimination System, administered by ADEC.

Area of Land Disturbance. The area of land (soil) that will be disturbed by Construction Activity. Area of Land Disturbance does not include pavement removal or pavement milling if the activity does not remove aggregate underlying the pavement.

Best Management Practices (BMPs). Temporary or permanent structure and non structural devices, schedules of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce 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.

Clean Water Act (CWA). United States Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.)

Construction Activity. Physical activity by the Contractor or any Subcontractor or Utility Company that may result in land disturbance, erosion, sedimentation, or a discharge of pollutants in storm water. Construction activity includes, but is not limited to, grubbing, excavation, constructing embankment, grading, stockpiling erodible material, processing material and installation or maintenance of BMP’s.

Construction General Permit (CGP). The Alaska Pollutant Discharge Elimination System General Permit for Discharges from Large and Small Construction Activities.

Electronic Notice of Intent (eNOI). The Electronic Notice of Intent submitted to ADEC, to begin Construction Activities under the CGP.

Electronic Notice of Termination (eNOT). The Electronic Notice of Termination submitted to ADEC, to end coverage under the CGP.

Erosion and Sediment Control Plan (ESCP). A project-specific document that illustrates measures to control erosion and sediment problems on a project. The ESCP normally consists of a general narrative and a map or site plan. It is developed by the Borough and may be included in the project plans and specifications. It serves as a resource for bid estimation and a frame work from which the Contractor develops the project SWPPP.

Final Stabilization. Soil disturbing activities at the site have been completed and one of the following methods, as identified in the contract, has been completed:

- Establish a uniform and evenly distributed perennial vegetative cover with a density of 70 percent of the native background vegetative cover, or
- Construct non-erodible permanent stabilization measures (such as riprap, gabions, geotextiles, pavement, or crushed aggregate base course) where vegetative cover is not required or practical.

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

Operator(s). The party or co-parties associated with a regulated activity that has responsibility to obtain storm water permit coverage. "Operator" for the purpose of CGP and in context of stormwater associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day to day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g. they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with permit conditions).

Pollutant. Any substance or item meeting the definition of pollutant contained in 40 CFR 122.2

Project Area. The physical limits of the construction site, Borough furnished project staging and equipment areas, Borough furnished haul routes where deposition of sediments or erodible materials may result from material hauling activities and Borough furnished material and disposal sites directly related to the Contract. The project area also includes all areas of utility relocation and installation, including adjacent utility easements and tie-ins that may extend beyond the defined project limits. Contractor or Commercial Operator furnished material sites material processing sites, disposal sites, haul routes, staging areas and equipment storage are not included in the Project Area.

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

Storm Water Pollution Prevention Plan (SWPPP). The Contractor's detailed project -specific plan to minimize erosion and contain sediment within the Project site and to prevent discharge of pollutants that exceed applicable water quality standards. The SWPPP includes, but may not be limited to, amendments, records of activities, inspection schedules and reports, qualifications of key personnel and all other documentation required by the CGP and this specification.

Temporary Stabilization. The protection of exposed soils (disturbed land) from wind, and water erosion during construction process, until final stabilization is established.

Utility Company. A Utility Company or their contractor performing work concurrently with the construction of this project.

641-1.03 SUBMITTALS. Submit three signed copies of the SWPPP and HMCP to the Engineer. Submit two signed copies of the SPCC Plan (if required under subsection 641-2.03) to the Engineer at or before the pre-construction meeting.

The Borough will review the SWPPP and HMCP submittals within fourteen (14) calendar days. Submittals will be returned to the Contractor as either requiring modification, or as approved by the Borough. The 14 day review period will restart when the Contractor submits to the Borough the revised SWPPP and or HMCP. The approved SWPPP must contain certification, and be signed according to the Standard Permit Conditions of the APDES Construction General Permit.

Upon acceptance of the SWPPP by the Borough submit an eNOI for the Project to ADEC with the required fee. Submit a copy of the eNOI to the Project Manager when the eNOI is submitted to ADEC. The Borough will submit the Borough's eNOI to the ADEC and provide a copy to the Contractor for inclusion in the SWPPP.

No construction activities will take place on the Project until the eNOI has been posted on the ADEC website for seven (7) calendar days.

The active status NOI's, SWPPP, HMCP and SPCC Plan (when required) become the basis of the work required for the project's erosion, sediment, and pollution control.

Within fifteen (15) calendar days after the Engineer has determined you may end SWPPP activities for the Project, submit your eNOT for the Project to ADEC and send a copy of the eNOT to the Engineer. Within fifteen (15) calendar days of the Project Manager's determination the Borough will submit the Borough's eNOT to the ADEC and send a copy to the Contractor.

When CGP, Part 10, F requires ADEC SWPPP review: transmit a copy of the SWPPP with the required fee to ADEC using delivery receipt confirmation. Transmit a copy of the delivery receipt confirmation to the Engineer within seven (7) calendar days of receiving the confirmation. Transmit a copy of the ADEC SWPPP review letter to the Project Engineer within seven (7) calendar days of receipt from ADEC. Amend the SWPPP as necessary to address ADEC comments and transmit a copy of the SWPPP amendments to the Engineer within seven (7) calendar days of receipt of ADEC review comments. Include a copy of the ADEC SWPPP review letter in the SWPPP.

641-1.04 PERSONNEL QUALIFICATIONS. The Superintendent and any designated Relief Superintendent must meet the following qualifications:

- Current certification as AK-CESCL
- Duly authorized representative, as defined in Appendix F of the CGP.

641-1.05 SIGNATURE/CERTIFICATION REQUIREMENTS AND DELEGATIONS.

eNOI and eNOT. The eNOI and eNOT must be signed and certified by a responsible corporate officer, in accordance with the CGP Appendix F. Signature and certification authority, for eNOI and eNOT, cannot be delegated.

Delegation of Signature Authority for Other SWPPP Documents and Reports. Delegate signature and certification authority to the Superintendent, in accordance with CGP Appendix F, for the SWPPP inspections, and other reports required by the CGP. Include a copy of the written delegation in the SWPPP. Delegation is not required if the Superintendent is a responsible corporate officer for the Contractor, as defined in CGP Appendix F.

Subcontractor Certification. Subcontractors must certify that they have read and will abide by the CGP and the conditions of the project SWPPP.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN. Prepare a Storm Water Pollution Prevention Plan. When provided in the plan set use the Borough's ESCP to develop a SWPPP based on scheduling, equipment, and use of alternative BMPs. The SWPPP preparer must visit the project site before preparing the SWPPP. The plan must include both erosion control and sediment control measures. The plan must first address preventing erosion, then minimizing erosion and finally trapping sediment before it leaves the project site.

The SWPPP must follow the format presented in Appendix A, of Developing Your Storm Water Pollution Prevention Plan (EPA 833-R-060-04 May 2007). An electronic copy of the SWPPP template is available on EPA's web site at <http://www.epa.gov/npdes/swpppguide>

The plan must address the site specific controls and management plan for the construction site as well as for material sites, waste disposal sites, haul roads and other affected areas, public or private. The plan must also include copies of and incorporate the requirements of the project permits.

The contractor is responsible for identifying, in their SWPPP, other work that is on-going or will be undertaken within or adjacent to the project during the contract period and to coordinate erosion and sediment control measures with the other operators.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS.

Prepare a HMCP for handling, storage, cleanup and disposal of petroleum products and other hazardous substances. (See 40 CFR 117 and 302 for listing of hazardous materials).

Compile Material Safety Data Sheets in one location and reference in the HMCP. List and give location of hazardous materials, including office materials, to be used and/or stored on site, and estimated quantities. Detail a plan for storing these materials as well as disposing of waste petroleum products and other hazardous materials generated by the project.

Identify the locations where storage, fueling and maintenance activities will take place, describe the maintenance activities and list controls to prevent the accidental spillage of oil, petroleum products, and other hazardous materials.

Detail procedures for containment and cleanup of hazardous substances, including a list of types and quantities of equipment and materials available on site to be used.

Detail a plan for the prevention, containment, cleanup and disposal of soil and water contaminated by accidental spills. Detail a plan for dealing with unexpected contaminated soil and water encountered during construction.

Detail methods of disposing of waste petroleum products and other hazardous materials generated by the project. Identify haul methods and final disposal areas. Assure final disposal areas are permitted for hazardous material disposal.

Specify the line of authority and designate a field representative for spill response and one representative for each subcontractor. Include their names and contact information in the SWPPP.

641-2.03 SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN REQUIREMENTS.

Control

Prepare and implement a SPCC Plan when required by 40 CFR 112, including:

1. When oil spills may reach navigable waters; and
2. Total above ground oil storage capacity is greater than 1,320 gallons.

Prevention and Countermeasures

Comply with 40 CFR 112 and address the following issues in the SPCC Plan:

1. Operating procedures that prevent oil spills;
2. Control measures installed to prevent a spill from reaching navigable waters; and
3. Countermeasures to contain, cleanup and mitigate the effects of an oil spill.

Self-certify the SPCC Plan if the total above ground oil storage capacity is 10,000 gallons or less, and the requirements for self certification in 40 CFR 112 are met. Otherwise the SPCC Plan must be certified, stamped with the seal of, date by, and signed by a Professional Engineer registered in the State of Alaska.

641-2.04 RESPONSIBILITIES AND AUTHORITY OF THE SUPERINTENDENT.

The Superintendent is responsible for the overall operations of the Project and all Contractor-furnished sites and facilities directly related to the Project. The Superintendent shall sign and certify the SWPPP, SWPPP inspections, and other reports required by the CGP, except the NOI and NOT. The Superintendent may not delegate the task or responsibility of signing and certifying the SWPPP, SWPPP inspections, and other reports required by the CGP. If the Superintendent is unavailable, a relief Superintendent may sign and certify reports required by the CGP. If the relief Superintendent is used,

document the personnel change, including a photo copy of their AK-CESCL certification, and include their beginning and ending dates in the SWPPP.

641-2.05 MATERIALS. Comply with the material requirements described in the Plans and Specifications.

Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments in accordance with the requirements of the CGP.

Straw that is certified as free of noxious weed by the United States Department of Agriculture, Natural Resources Conservation Service, Local Soil and Water Conservation District, Alaska Weed Free Forage Certification Program must be used when available. Hay may not be substituted for straw.

Silt fences	Subsection 729-2.04, Sediment Control
Temporary Seed	Section 724
Erosion, Sediment, and Pollution Control-Material	Section 744

641-3.01 CONSTRUCTION REQUIREMENTS. Comply with the SWPPP and the requirements of the CGP.

Ensure all subcontractors and utility companies understand and comply with the SWPPP and the CGP. Provide SWPPP information to the utility companies. Notify the Project Manager immediately if actions of any utility company or subcontractor do not comply with the SWPPP and the CGP. Provide training to subcontractors & utility companies on control measures at the site and applicable storm water pollution prevention procedures and document the dates and attendees to these trainings in Appendix J of the SWPPP.

Post notices on the outside wall of the Contractor's project office, and at publicly accessible locations near the beginning and end of the Project. Protect postings from the weather and locate so the public can read them without obstructing construction activities (for example, at an existing pullout). Include the following information in each of the posted notices:

- Copy of all eNOIs related to this project
- Name and phone number of Project Superintendent
- Location of the SWPPP available for public viewing.

Comply with requirements of the HMCP, the submitted SPCC Plan, and the State and Federal regulations that pertain to handling, storage, cleanup and disposal of petroleum products or other hazardous substances. Contain, cleanup and dispose of discharges of petroleum products and other materials hazardous to the land, air, water and organic life forms. Perform fueling operations in a safe and environmentally responsible manner. Comply with requirements of 18 AAC 75 and AS 46, Oil and Hazardous Substance Pollution Control. Report oil spills as required by Federal, State and local Law and, as described in the SPCC Plan.

Comply with requirements of the APDES Construction General Permit, implement temporary and permanent erosion and sediment control measures identified in the SWPPP, and ensure that the SWPPP remains current. Maintain temporary and permanent erosion and sediment control measures in effective operating condition.

Coordinate BMPs with Utility Companies doing work in the project area.

641-3.02 INSPECTIONS

Perform inspections and prepare inspection reports to comply with the project SWPPP and the APDES Construction General Permit.

1. Joint Inspections. Before start of construction, conduct a joint on-site inspection with the Engineer, the SWPPP Preparer, and the Contractor's Superintendent for the project to discuss the implementation of the SWPPP.
 - a. Before each winter shutdown, to ensure that the site has been adequately stabilized and devices are functional.
 - b. At project completion, to ensure final stabilization of the project.

2. During Construction. In addition, the Contractor will perform inspections meeting the requirements of the APDES Construction General Permit. The project Superintendent shall review the Project Site, Materials Sites, Waste Sites and the SWPPP for conformance with the APDES Construction General permit at least once per month and after every major change in earth disturbing activities for compliance with the Construction General Permit.
3. Inspection Reports. Prepare and submit, within three (3) working days of each inspection, a Inspection Report. At a minimum the report will contain the following:
 - a. A summary of the scope of the inspection
 - b. Name(s) and titles of personnel making the inspection
 - c. The date of the inspection
 - d. Observations relating to the implementation of the SWPPP
 - e. Any actions taken as the result of the inspection
 - f. Incidents of non-compliance

Where a report does not identify and incidents of noncompliance, certify that the facility is in compliance with the SWPPP and the APDES Construction General Permit.

The Contractor's Superintendent will sign the report according to the Standard Permit Conditions of the APDES Construction General Permit. Include reports as an appendix to the SWPPP.

Record Retention

Keep the SWPPP up to date at all times. The SWPPP shall denote location, date of installation, date maintenance was performed and the date of removal of BMPs. It shall also contain copies of inspection reports and amendments.

Maintain the following records as part of the SWPPP:

1. Dates when major grading activities occur;
2. Dates when construction activities temporary or permanently cease on a portion of the site: and
3. Dates when stabilization measures are initiated.

Provide the Engineer with copies of SWPPP revisions, updates, records and inspection reports at least weekly.

Retain copies of the SWPPP and other records required by the APDES Construction General Permit for at least three years from the date of final stabilization.

If unanticipated or emergency conditions threaten water quality, take immediate suitable action to preclude erosion and pollution.

Amendments

Submit amendments to the SWPPP to correct problems identified as a result of:

1. Storm or other circumstance that threatens water quality, and
2. Inspection that identifies existing or potential problems.

Submit SWPPP amendments to the Engineer within seven (7) calendar days following the storm or inspection. Detail additional emergency measures required and taken, to include additional or modified measures. If modifications to existing measures are necessary, complete the implementation before the next storm event whenever practicable.

Stabilize area disturbed before the seeding deadline or within seven (7) calendar days of the temporary or permanent cessation of ground-disturbing activities.

Notice of Termination

For projects that require an eNOI, submit the signed eNOT to the ADEC with a copy to the Project Manager when the Project Manager notifies that:

1. The project site (including material sources, and disposal sites) has been finally stabilized and that storm water discharges from construction activities authorized by the permit have ceased, or
2. The construction activity operator (as defined in the APDES Construction General Permit) has changed.

641-4.01 METHOD OF MEASUREMENT.

Items 641(2) and (4) will be measured as specified in the Contract or Owner's Action authorizing the work.

641-5.01 BASIS OF PAYMENT.

1. Item 641(1) Erosion and Pollution Control Administration. At the Contract lump sum price for administration of work under this Section. Includes, but is not limited to, plan preparation, plan amendments and updates, inspections, monitoring, reporting and record-keeping.
2. Item 641(2) Temporary Erosion and Pollution Control. At the prices specified in the Contract or as provided in the Owner's action authorizing the work to install and maintain temporary erosion, sedimentation and pollution control measures.
3. Item 641(3) Temporary Erosion and Pollution Control. At the Contract lump sum price to install and, maintain temporary erosion, sedimentation and pollution control measures required to complete the project according to the Plan and with the current approved SWPPP and HMCP.
4. Item 641 (4) Temporary Erosion and Pollution Control Amendments. At the price specified in the Owner's action for extra, additional or unanticipated work to install and maintain temporary erosion, sedimentation and pollution control measures. Work paid under this item will be shown as amendments to the original SWPPP or HMCP.

Temporary erosion and pollution control measures that are required at Contractor -furnished sites are subsidiary to Pay Item 641(3).

Work that is paid for directly or indirectly under other pay items will not be measured and paid under this Section, including but not limited to dewatering, shoring, bailing, installation and removal of temporary work pads, temporary accesses, temporary drainage pipes and structures and diversion channels.

Perform temporary erosion and pollution control measures that are required due to negligence, carelessness, or failure to install permanent controls as a part of the work scheduled or ordered by the Project Manager, or for the Contractor's convenience, at the Contractor's expense.

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

Failure

If the Contractor fails to coordinate temporary or permanent stabilization measures with the earthwork operations in a manner to effectively control erosion and prevent water pollution, the Project Manager may suspend the earthwork operations and withhold monies due on current estimates for such earthwork items until aspects of the work are coordinated in a satisfactory manner.

If there is failure to:

1. Pursue the work required by the SWPPP,
2. Respond to inspection recommendations and/or deficiencies in the SWPPP, or
3. Implement erosion and sedimentation controls identified by the Project Manager.

The Project Manager may suspend construction activities and withhold monies due on current estimates until the SWPPP is in compliance with the APDES Construction General Permit.

The Contractor shall be due no additional monies or Contract time extension as result of delays resulting from suspension of earthwork for failure to perform required erosion, sedimentation, or pollution duties as outlined in this Section 641.

If listed in the bid schedule payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
641(1)	Erosion and Pollution Control Administration	Lump Sum
641(2)	Temporary Erosion and Pollution Control	Contingent Sum
641(3)	Temporary Erosion and Pollution Control	Lump Sum
641(4)	Temporary Erosion and Pollution Control Amendments	Contingent Sum

SECTION 642

CONSTRUCTION SURVEYING

Standard Modifications

Delete Section 642 in its entirety and substitute the following:

642-1.01 GENERAL. Perform surveying and staking essential for the completion of the project and perform the necessary calculations required to accomplish the work in conformance with the Plans and Specifications and standard engineering and surveying practice.

Finish and install survey monuments and monument cases in conformance with the Plans or as directed.

Adjust existing monuments and monument cases to conform to the new elevations.

642-1.02 DEFINITIONS.

1. Monument: A fixed physical object marking a point on the surface of the earth, used to commence or control a survey; mark the boundaries of a parcel of land; or the centerline of right-of-way corridor. Monuments will be Primary or Secondary, as shown on the plans.
2. Surveyor: The Contractor's Professional Land Surveyor, currently registered in the State of Alaska.

642-2.01 MATERIALS.

1. Monument Cases: Use castings meeting AASHTO M 105, Class No. 30A. Coat castings with a bituminous dam-proof coating. Use tops that bear evenly on the frames.
2. Primary Monument: A minimum 2-inch diameter nonferrous pipe at least 30 inches long, with a minimum 4-inch flange at the bottom and having magnets attached at the top and bottom. A minimum 2-3/8 inch diameter nonferrous metal cap must be permanently attached to the top. Permanently stamp every monument with the Surveyor's registration number, the point/corner identification.
3. Secondary Monument: A minimum 5/8 inch rebar with a 2-inch aluminum cap attached to the top. Permanently stamp every secondary monument with the Surveyor's registration number, the point/corner identification.

642-3.01 GENERAL. Use competent, qualified personnel and suitable equipment for the layout work required and furnish traffic control, stakes, templates, straight-edges and other devices necessary for establishing, checking and maintaining the required points, lines and grades.

The owner found existing monuments and set additional control sufficient to establish the project centerline and set at least two benchmarks per mile to enable establishment of planned elevations. The survey control for this project is shown on the Plans.

The contractor will perform the following:

1. Staking necessary to delineate clearing and/ or grubbing limits.
2. Slope Staking.
3. Staking of signs, culverts, minor drainage structures and other appurtenances, including the necessary checking to establish the proper location and grade to best fit the conditions on site.
4. Set centerline finishing stakes (hubs)

5. All other surveying and staking necessary to complete the project.

642-3.03 MONUMENTS. Any monuments disturbed on the project will be replaced by the Contractor's Surveyor. The Surveyor must complete and stamp a State of Alaska Land Surveyor Monument Record form for each primary and secondary monument removed, installed, relocated, or replaced. Provide the required survey information on the form in accordance with statutory requirements, including section, township, and range. Meet requirements for recording at the District Recorder's Office in which the project is located for each monument record. Deliver conforming copies of the recorded forms to the Engineer before monument removal or disturbance and after setting any final monuments requiring monument records.

Set each monument and monument case accurately to lines established at the required location and in a manner as to ensure being held firmly in place. Set existing monuments and monument cases to be adjusted to new elevations in the manner and at the elevations directed.

642-4.01 METHOD OF MEASUREMENT.

Item 642(1) Construction Surveying. No measurement of quantities will be made.

Item 642(2) Two Person Survey. By the hour, as directed by the Engineer, for any additional or unanticipated work made necessary by changes in the project.

642-5.01 BASIS OF PAYMENT. Construction Surveying includes field and office work required to accomplish the work, including furnishing necessary personnel, equipment, transportation and supplies.

Traffic control devices necessary for the survey parties are considered subsidiary to Pay Item 642(1).

Survey monuments placed on bridges are subsidiary.

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
642(1)	Construction Surveying	Lump Sum
642(2)	Two Person Survey Party	Hour

SECTION 643

TRAFFIC MAINTENANCE

Standard Modifications

643-1.01 DESCRIPTION. *Add the following:*

This work consists of the necessary measures to protect and control traffic during the life of the contract including but not limited to, furnishing, erecting, maintaining, replacing, cleaning, moving and removing the traffic control devices required to insure the safety of the traveling public and all administrative responsibilities necessary to implement this work. The Contractor shall be liable for any damage or injuries suffered by reasons of their operations or their failure to provide adequate safeguarding services.

DEFINITIONS. *Add the following:*

Permanent Construction Signs. Signing installed at the start of construction activities and located on the primary approaches to the work zone to warn drivers of upcoming construction activities and to advise drivers that they have reached the end of the construction zone. These signs may include signs setting speed limits through the construction zone and/or warning of increased penalty for excessive speed in the construction zone.

Detour. An alternate route taking drivers around a road closure or other obstacle normally delineated by specific signing notifying the driver when the detour must be taken and guiding the driver through the alternate route.

643-1.03 TRAFFIC CONTROL PLAN. *Add the following:* A Traffic Control Plan (TCP) is a drawing or drawings indicating the method or scheme for safely guiding and protecting motorists, pedestrians, bicyclists, and workers in a traffic control zone. It depicts the traffic control devices to be used, their placement and times of use.

The Contractor shall submit Traffic Control Plans at the Preconstruction Conference that has been prepared by an ATSSA Traffic Control Supervisor for typical situations that will be encountered during the project. The Contractor shall designate a person responsible for implementing and maintaining the Contractor's Traffic Control Plan. The Engineer shall be the final approving authority for any TCP actually implemented.

There shall be no work within the project limits until the Contractor has implemented an approved TCP for the work proposed. The number of traffic control devices indicated on the TCP's and Standard Drawings are a minimum. If unsafe conditions occur, the Engineer may require additional traffic control devices.

643 – 2.01 MATERIALS. No. 16, Flagger Paddles, *replace last sentence with:*

Use reflective sheeting that meets AASHTO M268, Type VIII, or IX. Use background colors of fluorescent orange on one side and red on the other side.

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. *Add the following:* The Contractor shall maintain continuous, safe and convenient traffic flow along all roads impacted by the construction activities. Traffic control devices and services shall be provided and maintained both inside and outside the project limits both day and night as needed to facilitate traffic guidance.

Unless otherwise directed, the Contractor shall keep all roadways undergoing improvement open to traffic. Temporary closure of residential, commercial or street approaches requires prior approval of the Engineer. The Contractor shall provide access through the project for emergency vehicles and school buses. All locations requiring redirection or stopping of the traveling public shall be properly signed and/or flagged by the Contractor.

The Contractor's equipment shall stop at all points of intersection with the traveling public unless satisfactory traffic control measures, are shown on the approved TCP or approved by the Engineer.

Immediately notify the Engineer of traffic related accident(s) that occur(s) inside the project limits as soon as becoming aware of the accident(s).

643-3.04 TRAFFIC CONTROL DEVICES. Delete the first paragraph and substitute the following:

Prior to the start of construction operations on any portion of the project, the Contractor shall erect permanent and temporary traffic control devices as may be required by the approved TCPs or as directed by the Engineer. Traffic control devices shall be used only when needed. Advisory speeds, when necessary, shall be determined by the Engineer. All traffic control devices used by the Contractor shall conform to the requirements as specified in the current edition of the Alaska Traffic Manual (ATM) and shall be placed as shown on the plans or as directed by the Engineer.

During non-working hours and following the completion of a portion of the project, all unnecessary traffic control devices shall be removed or covered.

The Contractor shall provide flagging for traffic control when needed for safety of the traveling public. Each Flagging operation shall be approved by the Engineer prior to its implementation and shall be adjusted as conditions change or as directed by the Engineer. Flagging shall include the furnishing of trained competent flaggers and all necessary equipment for control of traffic through the work zone, including two-way radio communications between flaggers when flaggers are not in plain view of each other. Flaggers shall maintain their assigned posts at all times, unless relieved by another qualified flagger or the need for flagging traffic no longer exists. Flagger signs are to be removed when a flagger is not present.

In the sixth paragraph replace: "ATTSA" with: "ATSSA"

Add the following to No. 1 Embankments: Close trenches and excavations at the end of each continuous work shift, except as indicated by the Project manager.

Add the following to No. 3 Fixed Objects: Remove obstructions greater than 4 inches above the nominal foreslope grade at the end of continuous work shift.

Delete No. 4.b and replace with: Flagger Certification by ATSSA.

Delete No. 6 and replace with:

6. Street Sweeping and Power Brooming. Keep free of loose material paved portions of the roadway and haul routes open to the public, including sections of the roadway off the project where the Contractor's operations have deposited loose material. Use equipment for brooming and sweeping as recommended by the manufacturer and the following:

Dirt, dust and construction materials, mobilized as a result of power brooming and or sweeping, shall not be pushed, ejected, thrown or drift beyond the lesser of, 2 feet from the equipment perimeter or the edge of the paved surface.

All equipment shall operate to typical industry standards. Maintain equipment to operate as designed by the manufacturer. Equipment will employ safety equipment, warning lights, and other as required by the Specifications and these Special Provisions.

Sweeper and Broom Options:

- a. Regenerative Sweeper: Sweeper that blows stream of air at the paved surface causing fine particles to rise and be caught through a vacuum system.
- b. Vacuum Sweeper: Sweeper that creates a vacuum at the paved surface sucking dirt, dust and debris into the collection system.
- c. Mechanical Broom Sweeper: Sweeper designed to pick up and collect larger size road debris, stones and litter, ect. In addition to the requirements noted in these specifications, use of a mechanical broom sweeper requires the Project Manager to approve the sweeper for the intended use.
- d. Power Broom: Power brooming that wets, pushes and or ejects loose material directly into an attached collection/pickup container may be used when approved by the Engineer. The added moisture will be contained to the paved roadway surface.

7. Watering. *Replace the first sentence with the following:* “Furnish, haul and place water for dust control and pavement flushing at a minimum of once a day in dry conditions, and as directed.”

Dry Power Brooming is not permitted. Power brooming without direct/immediate means of collection/pickup is not permitted.

Payment for Street Sweeping and Power Brooming is subsidiary to Pay Item 643(1).

643-3.05. AUTHORITY OF THE ENGINEER. *Add the following:* The Engineer may suspend construction operations if safety procedures and/or traffic controls are inadequate. The inadequate conditions shall be corrected by the Contractor before being allowed to resume operations. In no case shall this time exceed 24 hours.

643-3.08 CONSTRUCTION SEQUENCING. *Replace the last sentence in the first paragraph with:*

Unless otherwise determined by the Engineer and on an approved Traffic Control Plan (TCP), do not restrict traffic during the times listed below.

1. Monday through Friday: 1900 hours to 0700 hours (Do not restrict traffic – corresponding to 7 AM to 7 PM work schedule)
3. Around any Holiday:
 - a. If a holiday falls on Sunday, Monday or Tuesday the above stipulations apply from 1200 hours on the Friday before the holiday to 0300 hours on the day after the Holiday.
 - b. If a holiday falls on Wednesday, the above stipulations apply from 1200 hours on the Tuesday before the holiday to 0300 hours on the Thursday after the holiday.
 - c. If the holiday falls on Thursday, Friday or Saturday, the above stipulations apply from 1200 hours on the day before the holiday to 0300 hours on the Monday after the holiday.

Obtain the local school bus schedule and coordinate work efforts to ensure the school buses are not delayed through the construction zone. This plan shall be submitted, as a TCP to the Engineer for approval before implementation of school bus coordination plan.

643-3.11 HIGH VISIBILITY CLOTHING. Ensure workers inside project limits wear an outer visible surface of layer that complies with the following requirements:

1. Standards. Use high visibility garments conforming to the requirements of ANSI/ISEA 107-2004, Class 2 for tops or Class E for bottoms, and level 2 retroreflective material.
2. Labeling. Use garments labeled in conformance with Section 11.2 of ANSI/ISEA 107-2004.
3. Tops. Wear high visibility vests, jackets, or coverall tops at all times.
4. Bottoms. Wear high visibility pants or coverall bottoms during nighttime work (sunset to sunrise). Worksite traffic supervisors, employees assigned to traffic control duties, and flaggers wear high visibility pants or coverall bottoms at all times.
5. Outer Raingear. Wear raingear tops and bottoms conforming to requirements in this Subsection. 643-3.11.
6. Exceptions. When workers are inside an enclosed compartment of a vehicle, they are not required to wear high visibility clothing.
7. Condition. Furnish and maintain vests, jackets, coveralls, rain gear, hard hats, and other apparel in a neat, clean, and presentable condition. Maintain retroreflective material to Level 2 standards.

Payment for high visibility garments for workers is subsidiary to Pay Item 643(3).

643-4.01 METHOD OF MEASUREMENT. *Delete and add the following:*

1. Traffic Maintenance will be lump sum and shall include preparation of TCPs, and all labor, materials, traffic control devices and equipment required to implement the Traffic Control Plans as specified and as directed.
2. Permanent Construction Signs will be lump sum and shall include furnishing and installing the necessary advance warning signs including special construction signs such as street names or distance signs and sign posts.
3. Flagging and Pilot Car will be lump sum and shall include all required labor, vehicles, radios, flagger paddles and pilot car signs and transportation to and from work site.

643-5.01 BASIS OF PAYMENT. *Delete and add the following:*

1. Traffic Maintenance. The contract price includes all resources required to provide the Worksite Traffic Supervisor, all required TCPs and public notices, the Construction Phasing Plan, and the maintenance of all roadways, approaches, crossings, intersections and pedestrian and bicycle facilities, as required. This item also includes any Traffic Control Devices required but not shown on the bid schedule.

Items required by the Contract that are not listed on the bid schedule or not included in other items are subsidiary to Item 643(1), Traffic maintenance.

2. Permanent Construction Signs. The contract price includes all resources to provide the necessary advance warning signs including special construction signs such as street names or distance signs and sign posts.
3. Flagging and Pilot Car. The contract price includes all resources to provide the required labor, vehicles, radios, flagger paddles, pilot car signs and transportation to and from work site.

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
643(1)	Traffic Maintenance	Lump Sum
643(2)	Permanent Construction Signing	Lump Sum
643(3)	Flagger and Pilot Car	Lump Sum

SECTION 703

AGGREGATES

Special Provisions

703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE.

Replace the first sentence with the following:

Screened stone or screened gravel, consisting of sound, tough, durable pebbles or rock fragments of uniform quality.

MSB

Delete Table 703-2 and substitute the following:

TABLE 703-2
AGGREGATE FOR UNTREATED BASE
(Percent Passing By Weight)

Sieve Designation	Grading C-1	Grading D-1	Grading E-1
1 ½ inch	100	-	100
1 inch	70-100	100	
¾ inch	60-90	70-100	70-100
⅜ inch	45-75	50-80	50-85
No. 4	30-60	35-65	35-75
No. 8	22-52	20-50	20-60
No. 30	10-33	10-26	
No. 50	6-30	6-30	15-30
No. 200	0-6	0-6	7-13

MSB

703-2.07 SELECTED MATERIAL. Under the numbered list Item 2, Type B, delete the portion of the first sentence following the word "matter."

Add the following subsection:

703-2.13 BORROW, TYPE II-A. Material shall contain no lumps, frozen material, organic matter, or other deleterious matter, and shall be durable and sound. Meet the following gradation:

TYPE II-A

U.S. Std. Sieve	Cumulative % Passing by Weight
3"	100
¾"	50-100
#4	25-60
#10	15-50
#40	4-30
#200	2-6

In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than twenty percent (20%) of that fraction passing the #4 sieve.

SECTION 724

SEED

Special Provision

724-2.02 MATERIALS.Delete Table 724-1 and replace with the following:

**TABLE 724-1
SEED REQUIREMENTS**

Species	Sproutable Seed, %, Min.
Arctared Red Fescue	78
Egan American Sloughgrass	67
Norcoast Bering Hairgrass	71
Nortran Tufted Hairgrass	71
Wainwright Slender Wheatgrass	88
Alyeska Polargrass	71
Bluejoint	71
Tulesy Sagebrush	71
Tundra Glaucous Bluegrass	76
Gruening Alpine Bluegrass	72
Nugget Kentucky Bluegrass	76
Beach Wildrye	70
Annual Ryegrass	76
Perennial Ryegrass	76

*Sproutable Seed is the mathematical product of Germination and Purity.

SECTION 726

TOPSOIL

Special Provision

Delete Subsection 726-2.01, except for Table 726-1 and replace with the following:

726-2.01 TOPSOIL. Furnish topsoil that is representative of the existing, natural organic blanket of the project area. Perform a quality test, as defined by ATM 203, on the soil to determine the organic content of the soil. Supply the results to the Engineer.

Soil with an organic content of 5 percent or more may be reused and spread on the finished slopes where topsoil is noted on the plans. Remove roots, stumps, unnatural material, and rocks greater than 3 inch in diameter from the organic material before it is graded onto the finished slope.

Soil with an organic content of less than 5 percent cannot be used as topsoil for the project. In this case furnish topsoil consisting of a natural friable surface soil without admixtures of undesirable subsoil, refuse or foreign materials having an organic content of 5 percent or more, as determined by ATM 203. The material shall be reasonably free from roots, clods, hard clay, rocks greater than 3 inches in diameter, noxious weeds, tall grass, brush, sticks, stubble or other litter, and shall be free draining and nontoxic. Notify the Engineer of the topsoil source location at least 30 calendar days before delivery of topsoil to the project from the identified location. The Engineer will inspect the topsoil and its sources before approval will be granted for its use.

Add the following section:

SECTION 800

INTERIM WORK AUTHORIZATION

Special Provisions

800-1.01 DESCRIPTION. Directive needed to continue work flow on extra work within the original scope of work negotiated between the owner’s representative and the contractor, additions to quantities listed in the current bid schedule with the contract agreed unit prices, and value engineering brought forth to the owner that is in the benefit of the borough.

800-2.01 MATERIALS. Directives are agreements from the field inspector to the contractor that identify changes and additions of work necessary to complete the job.

800-3.01 GENERAL. This item is to help facilitate payment of changes before the change orders are complete through the borough system.

800-4.01 METHOD OF MEASUREMENT. Section 109 and the following:

1. Contingent Sum. Authorized additions of existing unit prices items, agreed lump sum amounts, and possible addition of items not on the current bid schedule with agreed fair unit prices.

800-5.01 BASIS OF PAYMENT.

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
800(1)	Interim Work Authorization	Contingent Sum

BID #20-088B

SECTION IV

BID FORM

**BID FORM
 BID #20-088B
 CARILLON DRIVE IMPROVEMENTS**

Having carefully examined the Project Plans and Specifications and all Bidding and Contract Documents as listed in the "Table of Contents" and in compliance with the "Invitation for Bids", the undersigned hereby proposes to furnish all materials, labor, equipment, and supervision necessary to complete the **CARILLON DRIVE IMPROVEMENTS** project for the Matanuska-Susitna Borough in full accordance with the Bidding Documents.

The bidder shall insert a Unit Price and an Extended Price (where applicable) opposite each Pay Item that appears in the Schedule. Contract award will be made to the responsive and responsible bidder with the lowest Total Bid Amount. All erasures, strike-through, white-out and/or corrections made on this form must be initialed.

Item Number	Work Description	Pay Unit	Estimated Quantities	Unit Price	Extended Price
201(3B)	Clearing	Lump Sum	All Required		\$
202(1)	Removal of structures & obstructions	Lump Sum	All Required		\$
202(4)	Removal of culvert pipe	Linear Foot	99	\$	\$
202(10)	Single mail box installation	Each	1	\$	\$
203(3)	Unclassified excavation	Cubic Yard	3,661	\$	\$
203(6)	Borrow, Type B	Ton	7,333	\$	\$
203(19)	Borrow, Type II-A	Ton	4,361	\$	\$
301(3)	Aggregate surface course, grading E-1	Ton	2,033	\$	\$
603(1-12)	12-inch CSP	Linear Foot	270	\$	\$
603(1-18)	18-inch CSP	Linear Foot	74	\$	\$
606(1)	W-beam guardrail	Linear Foot	413	\$	\$
606(9)	Controlled release terminal (CRT)	Each	1	\$	\$
606(11)	Extruder terminal (ET-2000)	Each	3	\$	\$
610(4)	Bone rock	Cubic Yard	45	\$	\$
615(2)	Remove and relocate existing sign	Each	2	\$	\$
618(2)	Seeding	Pound	57	\$	\$

 Signature

 Date

 Company Name

BID FORM CONTINUED ON THE FOLLOWING TWO PAGES

BID FORM - (CONTINUED)
BID #20-088B
CARILLON DRIVE IMPROVEMENTS

Item Number	Work Description	Pay Unit	Estimated Quantities	Unit Price	Extended Price
620(1)	Topsoil	Square Yard	3,200	\$	\$
639(1)	Residence driveway	Each	14	\$	\$
639(2)	Public approach	Each	4	\$	\$
640(1)	Mobilization & demobilization	Lump Sum	All Required		\$
641(1)	Erosion & pollution control admin.	Lump Sum	All Required		\$
641(3)	Temporary erosion & pollution control	Lump Sum	All Required		\$
642(1)	Construction surveying	Lump Sum	All Required		\$
642(2)	Two person survey party	Hour	5	\$	\$
643(1)	Traffic Maintenance	Lump Sum	All Required		\$
643(2)	Permanent construction signing	Lump Sum	All Required		\$
800(1)	Interim work authorization	Contingent Sum	All Required		\$20,000.00
TOTAL BID AMOUNT					\$

Signature

Date

Company Name

BID FORM CONTINUED ON THE FOLLOWING PAGE

BID FORM (CONTINUED)
BID #20-088B
CARILLON DRIVE IMPROVEMENTS

By signing below, the Bidder is hereby certifying to the following:

1. The Bidder has carefully examined the bid document(s) and agrees to perform all specified services for the sum(s) provided above.
2. The individual signing below, or the firm association or corporation of which they are a member, has not, 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 solicitation.
3. The individual signing below is authorized by the firm association or corporation to bind such association or corporation to a legal contract.
4. The individual signing below, or the firm association or corporation of which they are a member, is not debarred or suspended from doing business with the Matanuska-Susitna Borough.
5. They are acknowledging receipt of the following Addenda Numbers (if no addenda have been issued, either leave blank or write "N/A"):

Addenda numbers being acknowledged: _____
--

Company Name	Date
Mailing Address	Signature
City, State and Zip Code	Printed (or typed) Name
Contact Person (printed or typed)	Title (printed or typed)
Phone Number	Email Address (Contact Person)
Facsimile Number	State and Specialty License Numbers

<p>It shall be the responsibility of the Bidder to see that their bid is received before the date and time fixed for opening.</p>	<p>To be considered responsive, Bidders should include the following with their bid:</p> <ul style="list-style-type: none"> ✓ Signed Bid Form (acknowledging Addenda if applicable) ✓ Bid Guarantee (if required) ✓ Other Items required in Instructions to Bidders & Specifications/Scope of Work
---	---

BID #20-088B

SECTION V

SAMPLE AGREEMENT

**CONSTRUCTION AGREEMENT
BETWEEN OWNER AND CONTRACTOR**

Bid #20-088B

CARILLON DRIVE IMPROVEMENTS

THIS AGREEMENT is made this _____ day of _____, 20____ by and between:

MATANUSKA-SUSITNA BOROUGH

(hereinafter the "BOROUGH") and

SELECTED CONTRACTOR

(hereinafter the "CONTRACTOR")

SAMPLE

The parties agree as follows:

SECTION 1. WORK. The Contractor will do all work described in the Agreement documents listed in Section 11. The work is more specifically identified as:

Improve the road and drainage along 2,545 linear feet of Carillon Drive. This project will involve, but is not limited to, clearing, excavation, import and placement of borrow material, import and placement of aggregate surface course, installation of guardrail, installing drainage culverts and placing topsoil and seed.

SECTION 2. AGREEMENT TERM. This Agreement shall begin upon execution of this Agreement by both parties and shall expire upon completion of all duties by the Contractor to the satisfaction of the Contracting Officer.

SECTION 3. AGREEMENT TIME. The work shall begin no later than ten days after a Notice to Proceed is issued by the Contracting Officer. Substantial Completion is set at September 15, 2020, with Final Completion of October 1, 2020.

SECTION 4. AGREEMENT PRICE. The Borough shall pay the Contractor a total sum of **ENTER TOTAL DOLLAR AMOUNT IN WORDS (WRITE DOLLAR AMOUNT IN FIGURES IN PARENS)** for the work specified in the Agreement documents.

SECTION 5. METHOD OF PAYMENT. A single sum on short-term Agreements (30 days or less) and monthly payments on long-term Agreements (31 days or longer) shall be paid to the Contractor within thirty (30) working days after the Contracting Officer receives and approves a written Request for Payment from the Contractor. A copy of all certified payrolls submitted to the state of Alaska must precede or accompany any payment requests. Final payment will not be made until the Contractor has completed and submitted to the contracting officer a Contractor's Release and Affidavit of Payment of Debts and Claims, and submitted the Department of Labor Notice of Completion with final payment request. **Consent of Surety to Final Payment must also be submitted if applicable.**

SECTION 6. RELATIONSHIP OF THE PARTIES. The Contractor shall perform all obligations under this Agreement as an independent Contractor of the Borough. The Borough will administer this Agreement and monitor the Contractor's performance within the Agreement but shall not supervise or otherwise direct the Contractor except as provided in this Agreement.

SECTION 7. ASSIGNMENTS AND SUBCONTRACTORS. The Contractor may not assign any interest in the Agreement to another person, nor delegate any duties to a subcontractor or other person without the prior written approval of the Contracting Officer. Any attempt by the Contractor to assign any interest or delegate duties under this Agreement shall give the Borough the right to immediately terminate this Agreement without any liability for work performed subsequent to termination.

SECTION 8. WARRANTY. The Contractor expressly warrants that all materials used will be of the best quality locally available and that all workmanship will meet the highest standards of the trade. The Contractor guarantees to answer personally for all materials and workmanship supplied to the Borough and shall undertake to correct workmanship or defect in materials found by the Contracting Officer, or his delegate.

SECTION 9. DEFENSE AND INDEMNIFICATION.

A. The Contractor shall indemnify, defend, and hold and save the Borough, its elected and appointed officers, agents and employees, harmless from any and all claims, demands, suits, or liability of any nature, kind or character, including costs, expenses, and attorney fees. The Contractor shall be responsible under this clause for any and all legal actions or claims of any character resulting from injuries, death, economic loss, damages, violation of statutes, ordinances, constitutions or other laws, rules or regulations, contractual claims, or any other kind of loss, tangible or sustained by any person, or property arising from Contractor's or Contractor's Officers, agents, employees, partners, attorneys, suppliers, and subcontractor's performance or failure to perform this Agreement in any way whatsoever. This defense and indemnification responsibility includes claims alleging acts or omissions by the Borough or its agents which are said to have contributed to the losses, failure, violations, or damage. However, Contractor shall not be responsible for any damages or claim arising from the sole negligence or willful misconduct of the Borough, its agents, or employees.

B. If any portion of this clause is voided by law or court of competent jurisdiction, the remainder of the clause should remain enforceable.

SECTION 10. TERMINATION. This Agreement may be terminated by the Borough:

- A. if the Contractor fails to perform any obligation under this Agreement; or
- B. for any reason upon ten days written notice to the Contractor; or
- C. under Section 7 of this Agreement.

Upon termination of this Agreement, the Borough shall pay the Contractor for all work completed to the satisfaction of the Contracting Officer as of the date termination is effective.

SECTION 11. AGREEMENT DOCUMENTS AND INTEGRATION.

A. This Agreement and those documents and appendices incorporated by reference by "B" of this section shall constitute the entire Agreement of the parties. There are no promises, terms, conditions, or obligations other than those stated in this Agreement and its appendices, and this Agreement shall supersede all previous communications, representations, or agreements, either oral or written, between the parties.

B. The following documents are incorporated in full text or by reference into this Agreement:

FULL TEXT	REFERENCE
Exhibit A - Bid Form	Matanuska-Susitna Borough License
Exhibit B - Scope of Work/Specifications	State of Alaska Business License
Exhibit C - Addendum(a) Issued	Contractor's License
Exhibit D - Certificate of Insurance	State of AK DOT Standard Specifications for Highway Construction – 2015 edition
Exhibit E - Payment & Performance Bonds	Bid #20-088B - Solicitation documents and attachments
Exhibit F - State of Alaska Department of Labor Forms and Publications	

SECTION 12. MODIFICATIONS. The Borough may require modifications in the Scope of Work performed or other terms of this Agreement. It is expressly understood that no changes will be authorized without the written and signed consent of the Contractor and the Borough Purchasing Officer or Borough Manager. All such changes shall be in the form of a Change Order and shall be incorporated into this Agreement.

SECTION 13. EQUAL EMPLOYMENT OPPORTUNITY.

A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, physical handicap, age, status as a disabled veteran, or veteran of the Vietnam war era. The Contractor shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, national origin, physical handicap, age, status as a disabled veteran, or veteran of the Vietnam war era. Such actions shall include, but not be limited to the following: employment, upgrading, demotions, or transfers; recruitment or recruitment advertising; layoffs or terminations; rates of pay or other forms of compensation; selection for training, including apprenticeship; and participation in recreational and educational activities. The Contractor agrees to post in conspicuous places available for employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, physical handicap, age, or status as a disabled veteran, or veteran of the Vietnam war era. The Contractor will cause the foregoing provisions to be inserted in all subcontracts for any work covered by this Agreement. The Contractor shall keep such records and submit such reports concerning the equal opportunity employment provisions set forth in this section for applicants for employment and employees as the Borough may require.

B. The Contractor shall keep such records and submit such reports concerning the racial and ethnic origin of applicants for employment and employees as the Borough may require.

SECTION 14. INTEREST OF MEMBERS OF BOROUGH AND OTHERS. No officer, member, or employee of the Borough, and no member of its governing body, and no other public official of the governing body, shall participate in any decision relating to this Agreement which affects his personal interest or the interest of any corporation, partnership or association in which he is, directly or indirectly, interested or having any personal or pecuniary interest, direct or indirect, in this Agreement or the proceeds thereof.

SECTION 15. CONFLICT OF INTEREST. The Contractor, all employees of the Contractor, contractors and other personnel employed by the Contractor providing the services under this Agreement shall in no way stand to gain financially from the terms of this Agreement except for wages, salaries or bonuses paid by the Contractor and shall abide by federal, state, and local laws and regulations associated with conflict of interest and financial disclosure. The Contractor covenants, that he presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The Contractor further covenants that in the performance of this Agreement, no person having any such interest shall be employed.

SECTION 16. AUDITS AND INSPECTIONS. At any time during normal business hours and as often as the Borough or the Comptroller General of the United States may deem necessary, there shall be made available for examination all of the Contractor's records with respect to all matters covered by this Agreement and the Contractor will permit representatives of the Borough or the Comptroller General to audit, examine, and make excerpts or transcripts from such records, and to make audits of all contracts, invoices, materials, payrolls, records, personnel information, conditions of employment, and other data relating to all matters covered by this Agreement.

SECTION 17. JURISDICTION; CHOICE OF LAW. Any civil action arising from this Agreement shall be brought in the Superior Court for the Third Judicial District of the state of Alaska at Palmer. The law of the state of Alaska shall govern the rights and obligations of the parties.

SECTION 18. NON-WAIVER. The failure of the Borough at any time to enforce a provision of this Agreement shall in no way constitute a waiver of the provisions, nor in any way effect the validity of this Agreement or any part thereof, or the right of the Borough thereafter to enforce each and every protection hereof.

SECTION 19. PERMITS, LAWS AND TAXES. The Contractor shall acquire and maintain in good standing all permits, licenses and other entitlements necessary to its performance under this Agreement. All actions taken by the Contractor under this Agreement shall comply with all applicable statutes, ordinances, rules and regulations. The Contractor shall pay all taxes pertaining to its performance under this Agreement.

SECTION 20. SEVERABILITY. If any provision of the Agreement or the application thereof to any person or circumstances is held invalid, the remainder of this Agreement and its application to other persons or circumstances shall not be affected thereby.

SECTION 21. RULE OF INTERPRETATION. This Agreement shall not be interpreted for or against either party, but shall be interpreted according to its fair and reasonable intent.

SECTION 22. NOTICES. Any notice required pertaining to the subject matter of the Agreement shall be personally delivered or mailed by prepaid first-class, registered or certified mail to the following address:

Borough: 350 East Dahlia Avenue, Palmer, Alaska 99645

Contractor: (Insert Contractor's address here)

SECTION 23. INSURANCE.

It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of the Agreement to create in the public or any member thereof a third party benefit hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement.

It is highly recommended that the Contractor confer with their respective insurance companies or brokers to determine if their insurance program complies with the Borough's Insurance requirements.

The Contractor shall procure and maintain the following insurances:

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services office form number CG 0001 (Edition 10/01) covering Commercial General Liability.
2. Insurance Services office form number CA 0001 (Edition 10/99) covering Automobile Liability, symbol 1 "any auto".
3. Worker's Compensation insurance as required by the State of Alaska and Employers Liability Insurance.

B. Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. General Liability
\$1,000,000
combined single limit per occurrence for bodily injury, property damage, personal injury and advertising injury.
\$2,000,000
Products/Completed Operations
\$2,000,000
General Aggregate Limit. The general aggregate limits shall apply separately to each project.

If the general liability insurance is written on a claims made form, the Contractor shall provide insurance for a period of two years after final payment of this agreement. The policy(s) shall evidence a retroactive date, no later than the beginning of this Agreement.

2. Auto Liability:

\$1,000,000

combined single limit per accident for bodily injury and property damage.

3. Worker's Compensation and Employers Liability:

Worker's Compensation shall be statutory as required by the State of Alaska. Employers liability shall be endorsed to the following minimum limits:

Bodily Injury - \$1,000,000 Per Occurrence

Bodily Injury - \$1,000,000 Per Employee

Bodily Injury by Disease - \$1,000,000 Policy Limit

4. Excess Liability:

In order to meet the required minimum limits of insurance it is permissible for the Contractor to combine an excess liability or umbrella policy with the general liability, auto liability or employers liability. In the instance where the Contractor purchases an excess liability or umbrella policy the occurrence limit and the aggregate limit may be of the same amount.

C. Deductibles and Self-Insured Retention

Prior to work commencing any deductible or self-insured retention must be declared and approved by the Borough. The Contractor may be requested to demonstrate how the deductible or self-insured retention will be funded in the event of a claim. At the option of the Borough, the Contractor shall reduce or eliminate such deductibles or self-insured retention as respects the Borough, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

D. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability

- a. The Borough, its Administrator, officers, officials, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor premises owned, occupied or used by the Contractor or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the Borough, its Administrator, officers, officials, employees and volunteers.
- b. The Contractor's insurance coverage shall be primary insurance as respects the Borough, its Administrator, officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the Borough, its Administrator, officers, officials, employees and volunteers shall be excess of the Contractor insurance and shall not contribute to it.
- c. The Contractor insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

3. Worker's Compensation and Employer's Liability

The insurer shall agree to waive all rights of subrogation against the Borough, its Administrator, officers, officials, employees and volunteers for losses arising from work performed by the Contractor or any subcontractor for the Borough.

4. All Insurance

Each insurance policy required by this Agreement shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after 30 days prior written notice for nonpayment of premium or fraud on the part of the Contractor or 60 days prior written notice for any other reason by certified mail, return receipt requested, has been given to the Borough. Such notice shall be mailed by the Contractor to the attention of the Borough's Purchasing Officer.

E. Acceptability of Insurers

Insurance is to be placed with insurers with a minimum A.M. Best rating of A-VII.

F. Verification of Coverage

Contractor shall furnish the Borough with certificates of insurance and with certified copies of all endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates are to be on forms acceptable to the Borough. All certificates are to be received and approved by the Borough before work commences. The Borough reserves the right to require complete, certified copies of all required insurance policies, at any time.

G. Subcontractors

Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all requirements stated herein.

H. Lapse in Coverage

A lapse in insurance coverage is a material breach of this agreement which may result in immediate termination of the agreement, pursuant to the appropriate Section within the contract.

SECTION 24. AGREEMENT ADMINISTRATION.

A. The Borough Manager, or their designee, will be the representative of the Borough administering this Agreement.

B. The services to be furnished by the Contractor shall be administered, supervised, and directed by:

PRINTED NAME

TITLE

In the event that the individual named above or any of the individuals identified in the Bid to perform work under the Agreement is unable to serve for any reason, the Contractor shall appoint a successor in interest subject to a written approval of the Matanuska-Susitna Borough.

SECTION 25. UNDERSTANDING.

The Contractor acknowledges that the Contractor has read and understands the terms of this Agreement, has had the opportunity to review the same with counsel of the Contractor's choice, and is executing this Agreement of the Contractor's own free will.

SECTION 26. CONTRACTORS' VIOLATIONS OF TAX OBLIGATIONS.

A. Any Contractor in arrears on a Borough obligation, including, but not limited to tax, assessment, lease, sale, or rental payments, whether as an individual, or as a representative of a business, organization, firm, corporation, or partnership, shall not be awarded the Agreement if the delinquency is not cured within ten calendar days of receipt of written notice sent by the Borough of the delinquency.

B. This Agreement can be terminated for cause, pursuant to Section 10, if it is determined that a Contractor, whether the amounts owed are in the name of the Contractor as an individual or as a representative of a firm, business, corporation, or partnership, is in arrears of any taxation, lease or rental agreement that is due to the Borough that is not remedied within 10 calendar days of notification by regular mail.

C. The Borough reserves any right it may have to offset amounts owed by an individual, firm, corporation or business for delinquent Borough taxes, moneys owed on sales, assessments, leases and rental agreements, against any amount owing to the same under an Agreement between the Borough and the same.

SECTION 27. ENVIRONMENTAL SPILLS. Reporting or clean-up of any spills of oil and/or hazardous substances larger than one gallon must be reported to ADEC by the Contractor. Any quantity of a spilled hazardous substance must be cleaned up, containerized, and disposed of in a proper manner. All spills in the water must be reported immediately to ADEC. Clean-up procedures are specified in ADEC's Oil and Hazardous Substances Pollution Control Regulations, 18AAC75. All inquiries may be directed to the Wasilla ADEC office at 376-5038.

SECTION 28. THIRD PARTY FINANCING AGREEMENTS AND/OR ASSIGNMENTS OF PAYMENT NOT ALLOWED. Because of additional administrative and accounting time required of borough departments/divisions when third party financing agreement and/or assignments of payment are permitted, they will not be allowed under any agreement resulting from this Invitation to Bid.

SECTION 29. FLOW DOWN PROVISIONS. This Contract may include flow down provisions. This Contract may be issued in connection with another government agency and may include flow down or contract provisions required by that agency. In the event of a conflict between the terms and conditions of the general agreement and any flow down terms and conditions, the flow down terms and conditions shall govern. The Consultant agrees to comply with any and all flow down or contract provisions required by the Borough or another government agency that are included in the Contract. In the event that flow down or contract provisions required by other agencies or by Law are inadvertently omitted from this Contract, both parties agree to negotiate in good faith for that provisions inclusion into the Contract.

SECTION 30. CONTRACTS ENFORCEABLE AGAINST THE BOROUGH (MSB CODE 3.08.120). A contract for supplies, services, professional services or construction, or any amendment to the contract, may not be enforced against the borough unless its terms have been approved in accordance with this chapter, and unless the contract or amendment to the contract has been set forth in writing, executed in accordance with this chapter.

SECTION 31. PUBLICATION, REPRODUCTION AND USE OF MATERIALS. No material produced, in whole or in part, under this Agreement shall be subject to copyright in the United States or in any other country. The Borough shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any reports, data or other materials prepared under this Agreement.

SECTION 32. AUTHORITY OF THE PURCHASING OFFICER (MSB Code 3.08.150)

All borough contracts for supplies, services, professional services and construction, and any amendments to the contracts shall be signed by the Manager or the Purchasing Officer.

MSB Code 3.08.170 CONTRACT AMENDMENTS; ASSEMBLY APPROVAL states

- (A) Contract amendment shall not be used to avoid procurement by the competitive procedures establish under this title.
- (B) Except for emergency procurement authorized under MSB 3.08.200, contracts for supplies, services, profession services and construction may be amended by the Manager or the Purchasing Officer with the approval of the assembly, as set forth in MSB 3.08.161, only for the following reasons:
 - (1) to change the quantity order or date of delivery under contract for supplies, where necessary to meet unforeseen borough requirements;
 - (2) to change the quantity of services or professional services to be rendered, or to change the scope of a project under a contract for services or professional services where necessary to meet unforeseen changes in borough requirements;
 - (3) to change the scope of a project or the scope of services or professional services under a construction contract to meet unforeseen borough requirements, or to change the specification under a construction contract because unforeseen conditions render the original specification impracticable;
 - (4) to change the time for completing a project under a contract for services, professional services or construction;
 - (5) to correct an error in contract specifications made by the borough in good faith or to resolve a good faith dispute between the borough and a contractor as to a party's rights and obligations under the contract; and
 - (6) to change administrative provisions of a contract without materially altering the contract terms governing the quantity or quality of supplies, services, professional services or construction furnished the borough.

For these purposes, the Purchasing Officer is defined as **Rustin Krafft** during absences of the Purchasing Officer, the Assistant Purchasing Officer has been delegated the authority to act as the Purchasing Officer.

AUTHORITY OF THE BOROUGH PROJECT MANAGER

The Borough Project Manager has the authority to monitor and administer the Agreement, but cannot make changes to the amount of the contract nor change the completion date of the contract

I hereby acknowledge that I have read and understand the authority granted to the parties by the Matanuska-Susitna Borough.

SIGNATURE

TITLE

SECTION 33. FUND VERIFICATION. Fund source and verification of funds for this project:

Funding Source: **Purchase Order 2020-2551**

MATANUSKA-SUSITNA BOROUGH

SELECTED CONTRACTOR

RUSTIN M. KRAFFT
PURCHASING OFFICER

Signature

Print Name

Title



STATE OF ALASKA
Third Judicial District

On _____, 20_____, _____ personally appeared before me,

1. _____ who is personally known to me
2. _____ whose identity I proved on the basis of _____
3. _____ whose identity I proved on the oath/affirmation of _____, a credible witness

to be the signer of the **Bid #20-088B, CARILLON DRIVE IMPROVEMENTS** and he/she acknowledged that he/she signed it.

NOTARY PUBLIC
My commission expires: _____

STATE OF ALASKA
Third Judicial District

On _____, 20_____, RUSTIN M. KRAFFT, Purchasing Officer, personally appeared before me, who is personally known to me, to be the signer of the above document, and he acknowledged that he signed it on behalf of the Matanuska-Susitna Borough.

NOTARY PUBLIC
My commission expires: _____

BID #20-088B

SECTION VI

SAMPLE FORMS

MATANUSKA-SUSITNA BOROUGH BID NO: 20-088B

BID BOND

KNOW ALL MEN BY THESE PRESENT, that we, the undersigned, _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto Matanuska-Susitna Borough, Palmer, Alaska as OWNER in the penal sum of _____ for the payment of which, will and truly to be made, will hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20_____.

The condition of the above obligation is such that whereas the Principal has submitted to Matanuska-Susitna Borough a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for BID #**20-088B**.

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto properly completed in accordance with said BID, and shall furnish a BOND for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith,

then this obligation shall be void, otherwise the same shall remain in force and effect: it be expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and the Surety has caused their seal to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Bond must be acceptable to Matanuska-Susitna Borough.

_____ (L.) _____
 Principal Surety

By: _____ By: _____

IMPORTANT: Surety Companies executing bonds must be authorized to transact business in the state of Alaska where this project is located. **INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.**

CARILLON DRIVE IMPROVEMENTS

BID #20-088B

PROPOSED SUBCONTRACTORS AND SUPPLIERS

NOTE: If your company is the apparent low bidder, this list is to be delivered to the borough within 24 hours of request from the Purchasing Division. Put an 'X' or '√' in the right columns indicating if the company is a sub-contractor or a supplier.

Sub-contractor addresses must include the Zip Code, used for DOL Filings.

#	ITEM	CONTRACTOR NAME	CONTRACTOR ADDRESS	SUB	SUP
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					

SIGNATURE

COMPANY NAME

DATE

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor, and _____, as Surety, are held and firmly bound unto Matanuska-Susitna Borough, Palmer, Alaska, hereinafter called OWNER in the sum of _____ dollars, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the annexed contract with said OWNER to perform all work required under the Bid #20-088B.

NOW THEREFORE, if said Contractor, or subcontractors, fails to pay for any materials, equipment, or other supplies, or for rental of same, used in connection with the performance of work contracted to be done, or for amounts due under applicable State law for any work or labor thereon, said Surety will pay for the same in an amount not exceeding the sum specified above and, in the event suit is brought upon this bond, a reasonable attorney's fee to fixed by the court. This bond shall insure to the benefit of any persons, companies or corporation entitled to file claims under applicable State law.

Provided, that any alterations in the work to be done or the materials to be furnished, which may be made pursuant to the terms of said Contract, shall not in any way release either said Contractor or said Surety thereunder, nor shall any extensions of time granted under the provisions of said Contract release either said Contractor or said Surety, and notice of such alterations or extensions of the Contract is hereby waived by said Surety.

Signed, this _____ day of _____, 20_____.

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

(Contractor)

by: _____
(Signature)

(Agent)

(Surety)

by: _____
(Signature)

by: _____
(Signature)

Address: _____

Address: _____

Telephone No. _____

Telephone No. _____

IMPORTANT: Surety Companies executing bonds must be authorized to transact business in the state of Alaska where this project is located. **INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.**

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor, and _____, as Surety, are held and firmly bound unto Matanuska-Susitna Borough, Palmer, Alaska, hereinafter called OWNER in the sum of _____ dollars, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the annexed contract with said OWNER to perform all work required under Bid **#20-088B** of the Owner's specifications, entitled **CARILLON DRIVE IMPROVEMENTS**.

NOW THEREFORE, if said Contractor shall perform all the requirements of said contract required to be performed on his part, at the times and in the manner specified therein, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

THE Surety hereby waives notice of any alteration or extension of time made by the Owner.

WHENEVER Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly

- 1) Complete the Contract in accordance with its terms and conditions, or
- 2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount previously paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

Signed, this _____ day of _____, 20_____.

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

(Contractor)

by: _____
(Signature)

(Agent)

(Surety)

by: _____
(Signature)

(Signature)

Address: _____

Address: _____

Telephone No.: _____

Telephone: _____

IMPORTANT: Surety Companies executing bonds must be authorized to transact business in the state of Alaska where this project is located. **INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.**

**CONSENT OF
SURETY COMPANY
TO FINAL PAYMENT**

OWNER
ARCHITECT
CONTRACTOR
SURETY
OTHER

PROJECT: Bid **#20-088B, CARILLON DRIVE IMPROVEMENTS**
(name, address)

TO (Owner)

Γ

γ

ARCHITECT'S PROJECT NO:
CONTRACT FOR:

L

λ

CONTRACT DATE:

CONTRACTOR:

In accordance with the provisions of the Contract between the owner and the Contractor as indicated above,
the

(here insert name and address of Surety Company)

, SURETY COMPANY,

on bond of (here insert name and address of Contractor)

, CONTRACTOR,

hereby approves the final payment to the Contractor, and agrees that final payment to the Contractor shall not
relieve the Surety Company of any of its obligations to (here insert name and address of Owner)

, OWNER,

as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this _____ day of _____ 20_____

Surety Company

Attest:
(Seal)

Signature of Authorized Representative

Title

PROJECT NAME: CARILLON DRIVE IMPROVEMENTS

BID NUMBER: 20-088B

CONTRACTOR'S RELEASE AND AFFIDAVIT OF PAYMENTS OF DEBTS AND CLAIMS

The undersigned, being first duly sworn deposes and says:

1. That pursuant to this contract for project **#20-088B, CARILLON DRIVE IMPROVEMENTS** between the undersigned and the Matanuska-Susitna Borough dated _____ the undersigned hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for materials and equipment furnished for all work, labor, and services performed and for all known indebtedness and claims for which the Contractor or the Matanuska-Susitna Borough is or may become liable in connection with performance under this contract. The Contractor warrants that he has made diligent search and inquiry to determine the existence of any such claim, debt or liability and that all such obligations, whether liquidated, unliquidated or disputed, have been satisfied.

2. The Contractor further certifies he did not extend any loan, gratuity, or gift of money of any form whatsoever to any employee or agent of the Borough, that he did not rent or purchase any equipment or materials from any employee of the Borough, nor to the best of his knowledge, from any agent of any employee of the Borough, and that he has not made any promise to an employee or agent of the Borough to do or undertake any such action after completion of the subject contract.

3. Pursuant to the above-described contract and in consideration of the final payment in the amount of \$ _____, the undersigned Contractor hereby remise, release and discharge the Matanuska-Susitna Borough, its officers, agents and employees of and from any and all further claim, debt, charge, demand, liability or other obligation whatsoever under or arising from said contract, whether known or unknown and whether or not ascertainable at the time of the execution of this instrument except specified claims in stated amounts or in estimated amounts where the amounts are not susceptible of exact statement by the Contractor, as follows:

_____.

The Contractor, in connection with the claims which are not released as set forth above, certifies that he has or agrees that he will comply with all the provisions of the said contract, including without limitation those provisions relating to notification of the contracting officer and relating to the prosecution of claims.

4. The Contractor shall indemnify, defend, and hold and save the Borough, its elected and appointed officers, agents and employees, harmless from any and all claims, demands, suits, or liability of any nature, kind or character, including costs, expenses, and attorney fees. The Contractor shall be responsible under this clause for any and all legal actions or claims of any character resulting from injuries, death, economic loss, damages, violation of statutes, ordinances, constitutions or other laws, rules or regulations, contractual claims, or any other kind of loss, tangible or sustained by any person, or property arising from Contractor's or Contractor's Officers, agents, employees, partners, attorneys, suppliers, and subcontractor's performance or failure to perform this Agreement in any way whatsoever. This defense and indemnification responsibility includes claims alleging acts or omissions by the Borough or its agents which are said to have contributed to the losses, failure, violations, or damage. However, Contractor shall not be responsible for any damages or claim arising from the sole negligence or willful misconduct of the Borough, its agents, or employees.

If any portion of this clause is voided by law or court of competent jurisdiction, the remainder of the clause should remain enforceable.

IN WITNESS WHEREOF, this release and affidavit has been executed this _____ day of _____, 20_____.

(Contractor's signature)

Title _____

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20_____.

Notary Public
My commission expires: _____

(NOTE: In case of a corporation, the attached Certificate of Authority must be completed by a corporate officer other than the one who signs above.)

CERTIFICATE OF AUTHORITY

I, _____, certify that I am the
_____ (official title) of the corporation named as
Contractor in the foregoing release and affidavit; that _____
who signed said release and affidavit on behalf of the Contractor was then
_____ (official title) of said corporation; that said release and
affidavit was duly signed for and in behalf of said corporation by authority of its governing
body and is within the scope of its corporate powers.

(Signature)

Notary Public for
My commission expires: _____

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

FIELD MEMO

Bid #20-088B
(Number)

CARILLON DRIVE IMPROVEMENTS

_____ (Project)

_____ (Date)

REFERENCE: (Drwg. or Spec.) _____

DESCRIPTION:

_____ (Source)

_____ (Date)

RESPONSE:

RESPONSE NEEDED BY: _____

ACTION REQUIRED BY: _____

RESOLUTION:

Notification must be given in accordance with the contract documents, if any architect/engineer response/description causes any change to contract documents.



MATANUSKA-SUSITNA BOROUGH

Planning and Land Use Department Development Services Division

350 East Dahlia Avenue • Palmer, AK 99645

Phone (907) 861-7822 • Fax (907) 861-8158

E-mail: permitcenter@matsugov.us

www.matsugov.us

Contractor's Earth Materials Extraction Source Report for MSB Construction and Maintenance Projects

Location of Extraction Source:

MSB Tax ID# _____

Street Address: _____

Facility / Business Name: _____

Phone: _____

Point of Contact for Extraction Source: _____

**Contract or Purchase
Order #**

Contractor Contact Information:

Business Name: _____

Email: _____

Point of Contact: _____

Phone: _____

Mailing _____

Cell: _____

Description: What type(s) of material is being extracted? _____

Total cubic yards to be extraction per year: _____

Total projected cubic yards to be extracted: _____

What is the final year extraction will occur?: _____

Will extraction activities occur within four feet of the seasonal high water table? _____

Contact Statement:

The information submitted in this form is true and accurate to the best of my knowledge.

Contractor Signature

Printed Name

Date

FOR INTERNAL USE ONLY, TO BE COMPLETED BY MSB STAFF.

Contract or Purchase Order #: _____

MSB Development Services Division has found the proposed extraction site:

- Has been granted pre-existing legal nonconforming status (MSB 17.30.025)
- Has been granted an Administrative Permit by the Planning Director (MSB 17.30.030(A)(1))
- Has been granted a Conditional Use Permit by the Planning Commission (MSB 17.30.030(A)(2))
- Has be designated an Interim Materials District (MSB 17.28)

Permit #: _____

Does not require a permit (MSB 17.30.020) for the following reason(s): _____

Requires a permit, but does not have one.

An application for an extraction permit has been submitted for the proposed extraction site with an estimated decision date of _____.

***Please note that there is no guarantee the requested permit will be approved.**

Other: _____

Reviewer Signature

Printed Name & Title

Date

BID #20-088B

SECTION VII

NOTICE TO CONTRACTORS

NOTICE TO CONTRACTORS

Please visit the state of Alaska Department of Labor web site for the current and applicable published state documents at:

[Http://labor.alaska.gov/lss/pamp600.htm](http://labor.alaska.gov/lss/pamp600.htm)

BID #20-088B

SECTION VIII

ATTACHMENTS

Attachment 1: Plans

40 pages

Attachment 2: Cross Sections & Driveway Profiles

11 pages

Attachment 3: Enstar

4 pages

MATANUSKA-SUSITNA BOROUGH

DEPARTMENT OF PUBLIC WORKS

OPERATIONS AND MAINTENANCE DIVISION



CARILLON DR. IMPROVEMENTS
GRADING, DRAINAGE AND SURFACING
PROJECT NUMBER:
18-17-0457

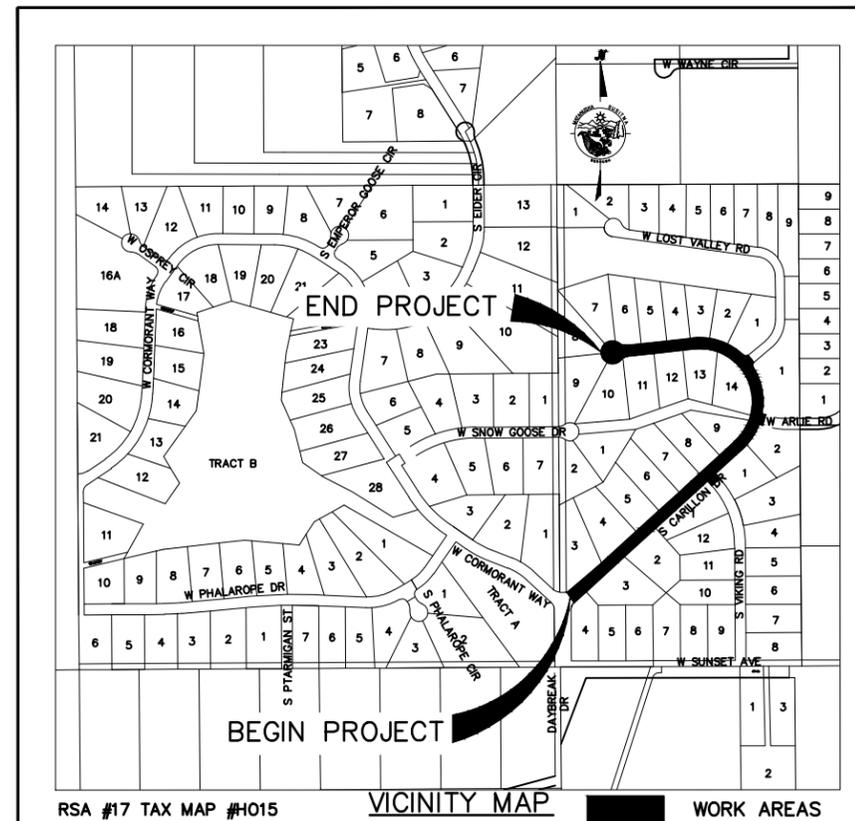
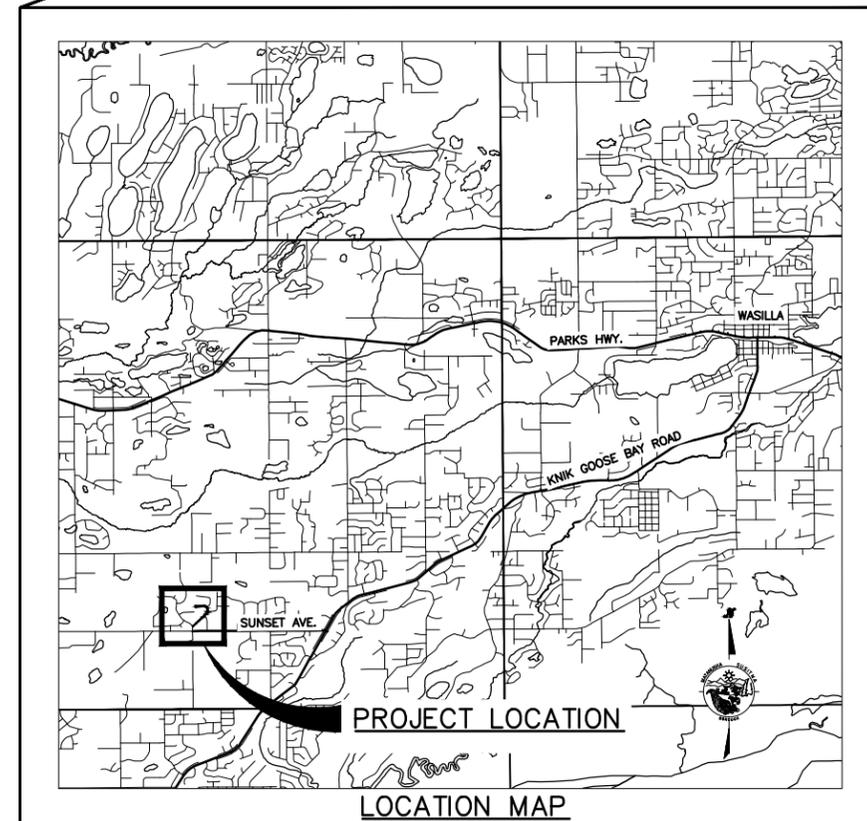
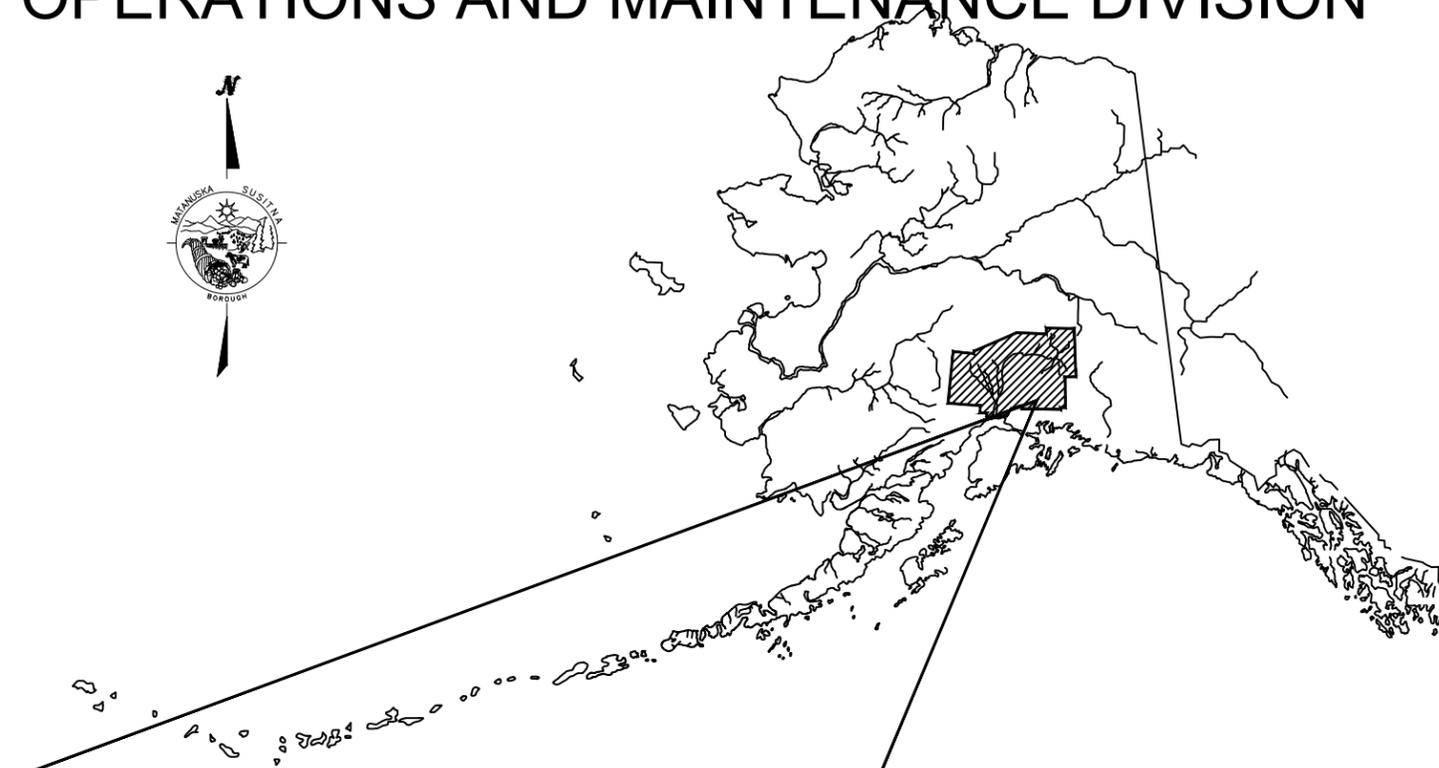
SHEET INDEX	
SHEET	TITLE
A1	COVER SHEET
A2	LEGEND, ABBREVIATIONS AND NOTES
A3	SURVEY CONTROL
B1-B2	TYPICAL SECTIONS
C1-C2	ESTIMATE OF QUANTITIES & SUMMARY TABLES
E1-E2	DETAILS
F1-F8	PLAN AND PROFILE SHEETS
G1	GRADING SHEET
J1	TRAFFIC CONTROL
Q1-Q3	DRAFT ESCP

THE FOLLOWING DOT&PF STANDARD DRAWINGS APPLY TO THIS PROJECT:

D-01.02	G-04.10S	G-20.11	S-05.01
D-04.21	G-09.04S	G-25.21W	
G-00.02	G-10.01	M-20.14	



PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386



GENERAL NOTES:

- VERTICAL AND HORIZONTAL ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS.
- PIPE LENGTHS AND LOCATIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO ADJUSTMENTS.
- LIMIT SPEED OF VEHICLES ASSOCIATED WITH CONSTRUCTION TO 25 M.P.H. WHEN IN THE WORK ZONE.
- THE CONTRACTOR IS REQUIRED TO OBTAIN AN ADEC, APDES PERMIT PRIOR TO THE UTILITY RELOCATION ACTIVITIES. UTILITY RELOCATION WORK DONE BY THE UTILITY COMPANIES WILL BE PERFORMED UNDER THIS PERMIT.
- A TEMPORARY CONSTRUCTION EASEMENT (TCE) SHALL BE OBTAINED BY THE MATANUSKA-SUSITNA BOROUGH WHEN REQUIRED.
- THE ESTIMATED QUANTITY OF CLEARING IS 2.2 ACRES.

LEGEND:

	EXISTING	PROPOSED
COMMUNICATIONS CABLE (DIRECT BURY)	---UGC--- ---UGC---	
TELEPHONE (OVERHEAD)	---OHT--- ---OHT---	
(DIRECT BURY)	---UT--- ---UT---	
ELECTRIC (OVERHEAD)	---OHE--- ---OHE---	
(DIRECT BURY)	---UE--- ---UE---	
GAS	---G---> G ---> G---	
FIBER OPTIC CABLE	---FO--- ---FO--- ---FO---	
TV COAX CABLE	---CATV--- ---CATV--- ---CATV---	
EXISTING FENCE	---X---X---X---	
TREE LINE	~~~~~	
ROW	=====	
PROPERTY LINE	=====	
EXISTING UTILITY EASEMENT	-----	
EXISTING DRAINAGE EASEMENT	-----	
SPECIAL DITCH	-----	----->
CUT SLOPE	-----	-----
FILL SLOPE	-----	-----
EXISTING ROAD/APPROACH/DRIVEWAY	=====	=====
POLE ANCHOR /w GUY	△	△
ELECTRICAL PEDESTAL	△	△
TELEPHONE PEDESTAL	△	△
CABLE T.V. PEDESTAL	△	△
SIGN (FACING) →	□	■
TRANSMISSION TOWER [STEEL]	⊗	⊗
TRANSMISSION TOWER [WOOD]	□	□
POWER STUB	□	□
CLEANOUT	⊙	◆
PERMANENT CHECK DAM	⊙	◆
STORM DRAIN MANHOLE	⊙	◆
ELECTRIC METER	⊙	◆
ELECTRIC BOX	⊙	◆
LIGHT POLE WITH MAST ARM	⊙	◆
CABLE TELEVISION PEDESTAL	□	□
WATER WELL	⊙	◆
DECIDUOUS TREE >4" <12"	☁	◆
CONIFER TREE >4" <12"	☁	◆
UTILITY POLE	⊙	◆
DETENTION BASIN	⊙	◆

COMMON ABBREVIATIONS

A.C.	ASPHALT CONCRETE	PI	POINT OF INTERSECTION
ALUM.	ALUMINUM	PRC	POINT OF REVERSE CURVE
BM	BENCH MARK	P.T.	POINT OF TANGENCY
B.O.P.	BEGINNING OF PROJECT	PT.	POINT
BC	BRASS CAP	P.U.E.	PUBLIC USE EASEMENT
BFS	BEGIN FULL SUPERELEVATION	PVI	POINT OF VERTICAL CURVE
BST	BEGIN SUPERELEVATION TRANSITION	PVMT.	PAVEMENT
℄	CENTERLINE	R	RADIUS
CSP	CORRUGATED STEEL PIPE	RAM	RECYCLED ASPHALT MATERIAL
e	RATE OF SUPERELEVATION	ROW	RIGHT-OF-WAY
E.	EAST	RP	RADIUS POINTS
EFS	END FULL SUPERELEVATION	RT.	RIGHT
℄	FLOWLINE	S.	SOUTH
F.O.	FIBER OPTIC	SDMH	STORM DRAIN MANHOLE
LT.	LEFT	ST.	STREET
LP	LAYOUT POINT	STA.	STATION/STATIONING
LVC	LENGTH VERTICAL CURVE	SUBD.	SUBDIVISION
MAX.	MAXIMUM	T	TANGENT
MIN.	MINIMUM	TBM	TEMPORARY BENCH MARK
MON.	MONUMENT	TYP.	TYPICAL
N.	NORTH	UG	UNDERGROUND
N.I.C.	NOT IN CONTRACT	VC	VERTICAL CURVE
N.T.S.	NOT TO SCALE	VPI	VERTICAL POINT OF INTERSECTION
O.C.	ON CENTER	W.	WEST
P.C.	POINT OF CURVATURE	WB	WEST BOUND
PED	PEDESTRIAN	W/	WITH
℄	PROPERTY LINE		

PROJECT SUMMARY

NAME	BEGIN STATION	END STATION	PROJECT LENGTH	LENGTH OF GRADING	WIDTH	DESIGN SPEED
CARILLON DR.	"CD"40+00.00	"CD"66+23.19	2,623.19'	2,545.51'	24'	25 MPH

CALL BEFORE YOU DIG!

CONTRACTOR SHALL CALL A MINIMUM OF 3 DAYS IN ADVANCE OF CONSTRUCTION

ALASKA DIGLINE...907-278-3121 OR 800-478-3121

CALL OR GO TO WWW.AKONECALL.COM/STATEWIDE.HTM FOR MEMBER LIST OF WHO WILL BE NOTIFIED

Date Revised: 9/10/2018, 8:37 AM
 Layout Name: No. 2047051200 Drawing Carillon Dr Improvements Notes & Abbreviations
 File Path and Name: U:\2047051200\Drawing\Carillon Dr Improvements Notes & Abbreviations



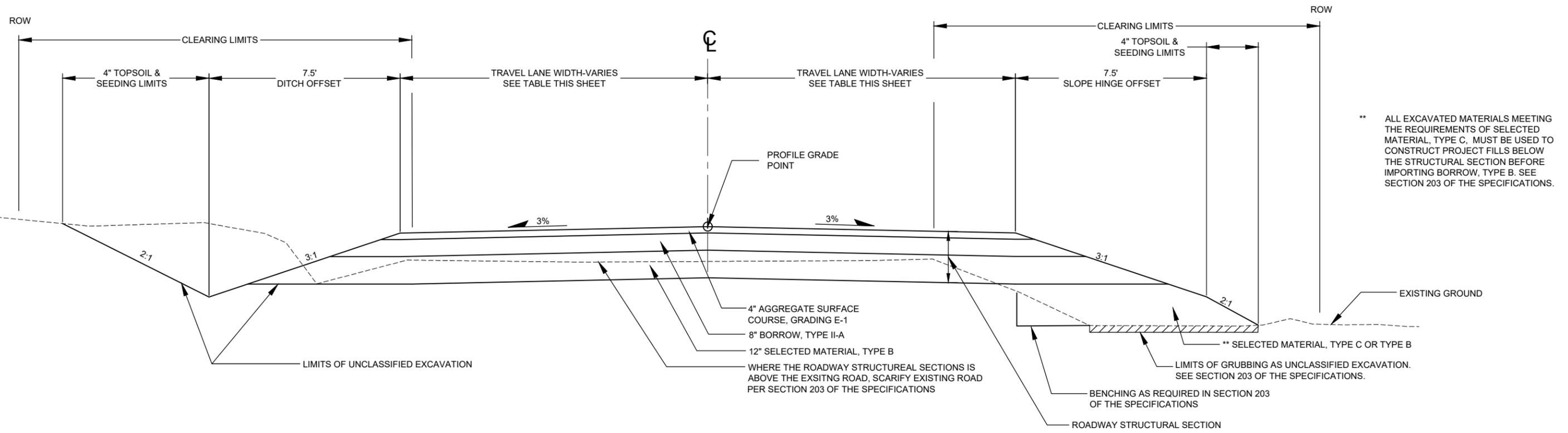
BY	DATE	REVISION



CARILLON DR IMPROVEMENTS
 MATANUSKA-SUSITNA BOROUGH
NOTES & ABBREVIATIONS

DATE: 9/10/2018
 SHEET: A2 OF A3
 PROJECT NUMBER: 18-17-0457

Date Revised: 9/07/2018, 9:17 AM
 Layout Name: Typical Sections
 File Path and Name: U:\2017\051200_drawing\carillon_dr_improvements\Typical Sections.dwg
 Designed By:
 Drawn By:
 Checked By:



** ALL EXCAVATED MATERIALS MEETING THE REQUIREMENTS OF SELECTED MATERIAL, TYPE C, MUST BE USED TO CONSTRUCT PROJECT FILLS BELOW THE STRUCTURAL SECTION BEFORE IMPORTING BORROW, TYPE B. SEE SECTION 203 OF THE SPECIFICATIONS.

TYPICAL SECTION OF IMPROVEMENT
 CUT, FILL AND STRUCTURAL SECTION TYPICAL BOTH SIDES
 OF ALL DEFINED ROADWAYS AND APPROACHES

SLOPE EXCEPTION TABLE									
LEFT				STATION TO STATION	RIGHT				REMARKS
CUT	FILL	DITCH/SLOPE HINGE OFFSET	FORESLOPE		FORESLOPE	DITCH/SLOPE HINGE OFFSET	FILL	CUT	
2:1	2:1	6.0	3:1	"CD" 40+75 TO "CD" 41+75	3:1	6.0	2:1	2:1	
2:1	2:1	7.5	3:1	"CD" 47+25 TO "CD" 47+75	3:1	6.0	2:1	1.5:1	
2:1	2:1	6.0	3:1	"CD" 50+25 TO "CD" 51+50	3:1	7.5	2:1	2:1	
1.5:1	2:1	6.0	3:1	"CD" 58+00 TO "CD" 65+96.19	3:1	6.0	2:1	1.5:1	INCLUDES NW QUADRANT OF THE LOST VALLEY RD INTERSECTION

ROADWAY AND APPROACHES LANE WIDTHS		
ROADWAY	LANE WIDTH	REMARKS
CARILLON DRIVE	12	
VIKING ROAD	10	
ARLIE ROAD	10	
LOST VALLEY ROAD	10	

CLEARING EXCEPTIONS				
STATION	TO	STATION	OFFSET	REMARKS
"CD"55+25		"CD"57+75	LT/RT.	NO ADDITIONAL CLEARING BEYOND STAKED SLOPE LIMITS
"CD"65+00		"CD" 66+13	LT/RT.	NO ADDITIONAL CLEARING BEYOND STAKED SLOPE LIMITS



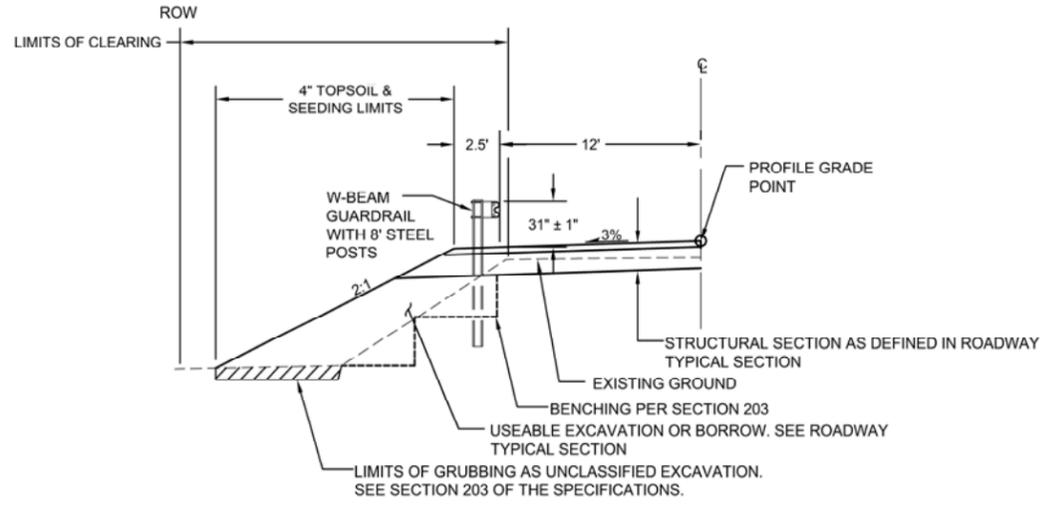
BY	DATE	REVISION

Stantec
 PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

CARILLON DR IMPROVEMENTS
 MATANUSKA-SUSITNA BOROUGH
TYPICAL SECTION

DATE: 9/7/2018
 SHEET: B1 OF B2
 PROJECT NUMBER:
 18-17-0457

Date Revised: 12/16/2019, 2:45 PM
 Layout Name: Typical Sections (2)
 File Path and Name: U:\2017\051200\drawing\carillon sheets\carillon sheets\Typical Sections.dwg



GUARDRAIL WIDENING TYPICAL SECTION
 TYPICAL BOTH SIDES OF ROADWAY
 SEE SUMMARY TABLE SHEET C1 FOR LOCATIONS



BY	DATE	REVISION

PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

CARILLON DR IMPROVEMENTS
 MATANUSKA-SUSITNA BOROUGH
TYPICAL SECTION

DATE: 12/16/2019
SHEET: B2 OF B2
PROJECT NUMBER: 18-17-0457

Date Revised: 9/07/2018, 9:42 AM
 Layout Name: Estimate of Quantities
 File Path and Name: U:\201705\200\Drawing\Carillon Dr Improvements Estimate of Quantities.dwg
 Drawn By:
 Checked By:

ESTIMATE OF QUANTITIES - BASIC BID			
ITEM NO.	ITEM	UNIT	QUANTITY
201(1B)	CLEARING	LUMP SUM	ALL REQ'D
202(1)	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQ'D
202(4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	99
202(1)	SINGLE MAIL BOX INSTALLATION	EACH	1
203(3)	UNCLASSIFIED EXCAVATION	CUBIC YARD	3,661
203(6)	BORROW, TYPE B	TON	7,333
203(19)	BORROW, TYPE II-A	TON	4,361
301(3)	AGGREGATE SURFACE COURSE, GRADING E-1	TON	2,033
603(1-12)	12 INCH CSP	LINEAR FOOT	270
603(1-18)	18 INCH CSP	LINEAR FOOT	74
606(1)	W-BEAM GUARDRAIL	LINEAR FOOT	413
606(9)	CONTROLLED RELEASE TERMINAL (CRT)	EACH	1
606(11)	EXTRUDER TERMINAL (ET-2000)	EACH	3
610(4)	BONE ROCK	CUBIC YARD	45
615(2)	REMOVE AND RELOCATE EXISTING SIGN	EACH	2
618(2)	SEEDING	POUND	57
620(1)	TOPSOIL	SQUARE YARD	3,200
639(1)	RESIDENCE DRIVEWAY	EACH	14
639(2)	PUBLIC APPROACH	EACH	4
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQ'D
641(1)	EROSION AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQ'D
641(3)	TEMPORARY EROSION AND POLLUTION CONTROL	LUMP SUM	ALL REQ'D
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQ'D
642(2)	TWO PERSON SURVEY PARTY	HOURLY	5
643(1)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQ'D
643(2)	PERMANENT CONSTRUCTION SIGNING	LUMP SUM	ALL REQ'D
800(1)	INTERIM WORK AUTHORIZATION	CONTINGENT SUM	ALL REQ'D

606 - GUARDRAIL SUMMARY						
STATION TO STATION	OFFSET		606(1) W-BEAM GUARDRAIL (L.F.)	606(9) CONTROLLED RELEASE TERMINAL (CRT) (EA.)	606(11) EXTRUDER TERMINAL (EA.)	COMMENTS
	LEFT	RIGHT				
"CD"55+06.2 TO "CD"57+77.1	X		188		2	
"A"10+50.9 TO "CD"57+71.3		X	225	1	1	FACTORY BEND RADIUS ON CRT
TOTALS			413	1	3	

615(1) - STANDARD SIGN SUMMARY - N.I.C.										
SIGN NO.	LOCATION		SIGN				POST		FACING TRAFFIC	REMARKS
	STATION	OFFSET	CODE NO. (ATM)	LEGEND	SIZE	AREA (S.F.)	NO. OF POSTS	POST SIZE		
①		8.0'	OM-3C	OBJECT MARKER CHEVRONS	12"X36"	3.00	1	2.5"	SB	N.I.C.
②		8.0'	OM-3C	OBJECT MARKER CHEVRONS	12"X36"	3.00	1	2.5"	SB	N.I.C.
③		20.0'	W14-1	DEAD END	30"X30"	6.25	1	2.5"	SB	N.I.C.

615(2) - REMOVE AND RELOCATE EXISTING SIGN										
SIGN NO.	EXISTING LOCATON			NEW LOCATION			LEGEND	POST		
	STATION	OFFSET (FT)		STATION	OFFSET (FT)			FACING TRAFFIC	TYPE	EMBEDMENT
①	"CD"55+24.7		25.1						STOP/CARILLON DR/ARLIE RD	EXISTING SOIL
②	"CD"56+40.8		12.1						NOT A THROUGH STREET	EXISTING SOIL
TOTAL RELOCATIONS			2							

639(1) - RESIDENCE DRIVEWAY SUMMARY								
STATION	OFFSET		WIDTH	RADIUS		603(1-12) (L.F.)	APPROX. MATCH GRADE	COMMENTS
	LEFT	RIGHT		LEFT	RIGHT			
"CD"41+06.9		X	13	6	6	30	11.1%	
"CD"41+64.0	X		13	6	6	24	3.8%	
"CD"46+72.8	X		15	6	6	28	-1.6%	
"CD"48+27.5	X		15	6	6	0	-17.9%	
"CD"49+78.6	X		38	6	6	0	-10.2%	
"CD"50+74.9	X		12	6	6	0	6.5%	
"CD"54+00.6	X		50	10	10	60	-7.9%	
"CD"59+82.2		X	22	6	6	32	-5.6%	
"CD"60+99.9		X	14	6	6	24	-9.5%	
"CD"61+29.8	X		16	6	6	24	-8.0%	
"CD"63+90.8	X		13	6	6	24	0.3%	
"CD"64+86.5	X		13	6	6	24	-0.7%	
"CD"65+89.8	X		11	6	2	0	0.6%	PRESERVE EXISTING RETAINING WALLS
"CD"65+95.7	X		17	2	0	0	-6.5%	
TOTALS			14			270		

639(2) - PUBLIC APPROACH SUMMARY						
STATION	OFFSET		WIDTH (FT.)	RADIUS (FT.)		REMARKS
	LEFT	RIGHT		LEFT	RIGHT	
"CD"50+89.3		X	20	35	35	VIKING ROAD. SEE SHEET F7.
"CD"54+91.7		X	20	35	35	ARLIE ROAD. SEE SHEET F7.
"CD"58+04.6		X	24	35	35	LOST VALLEY ROAD. SEE SHEET F8.
"CD"65+56.2	X	X	VARIES	-	-	CUL-DE-SAC. SEE SHEETS F6 AND G1.
TOTAL APPROACHES			4			

202(1) - REMOVAL OF STRUCTURES AND OBSTRUCTIONS			
STATION	OFFSET		REMARKS
	LEFT	RIGHT	
"CD"55+32.2 TO "CD"56+60.0		X	REMOVE PORTION OF FENCE WITHIN ROW

202(4) - REMOVAL OF CULVERT PIPE		
STATION	LENGTH (FT)	REMARKS
"A"10+27.5, CL	50	18" CMP
"CD"60+98.1, 14.8' RT.	24	12" CMP
"CD"64+86.0, 16.2' LT.	25	8" HDPE
TOTAL		99

202(10) - SINGLE MAIL BOX INSTALLATION			
STATION	OFFSET		REMARKS
	LEFT	RIGHT	
"CD"65+90.0		X	NEWSPAPER TUBE
TOTAL		1	

603 - CULVERT SUMMARY			
STATION	OFFSET	SIZE	REMARKS
		603(1-18) (L.F.)	
"CD" 56+00.8	27.8' RT.	14	EXTEND EXISTING PIPE AFTER REMOVING 1' OF DAMAGED PIPE. SEE PLANS.
"CD" 56+02.9	30.9' LT.	14	EXTEND EXISTING PIPE. DITCH TO DRAIN INTO DETENTION BASIN. SEE DETAIL ON SHEET E2.
"A" 10+46.6	CL	40	
TOTALS		68	

SEE 639(1) FOR ADDITIONAL CULVERT LOCATIONS



BY	DATE	REVISION



CARILLON DR IMPROVEMENTS		DATE: 9/7/2018
MATANUSKA-SUSITNA BOROUGH		SHEET: C1 OF C2
ESTIMATE OF QUANTITIES & SUMMARY TABLES		PROJECT NUMBER: 18-17-0457

Date Revised: 12/16/2019, 1:02 PM
 Layout Name: Earthwork Summary
 File Path and Name: U:\2017\051200\drawing\carillon sheets\Carillon Dr Improvements Estimate of Quantities.dwg
 Designed By:
 Drawn By:
 Checked By:

EARTHWORK SUMMARY							
LOCATION		EXCAVATION		EMBANKMENT		MISC.	
SHEET	STATION TO STATION	UNCLASSIFIED EXCAVATION (C.Y.)	WASTE (C.Y.)	SELECTED MATERIAL, TYPE "B" (C.Y.)	SELECTED MATERIAL, TYPE "C" (C.Y.)	BORROW, TYPE II-A (C.Y.)	AGGREGATE SURFACE COURSE, GRADING E-1 (C.Y.)
F1	"CD" 40+00 TO "CD" 44+25	903	653	456	1	258	115
F2	"CD" 44+25 TO "CD" 49+00	646	532	581	114	328	147
F3	"CD" 49+00 TO "CD" 53+50	444	158	616	286	353	158
F4	"CD" 53+50 TO "CD" 57+00	411	0	559	1529	335	154
F5	"CD" 57+50 TO "CD" 61+75	269	0	570	359	329	148
F6	"CD" 61+75 TO "CD" 65+96.19	988	0	647	29	375	170
DRIVEWAYS	VARIES	0	0	0	0	61	33
TOTALS		3661	1343	3429	2318	2039	925
		C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.
BID QUANTITIES		UNCLASSIFIED EXCAVATION		BORROW, TYPE B		BORROW, TYPE II-A	AGGREGATE SURFACE COURSE, GRADING E-1
		3661		7333		4361	2033
		C.Y.		TON		TON	TON

EARTHWORKS SUMMARY NOTES

- UNCLASSIFIED EXCAVATION QUANTITIES = CROSS SECTION END AREA COMPUTED VOLUMES + AN ASSUMED 0.5' DUFF MATERIAL REMOVED FROM FILL AREAS.
- USABLE EXCAVATION IS ASSUMED TO ONLY MEET THE REQUIREMENTS OF SELECTED MATERIAL, TYPE C.
- SELECTED MATERIAL, TYPE C EMBANKMENT = NEATLINE + 0.5' DUFF REFILL TO REPLACE MATERIAL REMOVED FROM FILL AREAS.
- BID QUANTITIES FOR BORROW, TYPE B, BORROW, TYPE II-A AND AGGREGATE SURFACE COURSE, GRADING E-1 = NEATLINE * THE RESPECTIVE ESTIMATING FACTORS/2000 * 1.1.
- AVERAGE WASTE FACTOR = 35%

BASIS OF ESTIMATE		
ITEM	ITEM NO.	ESTIMATING FACTOR
BORROW, TYPE B	203(6)	144 LBS./C.F.
BORROW, TYPE II-A	203(19)	144 LBS./C.F.
AGGEGATE SURFACE COURSE, GRADING E-1	301(6)	148 LBS./C.F.



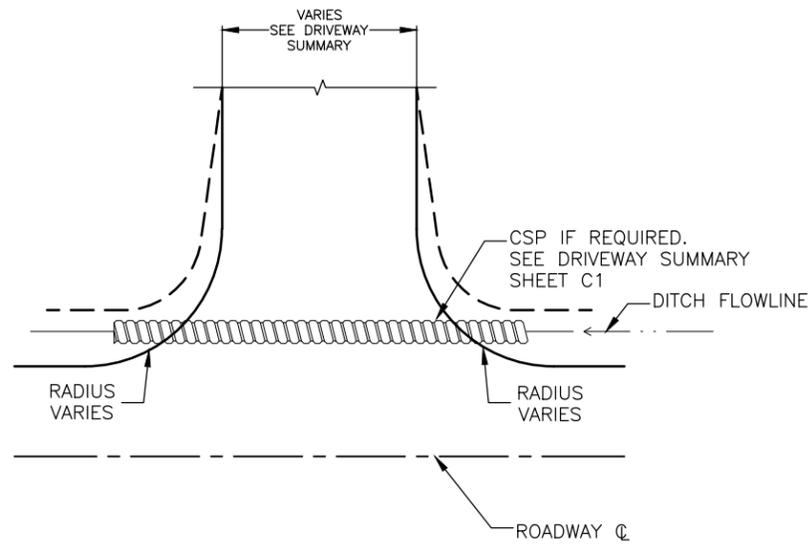
BY	DATE	REVISION

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 351 W. Parks Hwy., Suite 200
 Westfield, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

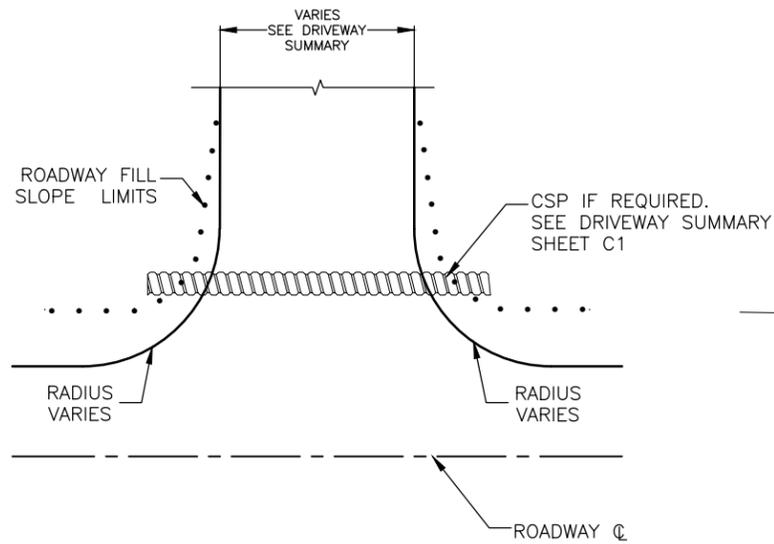
CARILLON DR IMPROVEMENTS
MATANUSKA-SUSITNA BOROUGH
EARTHWORK SUMMARY
TABLE AND NOTES

DATE: 12/16/2019
 SHEET: C2 OF C2
 PROJECT NUMBER:
 18-17-0457

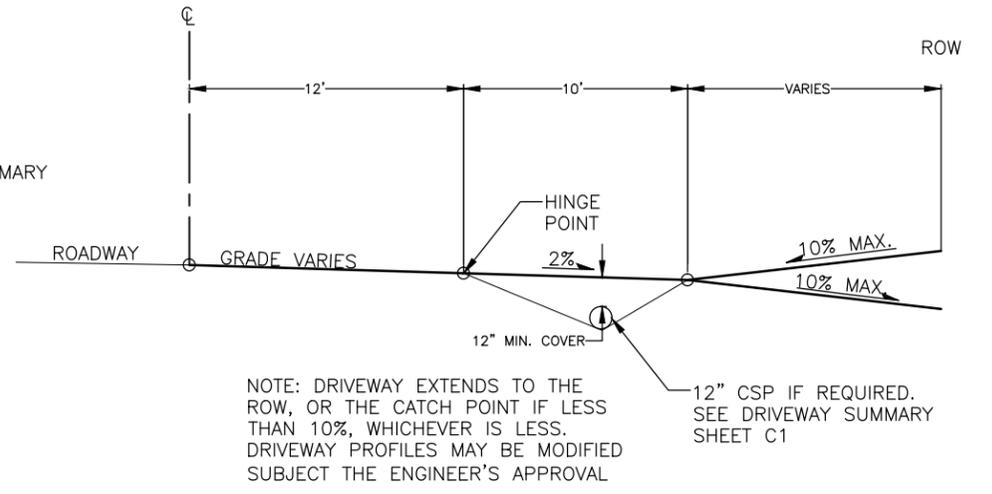
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 Designed By:
 Drawn By:
 Checked By:



**DRIVEWAY PLAN VIEW DETAIL
CUT**

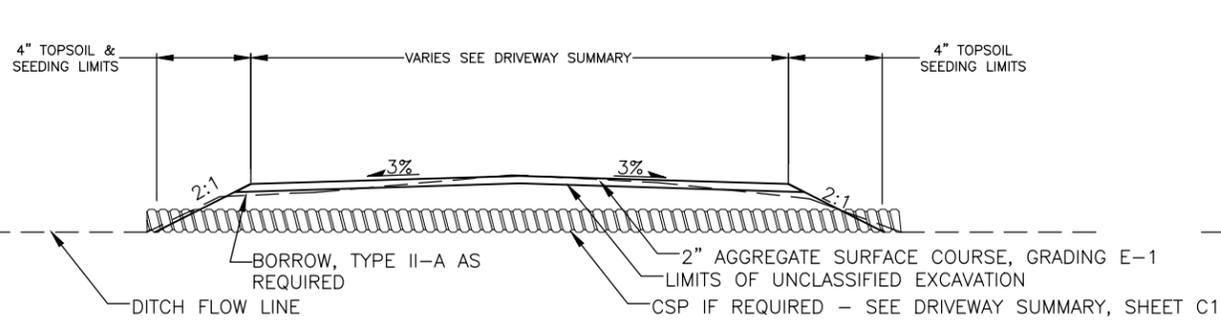


**DRIVEWAY PLAN VIEW DETAIL
FILL**

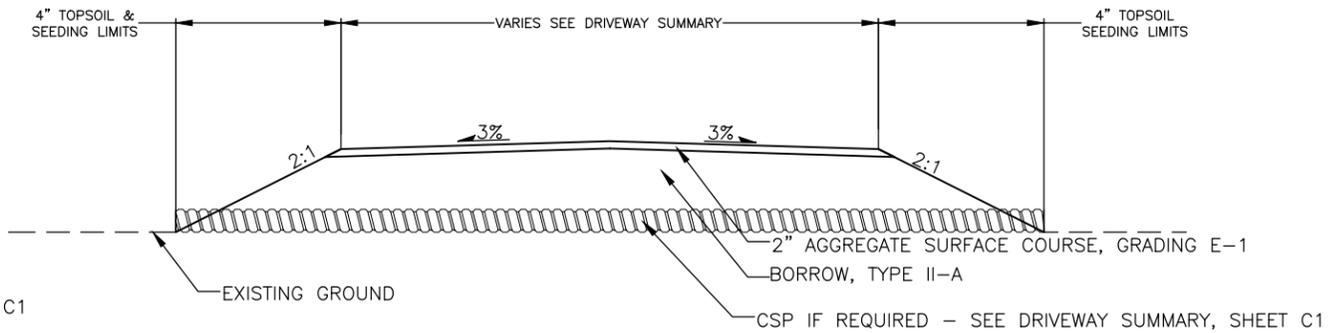


NOTE: DRIVEWAY EXTENDS TO THE ROW, OR THE CATCH POINT IF LESS THAN 10%, WHICHEVER IS LESS. DRIVEWAY PROFILES MAY BE MODIFIED SUBJECT THE ENGINEER'S APPROVAL

DRIVEWAY PROFILE DETAIL



**DRIVEWAY SECTION DETAIL
CUT**



**DRIVEWAY SECTION DETAIL
FILL**



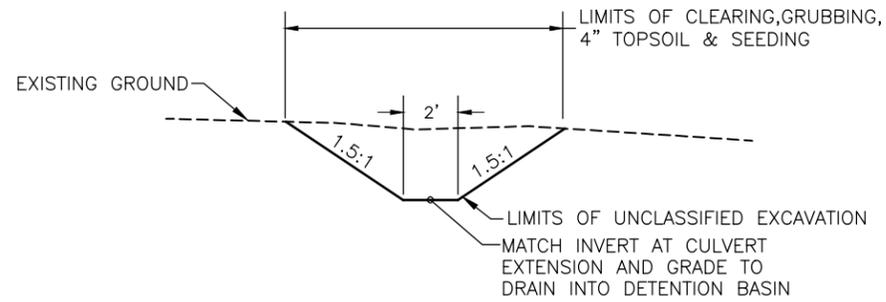
BY	DATE	REVISION

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CARRILLON DR IMPROVEMENTS
MATANUSKA-SUSITNA BOROUGH
MISCELLANEOUS DETAILS

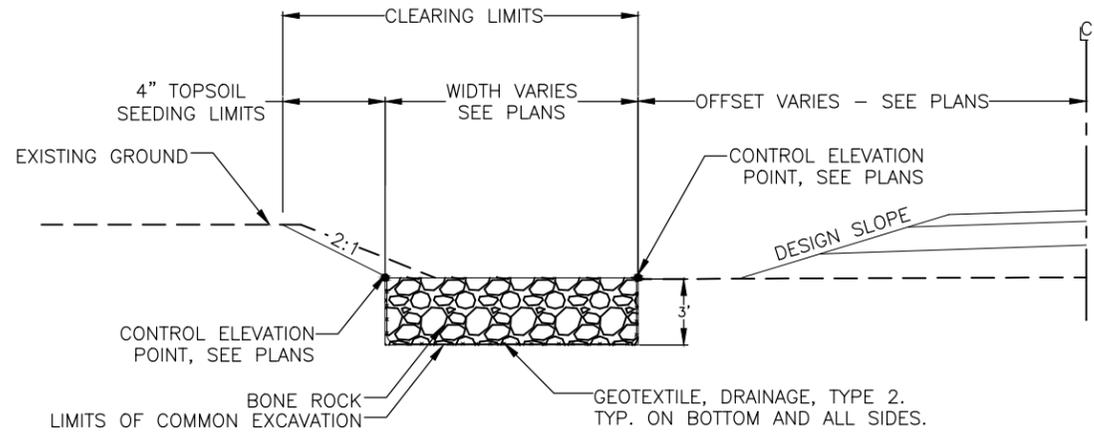
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 SHEET: E1 OF E2
 PROJECT NUMBER: 18-17-0457

Date Revised: 9/07/2018, 9:17 AM
 Layout Name: Misc\Miscellaneous - Details (2)
 File Path and Name: U:\2017\05\200\drawing\carillon dr improvements Misc Details.dwg
 Designed By:
 Drawn By:
 Checked By:



TYPICAL SPECIAL DITCH SECTION

STA. "CD" 56+02.9, LT., FROM CULVERT EXTENSION TO DETENTION BASIN



DETENTION BASIN DETAIL

TYPICAL BOTH SIDES OF ROADWAY



BY	DATE	REVISION

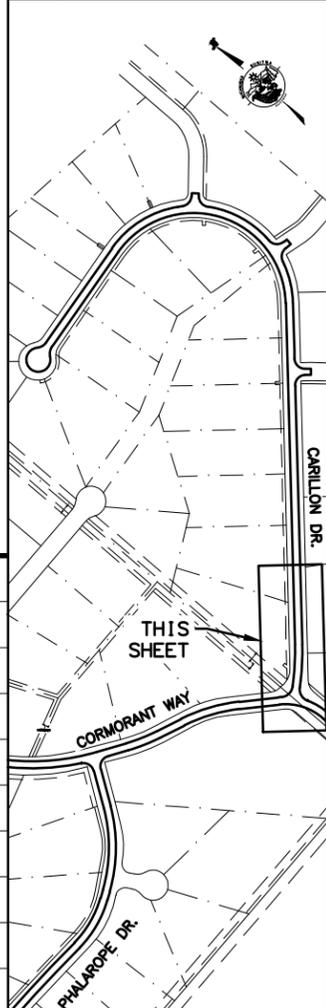
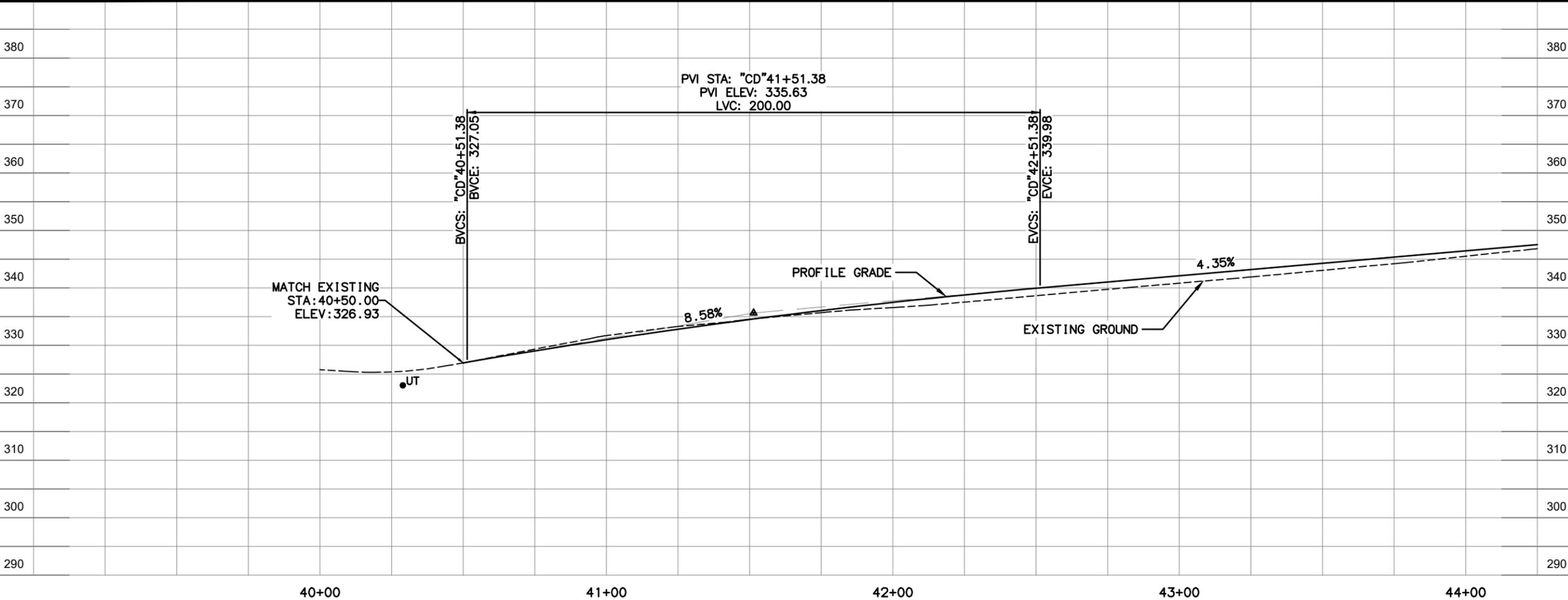
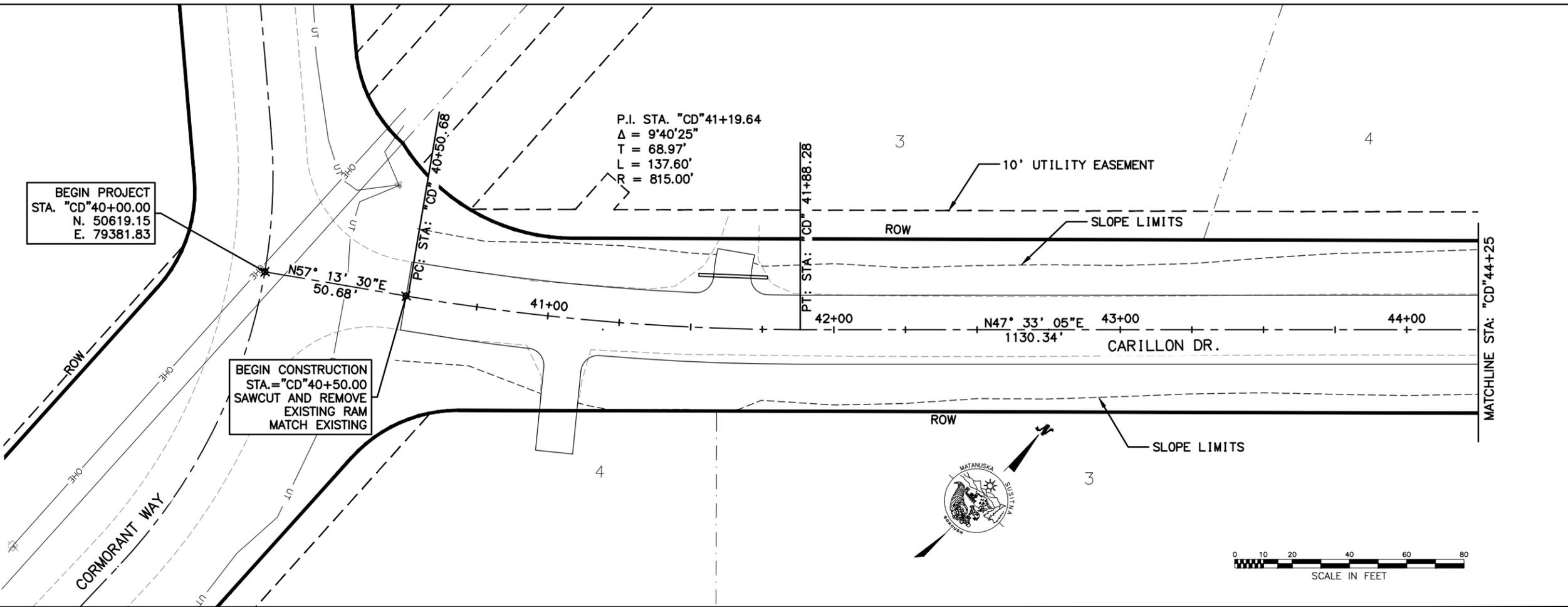
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CARILLON DR IMPROVEMENTS
 MATANUSKA-SUSITNA BOROUGH
MISCELLANEOUS DETAILS

DATE: 9/7/2018
 SHEET: E2 OF E2
 PROJECT NUMBER:
 18-17-0457

DESIGNED BY: [] CHECKED BY: [] DRAFTED BY: []
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SHEET NO.	TOTAL SHEETS	
F1	F8	
STATE	DATE	
ALASKA	9/7/2018	
PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



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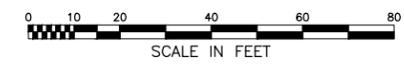
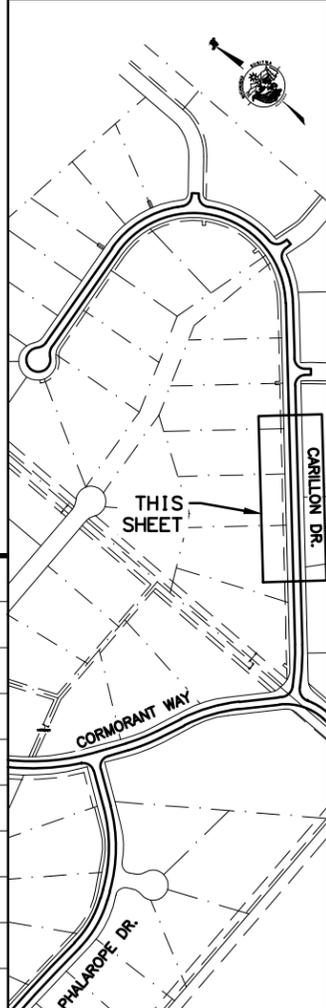
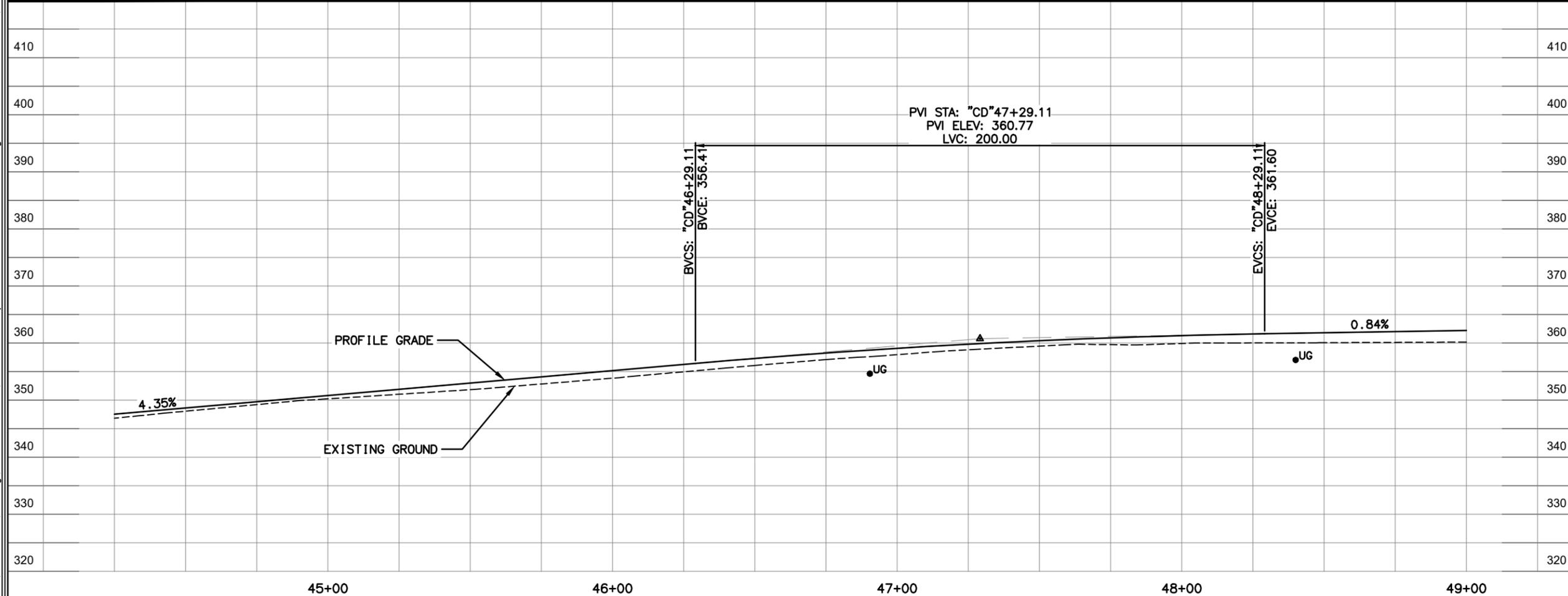
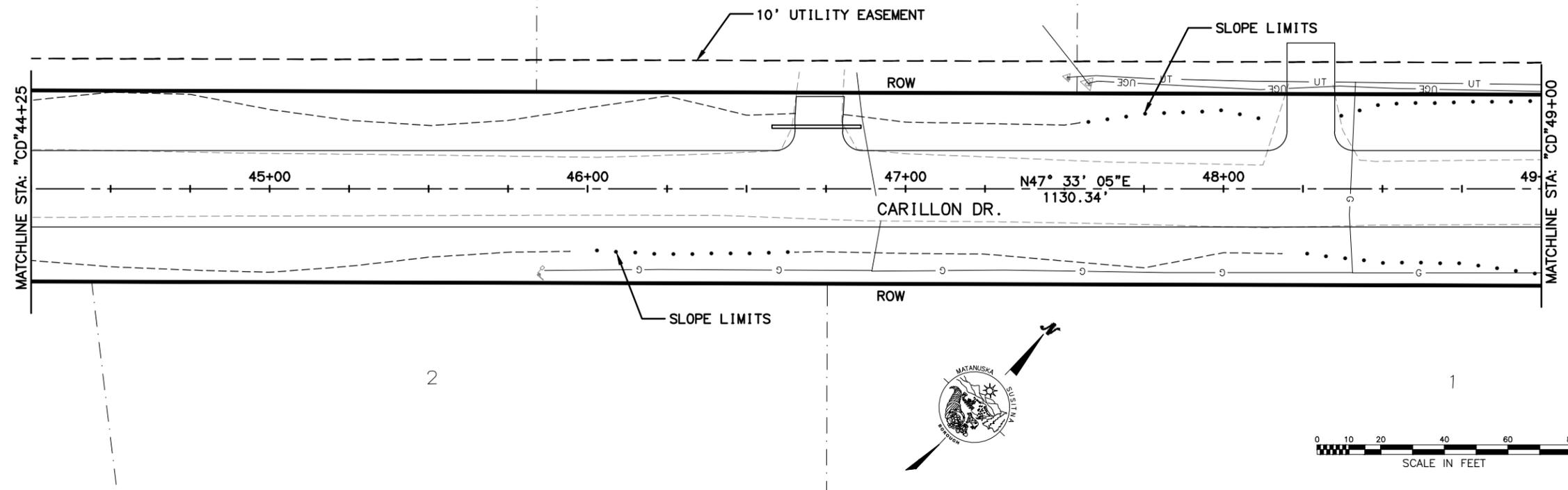
MATANUSKA-SUSITNA BOROUGH
 DEPARTMENT OF PUBLIC WORKS
 OPERATIONS AND MAINTENANCE DIVISION

CARILLON DR. IMPROVEMENTS

**CARILLON DRIVE
 PLAN & PROFILE**

DESIGNED BY: [] CHECKED BY: [] DRAFTED BY: []
 XREFS: []
 SCALE: [] LAYOUT: []
 DATE: 7/30/2018 10:19 AM CARILLON - PLAN AND PROFILE-2
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STATE	DATE	
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PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION

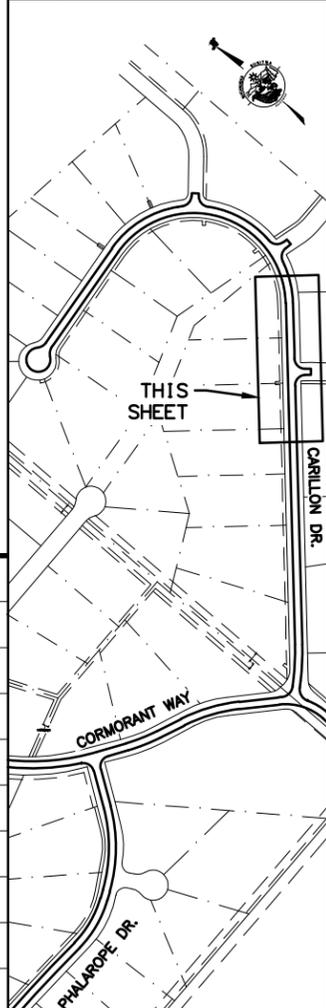
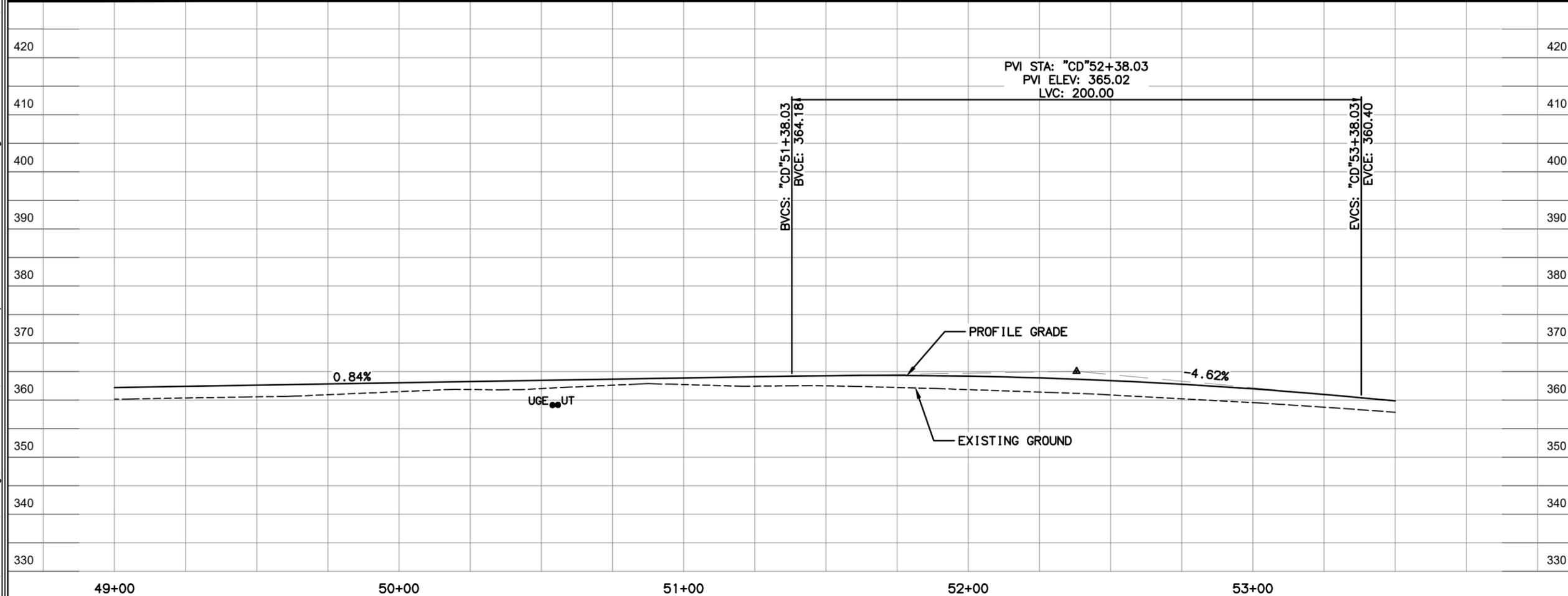
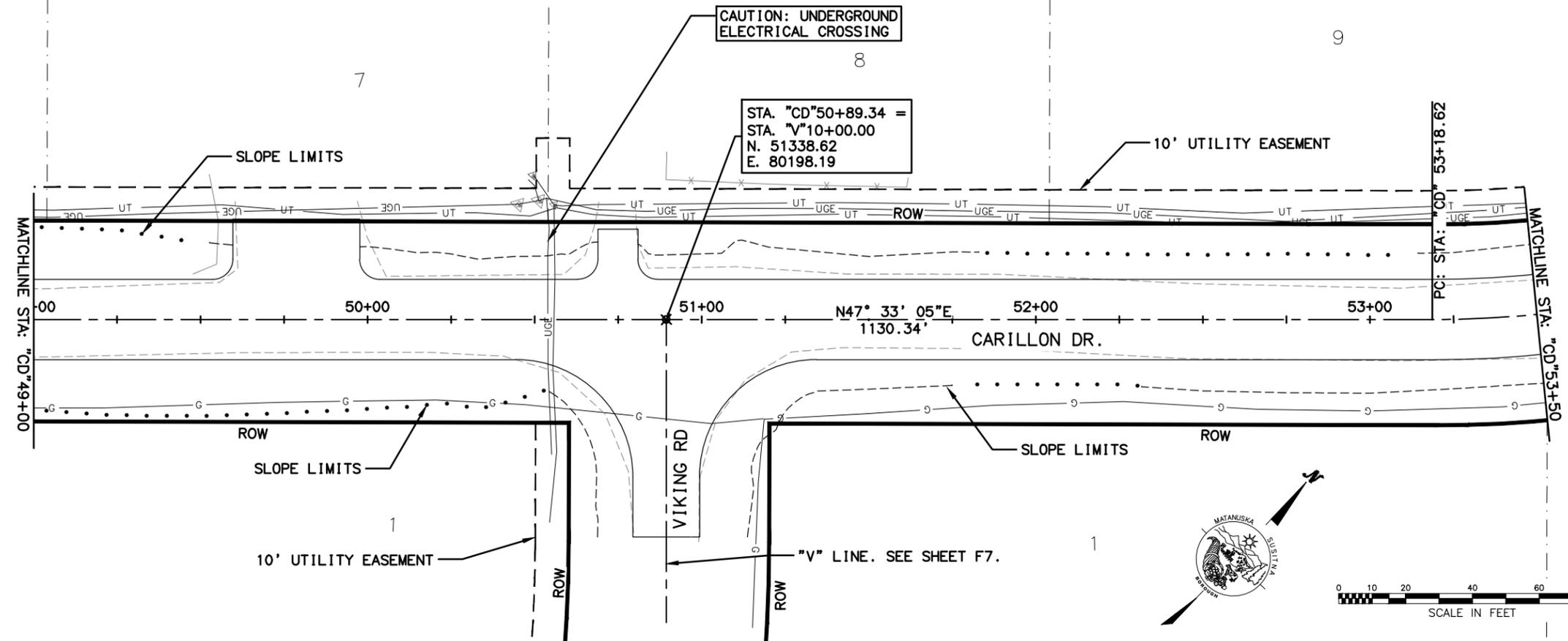


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MATANUSKA-SUSITNA BOROUGH
 DEPARTMENT OF PUBLIC WORKS
 OPERATIONS AND MAINTENANCE DIVISION
 CARILLON DR. IMPROVEMENTS
**CARILLON DRIVE
 PLAN & PROFILE**

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SHEET NO.	TOTAL SHEETS	
F3	F8	
STATE	DATE	
ALASKA	9/7/2018	
PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



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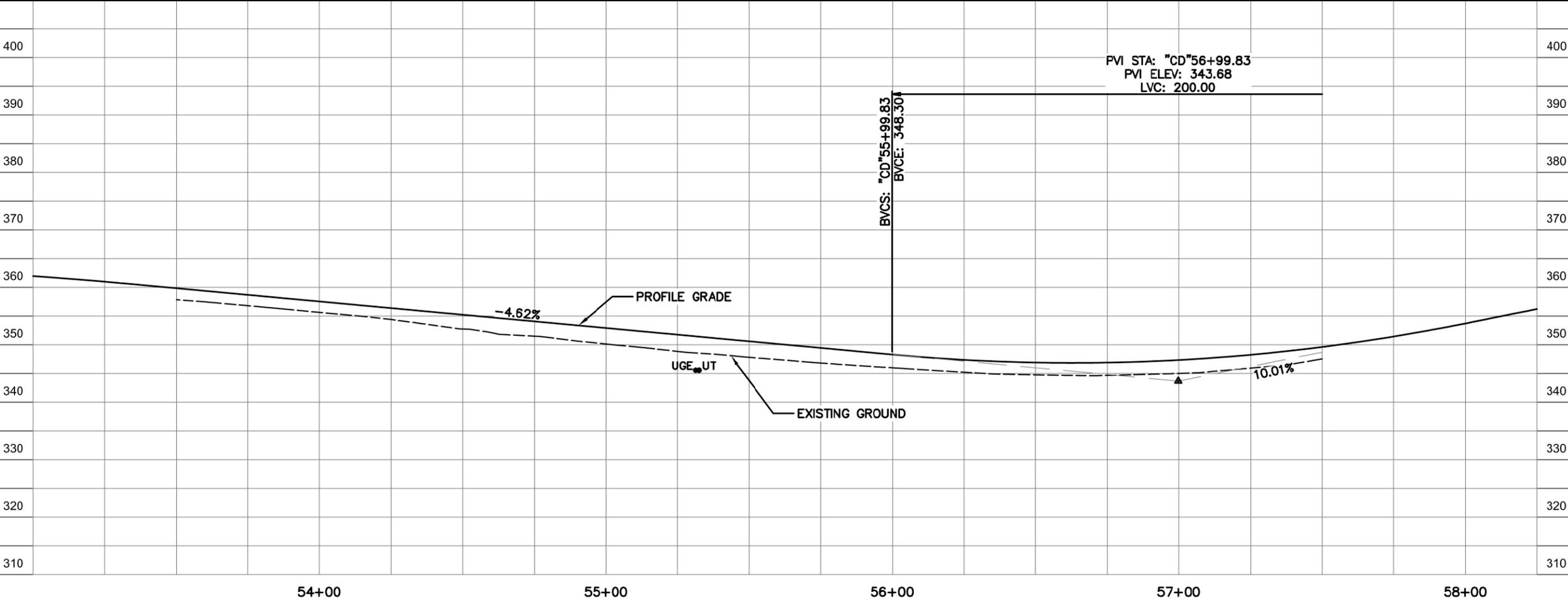
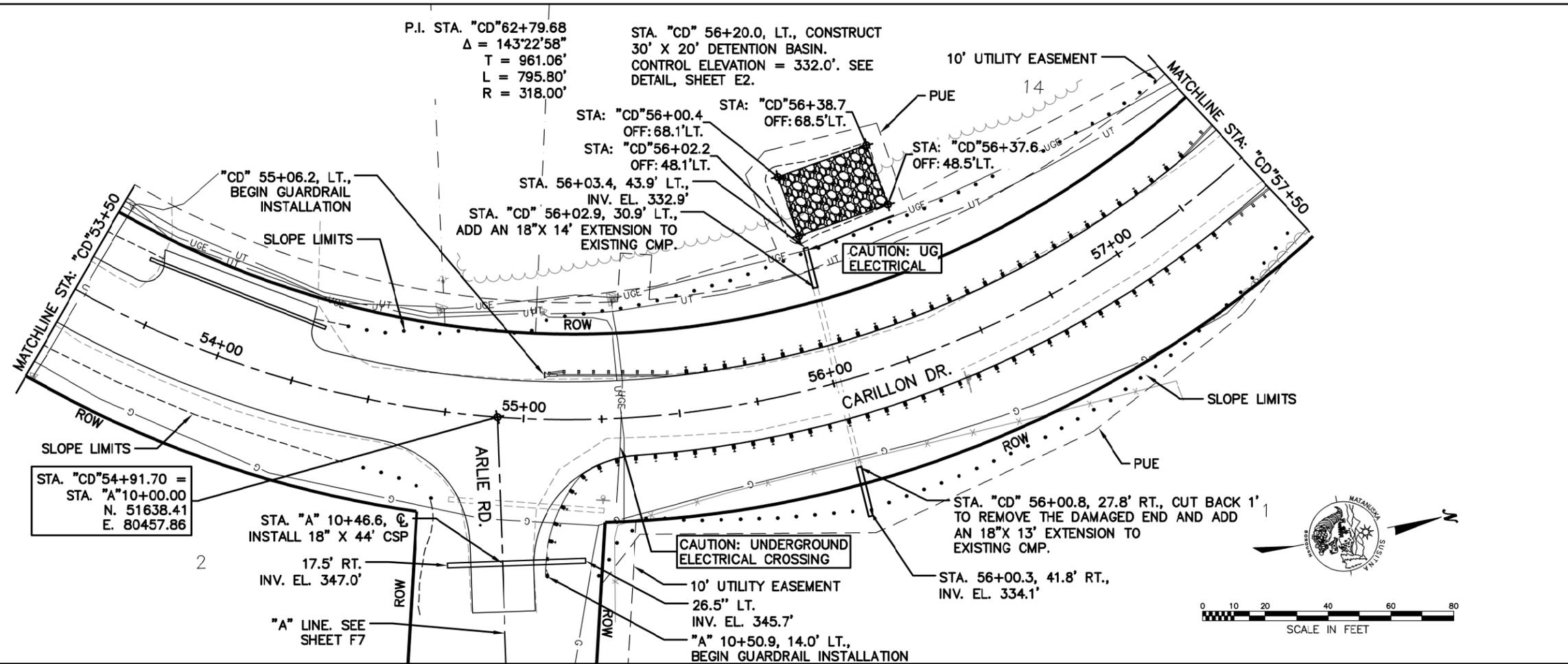
MATANUSKA-SUSTITNA BOROUGH
 DEPARTMENT OF PUBLIC WORKS
 OPERATIONS AND MAINTENANCE DIVISION
 CARILLON DR. IMPROVEMENTS
**CARILLON DRIVE
 PLAN & PROFILE**

DESIGNED BY: [REDACTED]
 CHECKED BY: [REDACTED]
 DRAFTED BY: [REDACTED]

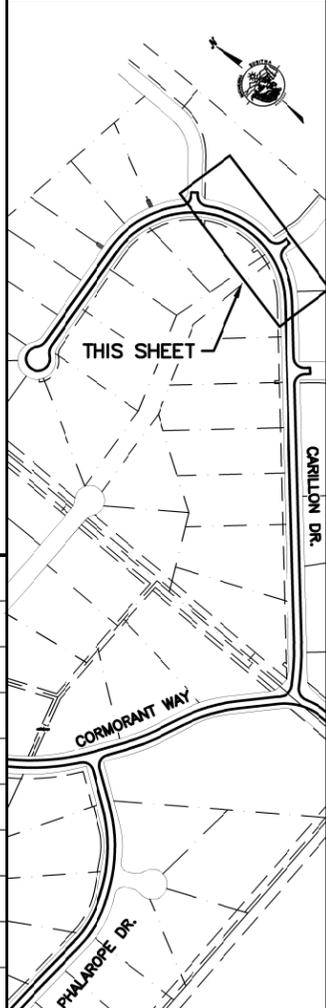
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 PROJECT: CARILLON DR IMPROVEMENTS

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SHEET NO.	TOTAL SHEETS	
F4	F8	
STATE	DATE	
ALASKA	12/16/2019	
PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



STATE OF ALASKA
 49th
 STEVEN M KARI
 No. CE 9203
 12/16/2019
 REGISTERED PROFESSIONAL ENGINEER

Stantec
 PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES, INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 352-7803
 C.A. #126386

MATANUSKA-SUSITNA BOROUGH
 DEPARTMENT OF PUBLIC WORKS
 OPERATIONS AND MAINTENANCE DIVISION

CARILLON DR. IMPROVEMENTS

**CARILLON DRIVE
 PLAN & PROFILE**

DESIGNED BY: []
 CHECKED BY: []
 DRAFTED BY: []

AREFS

SCALE: []

LAYOUT: []

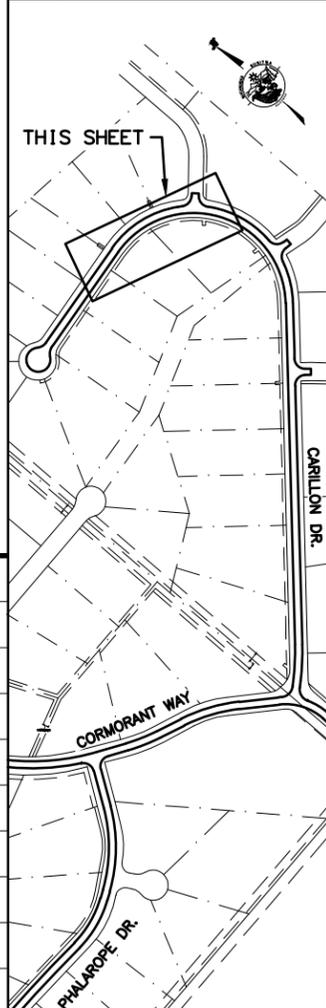
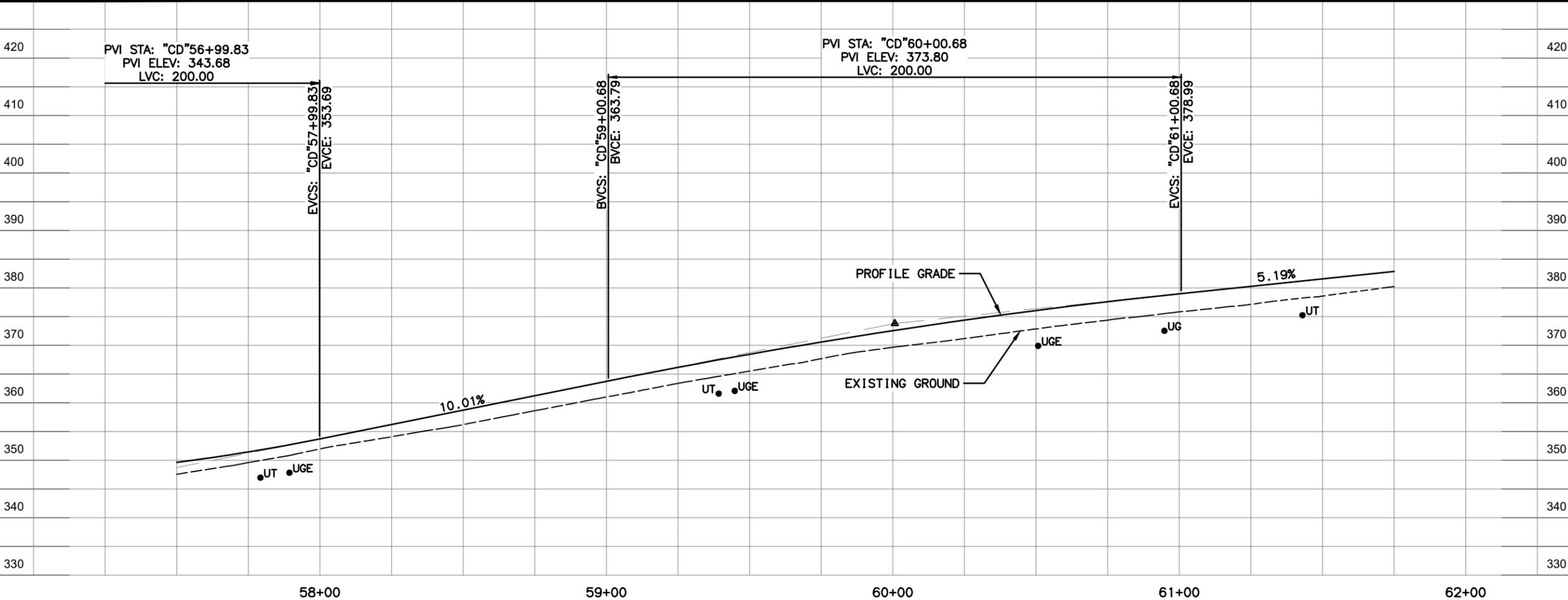
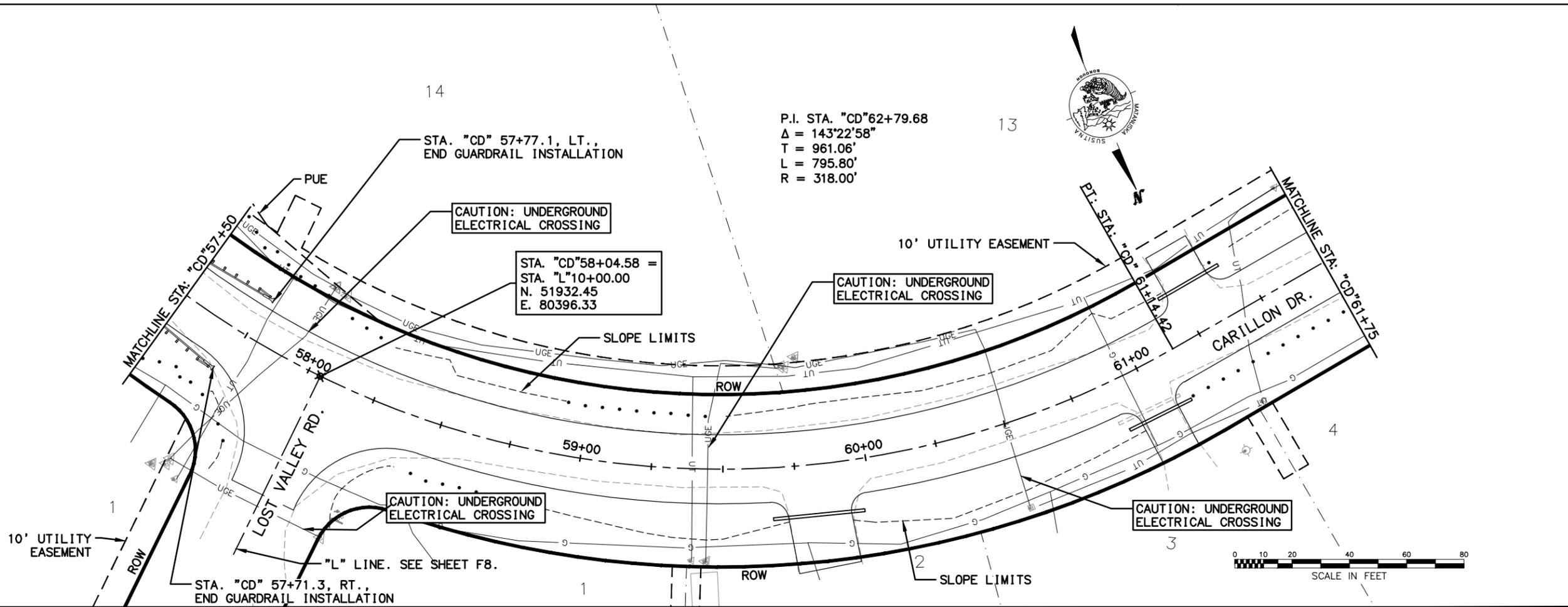
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SHEET NO.	TOTAL SHEETS	
F5	F8	
STATE	DATE	
ALASKA	9/7/2018	
PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



STATE OF ALASKA
 49th
 STEVEN M. KARI
 No. CE 9203
 9/7/2018
 REGISTERED PROFESSIONAL ENGINEER

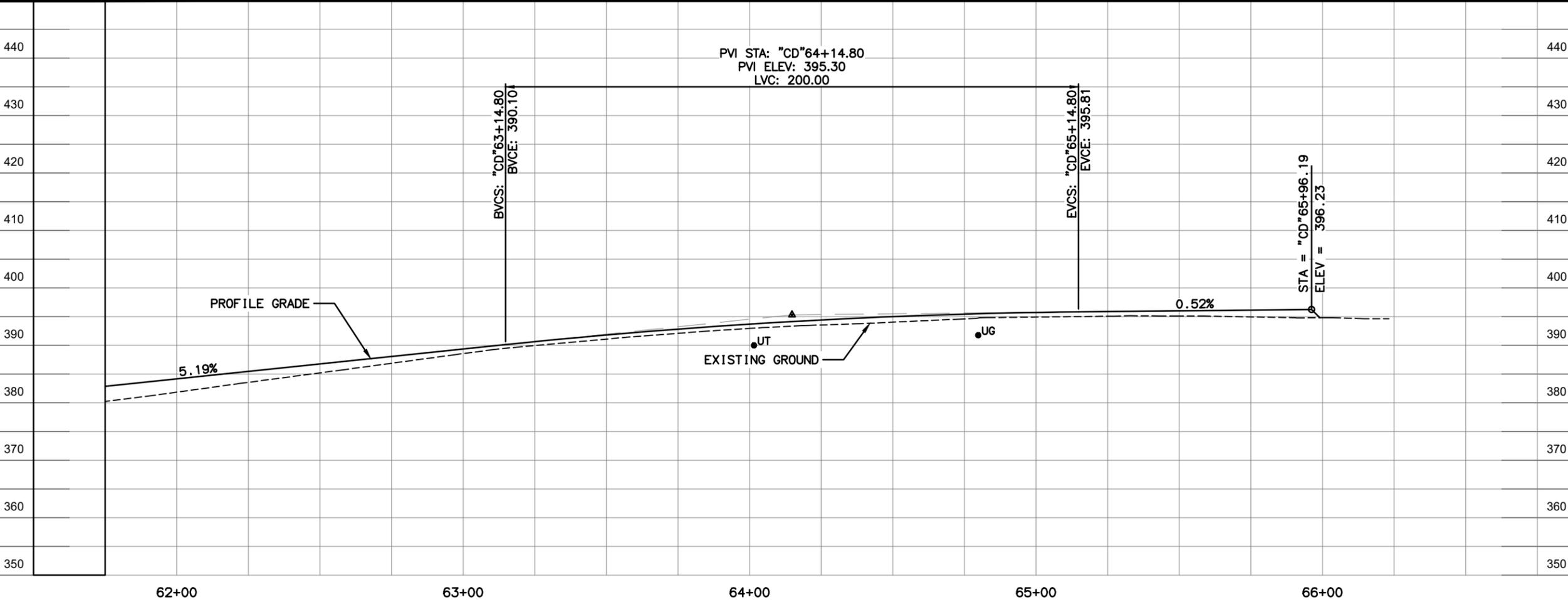
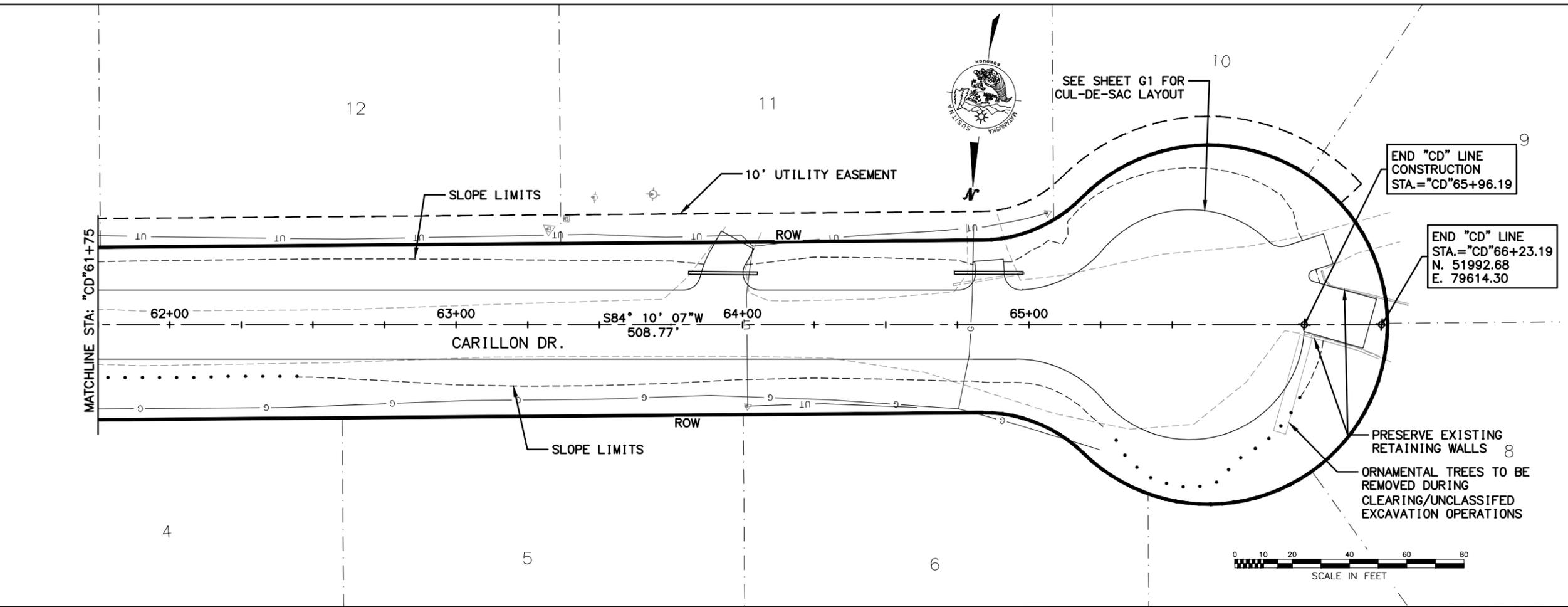
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 OPERATIONS AND MAINTENANCE DIVISION

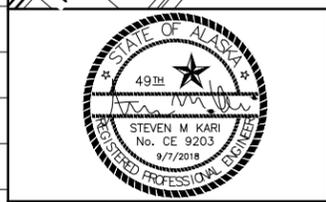
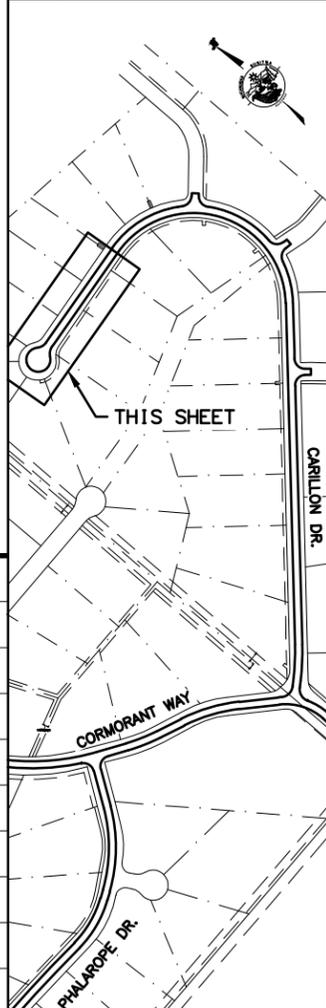
CARILLON DR. IMPROVEMENTS

**CARILLON DRIVE
 PLAN & PROFILE**

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SHEET NO.	TOTAL SHEETS	
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STATE	DATE	
ALASKA	9/7/2018	
PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



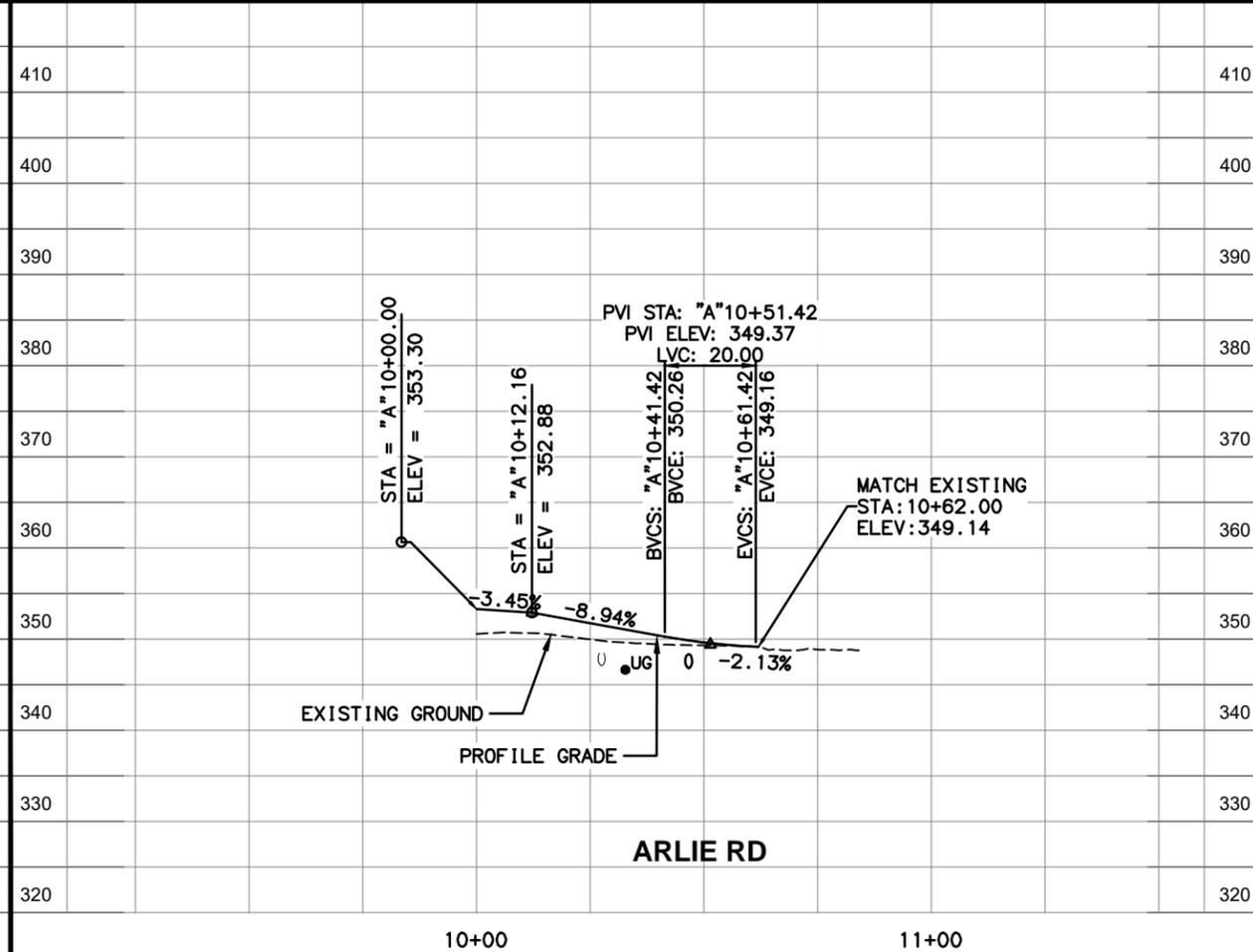
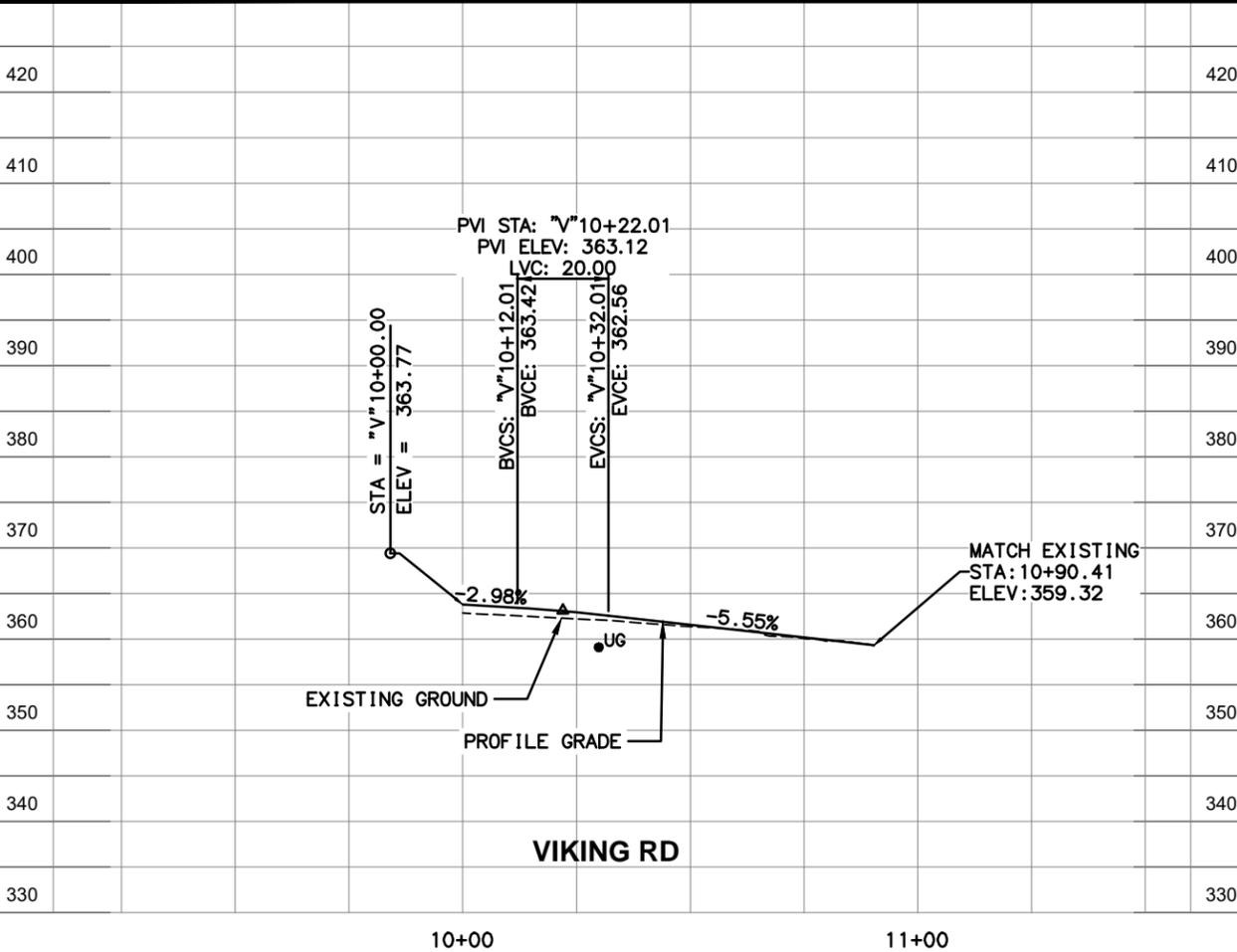
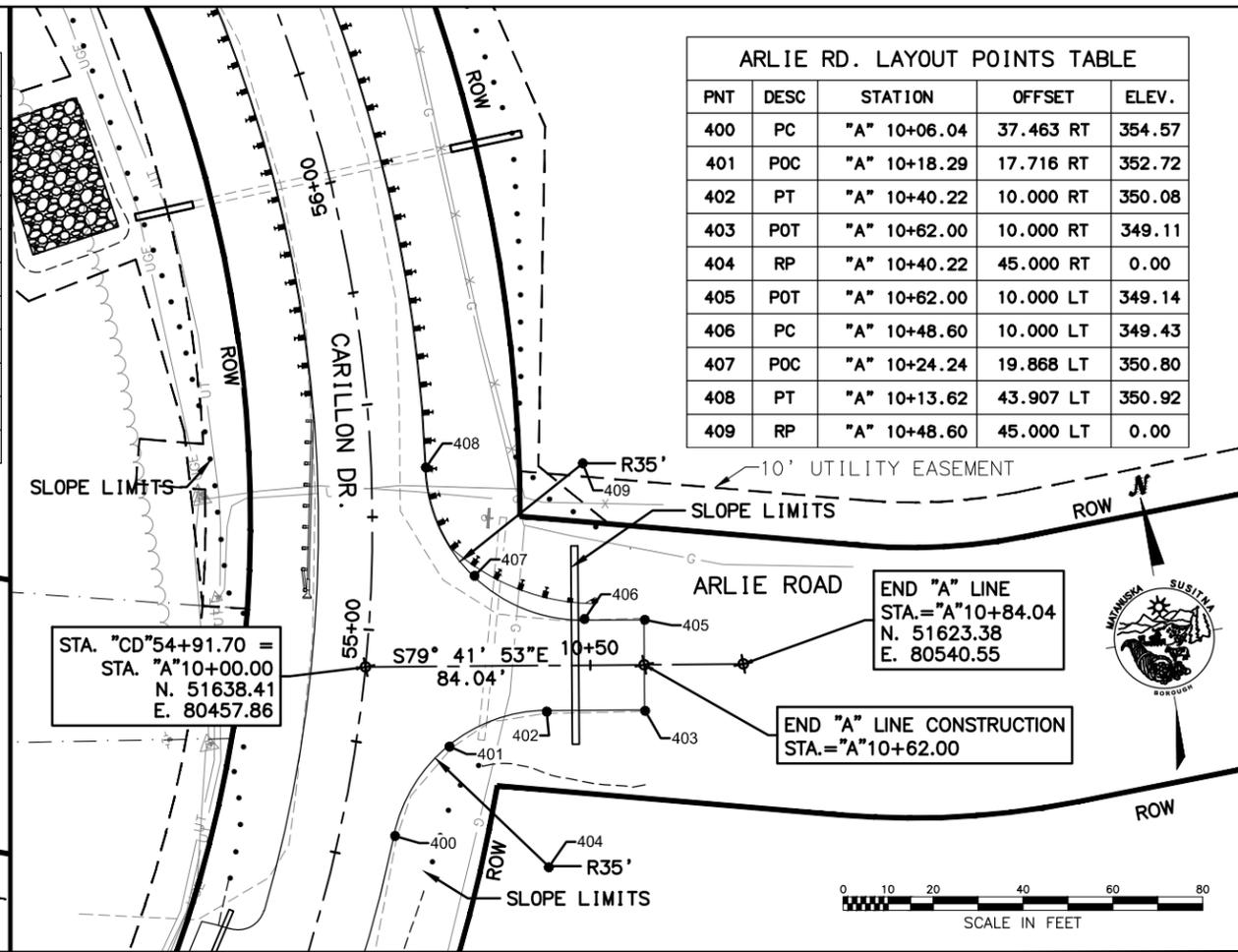
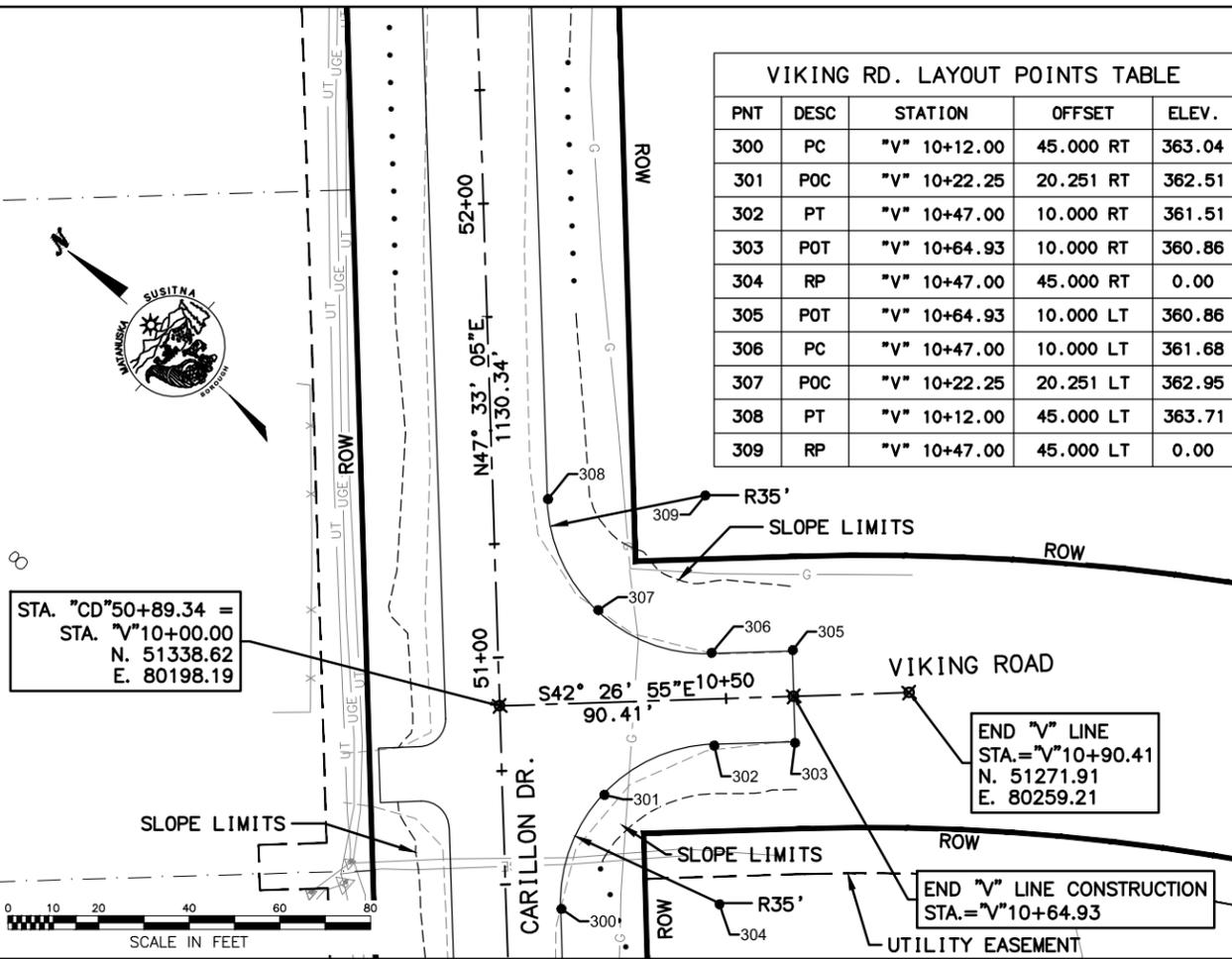
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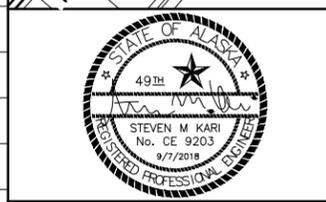
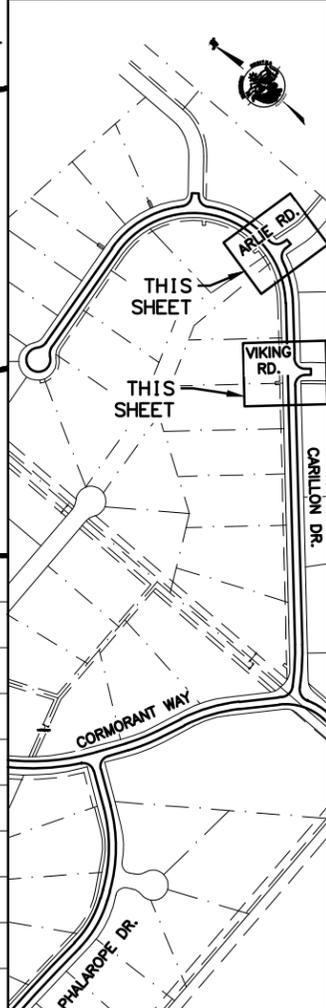
CARILLON DR. IMPROVEMENTS

**CARILLON DRIVE
 PLAN & PROFILE**

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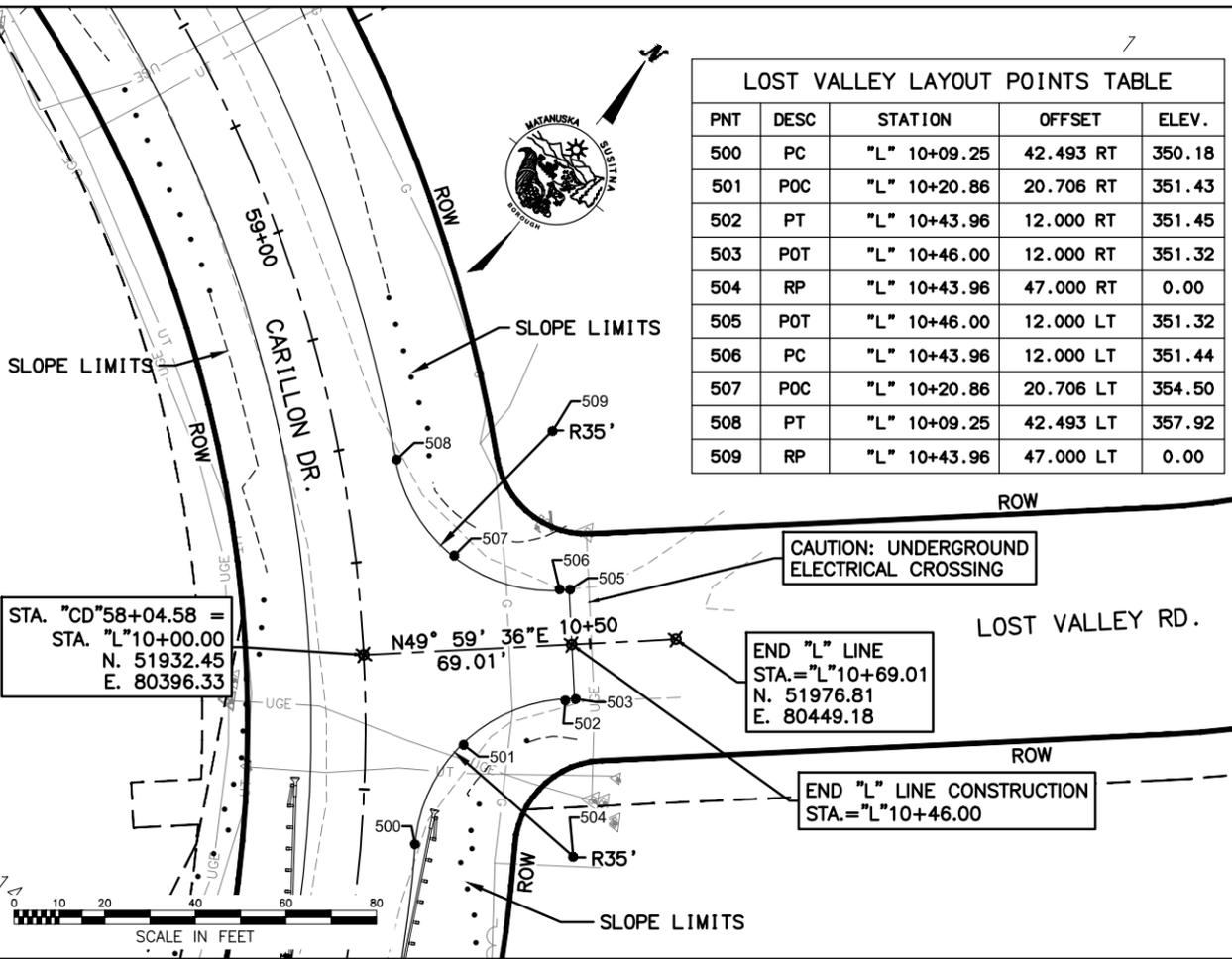
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PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



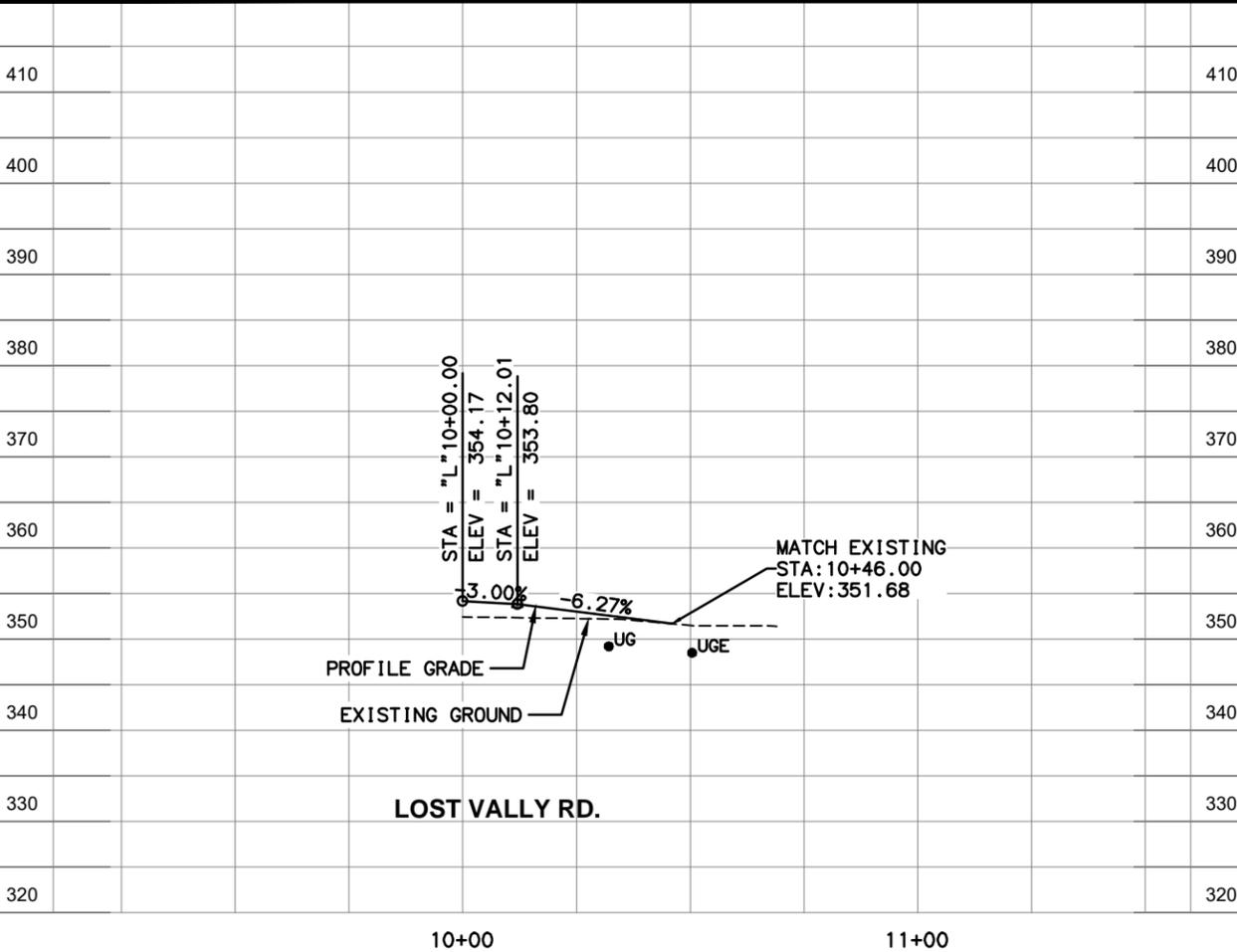
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 OPERATIONS AND MAINTENANCE DIVISION
 CARILLON DR. IMPROVEMENTS
**VIKING RD - ARLIE RD
 PLAN & PROFILE**

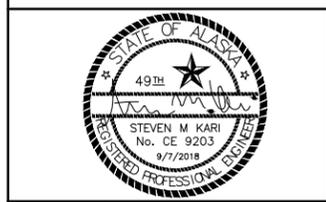
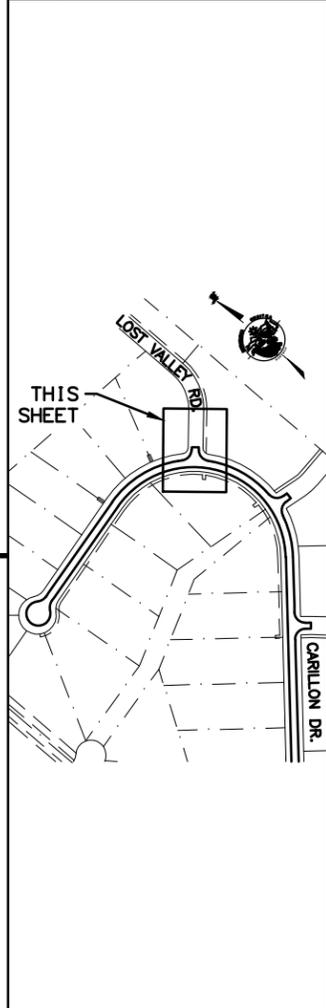
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 DATE TIME
 9/6/2018 10:53:41 AM
 LAYOUT SCALE
 PLAN AND PROFILE
 XREFS
 DESIGNED BY
 CHECKED BY
 DRAFTED BY



PNT	DESC	STATION	OFFSET	ELEV.
500	PC	"L" 10+09.25	42.493 RT	350.18
501	POC	"L" 10+20.86	20.706 RT	351.43
502	PT	"L" 10+43.96	12.000 RT	351.45
503	POT	"L" 10+46.00	12.000 RT	351.32
504	RP	"L" 10+43.96	47.000 RT	0.00
505	POT	"L" 10+46.00	12.000 LT	351.32
506	PC	"L" 10+43.96	12.000 LT	351.44
507	POC	"L" 10+20.86	20.706 LT	354.50
508	PT	"L" 10+09.25	42.493 LT	357.92
509	RP	"L" 10+43.96	47.000 LT	0.00



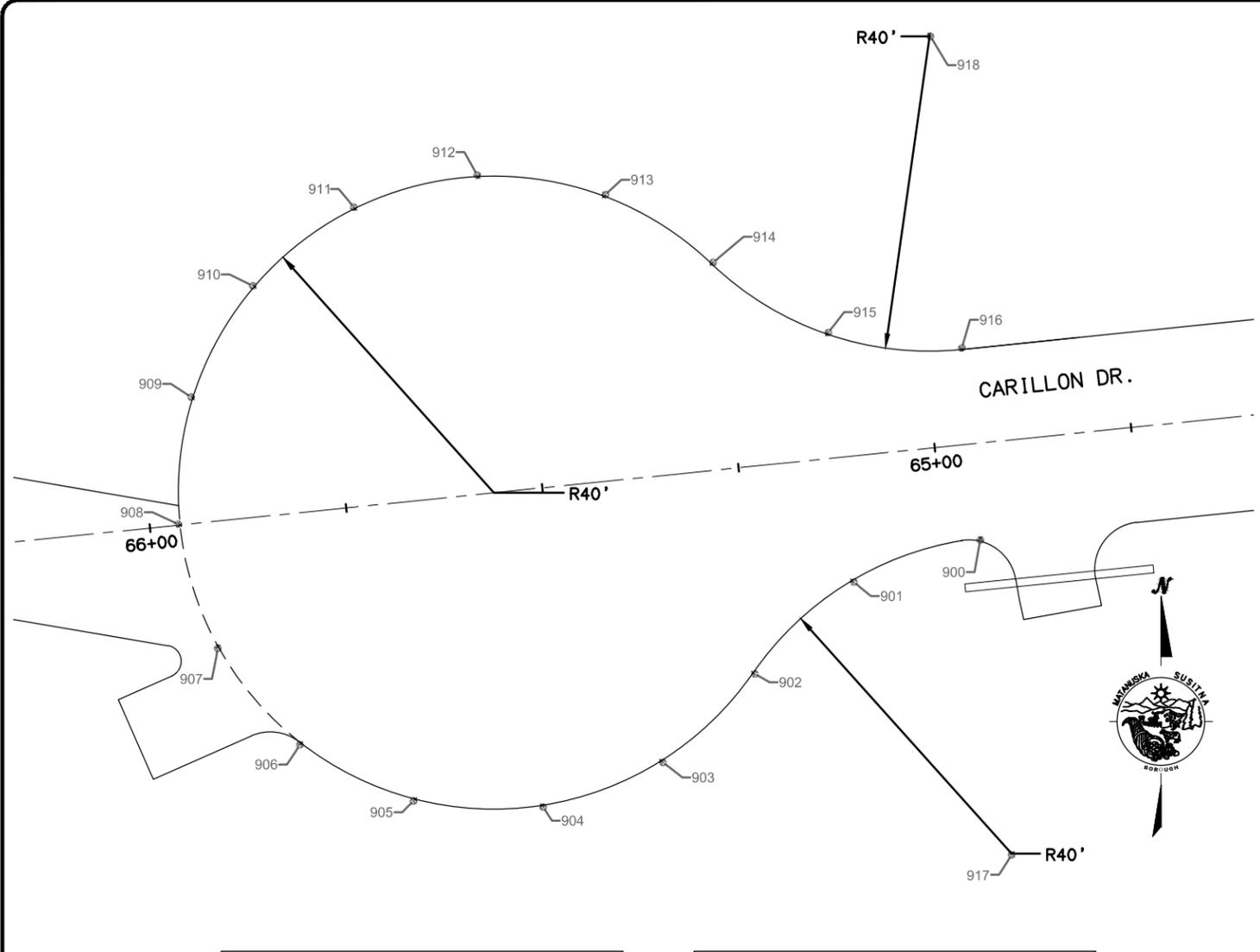
SHEET NO.	TOTAL SHEETS	
F8	F8	
STATE	DATE	
ALASKA	9/7/2018	
PROJECT DESIGNATION		
18-17-0457		
REVISIONS		
NO.	DATE	DESCRIPTION



Stantec
 PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES, INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 352-7803
 C.A. #126386

MATANUSKA-SUSITNA BOROUGH
 DEPARTMENT OF PUBLIC WORKS
 OPERATIONS AND MAINTENANCE DIVISION
 CARILLON DR. IMPROVEMENTS
**LOST VALLY RD.
 PLAN & PROFILE**

Date Revised: 9/07/2018, 9:26 AM
 Layout Name: Cul-de-Sac Grading
 File Path and Name: U:\2017\05\200\drawing\carillon sheets\carillon dr improvements Grading Sheets.dwg
 Designed By:
 Drawn By:
 Checked By:



NOTE: SEE DRIVEWAY SUMMARY ON SHEET C1 FOR DRIVEWAY WIDTHS AND RETURN RADII.

CARILLON CUL-DE-SAC LAYOUT POINTS TABLE				
PNT	DESC	STATION	OFFSET	ELEV.
900	PC	"CD" 64+95.39	-12.00	395.30
901	POC	"CD" 65+12.12	-15.67	395.43
902	PRC	"CD" 65+25.79	-26.00	395.54
903	POC	"CD" 65+38.52	-35.89	395.64
904	POC	"CD" 65+54.11	-39.95	395.75
905	POC	"CD" 65+70.04	-37.52	395.88
906	POC	"CD" 65+83.73	-29.01	395.99
907	POC	"CD" 65+92.94	-15.79	396.09
908	POC	"CD" 65+96.19	0.00	396.19
909	POC	"CD" 65+92.94	15.79	396.10

CARILLON CUL-DE-SAC LAYOUT POINTS TABLE				
PNT	DESC	STATION	OFFSET	ELEV.
910	POC	"CD" 65+83.73	29.01	395.99
911	POC	"CD" 65+70.04	37.52	395.87
912	POC	"CD" 65+54.11	39.95	395.75
913	POC	"CD" 65+38.52	35.89	395.65
914	PRC	"CD" 65+25.79	26.00	395.55
915	POC	"CD" 65+12.12	15.67	395.43
916	PT	"CD" 64+95.39	12.00	395.30
917	RP	"CD" 64+95.39	-52.00	0.00
918	RP	"CD" 64+95.39	52.00	0.00



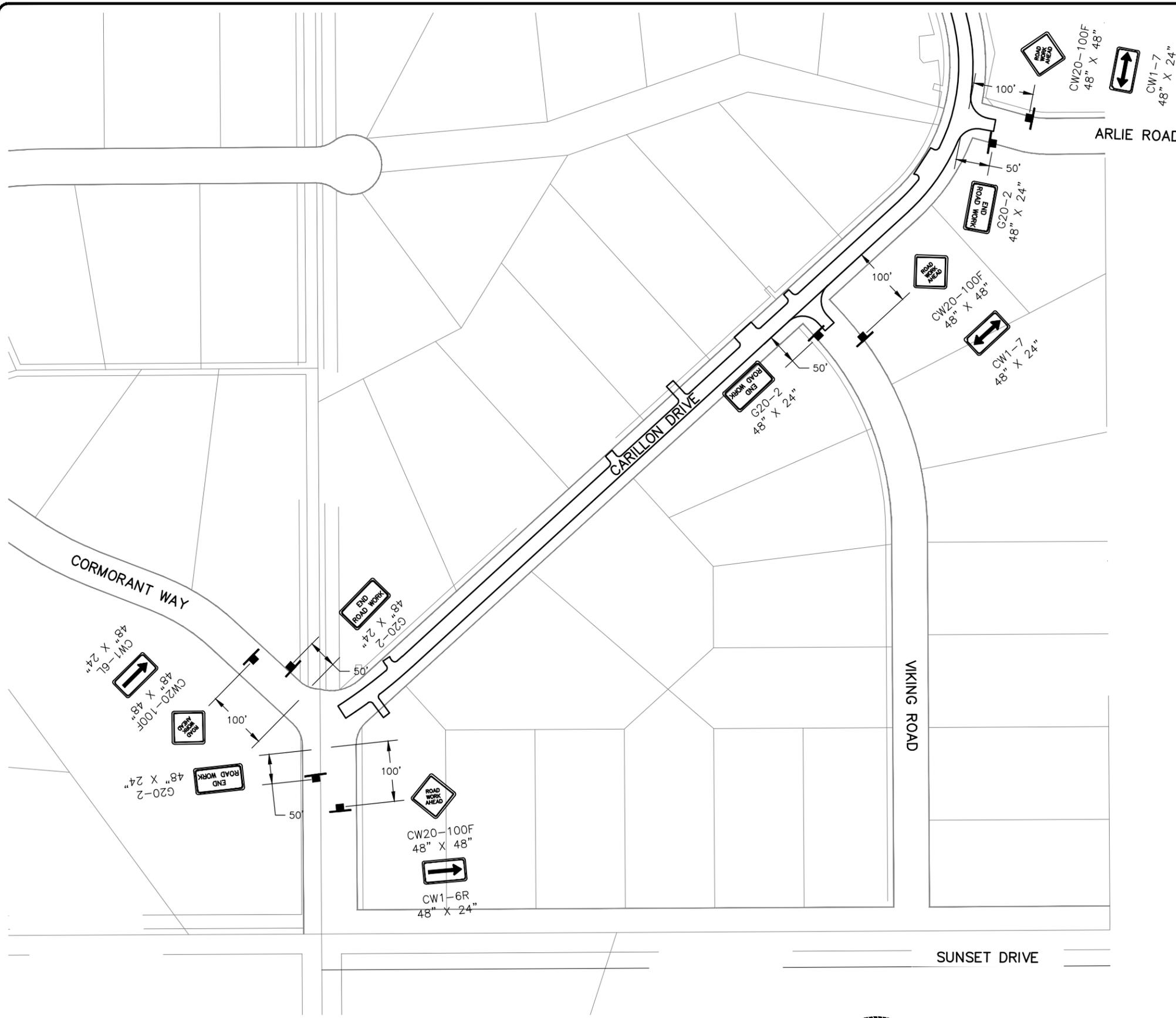
BY	DATE	REVISION

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CARILLON DR IMPROVEMENTS
 MATANUSKA-SUSITNA BOROUGH
GRADING PLANS

DATE: 9/7/2018
 SHEET: G1 OF G1
 PROJECT NUMBER:
 18-17-0457

Date Revised: 9/07/2018, 9:26 AM
 Layout Name: Traffic Control
 File Path and Name: U:\2017051200\Drawing\Carillon Dr Improvements Permanent Traffic Control.dwg
 Designed By:
 Drawn By:
 Checked By:



TRAFFIC CONTROL NOTES:

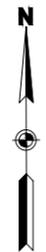
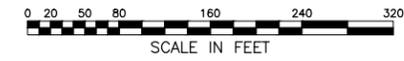
- CONSTRUCTION SIGNING, FLAGGING, DETOURS AND GENERAL TRAFFIC CONTROL FEATURES SHALL CONFORM TO THE GUIDELINES SET FORTH IN THE "C" SERIES STANDARD DRAWINGS AND THE APPLICABLE PORTIONS OF SECTION 615 AND 643 OF THE SPECIFICATIONS, THE ALASKA TRAFFIC MANUAL AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- A MINIMUM OF ONE LANE SHALL BE MAINTAINED AT ALL TIMES THROUGH ALL WORK AREAS.
- TWO LANES SHALL BE MAINTAINED AT ALL TIMES IN NON-WORK AREAS, AND DURING NON-WORKING HOURS.
- TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
- DRIVEWAYS MAY BE CLOSED DURING ACTUAL WORK ON A GIVEN DRIVEWAY, PROVIDED THAT THE CLOSURE DOES NOT EXCEED 8 HOURS AND THE AFFECTED RESIDENTS HAVE BEEN GIVEN 24 HOURS ADVANCE NOTICE OF THE CLOSURE.
- MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES SHALL BE EQUAL TO THE SPEED LIMIT IN FEET.
- FLOOD LIGHTS SHALL BE PROVIDED FOR FLAGGER STATIONS DURING NIGHT OPERATIONS.
- A SINGLE FLAGGER MAY BE APPROVED BY THE ENGINEER IF THE ENTIRE WORK AREA IS VISIBLE FROM THE FLAGGER STATION.
- CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
- TYPE "C" STEADY BURN WARNING LIGHTS SHALL BE USED TO MARK CHANNELIZING DEVICES AT NIGHT.
- CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
- TRAFFIC MAINTENANCE WILL INCLUDE ADVANCED WARNING SIGNS ON CORMORANT WAY, VIKING ROAD AND ARLIE ROAD, AND LANE CLOSURE AND ROADWAY ENCROACHMENT WARNING SIGNS AND CHANNELIZING DEVICES AS REQUIRED FOR THE WORK BEING PERFORMED.

643(2) PERMANENT CONSTRUCTION SIGNS

CODE	LEGEND	SIZE	QUANTITY
G20-2	END ROAD WORK	48" x 24"	4
CW20-100F	ROAD WORK AHEAD	48" x 48"	4
CW1-6(L/R)		48" x 24"	2
CW1-7		48" x 24"	2

CONSTRUCTION SIGNS

CODE	LEGEND	SIZE	QUANTITY
CW20-7	FLAGGER SYMBOL	48" x 48"	2
CW20-100F	ROAD WORK AHEAD	48" x 48"	2
CW20-4F	ONE LANE ROAD AHEAD	48" x 48"	2



BY	DATE	REVISION

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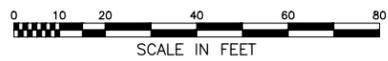
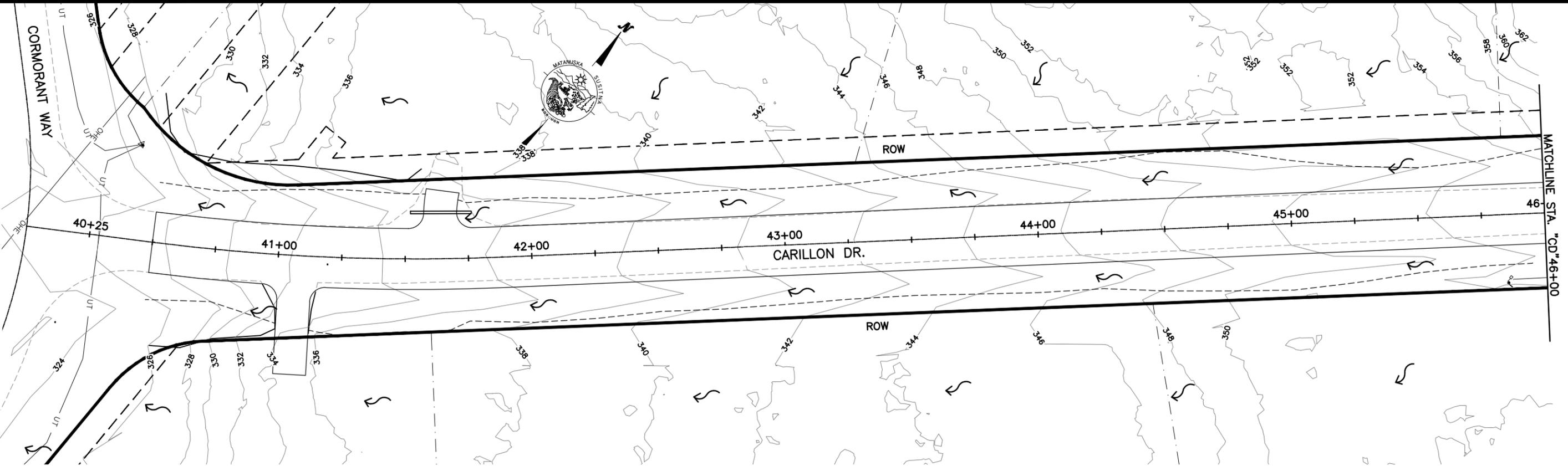
CARILLON DR IMPROVEMENTS
MATANUSKA-SUSITNA BOROUGH
PERMANENT TRAFFIC CONTROL

DATE: 9/7/2018
 SHEET: J1 OF J1
 PROJECT NUMBER: 18-17-0457

Date Revised: 9/07/2018, 9:28 AM
 Layout Name: ESCP (3)
 File Path and Name: U:\2017\051200\Drawing\carillon sheets\carillon Dr Improvements Prelim ESCP.dwg
 Designed By:
 Drawn By:
 Checked By:

ESCP NOTES:

1. THE CONTRACTOR SHALL DEVELOP A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS PROJECT. THE PLAN SHALL COMPLY WITH THE ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES) REQUIREMENTS FOR STORM WATER DISCHARGE FROM CONSTRUCTION SITES. SEE SECTION 641 OF THE SPECIAL PROVISIONS. THE ALASKA SWPPP GUIDE (AS CURRENTLY AMENDED), AND ALL CONDITIONS OF PERMIT APPROVALS.
2. MINIMIZE THE AREA AND TIME PERIOD ERODIBLE SOILS ARE EXPOSED TO STORM WATER. PHASE CLEARING OPERATIONS TO TAKE ADVANTAGE OF THE EXISTING COVER ONSITE BEFORE CONSTRUCTION TO PROVIDE TEMPORARY COVER FOR DISTURBED AREAS NOT CURRENTLY BEING WORKED. DISTURBED AREAS SHALL BE STABILIZED AS SOON AS PRACTICABLE.
3. SEDIMENT CONTROL DEVICES SHALL BE INSTALLED BEFORE ERODIBLE SOILS ARE EXPOSED AND MAY HAVE TO BE REMOVED AND REINSTALLED DAILY TO ALLOW CONSTRUCTION ACTIVITIES TO PROCEED. ALL DEVICES SHALL BE MAINTAINED ON A DAILY BASIS INCLUDING, BUT NOT LIMITED TO, REMOVAL AND DISPOSAL OF ACCUMULATED SOILS, CLEANING DEVICES AND REPLACEMENT OF DAMAGED DEVICES WITH NEW DEVICES.
4. THE CONTRACTOR SHALL MAINTAIN DEVICES AND CORRECT ANY PROBLEMS OCCURRING DUE TO INADEQUATE PROTECTION MEASURES. INSPECT AND REPAIR DEVICES AFTER EACH RAINFALL. REMOVE AND DISPOSE OF SEDIMENT CONTROL DEVICES AFTER STABILIZATION OF SLOPES. SEE THE ALASKA DOT&PF BMP GUIDE FOR EROSION AND SEDIMENT CONTROL, BMP 18.00 AND BMP 20.00.
5. WATER, OR NON-TOXIC DUST PALLATIVES SHALL BE USED TO CONTROL DUST.
6. PROVIDE EROSION CONTROL MATTING OR OTHER BMP ON ALL SLOPES WHERE IMMEDIATE SEEDING IS NOT PRACTICAL.
7. STREET CLEANING SHALL OCCUR DAILY OR MORE FREQUENTLY TO CONTROL OFF SITE TRACKING. STREET CLEANING SHALL CONSIST OF DRY SWEEPING OR HIGH EFFICIENCY VACUUM SWEEPING FOLLOWED BY WASHING. DO NOT WASH SEDIMENTS FROM ROADWAY INTO DRAINAGE SYSTEM OR WATER BODIES.
8. FOR THE PURPOSE OF THE SWPPP PREPARTION, THE ESTIMATED AREA OF DISTURBANCE IS 3.0 ACRES. THIS INCLUDES THE EXISTING ROADWAY.



ESCP LEGEND:	
↷	DRAINAGE PATTERN

NOTE:
 THE INTENT OF THESE PLANS IS TO SHOW EXISTING DRAINAGE PATTERNS AND PRELIMINARY SEDIMENT CONTROL FEATURES.

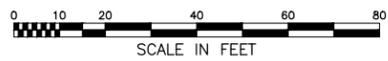
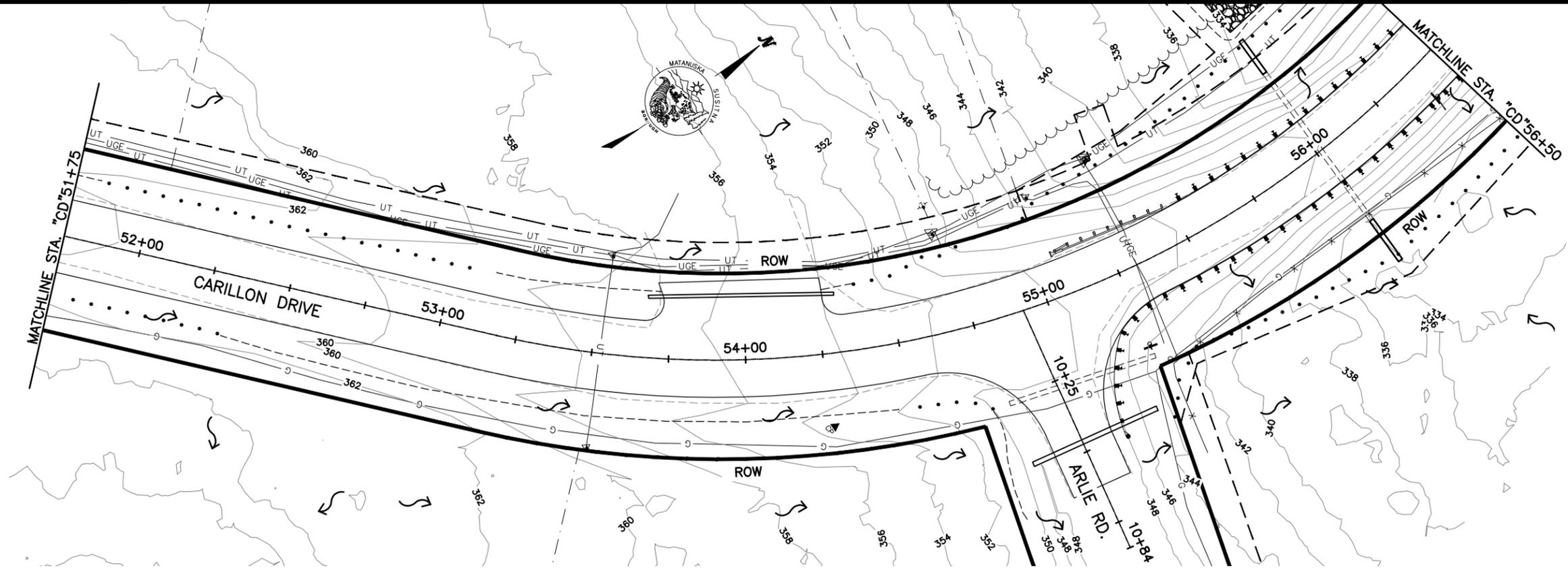
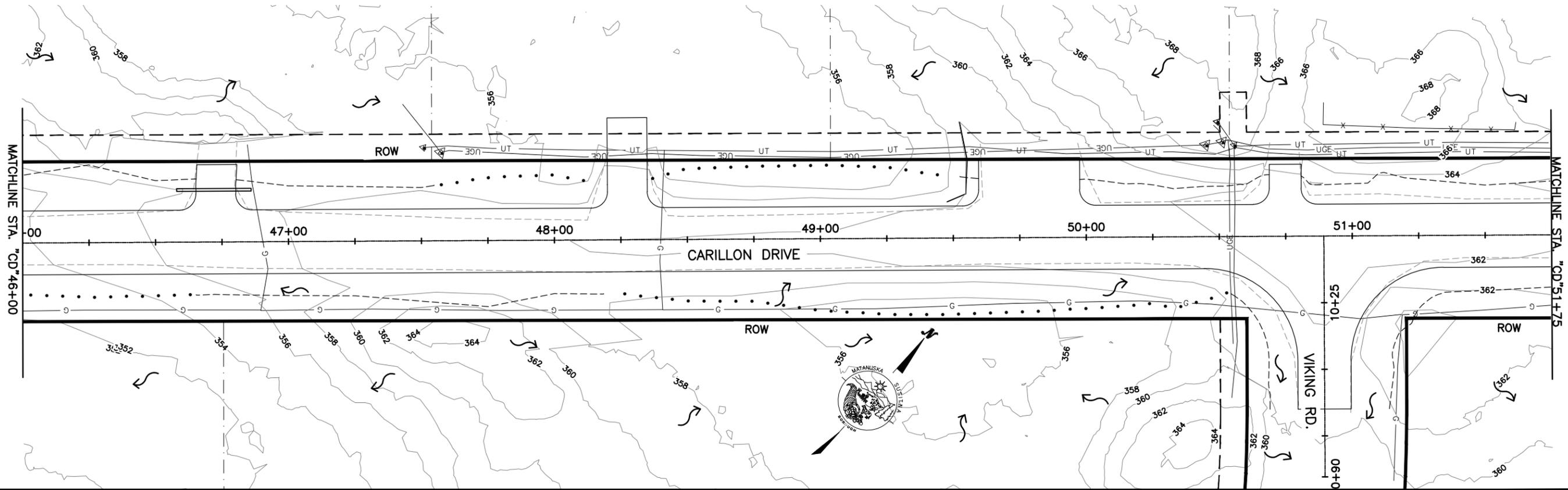
BY	DATE	REVISION

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CARILLON DR IMPROVEMETS
MATANUSKA-SUSITNA BOROUGH
DRAFT ESCP

DATE: 9/7/2018
 SHEET: Q1 OF Q3
 PROJECT NUMBER:
 18-17-0457

Date Revised: 9/07/2018, 9:28 AM
 Layout Name: ESCP (A)
 File Path and Name: U:\2017\051200\drawing\carillon sheets\carillon Dr Improvements Prelim ESCP.dwg
 Designed By:
 Drawn By:
 Checked By:



ESCP LEGEND:	
	DRAINAGE PATTERN

NOTE:
 THE INTENT OF THESE PLANS IS TO SHOW
 EXISTING DRAINAGE PATTERNS AND PRELIMINARY
 SEDIMENT CONTROL FEATURES.

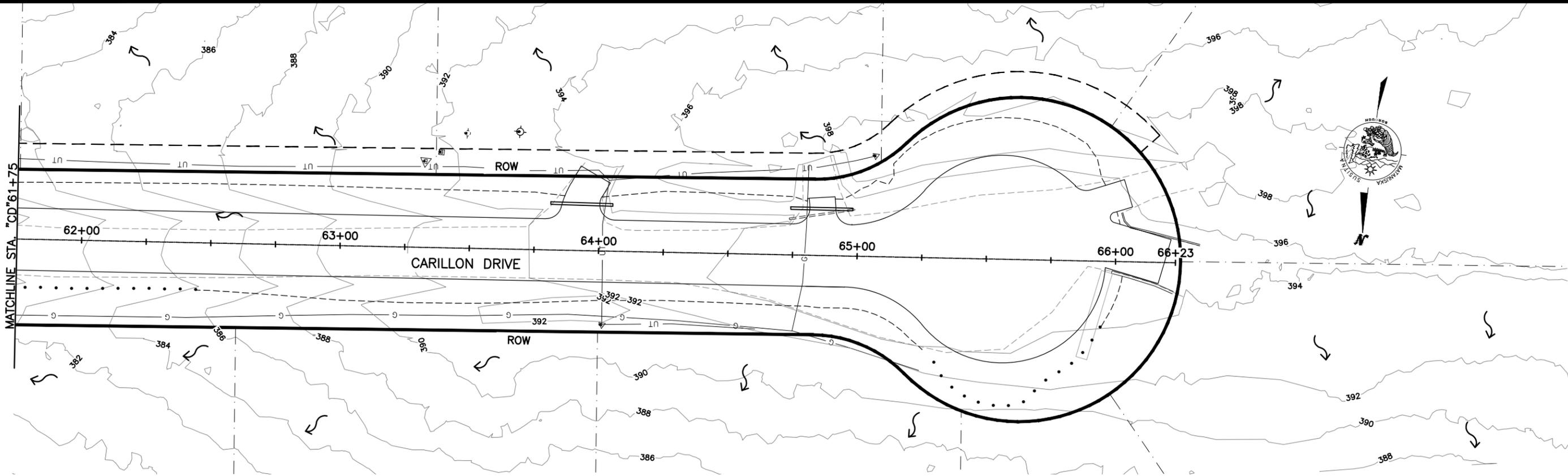
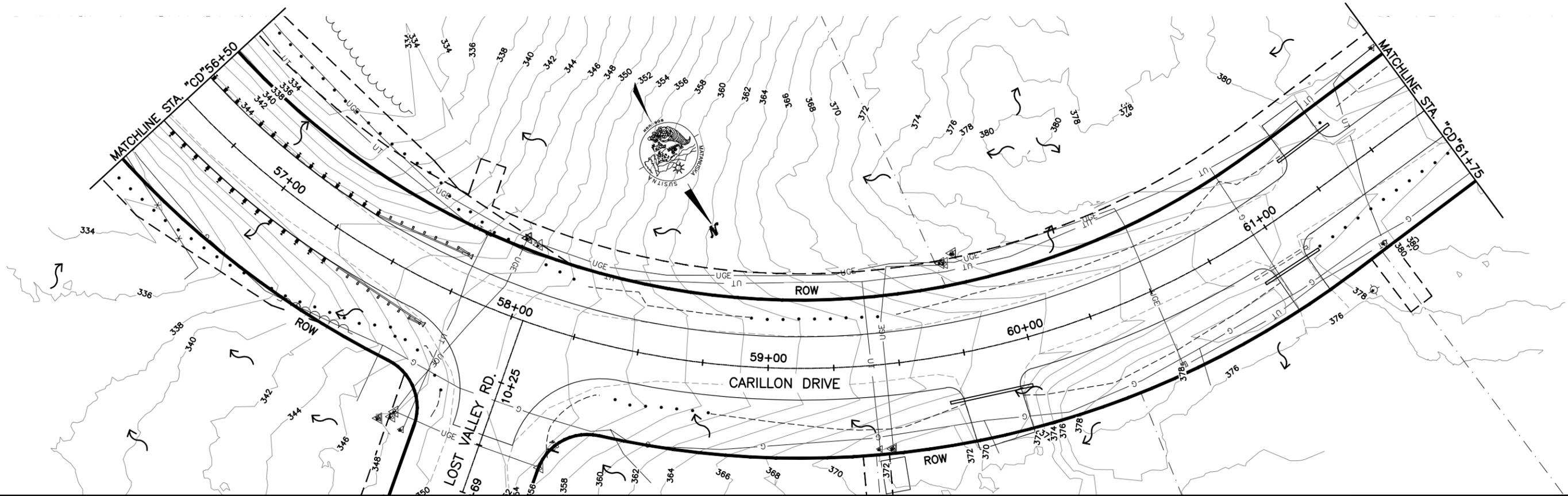
BY	DATE	REVISION

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 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

CARILLON DR IMPROVEMETS
 MATANUSKA-SUSITNA BOROUGH
DRAFT ESCP

DATE: 9/7/2018
 SHEET: Q2 OF Q3
 PROJECT NUMBER:
 18-17-0457

Date Revised: 9/07/2018, 9:28 AM
 Layout Name: ESCP (6)
 File Path and Name: U:\2017\05\1200\drawing\carillon sheets\carillon Dr Improvements Prelim ESCP.dwg
 Designed By:
 Drawn By:
 Checked By:



ESCP LEGEND:	
	DRAINAGE PATTERN

NOTE:
 THE INTENT OF THESE PLANS IS TO SHOW
 EXISTING DRAINAGE PATTERNS AND PRELIMINARY
 SEDIMENT CONTROL FEATURES.

BY	DATE	REVISION

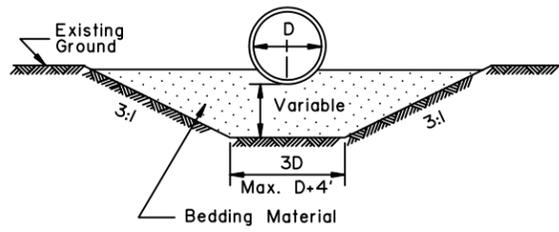
Stantec
 PLANS DEVELOPED BY:
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 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

CARILLON DR IMPROVEMETS
 MATANUSKA-SUSITNA BOROUGH
DRAFT ESCP

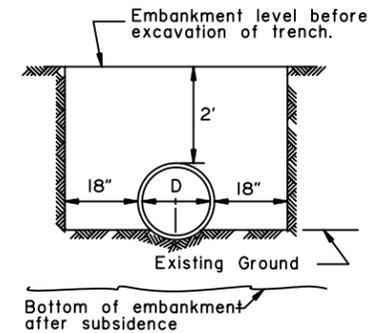
DATE: 9/7/2018
 SHEET: Q3 OF Q3
 PROJECT NUMBER:
 18-17-0457

GENERAL NOTES:

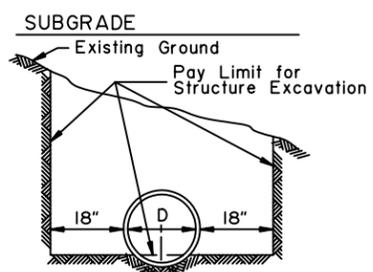
1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.



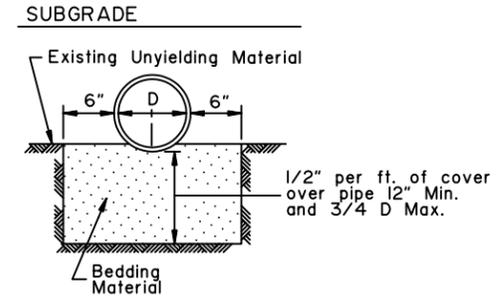
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



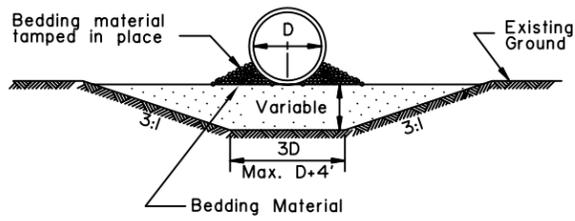
TYPE "B"



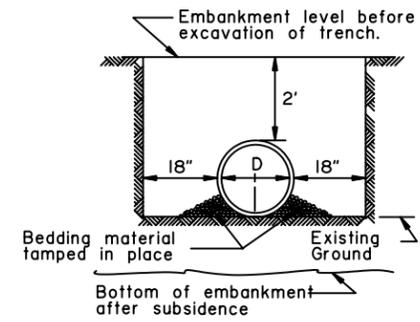
TYPE "C"



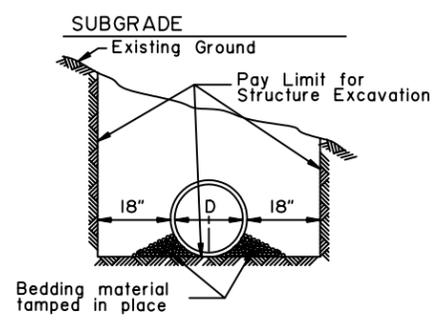
TYPE "D"
ROCK OR UNYIELDING MATERIAL



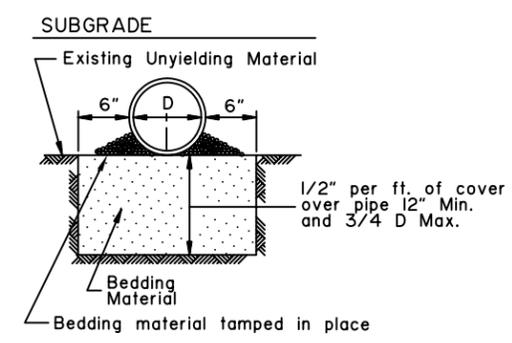
'ALTERNATE' TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



'ALTERNATE' TYPE "B"

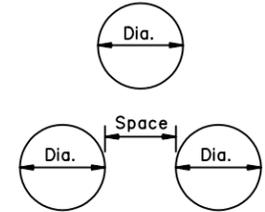


'ALTERNATE' TYPE "C"



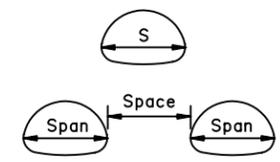
'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

D = Nominal Pipe Diameter



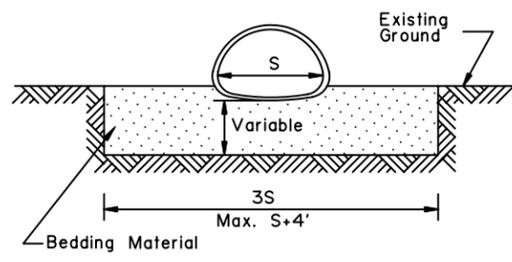
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

S = Nominal Pipe Arch Span

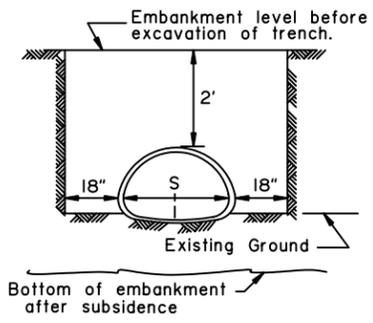


MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.

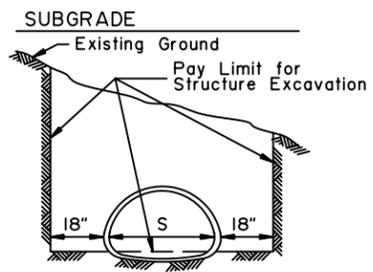
CULVERT PIPE



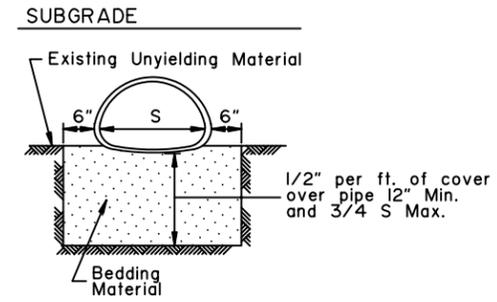
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



TYPE "B"



TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

ARCH

REVISIONS		
Date	Description	By
12/1/87	Delete ref. to Specs.	Gdo
4/1/93	Delete All. Arch	Gdo

State of Alaska
Department of Transportation
& Public Facilities
**CULVERT PIPE & ARCH
INSTALLATION DETAILS**



Date 7/15/82

D-04.21

GENERAL NOTES:

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
- See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
- These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

Minimum & Maximum Cover For 2 2/3" x 1/2" Aluminum Pipe

GAGE	0.060"		0.075"		0.105"		0.135"		0.164"	
	Min. (In)	Max. (Ft)								
12	12	100+	12	100+	12	100+	12	100+	12	100+
15	12	94	12	100+	12	100+	12	100+	12	100+
18	12	75	12	94	12	100+	12	100+	12	100+
21	12	65	12	82	12	100+	12	100+	12	100+
24	12	56	12	71	12	99	12	100+	12	100+
27	12	48	12	63	12	89	12	100+	12	100+
30			12	56	12	79	12	100+	12	100+
36			12	47	12	66	12	85	12	100+
42			12	55	12	56	12	73	12	100+
48			12	47	12	49	12	63	12	78
54					15	43	15	56	15	69
60							15	50	15	62
66							18	44	18	56
72									18	45

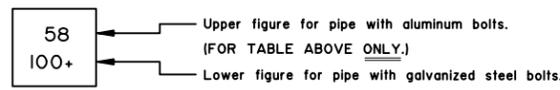
Minimum & Maximum Cover For 3" x 1" Aluminum Pipe

GAGE	0.060"		0.075"		0.105"		0.135"		0.164"	
	Min. (In)	Max. (Ft)								
30	12	52	12	65						
36	12	43	12	54	12	100+	12	100+	12	100+
42	12	36	12	46	12	65	12	100+	12	100+
48	12	32	12	40	12	57	12	73	12	100+
54	15	28	15	35	15	50	12	65	12	100+
60	15	25	15	32	15	45	15	58	15	72
66	18	23	18	28	18	41	18	53	18	65
72	18	21	18	26	18	37	18	48	18	59
78			21	24	21	34	21	44	21	55
84					21	31	21	41	21	57
90					24	29	24	38	24	47
96					24	27	24	36	24	44
102							24	33	24	41
108							24	31	24	39
114									24	37
120									24	35

Minimum & Maximum Cover For 9" x 2 1/2" Aluminum Structural Plate Pipe *

GAGE	0.100"		0.125"		0.150"		0.175"		0.200"		0.225"		0.250"	
	Min. (In)	Max. (Ft)												
60	12	29 31	12	38 45	12	49 60	12	58 70	12	58 81	12	58 92	12	58 100+
66	12	26 28	12	35 41	12	44 54	12	53 64	12	53 74	12	53 84	12	53 94
72	13	24 25	12	32 37	12	41 50	12	48 58	12	48 67	12	48 77	12	48 86
78	14	22 23	12	29 35	12	37 46	12	45 54	12	45 62	12	45 71	12	45 79
84	15	20 22	13	27 32	12	35 42	12	41 50	12	41 58	12	41 66	12	41 73
90	16	19 20	14	25 30	13	32 40	12	39 47	12	39 54	12	39 61	12	39 68
96	17	18 19	15	24 28	14	30 37	13	36 44	12	36 50	12	36 57	12	36 64
102	18	17 18	16	22 26	15	29 35	14	34 41	13	34 47	13	34 54	13	34 60
108	19	16 17	17	21 25	16	27 33	14	32 39	14	32 45	14	32 51	14	32 57
114	20	15 16	18	20 23	16	25 31	15	30 37	15	30 42	15	30 48	15	30 54
120	21	14 15	19	19 22	17	24 30	16	29 35	15	29 40	15	29 46	15	29 51
126	22	13 14	20	18 21	18	23 28	17	27 33	16	27 38	16	27 44	16	27 49
132	23	13 14	21	17 20	19	22 27	18	26 33	17	26 37	17	26 42	17	26 47
138	24	12 13	22	16 19	20	21 26	18	25 30	18	25 35	18	25 40	18	25 44
144	25	12 12	22	16 18	21	20 25	19	24 29	18	24 33	18	24 38	18	24 43
150			23	15 18	21	19 24	20	23 28	19	23 32	19	23 36	19	23 41
156			24	14 17	22	18 23	21	22 27	20	22 31	20	22 35	20	22 39
162					23	18 22	21	21 26	21	21 30	21	21 34	21	21 38
168					24	17 21	22	20 25	21	20 29	21	20 33	21	20 36
174					25	17 20	23	20 24	22	20 28	22	20 31	22	20 35
180							24	19 23	23	19 27	23	19 30	23	19 34

*Longitudinal seams use (5 1/3) 3/4" dia. bolts per foot.



CORRUGATED CIRCULAR ALUMINUM PIPE

CORRUGATED ALUMINUM PIPE-ARCH

Minimum & Maximum Cover For 2 2/3" x 1/2" Aluminum Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft)	
				2 Tons Corner Bearing Pressure	3 Tons Corner Bearing Pressure
17 x 13	3	0.060	12	13	20
21 x 15	3	0.060	12	12	19
24 x 18	3	0.060	12	11	16
28 x 20	3	0.075	12	10	16
35 x 24	3	0.075	12	9	14
42 x 29	3 1/2	0.105	12	7	13
49 x 33	4	0.105	15	6	12
57 x 38	5	0.135	15	6	12
64 x 43	6	0.135	18	6	12
71 x 47	7	0.164	18	6	12

Minimum & Maximum Cover For 3" x 1" Aluminum Pipe-Arch

Span x Rise (In. x In.)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (In)	Max. Cover (Ft)	
				2 Tons Corner Bearing Pressure	3 Tons Corner Bearing Pressure
40 x 31	5	0.075	30	8	12
46 x 36	6	0.075	24	8	13
53 x 41	7	0.075	24	8	13
60 x 46	8	0.075	24	13	20
66 x 51	9	0.075	18	13	20
73 x 55	12	0.075	18	16	24
81 x 59	14	0.105	18	14	22
87 x 63	14	0.105	18	13	20
95 x 67	16	0.105	18	12	18
103 x 71	16	0.135	24	11	17
112 x 75	18	0.164	24	10	16
117 x 79	18	0.164	24	10	15

Minimum & Maximum Cover For 9" x 2 1/2" Aluminum Structural Plate Pipe-Arch*

Span x Rise (Ft-In x Ft-In)	Corner Radius (In)	Minimum Gage (In)	Min. Cover (ft)	Max. Cover in Feet For Soil Bearing Capacity of:	
				2 Tons/ft²	3 Tons/ft²
5 - 11 x 5 - 5	31.8	0.100	2	24**	24**
6 - 11 x 5 - 9	31.8	0.100	2	22**	22**
7 - 3 x 5 - 11	31.8	0.100	2	20**	20**
7 - 9 x 6 - 0	31.8	0.100	2	28**	18**
8 - 5 x 6 - 3	31.8	0.100	2	17**	17**
9 - 3 x 6 - 5	31.8	0.100	2	15**	15**
10 - 3 x 6 - 9	31.8	0.100	2	14**	14**
10 - 9 x 6 - 10	31.8	0.100	2	13**	13**
11 - 5 x 7 - 1	31.8	0.100	2	12**	12**
12 - 7 x 7 - 5	31.8	0.125	2	14	16**
12 - 11 x 7 - 6	31.8	0.150	2	13	14**
13 - 1 x 8 - 2	31.8	0.150	2	13	18**
13 - 11 x 8 - 5	31.8	0.150	2	12	17**
14 - 8 x 9 - 8	31.8	0.175	2	12	18
15 - 4 x 10 - 0	31.8	0.175	2	11	17
16 - 1 x 10 - 4	31.8	0.200	2	10	16
16 - 9 x 10 - 8	31.8	0.200	2.17	10	15
17 - 3 x 11 - 0	31.8	0.225	2.25	10	15
18 - 0 x 11 - 4	31.8	0.255	2.25	9	14
18 - 8 x 11 - 8	31.8	0.250	2.33	9	14

*Longitudinal seams use (5 1/3) 3/4" dia. bolts per foot.

**Fill limited by the seam strength of the bolts. 3/4" dia. bolts per foot.

METAL THICKNESSES & GAGES

ALUMINUM	GAGE NO. (For Info Only)
0.060	16
0.075	14
0.105	12
0.135	10
0.164	8

*This column shall not be used unless specified on the plans or approved by the Regional Geotechnical Engineer.

REVISIONS

Date	Description	By
8/10/00	Pipe Tables & G. Notes.	DFD
10/31/03	Pipe Table Updates & New Sheet 4	LRG

Sheet 1 of 4

State of Alaska
Department of Transportation & Public Facilities

PIPE AND ARCH TABLES



Date 10/31/03

D-04.21

D-04.21

GENERAL NOTES

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
- See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
- These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

GAGE	0.064"		0.079"		0.109"		0.138"		0.168"	
Dia. (In.)	Min. (In.)	Max. (Ft)								
12	12	100+	12	100+	12	100+	12	100+	12	100+
15	12	100+	12	100+	12	100+	12	100+	12	100+
18	12	100+	12	100+	12	100+	12	100+	12	100+
21	12	100+	12	100+	12	100+	12	100+	12	100+
24	12	100+	12	100+	12	100+	12	100+	12	100+
27	12	100+	12	100+	12	100+	12	100+	12	100+
30	12	99	12	100+	12	100+	12	100+	12	100+
36	12	83	12	100+	12	100+	12	100+	12	100+
42	12	71	12	88	12	100+	12	100+	12	100+
48	12	62	12	77	12	100+	12	100+	12	100+
54			12	66	12	93	12	100+	12	100+
60					12	79	12	100+	12	100+
66			12	68	12	88	12	100+		
72					12	75	12	93		
78									12	79
84									12	66

GAGE	0.064"		0.079"		0.109"		0.138"		0.168"	
Dia. (In.)	Min. (In.)	Max. (Ft)								
36	12		12		12	100+	12	100+	12	100+
42	12		12		12	100+	12	100+	12	100+
48	12		12	76	12	100+	12	100+	12	100+
54	12	63	12	79	12	100+	12	100+	12	100+
60	12	56	12	71	12	99	12	100+	12	100+
66	12	52	12	64	12	90	12	100+	12	100+
72	12	47	12	59	12	82	12	100+	12	100+
78	12	44	12	54	12	77	12	98	12	100+
84	12	41	12	51	12	71	12	92	12	100+
90	12	37	12	47	12	67	12	86	12	100+
96	12	35	12	44	12	62	12	80	12	98
102	18	33	18	42	18	59	18	76	18	93
108			18	40	18	55	18	71	18	87
114			18	36	18	51	18	66	18	80
120			18	34	18	46	18	61	18	75
126					18	44	18	56	18	70
132					18	41	18	53	18	64
138					18	37	18	49	18	60
144							18	44	18	55
150									18	52

GAGE	0.064"		0.079"		0.109"		0.138"		0.168"	
Dia. (In.)	Min. (In.)	Max. (Ft)								
36	12	81	12	90	12	100+	12	100+	12	100+
42	12	71	12	77	12	100+	12	100+	12	100+
48	12	62	12	68	12	100+	12	100+	12	100+
54	12	56	12	70	12	98	12	100+	12	100+
60	12	50	12	63	12	88	12	100+	12	100+
66	12	46	12	57	12	80	12	100+	12	100+
72	12	42	12	52	12	73	12	95	12	100+
78	12	39	12	48	12	68	12	87	12	100+
84	12	36	12	45	12	63	12	81	12	99
90	12	33	12	42	12	59	12	76	12	93
96	12	31	12	39	12	55	12	71	12	87
102	18	29	18	37	18	52	18	67	18	82
108			18	35	18	49	18	63	18	77
114			18	32	18	45	18	58	18	71
120			18	30	18	41	18	54	18	66
126					18	39	18	50	18	62
132					18	36	18	47	18	57
138					18	33	18	43	18	53
144							18	39	18	49
150									19	47

*Table for pipe with helical lockseams or helical welded seams ONLY.

GAGE	ALL	0.111"	0.140"	0.170"	0.188"	0.218"	0.249"	0.280"
Dia. (In.)	Min. (In.)	Max. (Ft)						
60	12	46	68	90	100+	100+	100+	100+
66	12	42	62	81	93	100+	100+	100+
72	12	38	57	75	86	100+	100+	100+
78	12	35	52	69	79	95	100+	100+
84	12	33	49	64	73	88	100+	100+
90	12	31	45	60	68	82	97	100+
96	12	29	43	56	64	77	91	100+
102	18	27	40	52	60	73	86	94
108	18	25	38	50	57	69	81	88
114	18	24	36	47	54	65	77	84
120	18	23	34	45	51	62	73	80
126	18	22	32	42	49	59	69	76
132	18	21	31	40	46	56	66	72
138	18	20	29	39	44	54	63	69
144	18	19	28	37	43	51	61	66
150	24	18	27	36	41	49	58	64
156	24	17	26	34	39	47	56	61
162	24	17	25	33	38	46	54	59
168	24	16	24	32	36	44	52	57
174	24	16	23	31	35	42	50	55
180	24	15	22	30	34	41	48	53
186	24	15	22	29	33	40	47	51
192	24		21	28	32	38	45	50
198	30		20	27	31	37	44	48
204	30		20	26	30	36	43	47
210	30		19	25	29	35	41	45
216	30			25	28	34	40	44
222	30			24	27	33	39	43
228	30			23	27	32	38	42
234	30			23	26	31	37	41
240	30				25	31	36	40
246	36				25	30	35	39
252	36					29	34	38
258	36					28	34	37
264	36					28	33	36
270	36					27	32	35
276	36						31	34
282	36						31	34
288	42						30	33
294	42							32
300	42							32
306	42							31
312	42							30

**Longitudinal seams use (4) 3/4" dia. bolts per foot.

CORRUGATED CIRCULAR STEEL PIPE

CORRUGATED STEEL PIPE-ARCH

Span x Rise (In. x In.)	Corner Radius (In.)	Minimum Gage (In.)	Min. Cover (In.)	Max. Cover (Ft)	
				2 Tons Corner Bearing Pressure	3 Tons Corner Bearing Pressure
17 x 13	3	0.064	12	16	18
21 x 15	3	0.064	12	15	14
24 x 18	3	0.064	12	15	13
28 x 20	3	0.064	12	15	11
35 x 24	3	0.064	12	15	7
42 x 29	3 1/2	0.064	12	15	7
49 x 33	4	0.079	12	15	6
57 x 38	5	0.109	12	15	8
64 x 43	6	0.109	12	15	9
71 x 47	7	0.138	12	15	10
77 x 52	8	0.168	12	15	10
83 x 57	9	0.168	12	15	10

Span x Rise (In. x In.)	Corner Radius (In.)	Minimum Gage (In.)	Min. Cover (In.)	Max. Cover (Ft)	
				2 Tons Corner Bearing Pressure	3 Tons Corner Bearing Pressure
40 x 31	5	0.079	12	25	12
46 x 36	6	0.079	12	25	13
53 x 41	7	0.079	12	25	13
60 x 46	8	0.079	15	25	13
66 x 51	9	0.079	15	25	13
73 x 55	12	0.079	18	24	16
81 x 59	14	0.079	18	21	17
87 x 63	14	0.079	18	20	16
95 x 67	16	0.079	18	20	17
103 x 71	16	0.079	18	20	15
112 x 75	18	0.079	21	20	16
117 x 79	18	0.109	21	19	15
128 x 83	18	0.138	24	19	14
137 x 87	18	0.138	24	19	13
142 x 91	18	0.138	24	19	12
150 x 96	18	0.138	30	19	
157 x 96	18	0.138	30	19	
164 x 105	18	0.138	30	19	
171 x 110	18	0.138	30	19	

Span x Rise (In. x In.)	Corner Radius (In.)	Minimum Gage (In.)	Min. Cover (In.)	Max. Cover (Ft)	
				2 Tons Corner Bearing Pressure	3 Tons Corner Bearing Pressure
40 x 31	5	0.109	12	25	12
46 x 36	6	0.109	15	25	13
53 x 41	7	0.109	15	25	13
60 x 46	8	0.109	18	25	13
66 x 51	9	0.109	18	25	13
73 x 55	12	0.109	18	24	16
81 x 59	14	0.109	18	21	17
87 x 63	14	0.109	18	20	16
95 x 67	16	0.109	18	20	17
103 x 71	16	0.109	18	20	15
112 x 75	18	0.109	21	20	16
117 x 79	18	0.109	21	19	15
128 x 83	18	0.109	24	19	14
137 x 87	18	0.109	24	19	13
142 x 91	18	0.109	24	19	12
150 x 96	18	0.138	30	19	
157 x 96	18	0.138	30	19	
164 x 105	18	0.138	30	19	
171 x 110	18	0.138	30	19	

Span x Rise (Ft-In x Ft-In)	Corner Radius (In.)	Minimum Gage (In.)	2 Tons Corner Bearing Pressure		3	
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GENERAL NOTES

1. All materials and workmanship shall be in accordance with the State of Alaska Standard Specifications for Highway Construction.
2. For foundation and structural backfill details see Standard Drawing "Culvert Pipe & Arch Installation Details".
3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the top of subgrade for flexible pavement. In all cases the minimum cover shall be no less than 2 ft. Where loads traverse the culvert during construction minimum cover shall be no less than 4 ft.

Maximum Cover for Type S Corrugated Polyethelene Pipe	
Size (in.)	Max. Cover (ft.)
12	30.0
15	30.0
18	30.0
24	30.0
30	30.0
36	30.0
40	20.0
48	20.0

REVISIONS		
Date	Description	By
10/31/03	New Sheet 4.	LRG

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State of Alaska
Department of Transportation
& Public Facilities

PIPE AND ARCH TABLES



Date 10/31/03

D-04.21

GENERAL NOTES

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
- See Standard Drawing "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the top of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
- These tables have been developed for an H-20 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2000 AASHTO "LRFD Bridge Design Specifications".

GAGE	0.060"		0.075"		0.105"		0.135"	
	Min. (In)	Max. (Ft)						
12	24	35	24	50				
18	24	34	24	49				
24	24	25	24	36	24	63	24	82
30	24	19	24	28	24	50	24	65
36	24	15	24	24	24	41	24	54
42			24	19	24	35	24	46
48			24	17	24	30	24	40
54			24	14	24	27	24	35
60			24	12	24	24	24	30

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. or $\frac{3}{4}$ x 1 x $11\frac{1}{2}$ in. Corrugations

Span x Rise (In. x In.)	Min. Cover (In.)	Soil Corner Bearing Capacity of 2 Tons/ s.f.		
		0.060" Max. Cover (ft.)	0.075" Max. Cover (ft.)	0.105" Max. Cover (ft.)
20 x 16	12	13		
23 x 19	12	14		
27 x 21	12	13		
33 x 26	12	13		
40 x 31	12	13		
46 x 36	12	14		
53 x 41	18		13	
60 x 46	18		20	
66 x 51	18		21	
73 x 55	18			21
81 x 59	18			17
87 x 63	18			17
95 x 67	18			17

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. or $\frac{3}{4}$ x 1 x $11\frac{1}{2}$ in. Corrugations

ALUMINUM SPIRAL RIB PIPE

STEEL SPIRAL RIB PIPE

GAGE	0.064"		0.079"		0.109"		0.138***	
	Min. (In)	Max. (Ft)						
18	12							
24	12	51	12	72	12	121		
30	12	41	12	58	12	97		
36	12	34	12	48	12	81		
42	12	29	12	41	12	69		
48	12	26	12	36	12	61		
54	18	23	18	32	18	54		
60	18	21	18	29	18	49	18	73
66	18	19	18	26	18	44	18	65
72			18	24	18	40	18	59
78			24	22	24	37	24	55
84			24	21	24	35	24	52
90					24	32	24	47
96					24	30	24	44
102					30	29	30	43
108					30	27	30	41

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. or $\frac{3}{4}$ x 1 x $11\frac{1}{2}$ in. Corrugations

** $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. Corrugations Only.

Span x Rise (In. x In.)	Min. Cover (In.)	Soil Corner Bearing Capacity of 2 Tons/ s.f.		
		0.064" Max. Cover (ft.)	0.079" Max. Cover (ft.)	0.109" Max. Cover (ft.)
20 x 16	12	13		
23 x 19	12	14		
27 x 21	12	13		
33 x 26	12	13		
40 x 31	12	13		
46 x 36	12	14		
53 x 41	18		13	
60 x 46	18		20	
66 x 51	18		21	
73 x 55	18			21
81 x 59	18			17
87 x 63	18			17
95 x 67	18			17

* $\frac{3}{4}$ x $\frac{3}{4}$ x $7\frac{1}{2}$ in. or $\frac{3}{4}$ x 1 x $11\frac{1}{2}$ in. Corrugations

REVISIONS		
Date	Description	By
8/10/00	Pipe Tables & G. Notes.	DFD
10/31/03	New Sheet 4.	LRG

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State of Alaska
Department of Transportation
& Public Facilities

PIPE AND ARCH TABLES

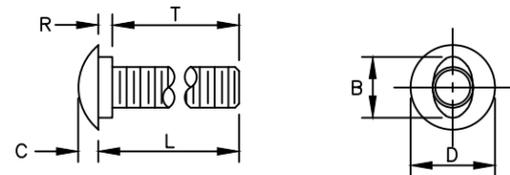


Date 10/31/03

D-04.21

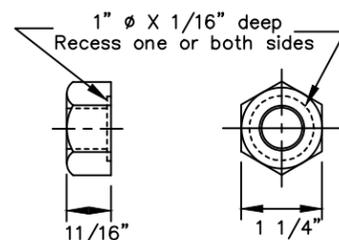
GENERAL NOTES:

1. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.

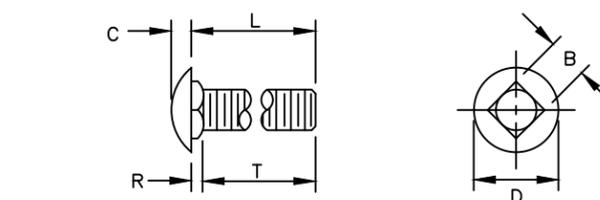


B	C	D	L (Length)	R	T (Thread Length)
15/16"	5/16"	1 5/16" or 1 7/16"	As Required	7/32"	As Required

5/8" BUTTONHEAD BOLT

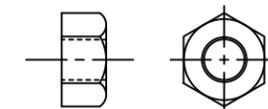


5/8" Dia. RECESSED HEX NUT

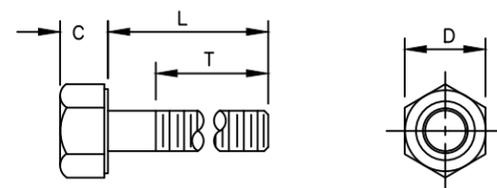


B	C	D	L (Length)	R	T (Thread Length)
5/8"	5/16"	1 5/16"	As Required	3/16"	As Required

5/8" Dia. CARRIAGE BOLT

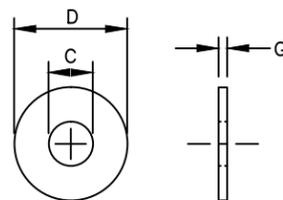


STANDARD HEX NUT



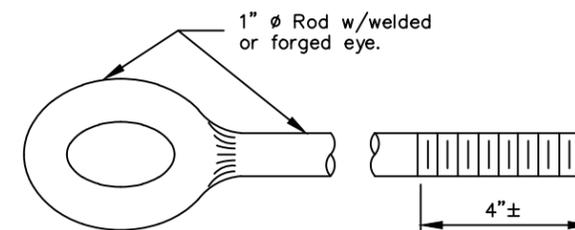
Bolt Size	C	D	L (Length)	T (Thread Length)
5/16"	—	—	1 1/2"	7/8"
5/16"	—	—	1"	1"
3/8"	—	—	7 1/2"	1 1/2"
1/2"	—	—	1 1/2"	1 1/2"
1/2"	—	—	1 1/4"	1 1/4"
5/8" H.S.	5/16"	7/8"	8"	1 1/2"
5/8"-11	—	—	1 1/2"	1 1/2"
3/4"	—	—	1 1/2"	1 1/2"
3/4"	—	—	As Required	2"
3/4" H.S.	15/32"	1 1/4"	2"	1 1/2"

STANDARD HEX BOLTS

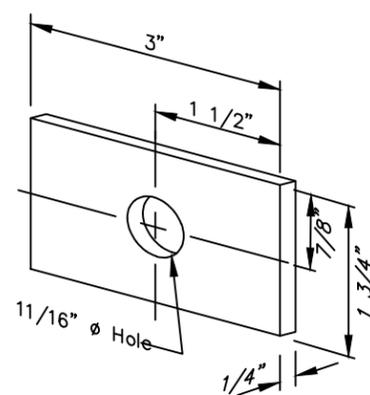


For Bolt ϕ	C	D	G
3/8"	7/16"	1"	5/64"
1/2"	17/32"	1 1/16"	3/32"
1/2" H.S.	17/32"	1 1/16"	3/32"
5/8"	11/16"	1 3/4"	9/64"
3/4"	13/16"	1 15/32"	9/64"
3/4" H.S.	13/16"	2"	5/32"
1"	1 1/16"	2"	9/64"

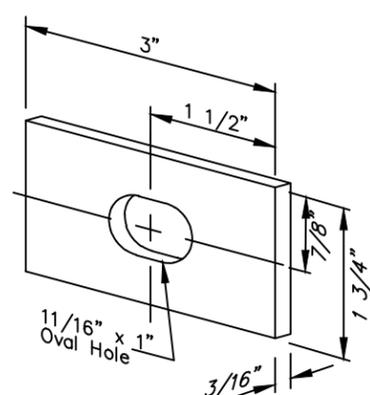
STANDARD STEEL WASHERS



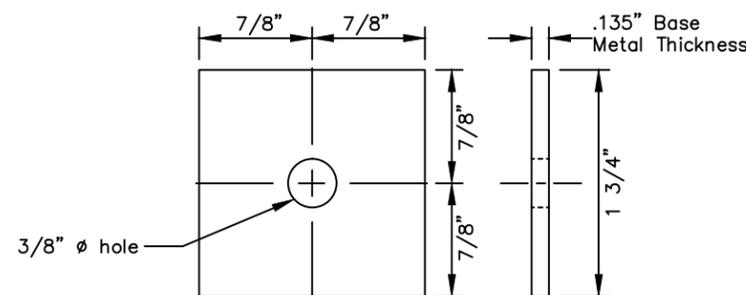
EYE BOLT



FLAT PLATE WASHER



RECTANGULAR POST BOLT WASHER

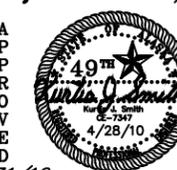


SQUARE STEEL WASHER

REVISIONS		
Date	Description	By
3/15/99	Delete BCT Hardware	KJS

State of Alaska
Department of Transportation
& Public Facilities
**STANDARD GUARDRAIL
HARDWARE
(NUTS, BOLTS, WASHERS)**

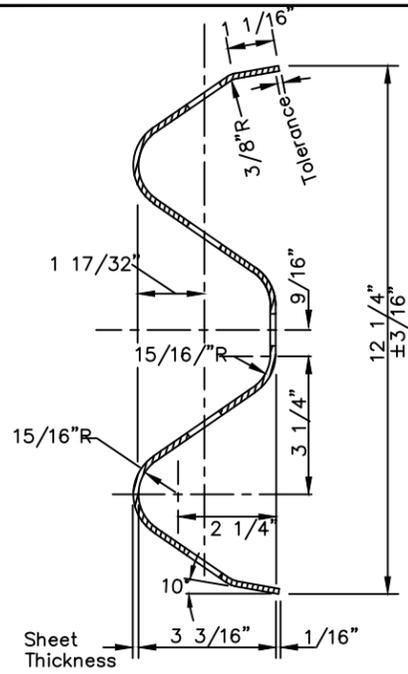
APPROVED



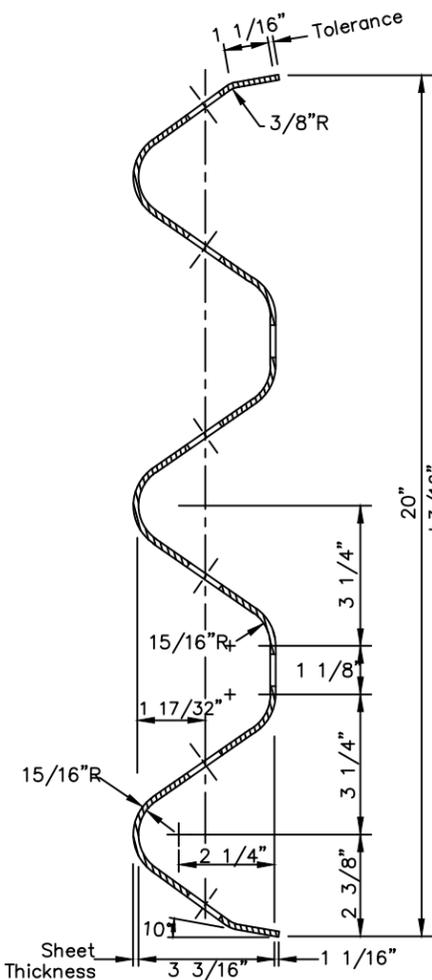
Date 5/31/12

GENERAL NOTES:

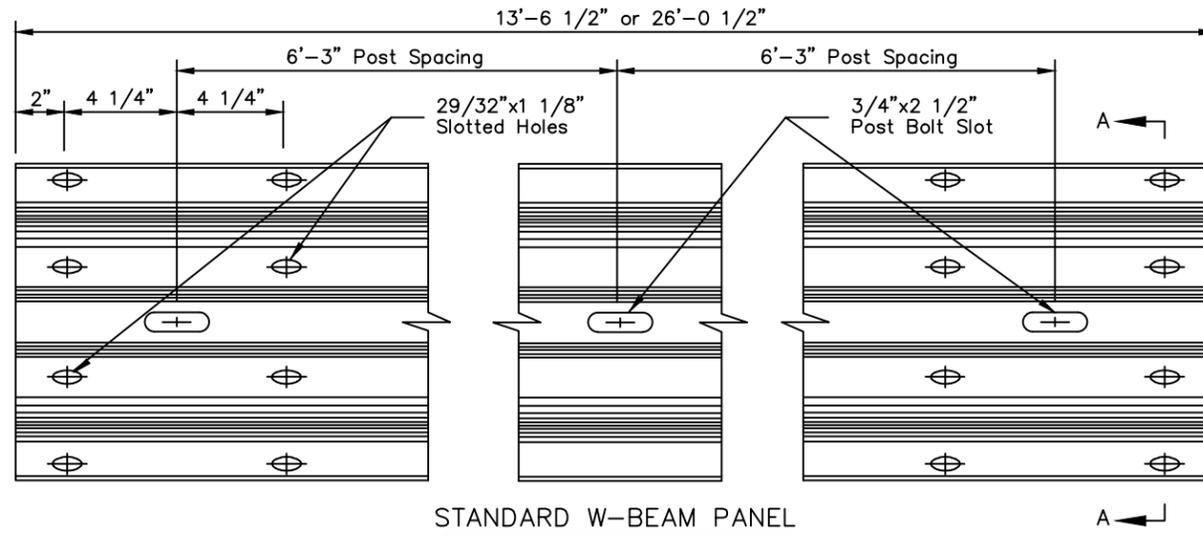
1. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware, latest edition.
2. Install back-up plates between blockouts and w-beam or thrie-beam rail at intermediate (non-splice) posts when steel blockouts are used but not with wood, rubber, plastic, or other approved blockouts.
3. Provide Thrie beam and W-beam compliant with AASHTO M180A. Use 12 gauge (0.105") thick steel for both.



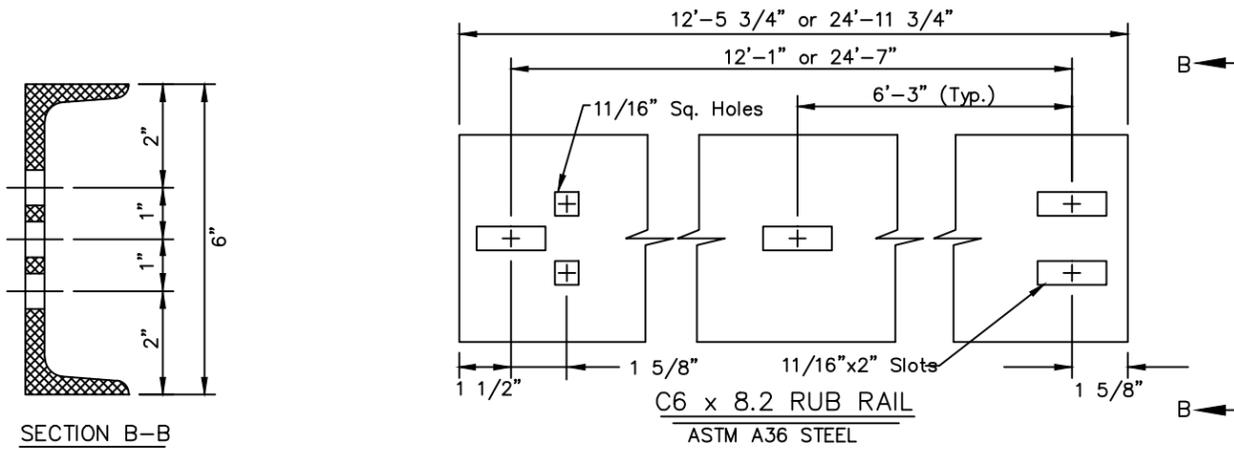
SECTION A-A



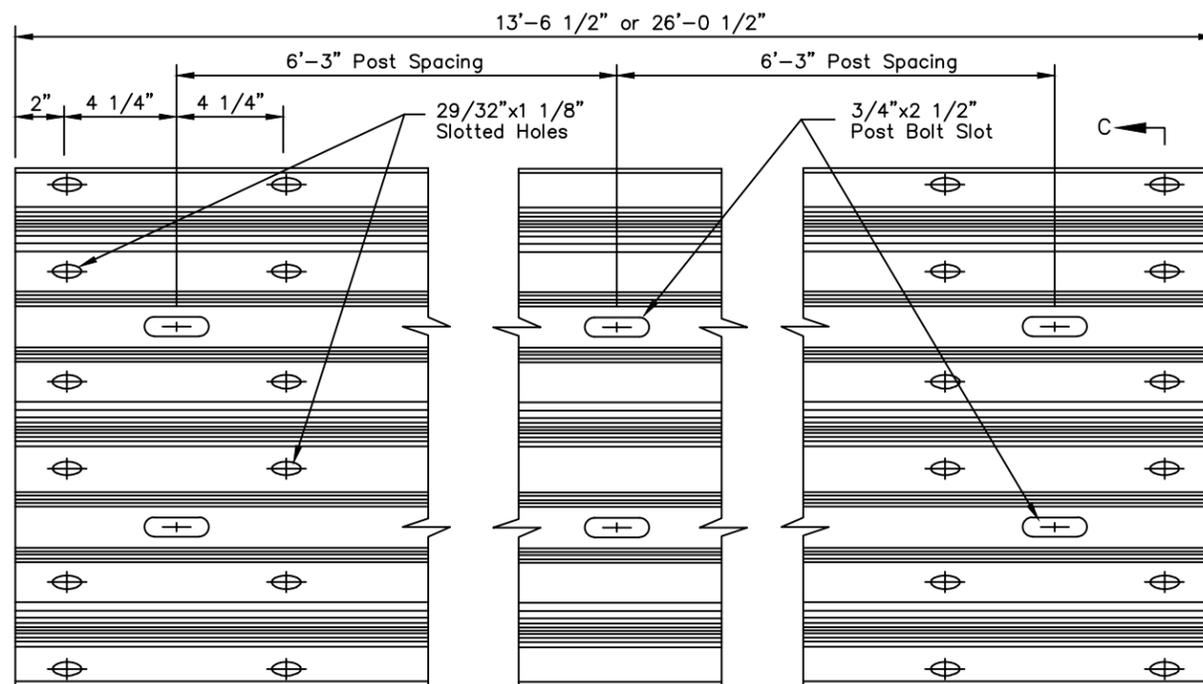
SECTION C-C



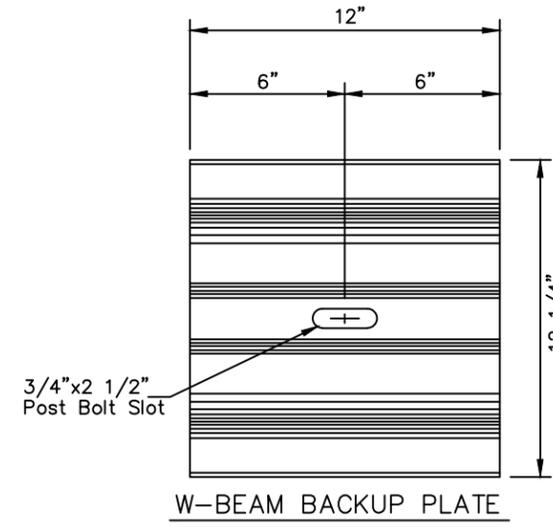
STANDARD W-BEAM PANEL



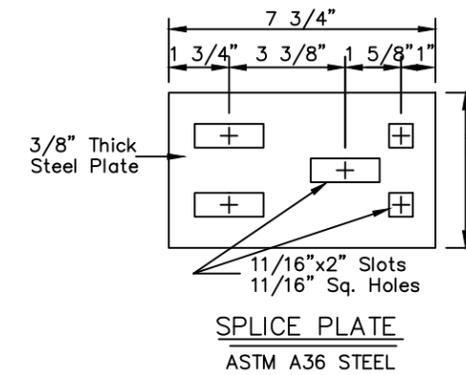
C6 x 8.2 RUB RAIL
ASTM A36 STEEL



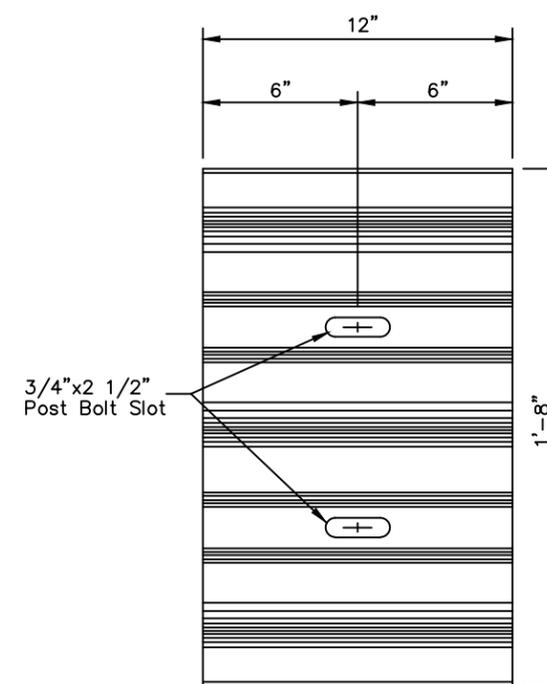
STANDARD THRIE BEAM PANEL



W-BEAM BACKUP PLATE



SPlice PLATE
ASTM A36 STEEL



THRIE BEAM BACKUP PLATE

REVISIONS		
Date	Description	By
4/28/10	Revise General Notes	KJS

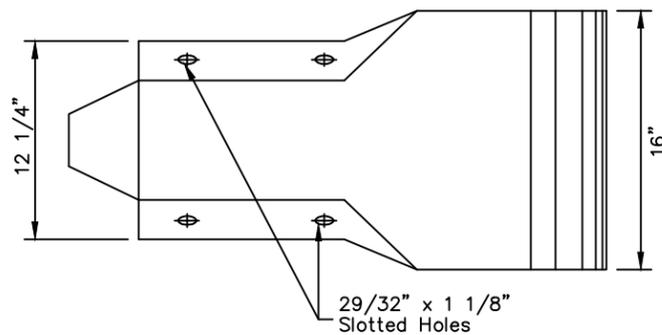
State of Alaska
Department of Transportation
& Public Facilities
**STANDARD GUARDRAIL
HARDWARE
(RAILS AND SPLICES)**



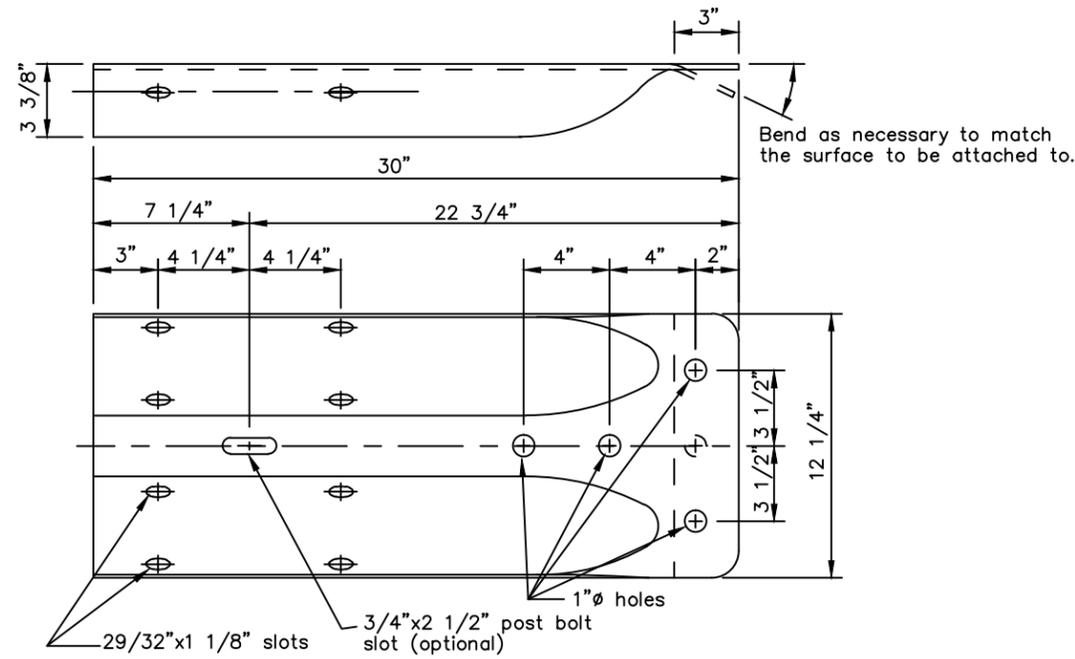
Date 5/31/12

GENERAL NOTES:

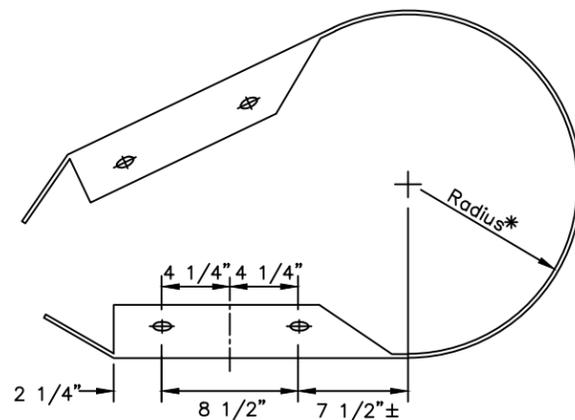
1. W-Beam and Thrie Beam Terminal Connectors shall conform to AASHTO M180, Class B, Type 2.
2. W-Beam end sections shall conform to AASHTO M180, Class A, Type 2.
3. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.



PROFILE



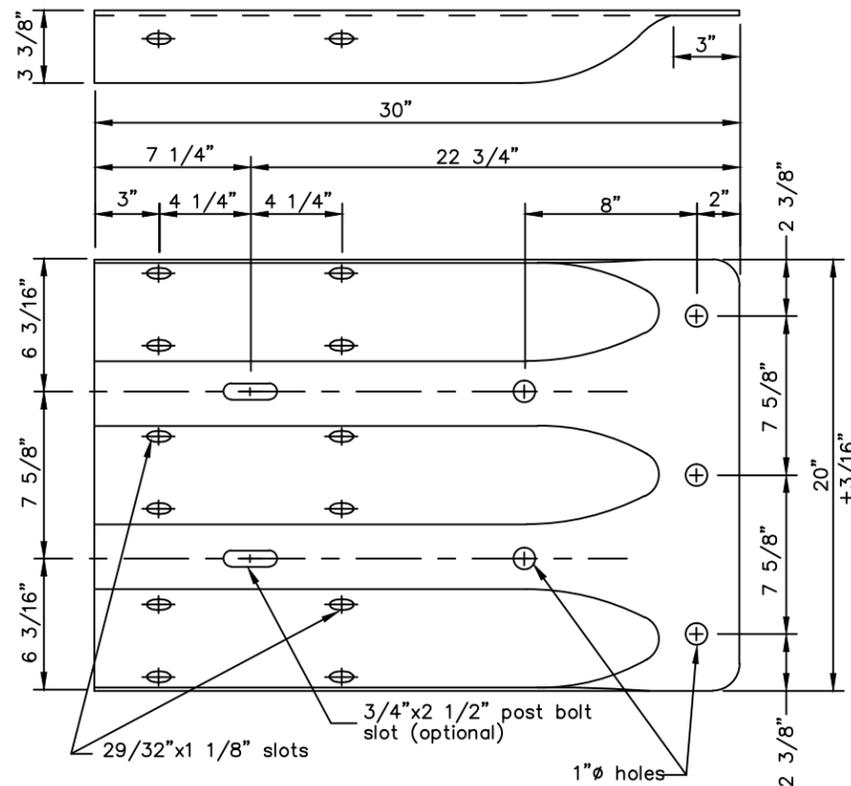
STANDARD W-BEAM TERMINAL CONNECTOR



W-BEAM PLAN VIEW

*Radius to be specified on the plans

STANDARD W-BEAM END SECTION



STANDARD THRIE BEAM TERMINAL CONNECTOR

REVISIONS		
Date	Description	By
3/15/99	Delete Thrie End Sect.	KJS

State of Alaska
Department of Transportation
& Public Facilities
**STANDARD GUARDRAIL
HARDWARE
(TERMINAL CONNECTORS)**

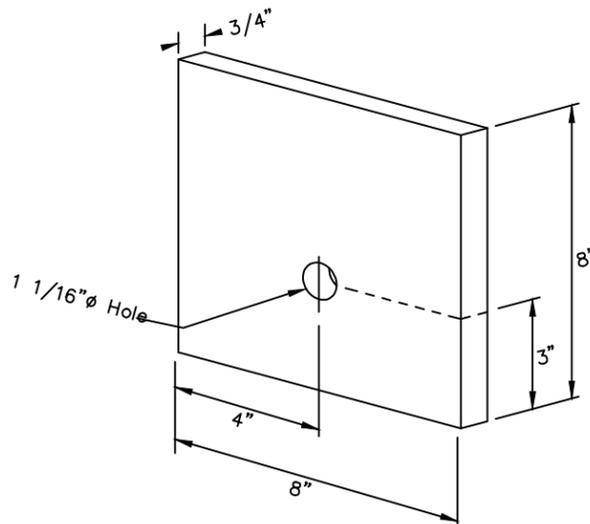


Date 5/31/12

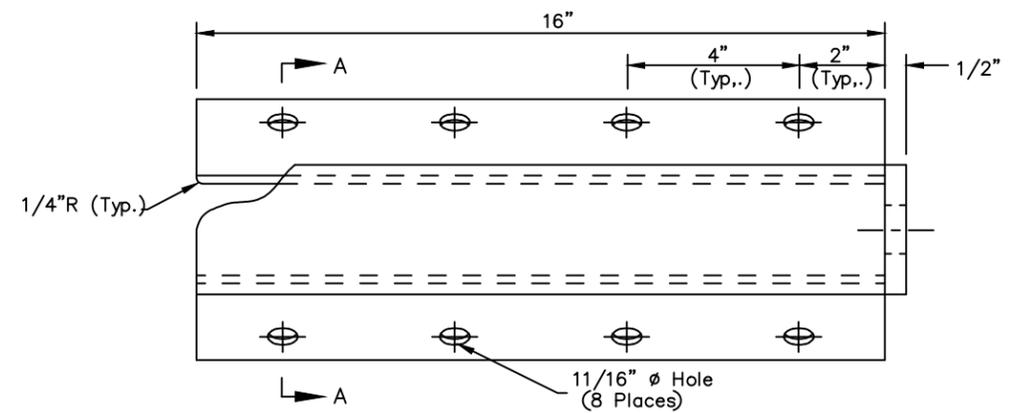
G-00.02

GENERAL NOTES:

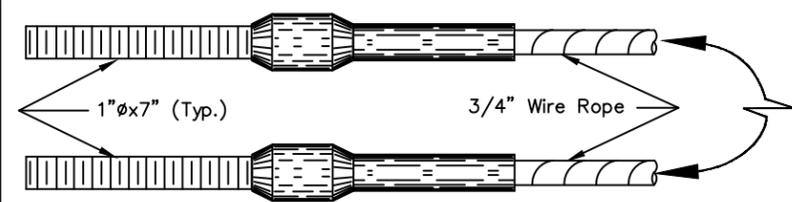
1. Cable Anchor Plate may be formed in single unit or welded fabrication.
2. Anchor Cable Assembly shall conform to AASHTO M-30 with Type II Wire Rope.
3. Sleeve for Wood Posts shall conform to the requirements of ASTM A120 and shall be of 2-inch galvanized standard pipe. Sleeve shall be a tight, pressed fit in post.
4. Bolts, nuts and washers shall conform to ASTM A-325 and galvanized in accordance with ASTM A-153.
5. Radius ID plates shall be attached to all shop-bent guardrail sections. They shall be bolted to the back side of the guardrail panel with the lower splice bolt nearest the P.C. of the radius.
6. Rail bend radius in feet shall be shown as "XX" on the radius ID plate. Digits shall be etched or stamped and have a min. height of 1 1/2" and a max. width of 3/4". The plate shall be galvanized after digits are marked.
7. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.



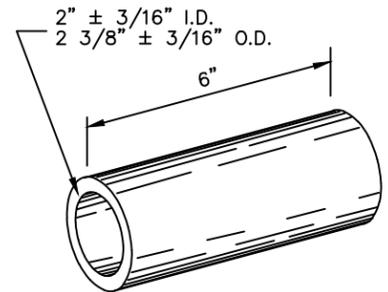
BEARING PLATE for CRT TERMINAL ANCHOR



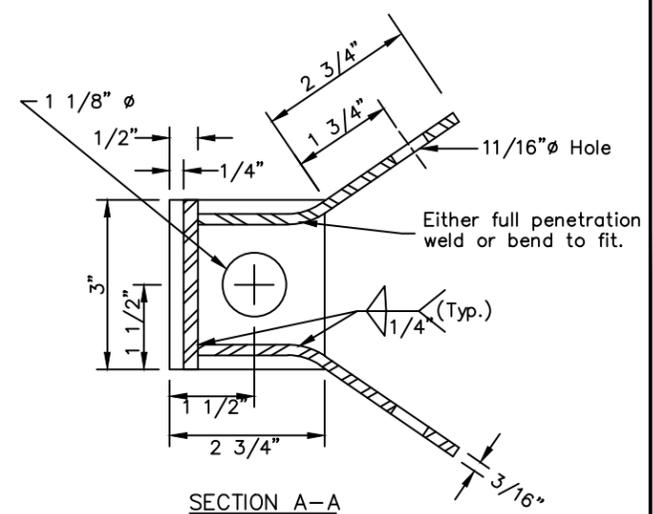
CABLE ANCHOR PLATE



SWAGED FITTING DETAIL

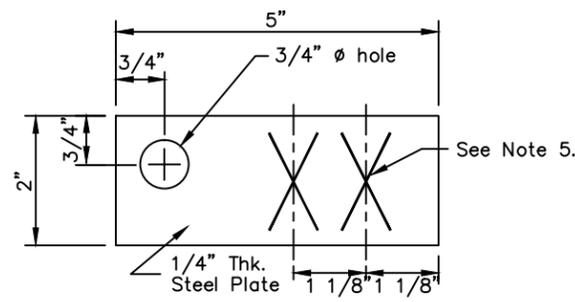


SLEEVE DETAIL

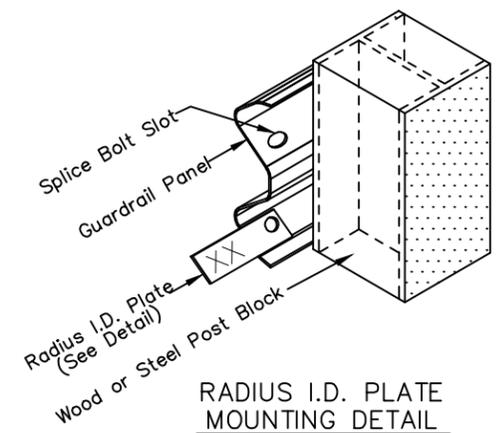


SECTION A-A

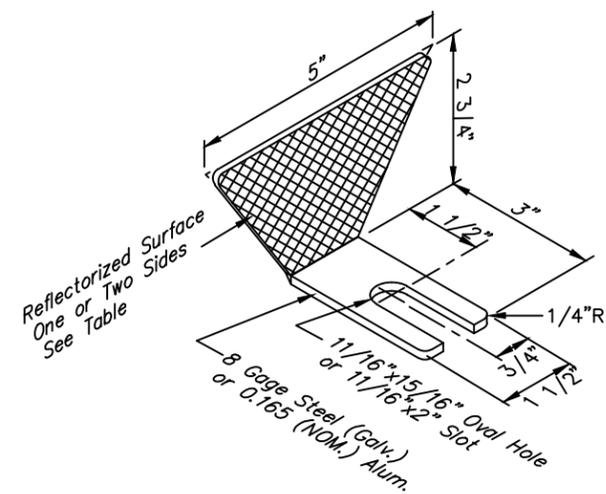
CONTROLLED RELEASE TERMINAL HARDWARE DETAILS



RADIUS I.D. PLATE



RADIUS I.D. PLATE MOUNTING DETAIL



GUARDRAIL REFLECTOR

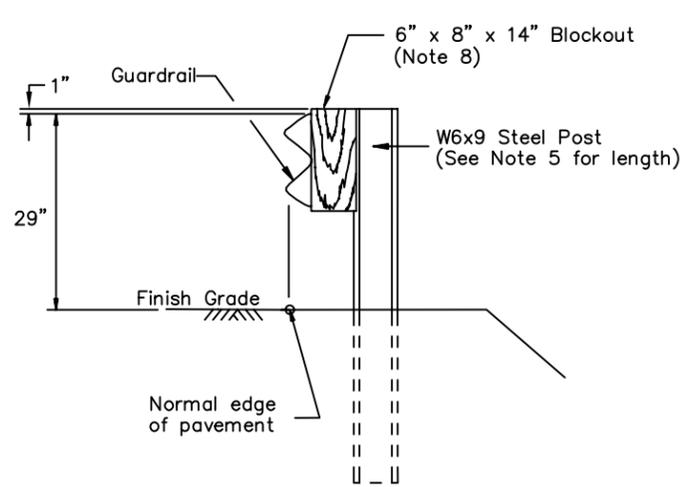
Type	Guardrail Color	Reflectors ReflectORIZED
A	White	Front & Rear
B	White	Front
C	Yellow	Front
D	Yellow	Front & Rear

REVISIONS		
Date	Description	By
3/15/99	Delete BCT Hardware	KJS

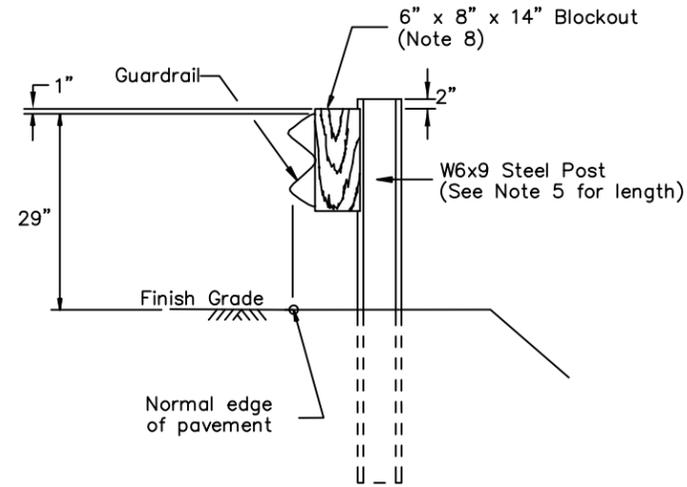
State of Alaska
Department of Transportation
& Public Facilities
**STANDARD GUARDRAIL
HARDWARE
(MISCELLANEOUS)**



Date 5/31/12

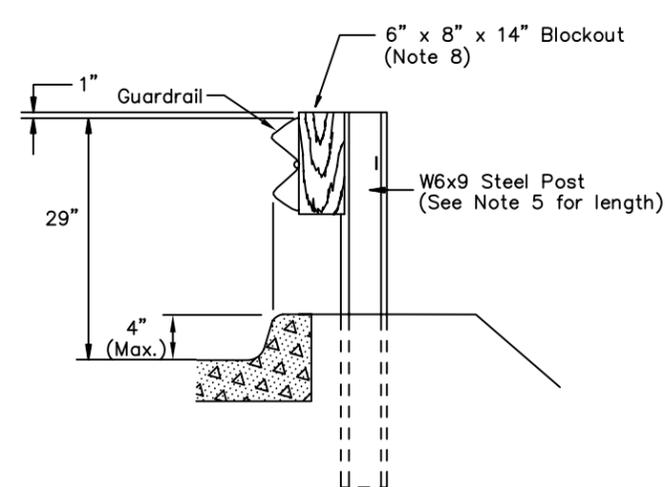


TYPE I POST INSTALLATION



TYPE II POST INSTALLATION

(Facilitates raising rail for future overlays.)



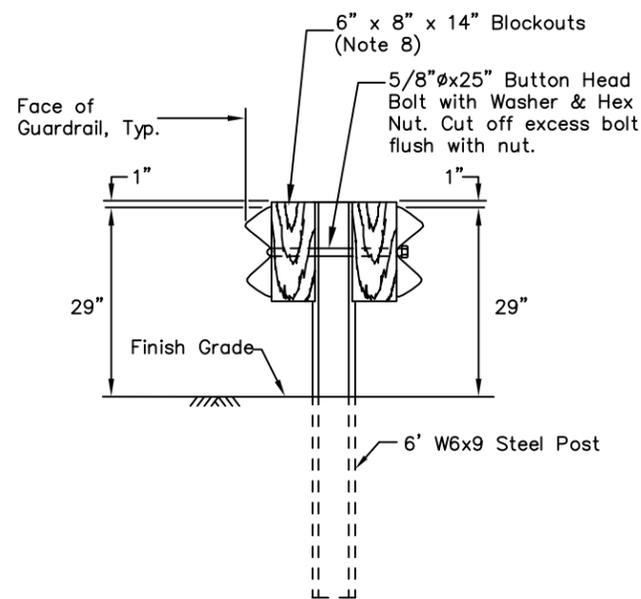
CURB DETAIL

TYPE III POST INSTALLATION

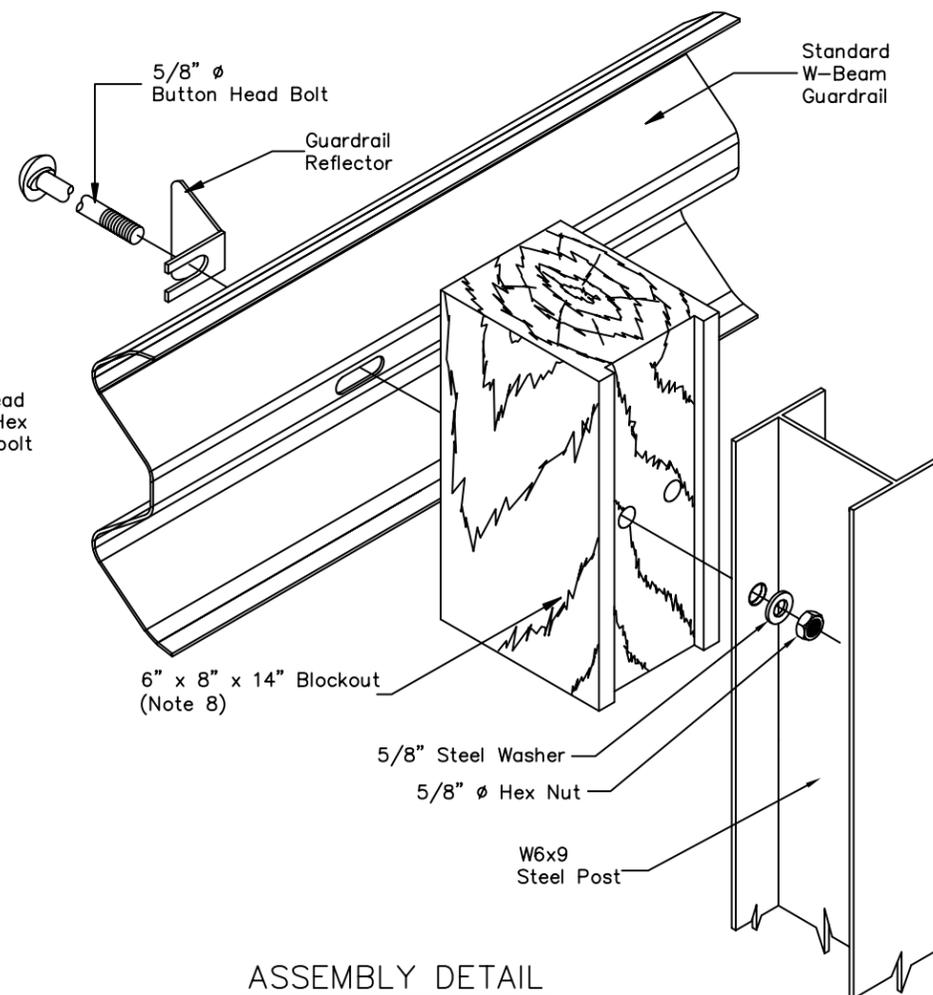
NOTE: Curb should not be installed with guardrail when the speed limit exceeds 40 mph.

GENERAL NOTES:

1. Attach guardrail reflectors at 50' centers beginning with the first post. Use Type A reflectors unless specified otherwise.
2. Provide hardware compliant with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware," latest edition.
3. See Standard Drawing G-00 for hardware details.
4. Mount rail to block with bolt on approaching traffic side of block web.
5. See Standard Drawing G-10 for post lengths corresponding to different combinations of slope and behind-post embankment width.
6. Typical post spacing is 6'-3" center to center.
7. This barrier is acceptable under NCHRP 350, TL-3.
8. Use wood, rubber, plastic, or other NCHRP 350 or MASH approved blockouts designed to be used with steel posts.
9. Use 25 linear foot transition to match height of existing or new rail elements and end treatments.
10. W6x8.5 steel post may be substituted for W6x9 steel post.

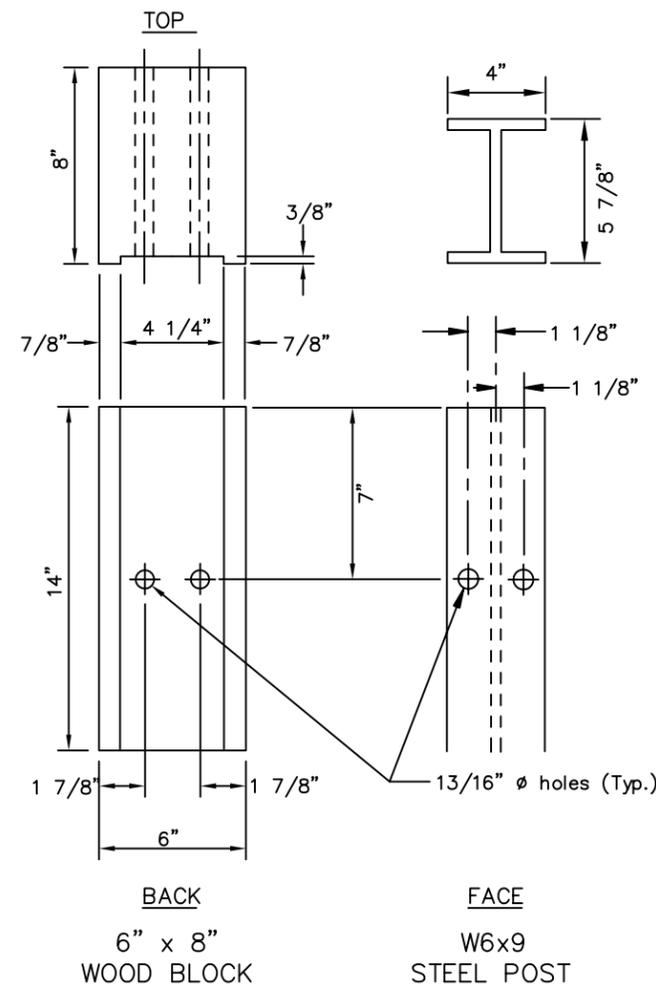


TYPE IV DOUBLE SIDED INSTALLATION



ASSEMBLY DETAIL

(Type I post shown)



REVISIONS		
Date	Description	By
3/1/83	Revised gen. notes	Gdo
1/1/86	Revised hanger detail	Gdo
3/15/99	Block and post length	KJS
4/1/13	Add double-sided detail and increase g.r. height	JCJ

State of Alaska
Department of Transportation
& Public Facilities

**STEEL POST
W-BEAM GUARDRAIL**

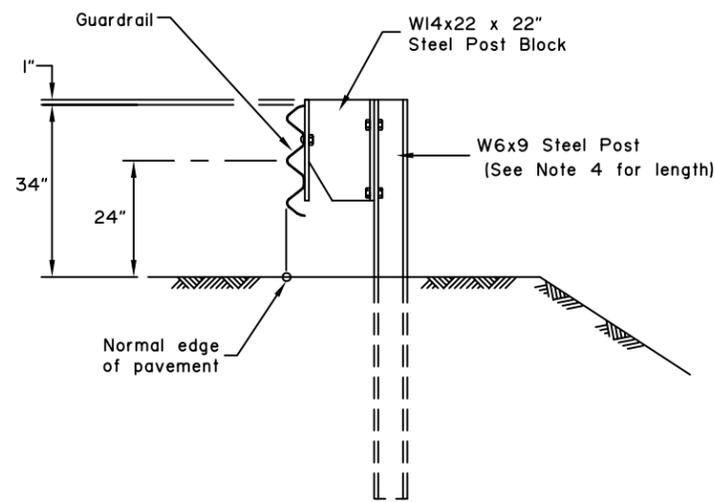
A
P
P
R
O
V
E
D



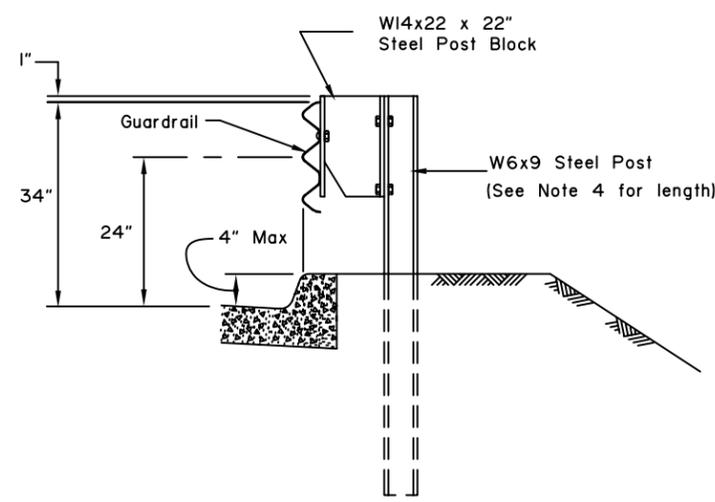
Date 05/15/13

GENERAL NOTES:

- Guardrail Reflectors shall be mounted at 50' centers and placed in the upper indentation of the rail panel beginning with the first guardrail post. Type A Reflectors shall be used unless specified otherwise on the plans.
- All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.
- See standard drawings G-00, "Standard Guardrail Hardware" for hardware details.
- See standard drawing G-10, "Beam Guardrail Post Installation" for post lengths corresponding to different combinations of slope and behind-post embankment width.
- Mount rail to block with a bolt on the approaching - traffic side of block web.
- Typical post spacing is 6'-3" center to center.
- This barrier is acceptable under NCHRP 350, TL3.



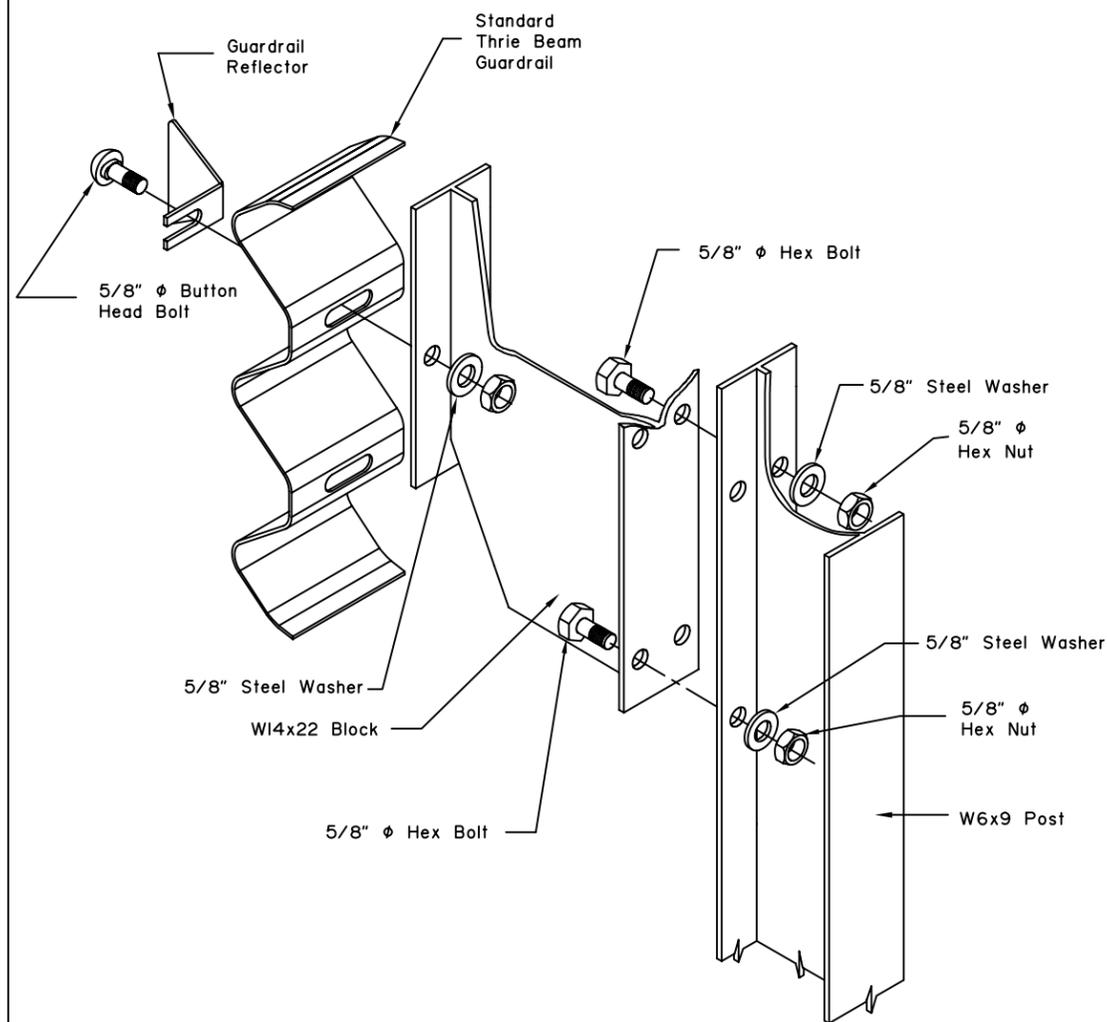
TYPE I POST INSTALLATION



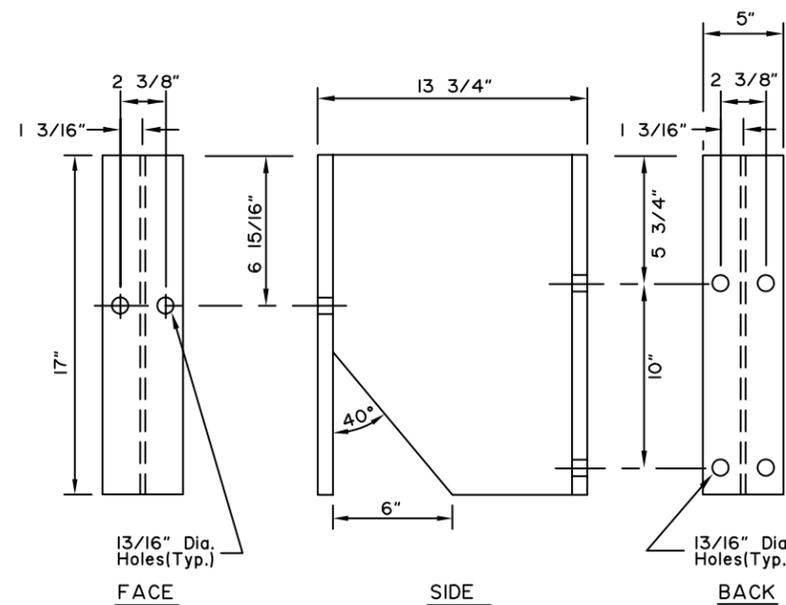
CURB DETAIL

TYPE III POST INSTALLATION

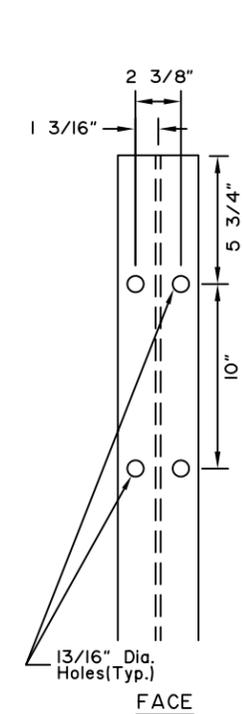
NOTE: Curb should not be installed with guardrail when the speed limit exceeds 40 mph.



ASSEMBLY DETAIL



W14x22 POST BLOCK



W6x9 STEEL POST

REVISIONS		
Date	Description	By
5/15/89	Post length--6'-6"	Gdo
1/1/96	Delete Hardware Details	Gdo
3/15/99	Rev. Block & post lngth	KJS
2/15/00	Mod. Block Length	KJS

State of Alaska
Department of Transportation
& Public Facilities

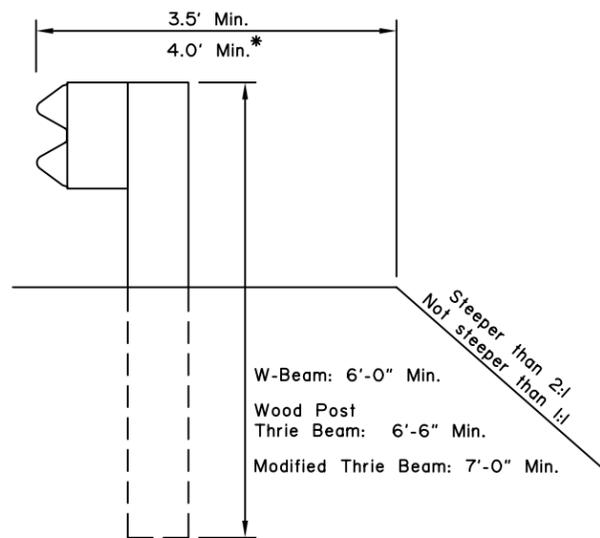
**STEEL POST MODIFIED
THRIE BEAM
GUARDRAIL**

APPROVED

Date 12/1/87

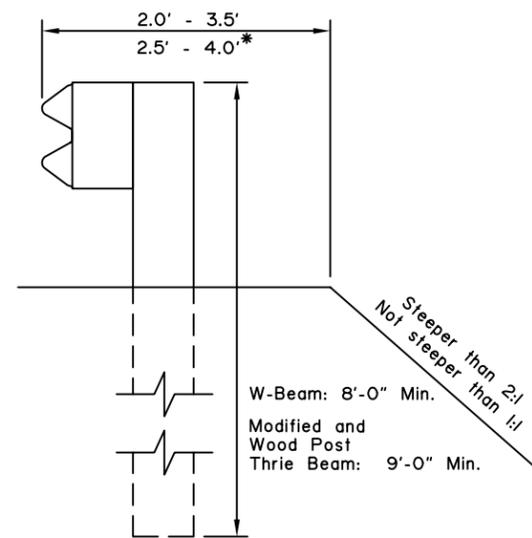
GENERAL NOTES:

1. This drawing is to be used for post length determination only. See the plans for slopes and behind-post embankment widths.
2. To determine post length, identify the case that matches site conditions and read the length corresponding to the pertinent guardrail type.
3. These dimensions apply to both curbed and uncurbed sections.

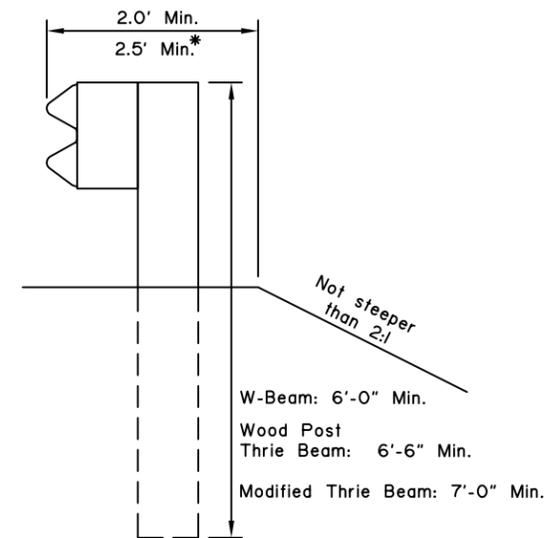


CASE 1

* with Modified Thrie Beam'



CASE 2



CASE 3

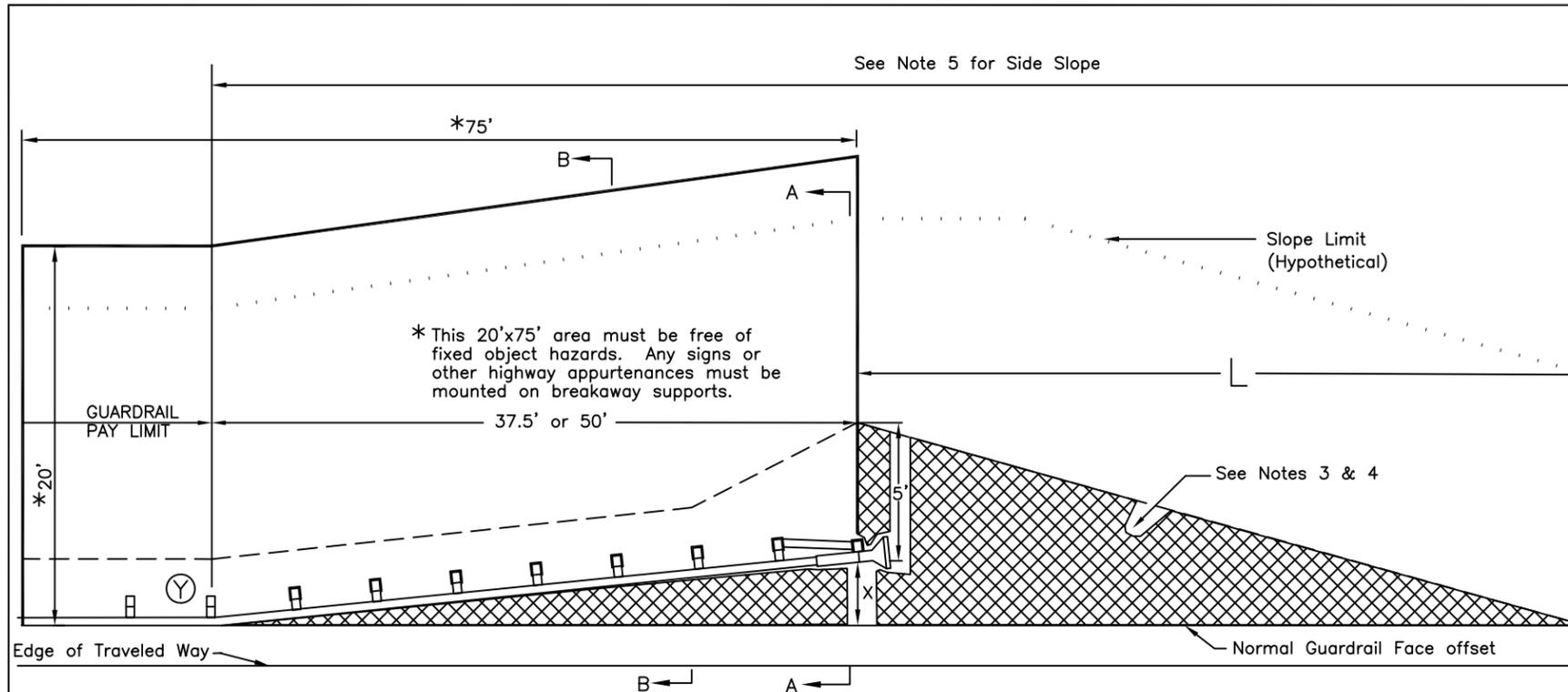
REVISIONS		
Date	Description	By
12/2/99	Delete Case 4, 5, and 6	KJS

State of Alaska
Department of Transportation
& Public Facilities

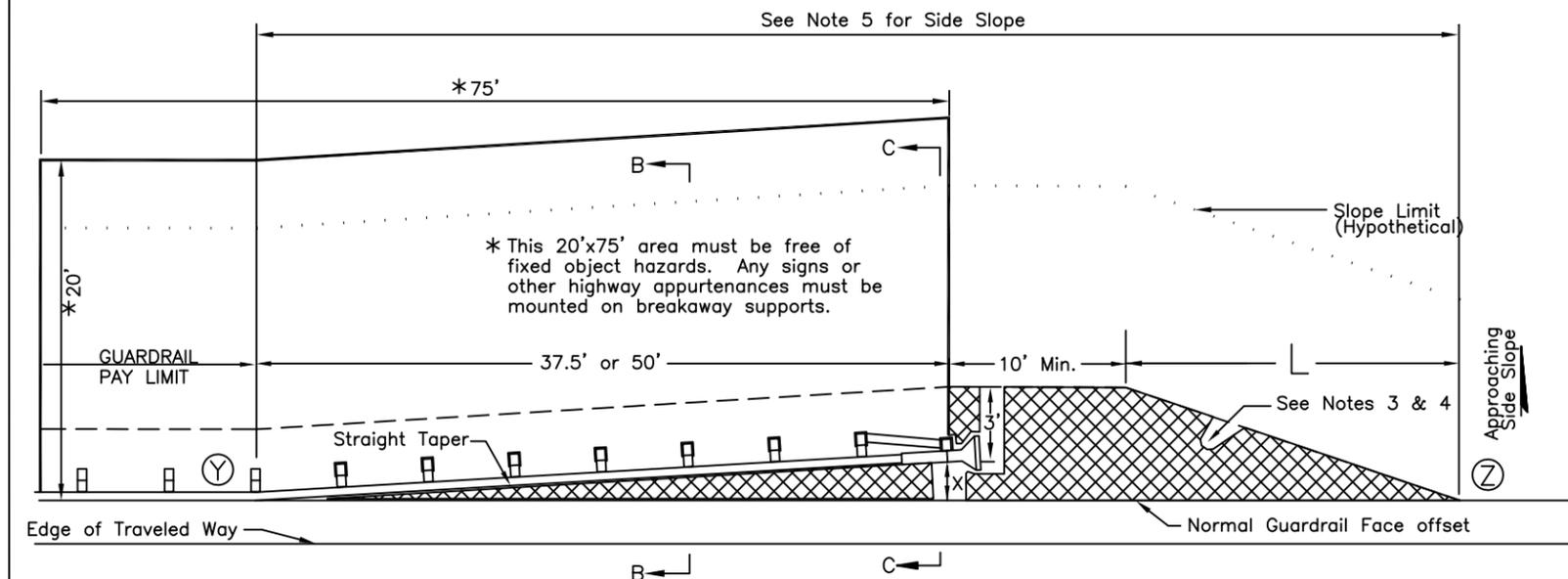
**BEAM GUARDRAIL
POST INSTALLATION**



Date 3/15/99

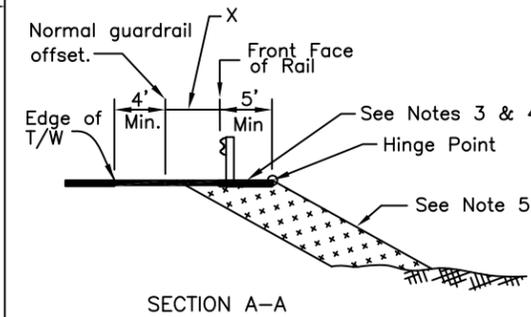


STANDARD GUARDRAIL TERMINAL WIDENING DETAIL

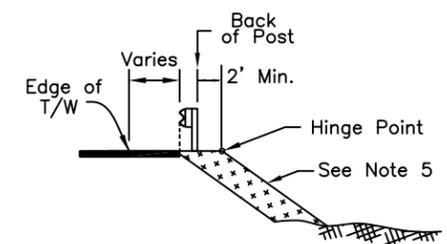


ALTERNATE GUARDRAIL TERMINAL WIDENING DETAIL

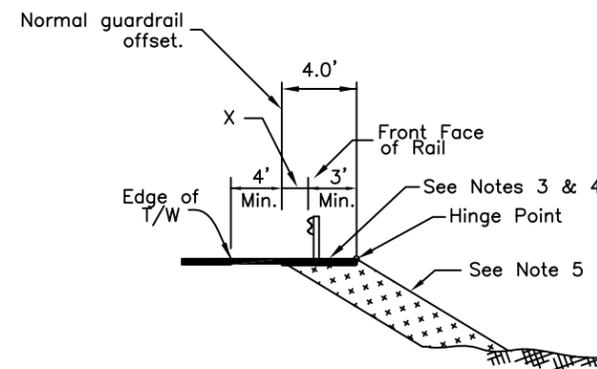
X: End offset. See manufacturer's information for the range of acceptable (NCHRP 350 or MASH compliant) end offsets for each terminal.



SECTION A-A



SECTION B-B
(Applies to both drawings)



SECTION C-C

GENERAL NOTES:

1. The standard detail applies to all approved guardrail terminals, including those with parabolic flares. The alternate detail may only be used with straight terminals. The terminal details shown are for illustration only – see manufacturer's drawings for actual post, rail, etc. drawings.
2. Use the standard detail for all terminals except when upgrading existing non-NCHRP 350 or MASH compliant terminals to NCHRP 350 or MASH compliant terminals where site conditions make the use of the standard detail infeasible. In that case, use the alternate detail.
3. Construct the hatched areas to match the slope of the adjacent shoulder to a maximum slope of 10:1. Maintain 10:1 for steeper shoulders. Match the slope when the shoulder slopes toward the road as well as away from the road.
4. On paved roads, the hatched areas shall be paved. On gravel roads, surface the hatched areas with the same materials used to surface the travel lanes.
5. From point Y to point Z make the side slope match the approaching side slope except where it is flatter than 4:1. In that case, the slope may be steepened to 4:1.
6. Attach a flexible marker to the first point (where the flare begins) and the end post of each terminal.
7. The maximum allowable height for foundation tubes or other steel components of terminal post breakaway systems is 4 inches above the surrounding grade.
8. The details on this sheet do not apply to Controlled Release Terminals (G-25) or Downstream End Anchors (G-13).
9. On two-way undivided roads, the details on this sheet do apply to NCHRP 350 or MASH compliant guardrail terminals on both the approach and downstream ends.

End Offset	Standard Detail	Alternate Detail
0'	15.0'	10.0'
1'	17.0'	10.0'
1.5'	20.0'	15.0'
2'	22.0'	15.0'
2.5'	25.0'	15.0'
4'	30.0'	20.0'

Interpolate if the end offset falls between table values

REVISIONS		
Date	Description	By
3/6/02	Change ET Offset	KJS
2/28/03	Major Revisions	KJS
4/28/10	Revise General Notes	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities
**WIDENING FOR GUARDRAIL
END TERMINALS**



Date 5/31/12

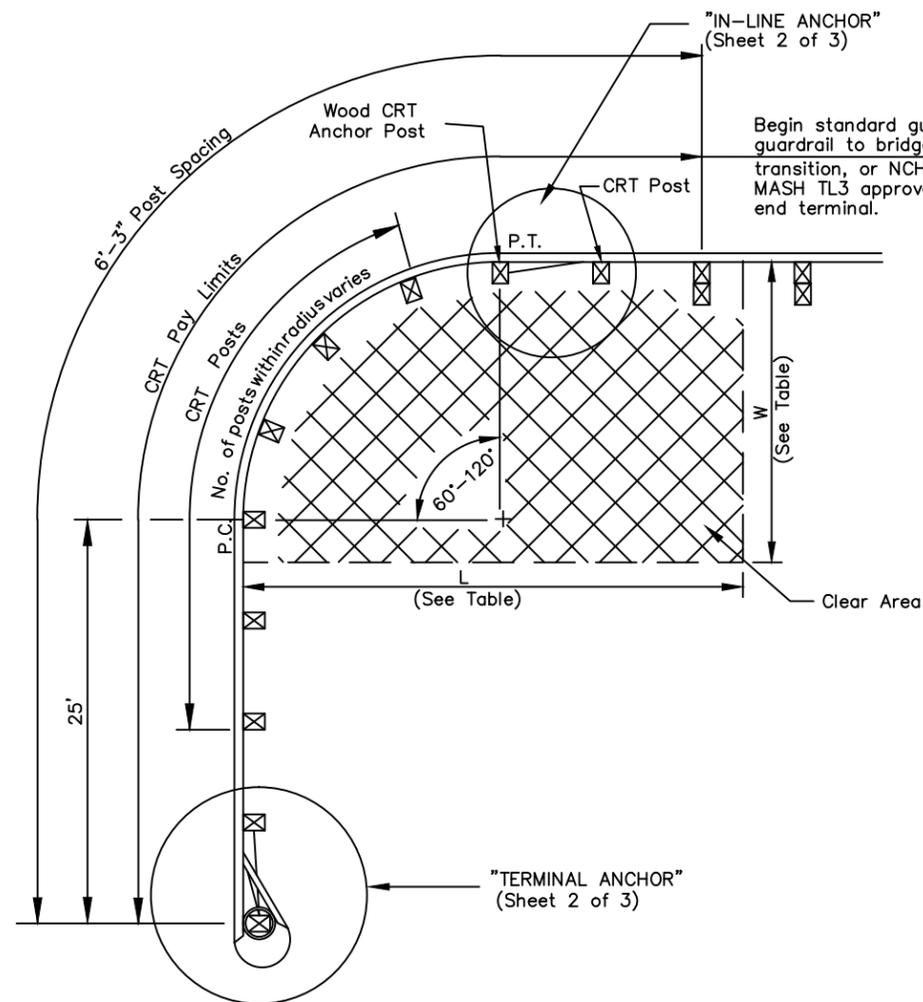
GENERAL NOTES:

Curve Radius, Ft. (Rounded)	Curve Length	Number of Rail Sections	Clear Area		** Number of Posts
			Length (L)	Width (W)	
8'	12.50'	1.0	25	15	5
12'	18.75'	1.5	25	15	6
16'	25.00'	2.0	30	15	7
20'	31.25'	2.5	33	15	8
24'	37.50'	3.0	37	20	9
28'	43.75'	3.5	40	20	10
32'	50.00'	4.0	45	20	11
36'	56.25'	4.5	50	20	12

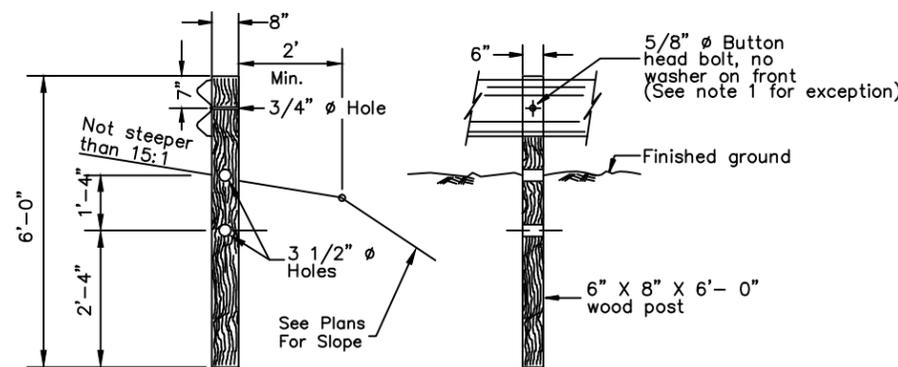
* The table applies only to 90° approaches or driveways.

** Number of CRT posts includes one for the In-Line Anchor.

- Do not bolt rail to central post on 8' radius CRT.
- CRTs on 60° to 120° approaches are allowed provided they are constructed with posts at the P.C. and P.T. and the posts are placed on uniform 6'-3" centers.
- CRT connections are not limited to what is shown. Terminal Anchors, NCHRP 350 or MASH TL3 compliant guardrail end terminals, guardrail to bridge-rail transitions, or standard guardrail may be attached to either end, or both ends of the apparatus.
- The Terminal Anchor shall only be placed on approaches where motorists are required to stop or yield.
- The Clear Area shall be free of fixed object hazards. Any signs or other highway appurtenances in the clear area must be mounted on NCHRP 350 or MASH compliant breakaway supports.



CONTROLLED RELEASE TERMINAL PLAN



CONTROLLED RELEASE TERMINAL (CRT) POST

REVISIONS		
Date	Description	By
4/28/10	Reorient in-line anchor	KJS

State of Alaska
Department of Transportation
& Public Facilities

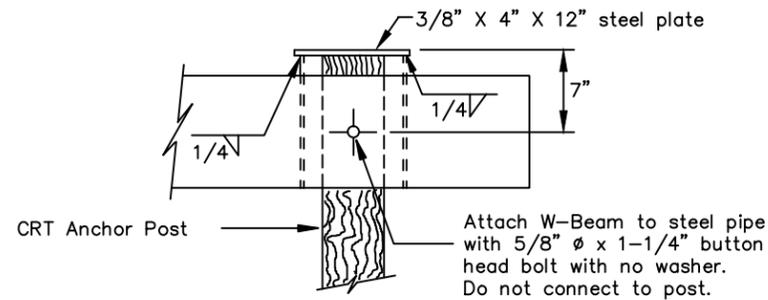
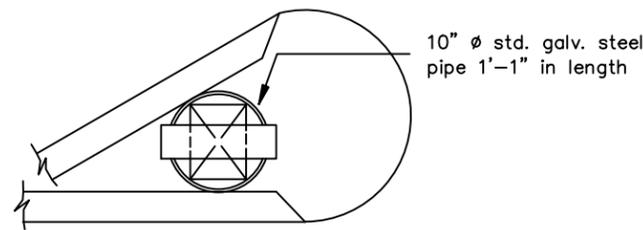
**WOOD POST CONTROLLED
RELEASE TERMINAL
(CRT)**



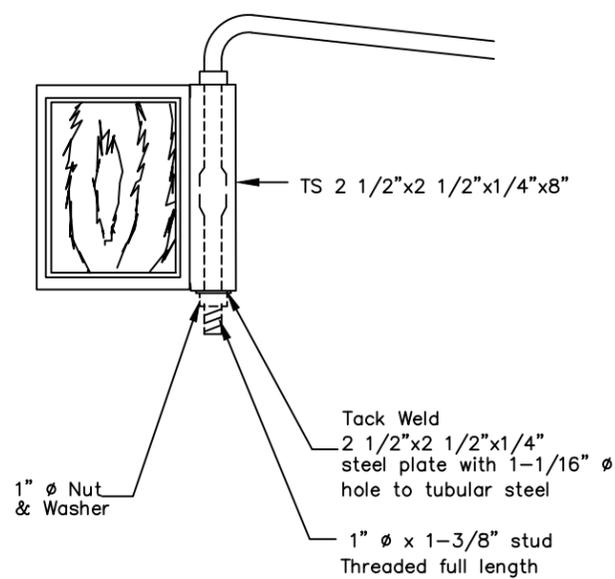
APPROVED
Date 5/31/12

GENERAL NOTES:

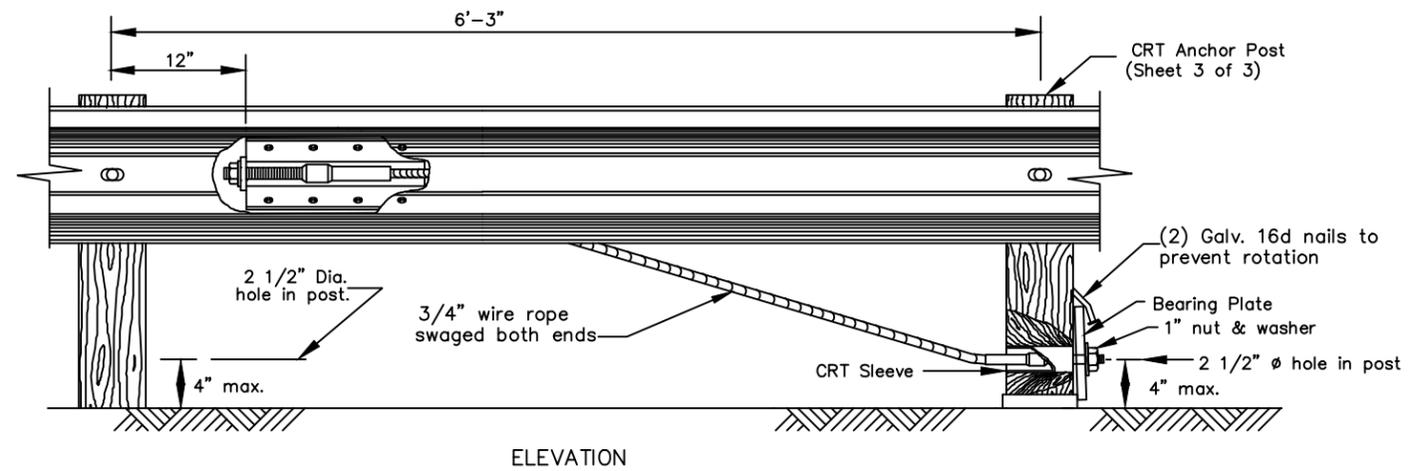
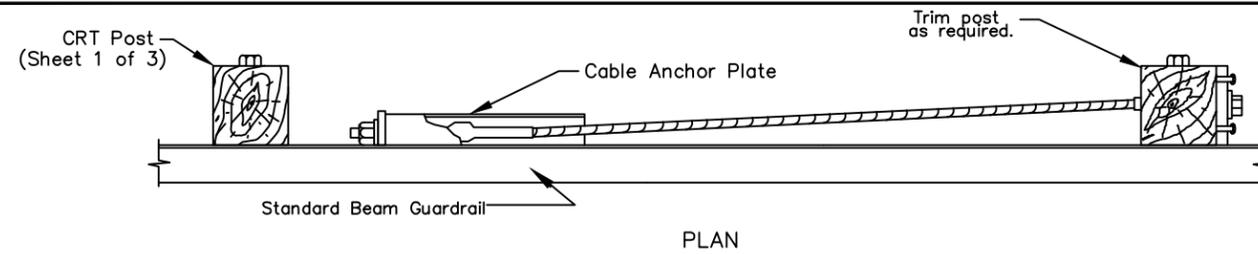
1. Hardware details not shown here shall conform to drawings G-04 & G-00.
2. All covered hardware shall comply with the AASHTO/AGC/ARTBA "A Guide to Standardized Highway Barrier Hardware, latest edition.



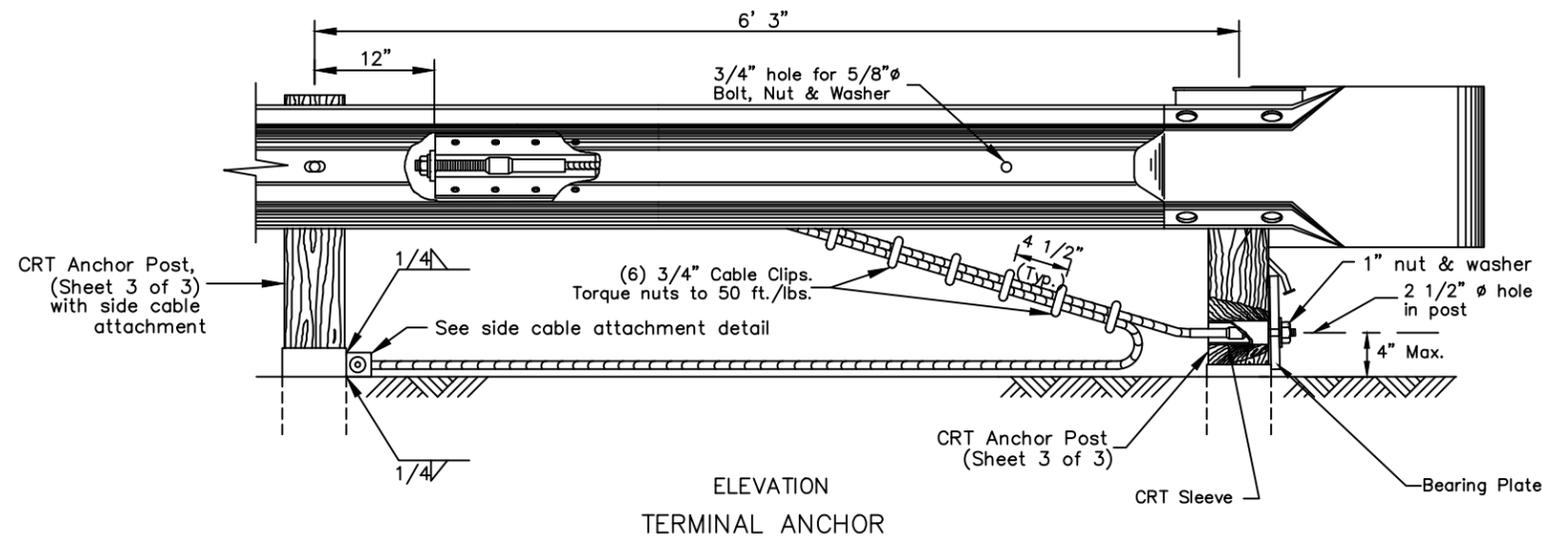
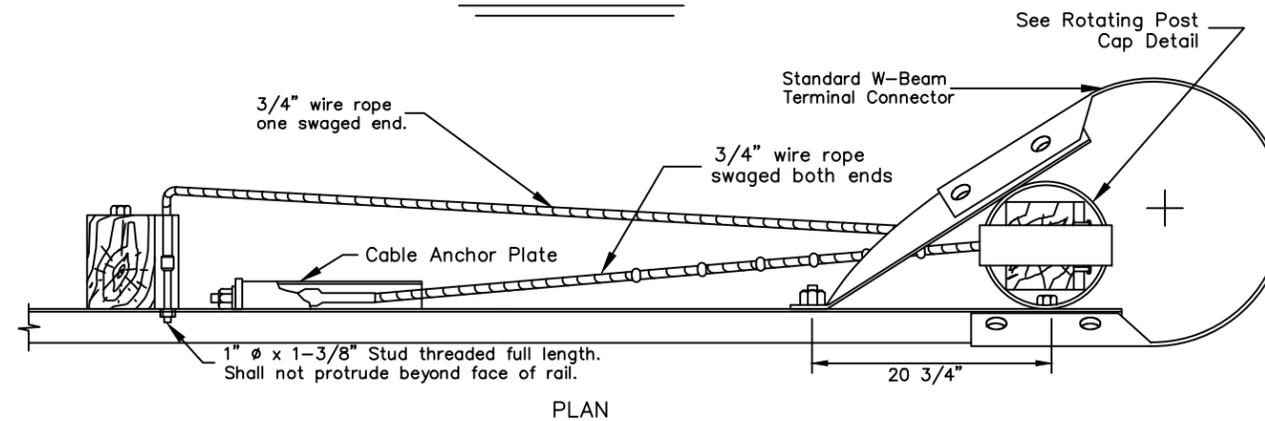
ROTATING POST CAP



SIDE CABLE ATTACHMENT



IN-LINE ANCHOR



TERMINAL ANCHOR

REVISIONS		
Date	Description	By

State of Alaska
Department of Transportation
& Public Facilities

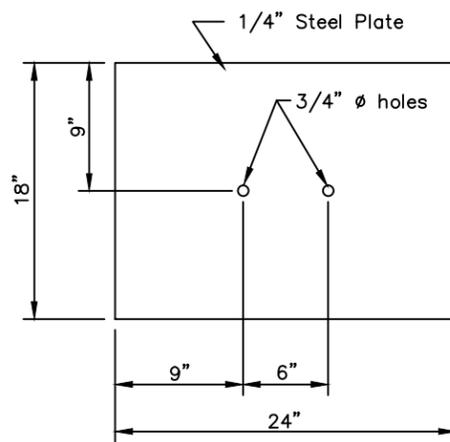
**WOOD POST CONTROLLED
RELEASE TERMINAL
ANCHORS**



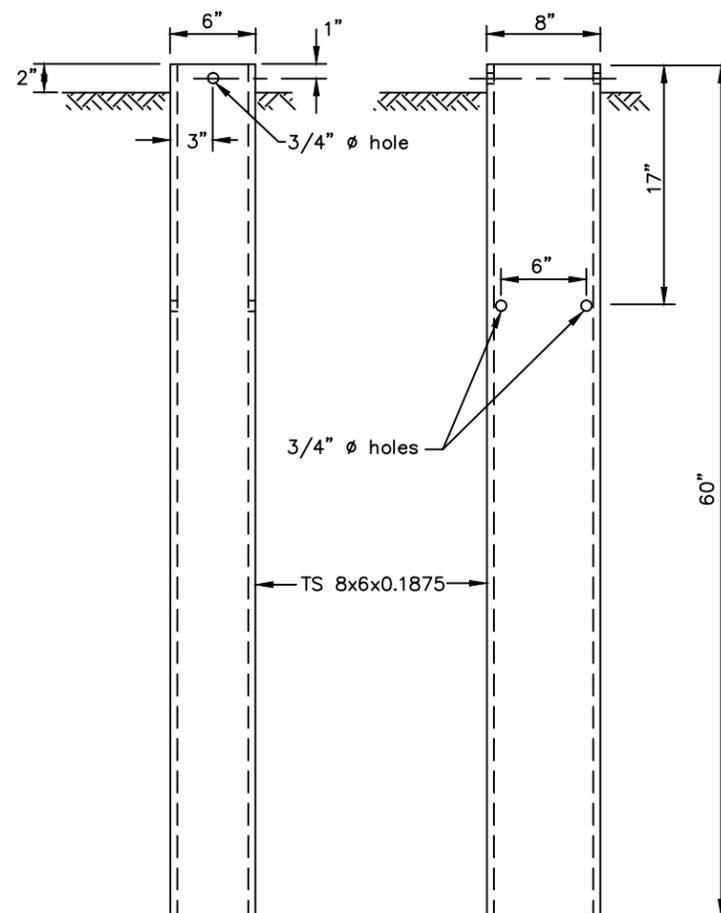
Date 5/31/12

GENERAL NOTES:

1. Hardware details not shown here shall conform to drawings G-04 & G-00.
2. All covered hardware shall comply with the AASHTO/AGC.ARTBA "A Guide to Standardized Highway Barrier Hardware", latest edition.
3. Each CRT Anchor Post with a cable attached shall conform to these details except the 2nd post in the Terminal Anchor, which shall conform except for the method of cable attachment (See sheet 2 of 3).



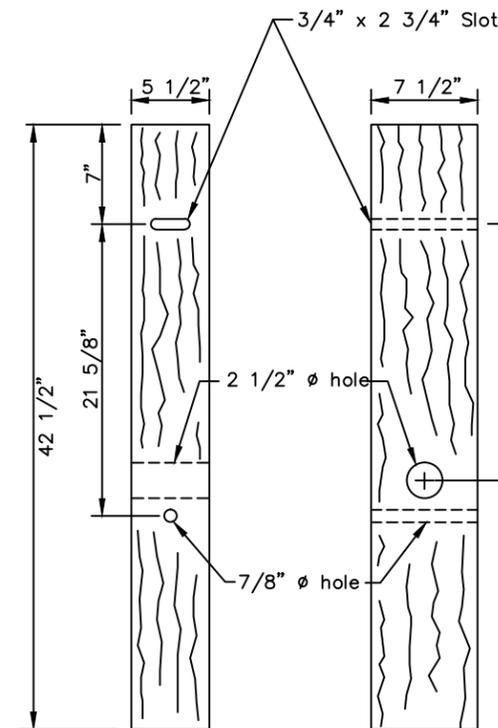
STEEL SOIL PLATE



FRONT

SIDE

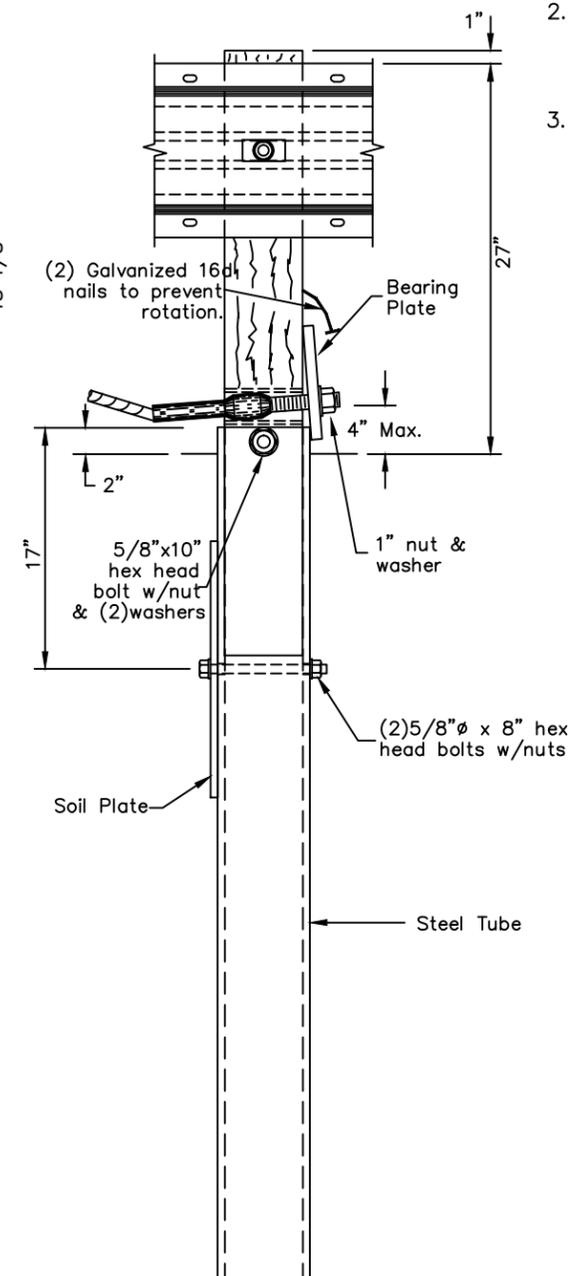
STEEL TUBE



FRONT

SIDE

WOOD POST



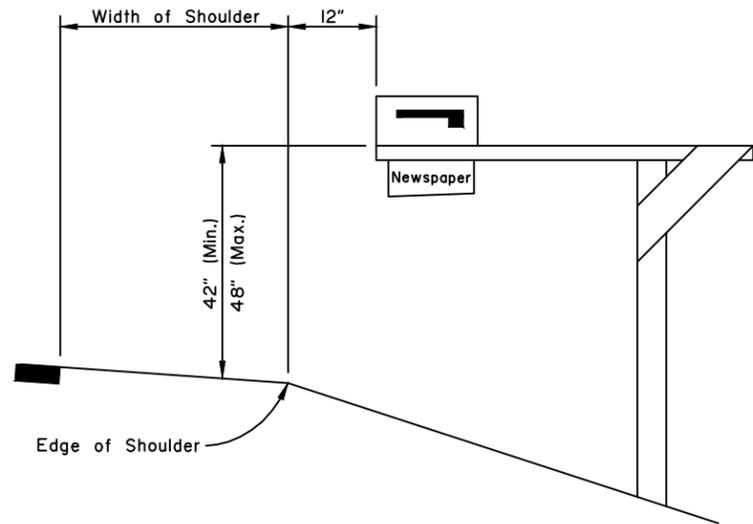
ASSEMBLY

REVISIONS		
Date	Description	By

State of Alaska
Department of Transportation
& Public Facilities
**WOOD POST CONTROLLED
RELEASE TERMINAL
ANCHOR POSTS**

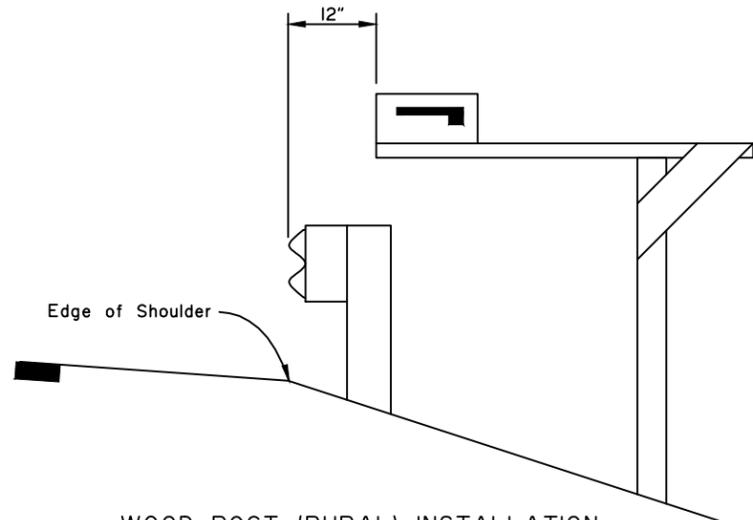


Date 5/31/12



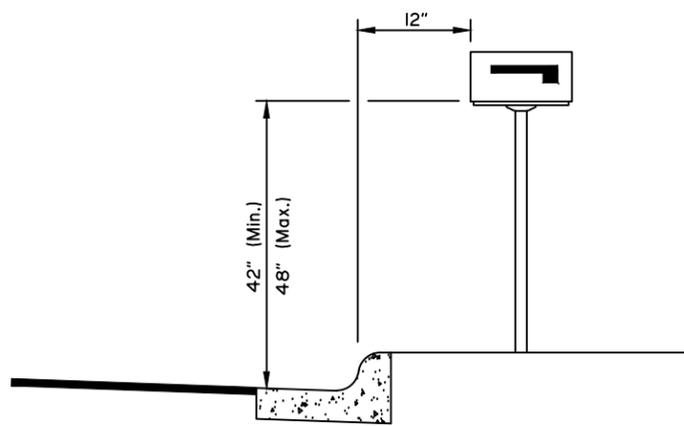
WOOD POST (RURAL) INSTALLATION

Single or Double Box



METAL POST (URBAN) INSTALLATION

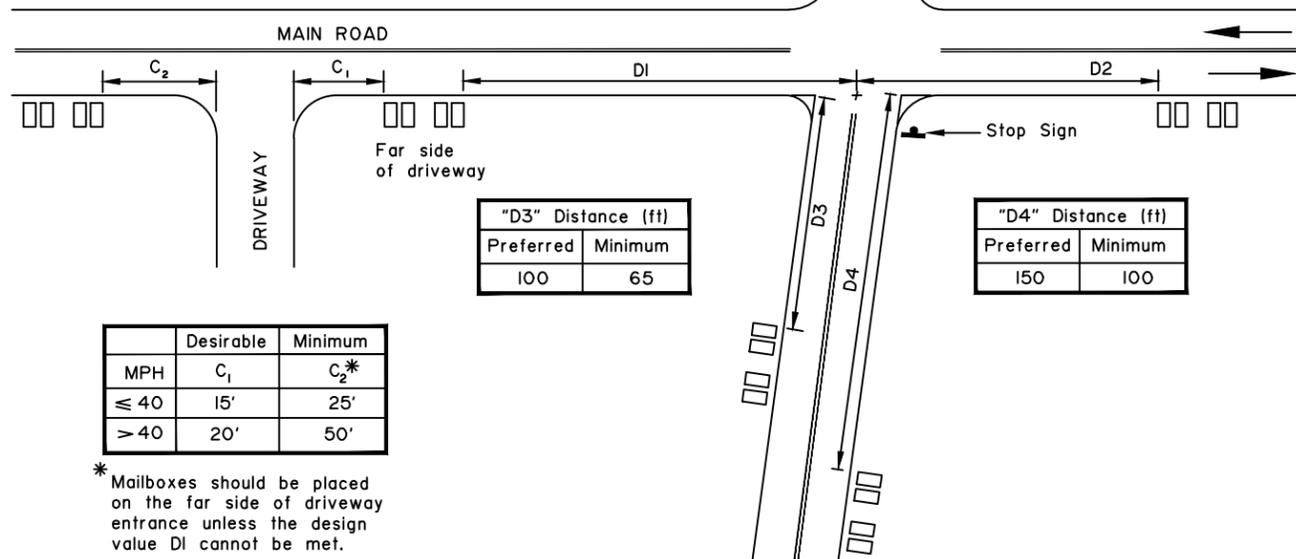
Single or Double Box



Vc = Average Daily Traffic on Cross Road (vehicles per day)
Vm = Average Daily Traffic on Main Road (vehicles per day)
n = Number of Mailboxes at Mail Stop

Posted Main Road Speed Limit	"D1" Distance (ft)	
	n x Vc x Vm	
≤ 40	65	200
> 40	65	295

Posted Main Road Speed Limit	"D2" Distance (ft)	
	Cross Road ADT	
≤ 40	100	100
> 40	150	200



"D3" Distance (ft)	
Preferred	Minimum
100	65

"D4" Distance (ft)	
Preferred	Minimum
150	100

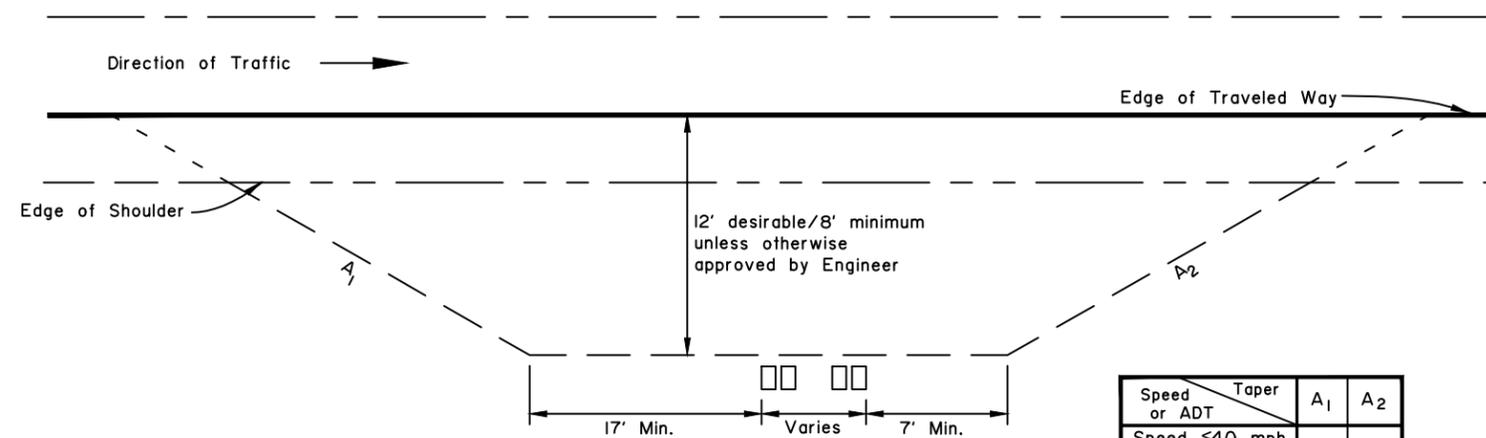
MPH	Desirable	Minimum
≤ 40	C ₁	C ₂ *
> 40	20'	50'

* Mailboxes should be placed on the far side of driveway entrance unless the design value D1 cannot be met.

MAILBOX LOCATION AT INTERSECTIONS AND DRIVEWAYS

GENERAL NOTES:

1. Install mailboxes conforming to U.S. Postal Service requirements.
2. Mailbox supports shall not present a rigid, unyielding impact resistant hazard to road traffic, but shall be flexible and yielding to vehicular impact. Install crashworthy supports in accordance with Standard Drawing M-23.
3. Installation shall be on the right side of roadway in the direction of mail carrier travel with the exception of one-way streets where they may be placed on either side.
4. Locate mailboxes to minimize dangers to road traffic, carriers and postal recipients.
5. Provide a minimum shoulder width of 8' unless otherwise approved by Engineer. Install single and double mailbox supports separated by at least 3', and desirably 4', from each other. More than two boxes on a single support is allowable only as shown on M-23.
6. Newspaper receptacles shall conform to the same setback and support regulations as mailboxes. Where newspaper receptacles and mailboxes are to be mounted together, the newspaper receptacle may be mounted beneath the mailbox or on the side of the mailbox support opposite the reflecting marker.



TURNOUTS FOR GROUPED BOXES

Speed or ADT	Taper	A ₁	A ₂
Speed ≤ 40 mph and ADT ≤ 400		4:1	2.5:1
Speed > 40 mph or ADT > 400		20:1	12:1

TURNOUT TAPERS

REVISIONS		
Date	Description	By
4/28/10	Tables, details & notes	KJS
1/16/17	Revise d/w distances	LRG

State of Alaska DOT&PF
3132 Channel Dr., Juneau, AK
Phone: (907) 465-2960

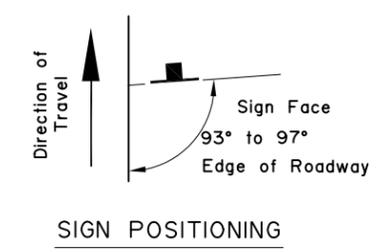
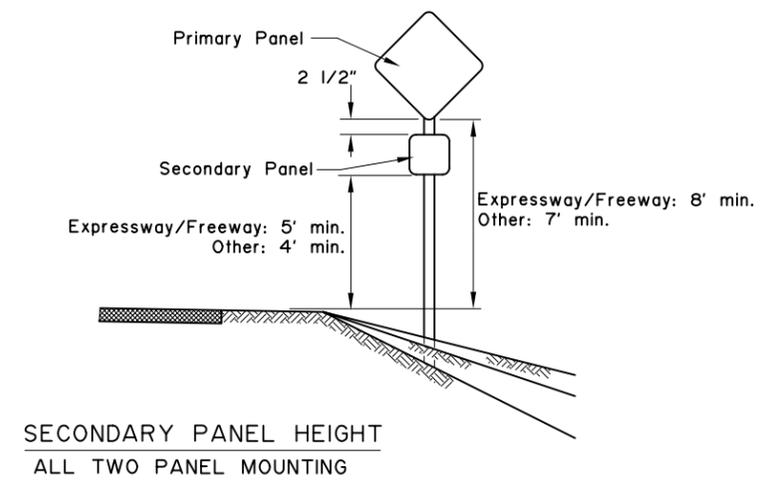
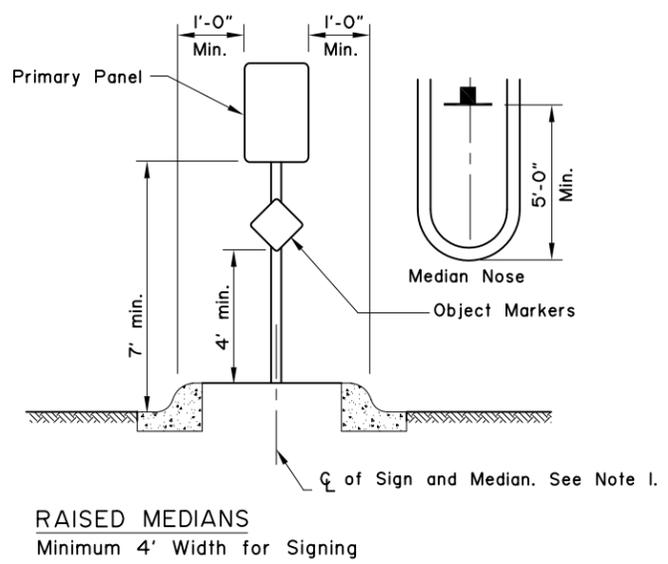
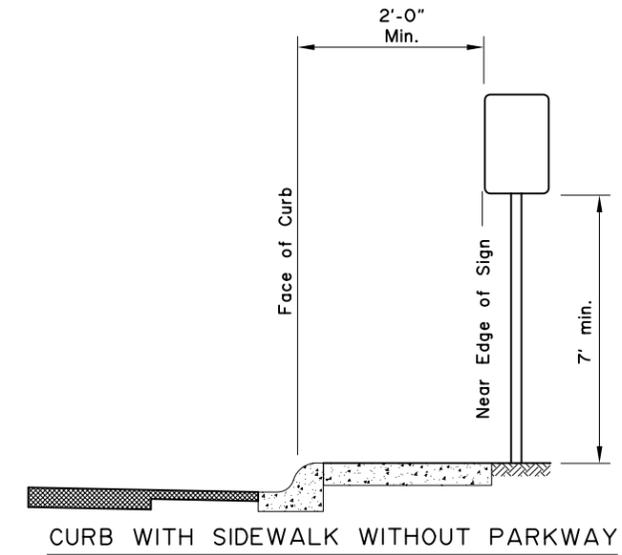
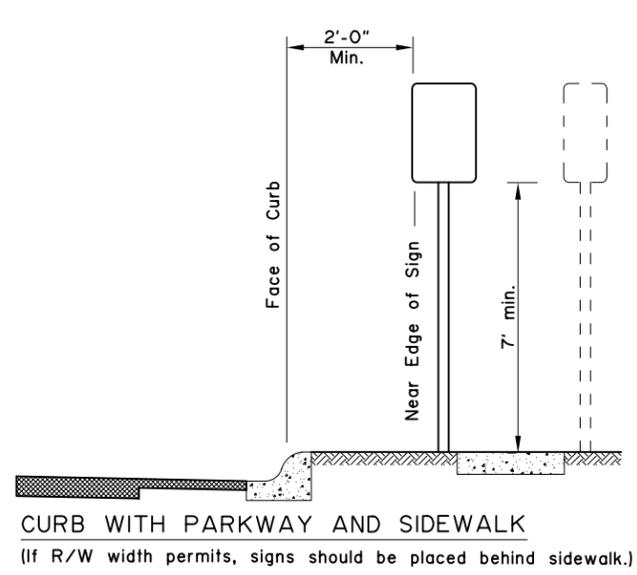
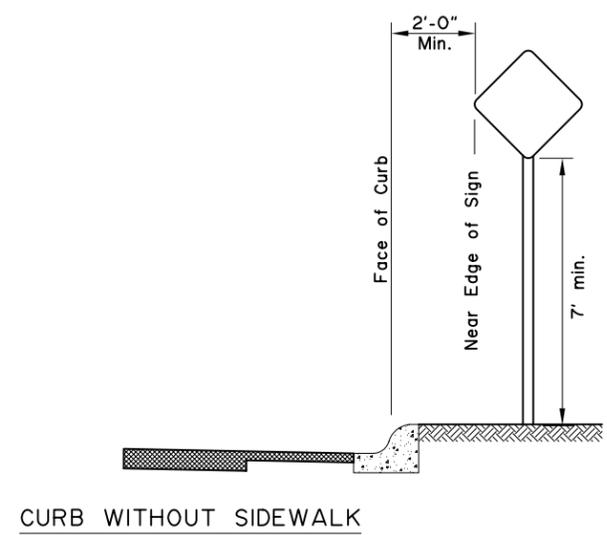
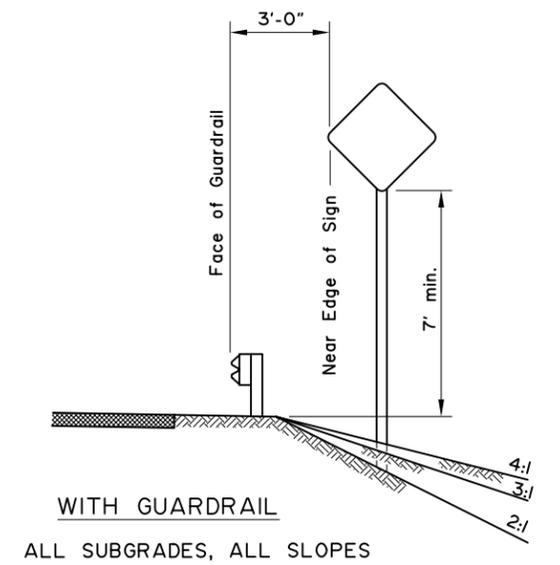
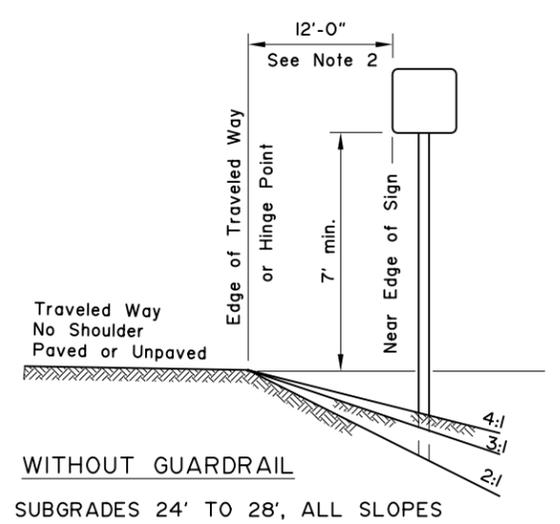
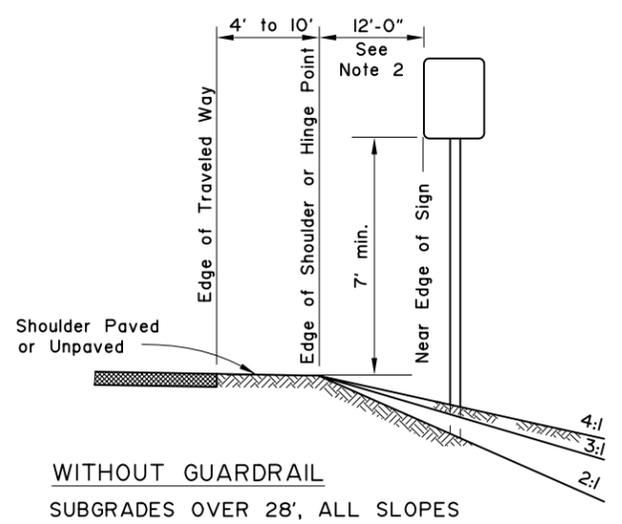
MAILBOX LOCATION



Eff. Date:
1/16/17

GENERAL NOTES

1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6'.
2. If signs extend over sidewalks, the minimum vertical clearance is 7'-0".
3. Add 6" to mounting height on unpaved roads.
4. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
5. When signs are placed 30' or more from the edge of traveled way, mount them with the bottom of the sign at least 5' above the road surface at the near edge of the road.
6. When multiple hinged sign supports are used, mount hinges at least 7' above the ground.



REVISIONS		
Date	Description	By
4/3/01	Revised Sign Heights	KJS

Sheet 1 of 1

State of Alaska
Department of Transportation
& Public Facilities

**POST MOUNTED SIGN
OFFSET AND HEIGHT**

APPROVED

Date: 7/15/82

MATANUSKA-SUSITNA BOROUGH DEPARTMENT OF PUBLIC WORKS

OPERATIONS & MAINTENANCE DIVISION

CARILLON DR. IMPROVEMENTS

18-17-0457

CROSS SECTIONS

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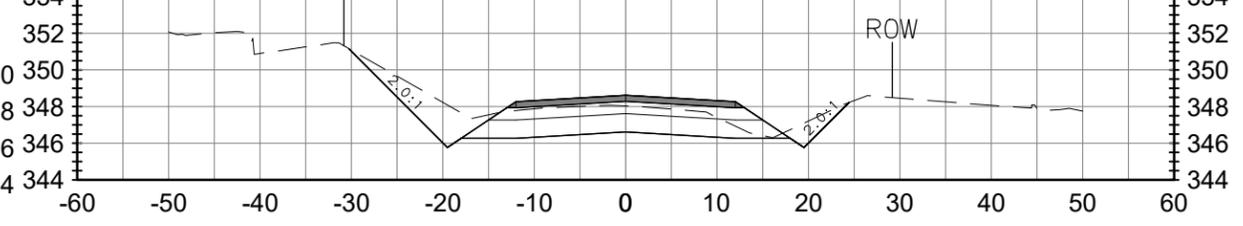
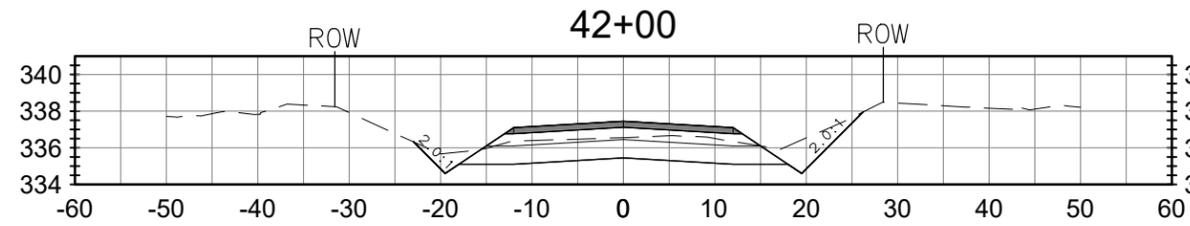
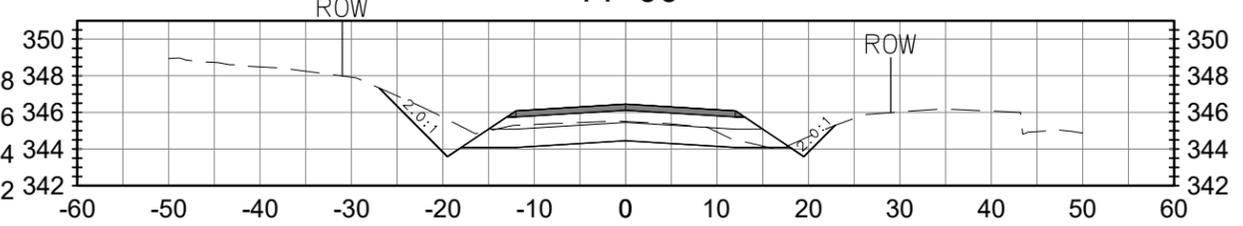
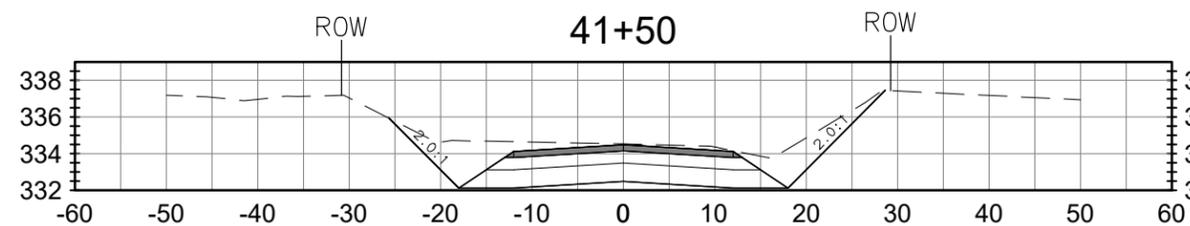
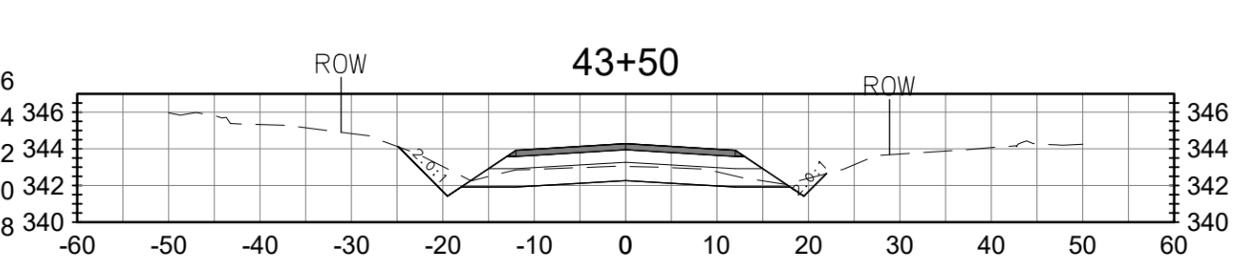
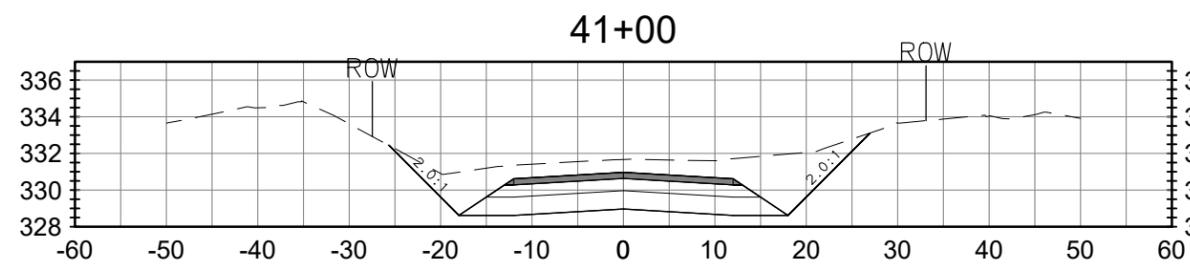
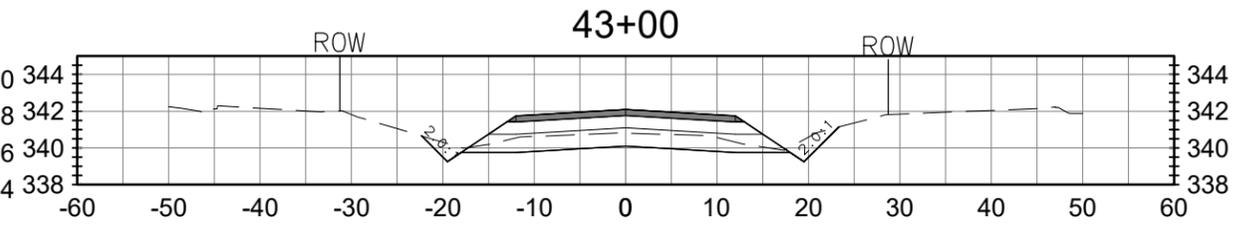
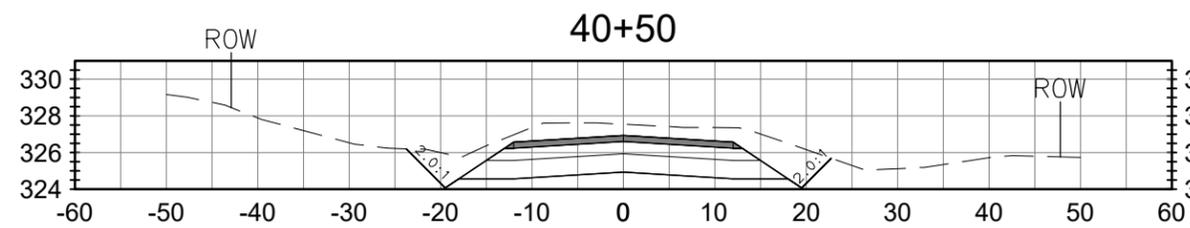
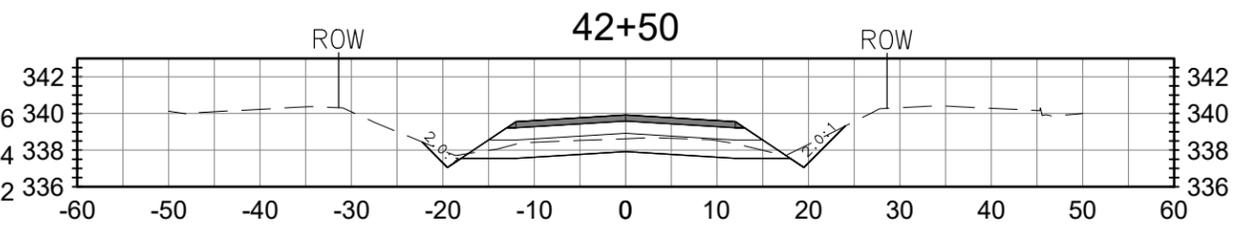
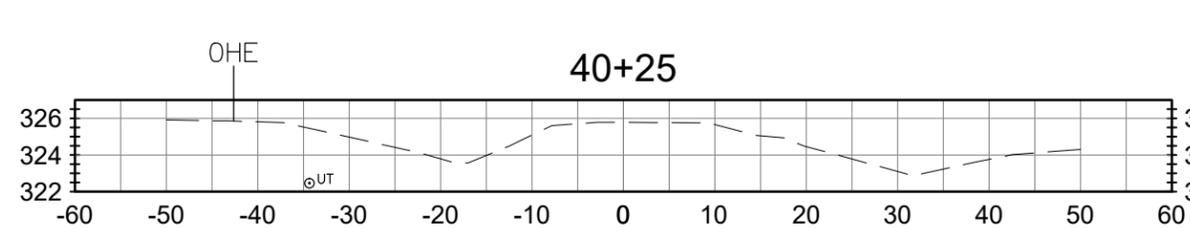
BY	DATE	REVISION

 **Stantec**
PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES INC.
 351 W. Park Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

**CARILLON DR.
 IMPROVEMENTS**
 MATANUSKA-SUSITNA BOROUGH

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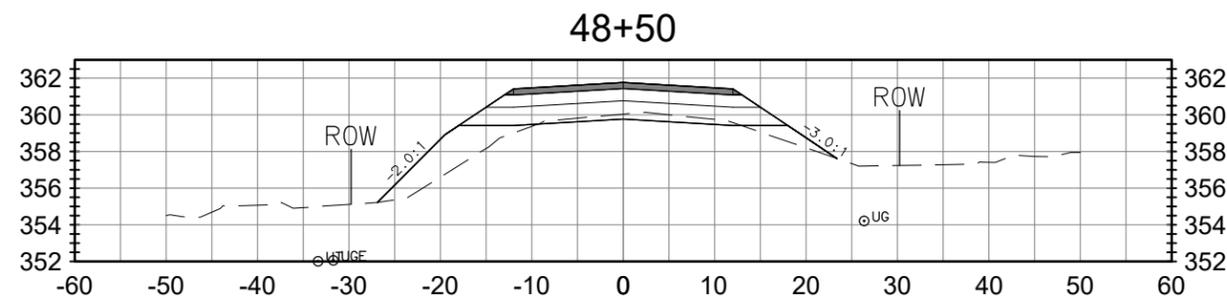
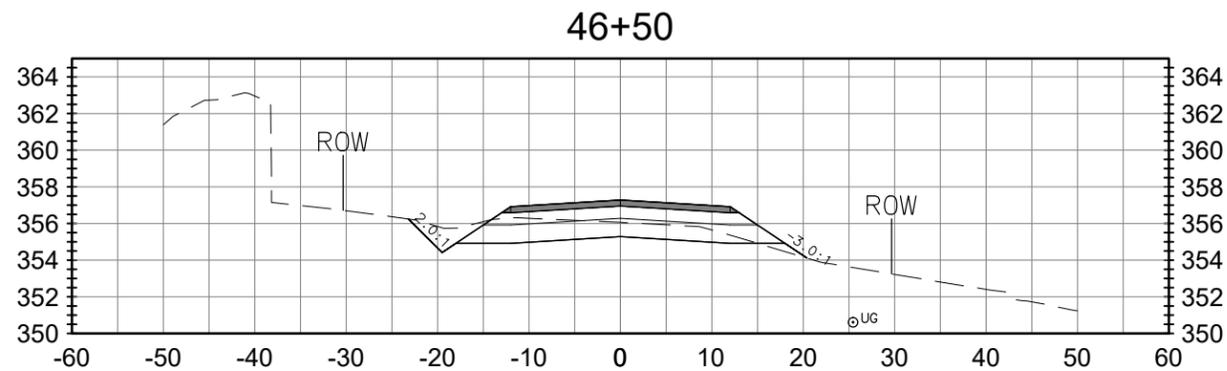
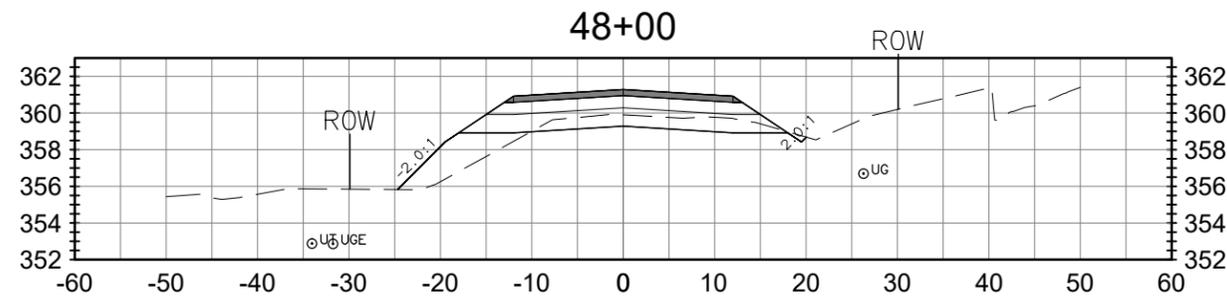
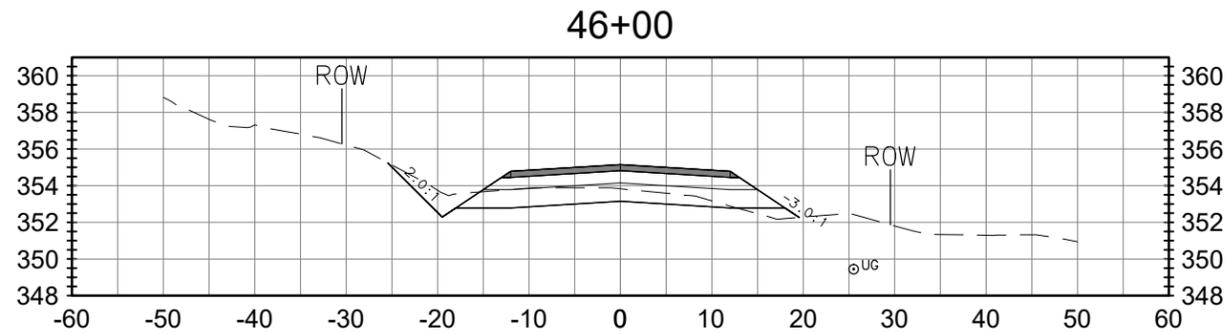
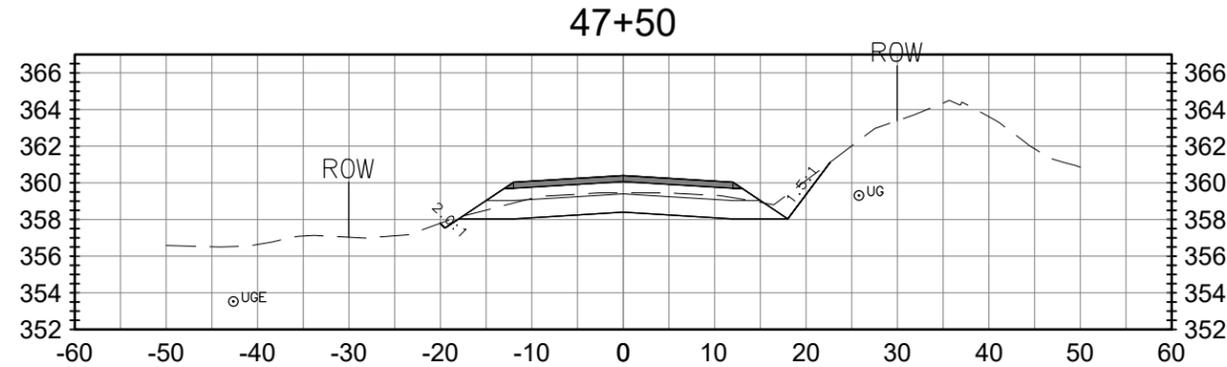
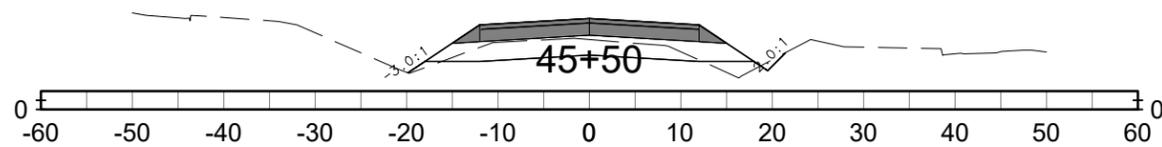
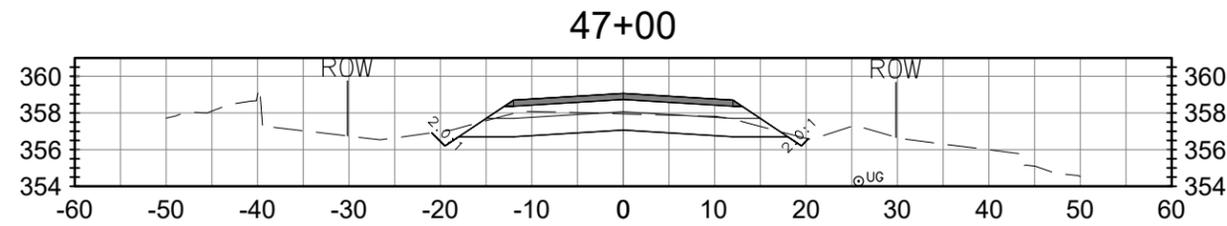
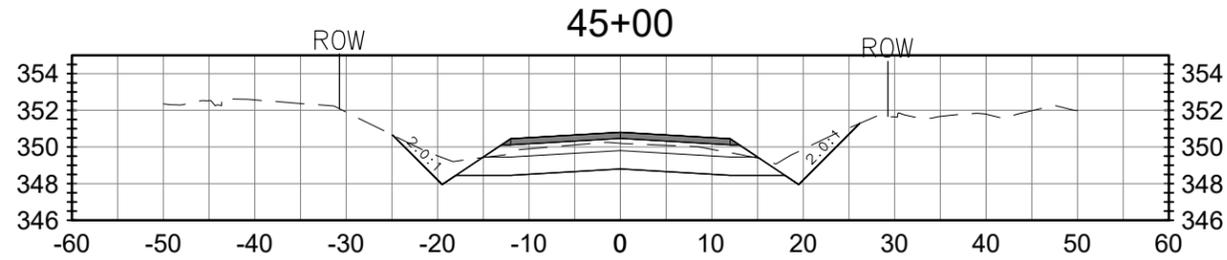
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REVISIONS		
NO.	DATE	DESCRIPTION

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- UG UNDERGROUND GAS LINE, DEPTH UNKNOWN
- UT UNDERGROUND TELEPHONE LINE, DEPTH UNKNOWN
- OE OVERHEAD ELECTRICAL
- ROW EXISTING RIGHT OF WAY

Stantec
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654 Phone:
 (907) 352-7803
 FAX: (907) 376-7819

MAT-SU BOROUGH
 CARILLON DRIVE

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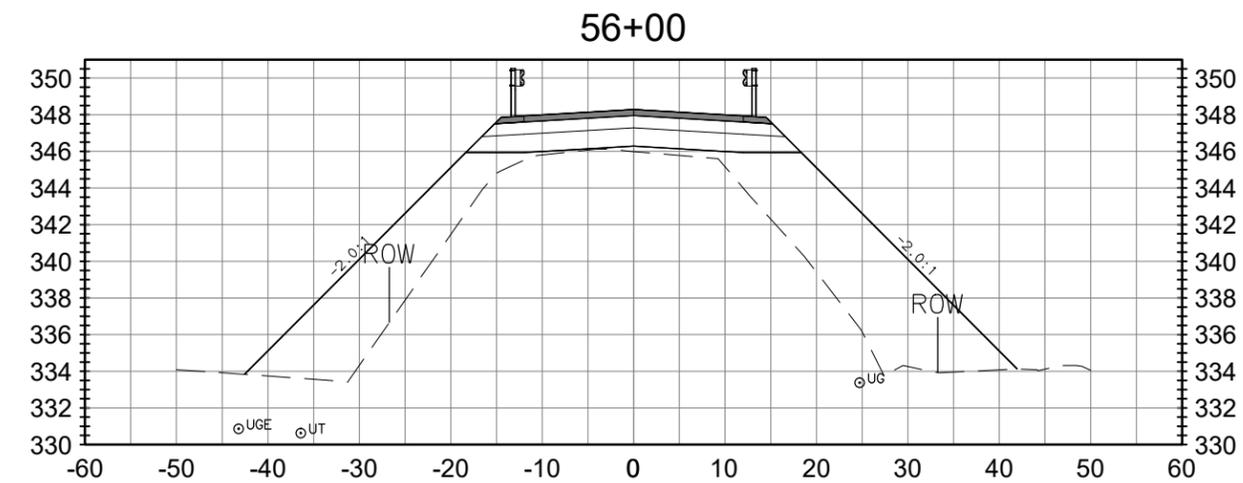
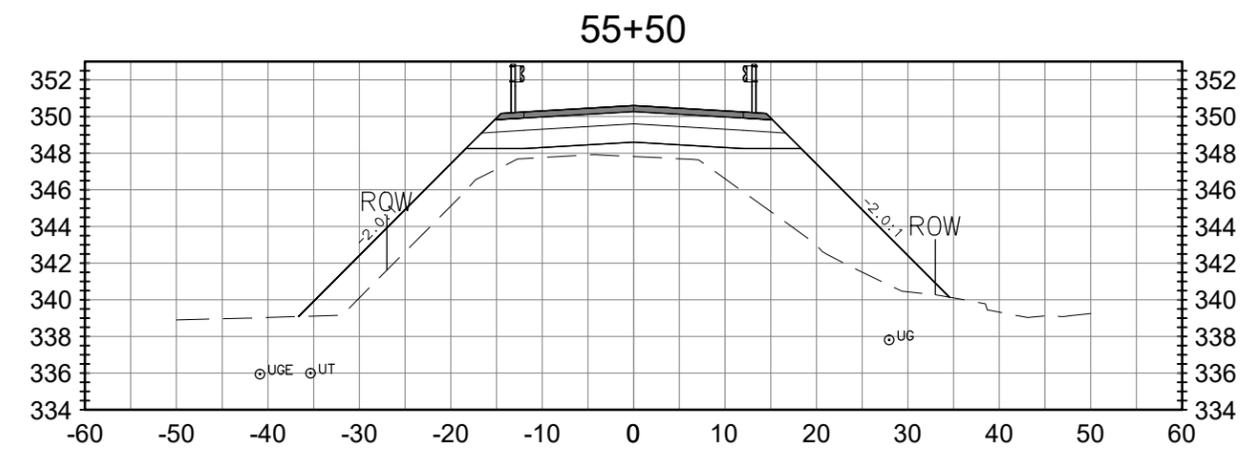
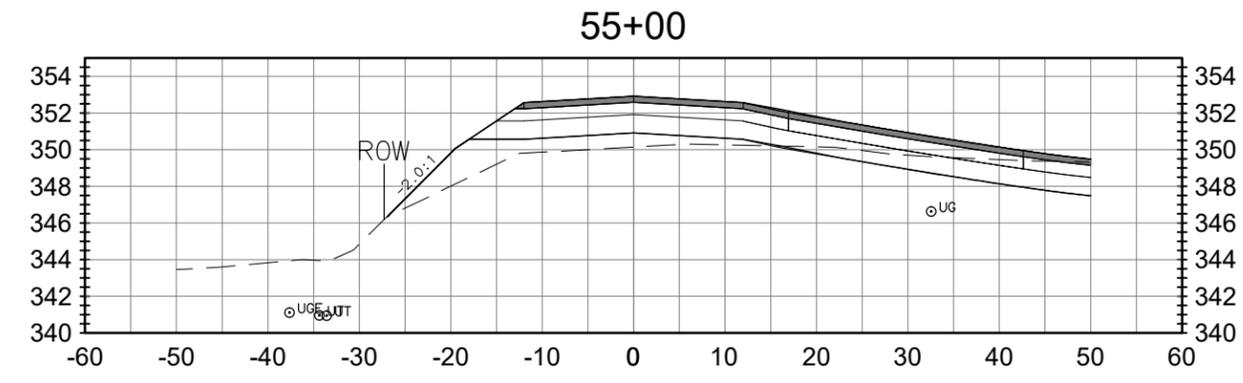
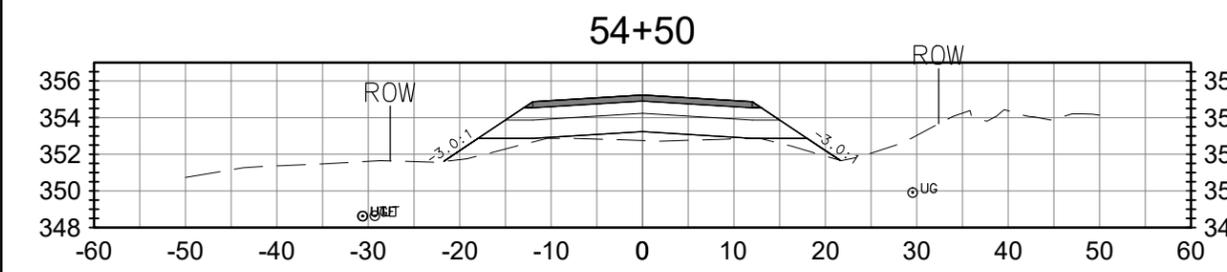
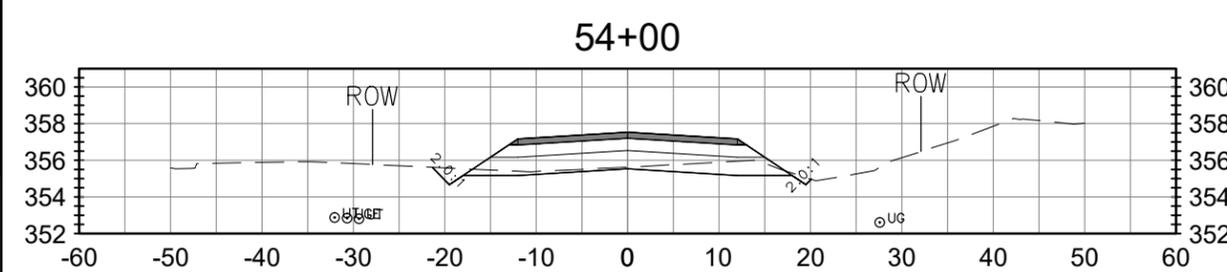
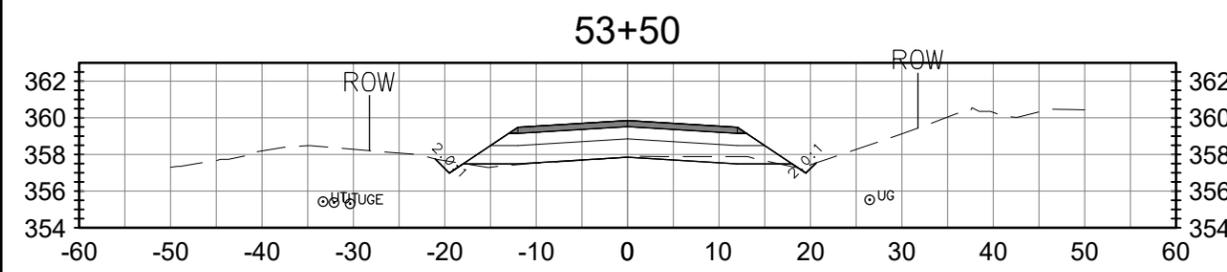
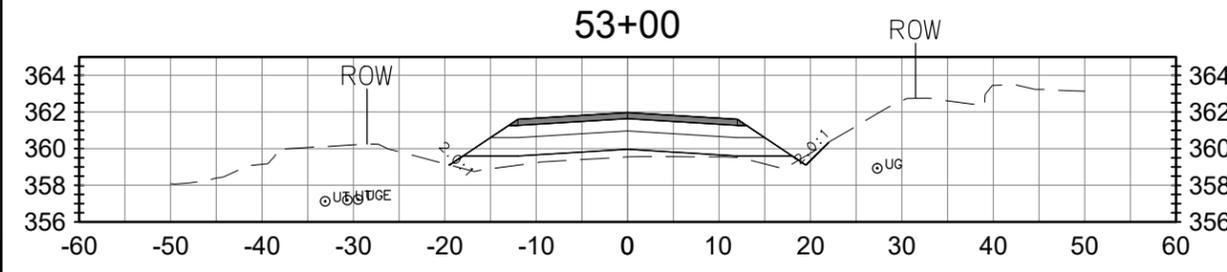
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- ROW EXISTING RIGHT OF WAY



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MAT-SU BOROUGH
 CARILLON DRIVE

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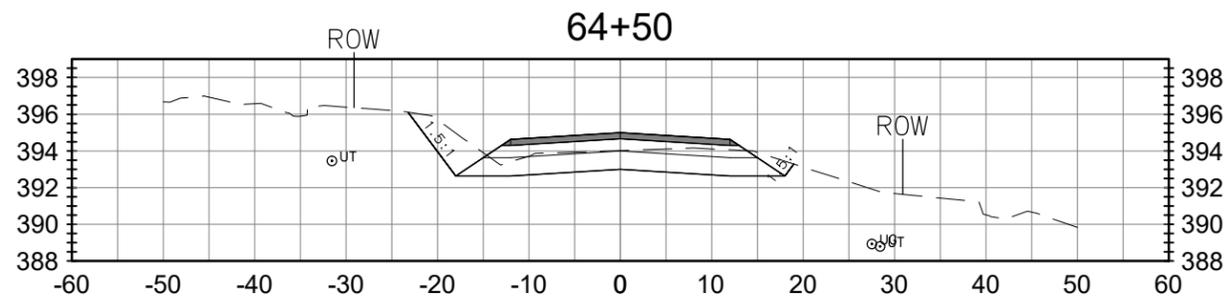
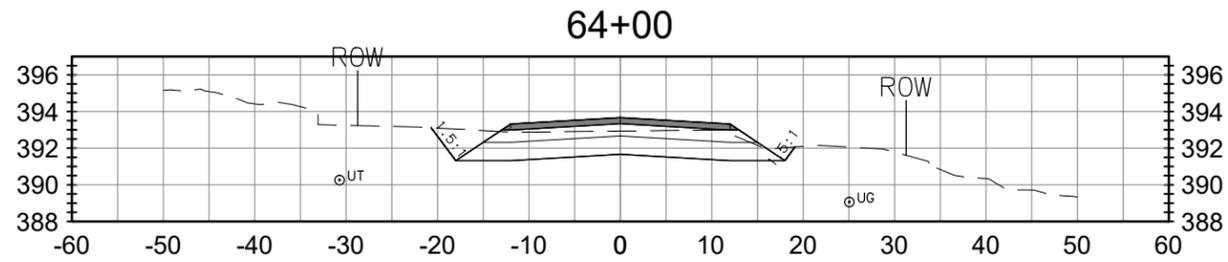
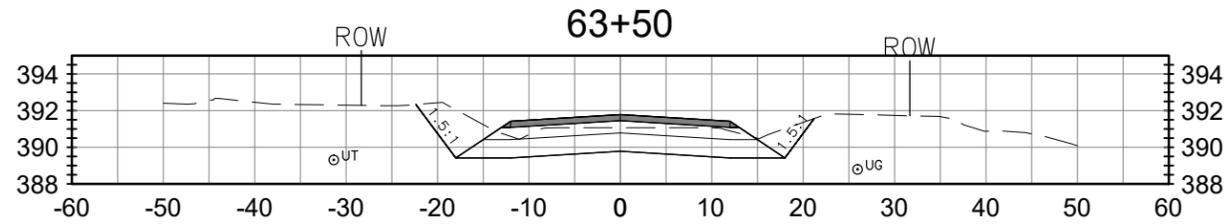
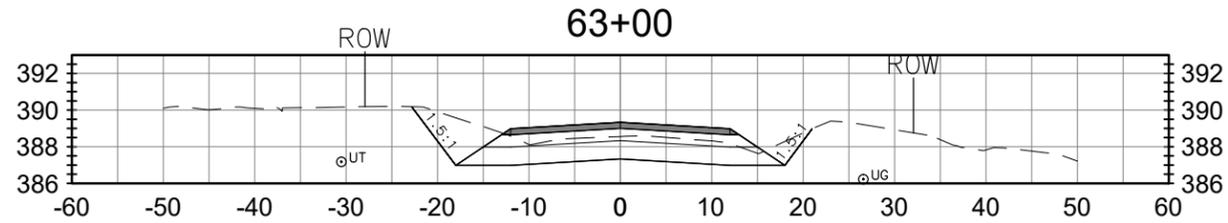
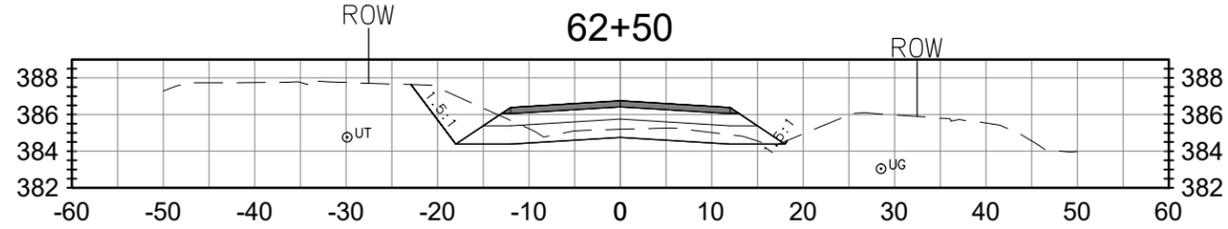
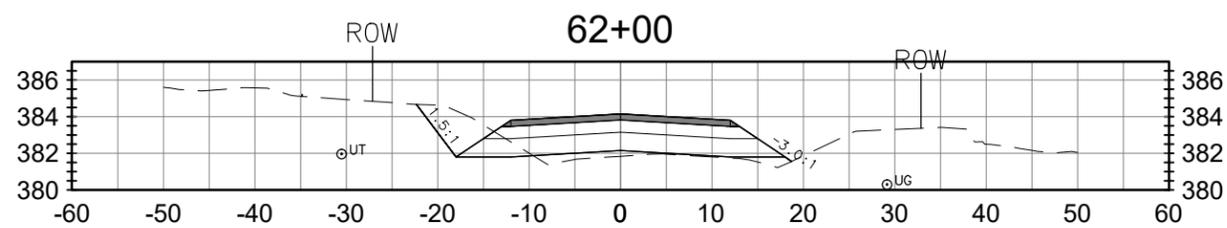
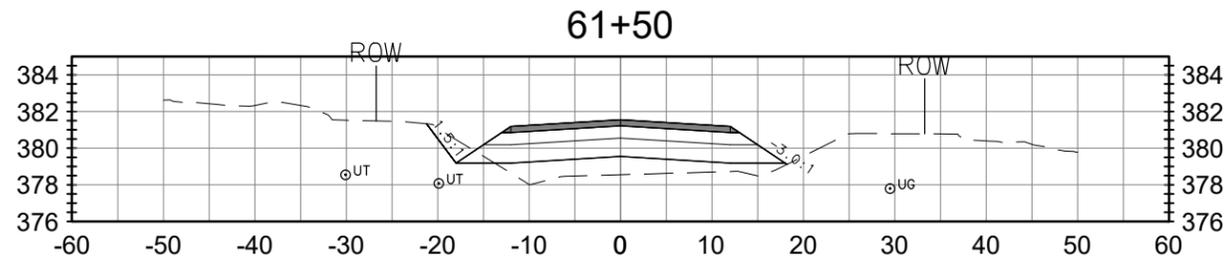
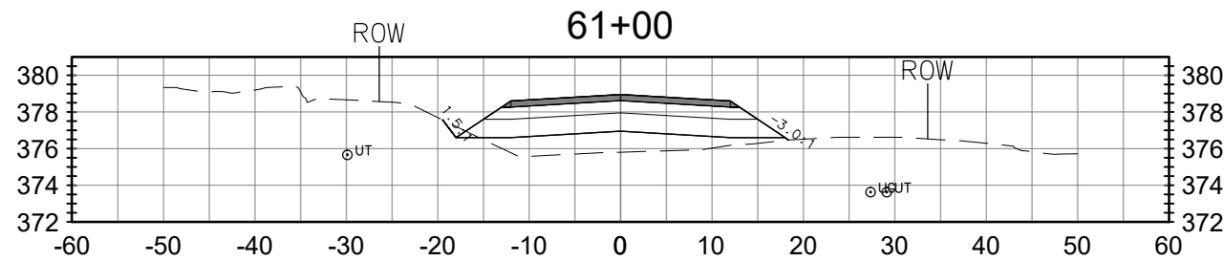
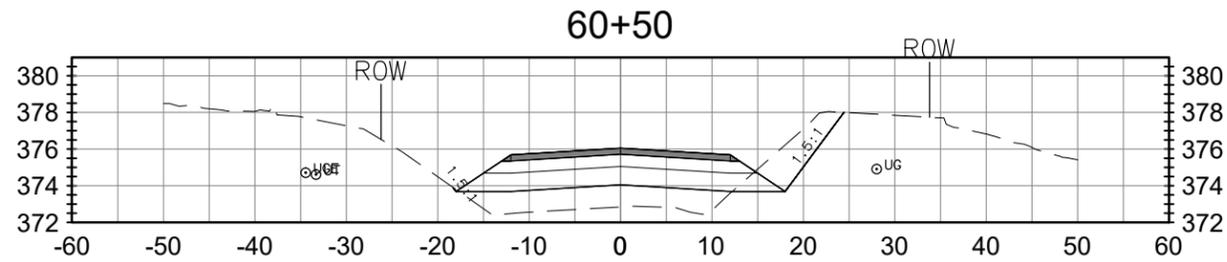
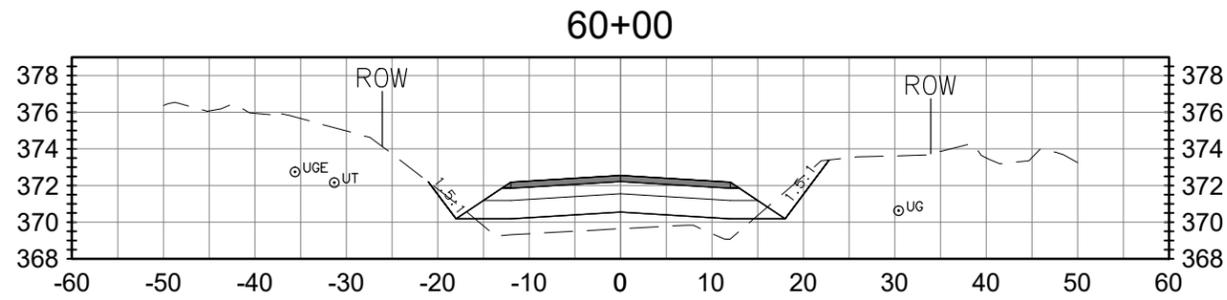
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- OE OVERHEAD ELECTRICAL
- ROW EXISTING RIGHT OF WAY



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 Wasilla, Alaska 99654 Phone:
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 FAX: (907) 376-7819

MAT-SU BOROUGH
 CARILLON DRIVE

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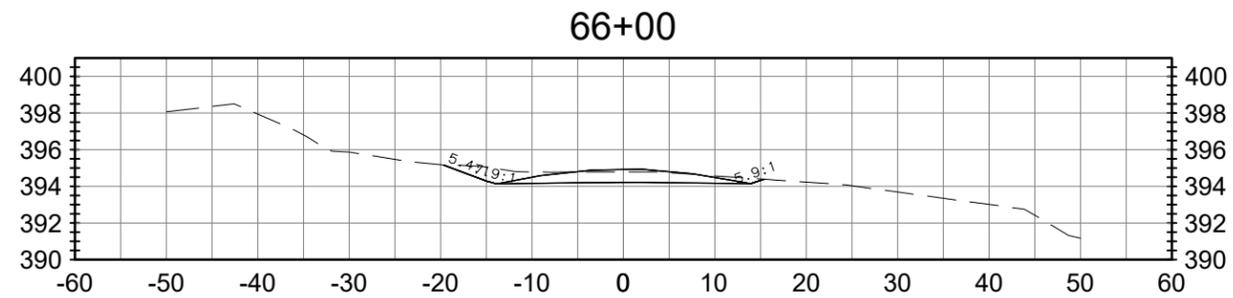
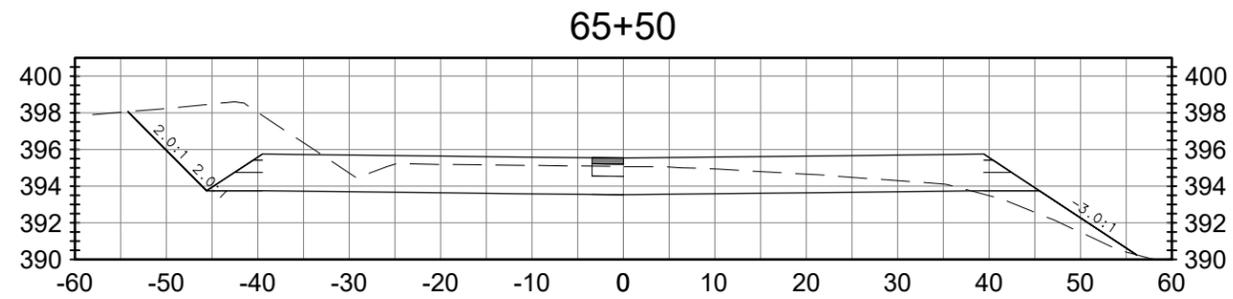
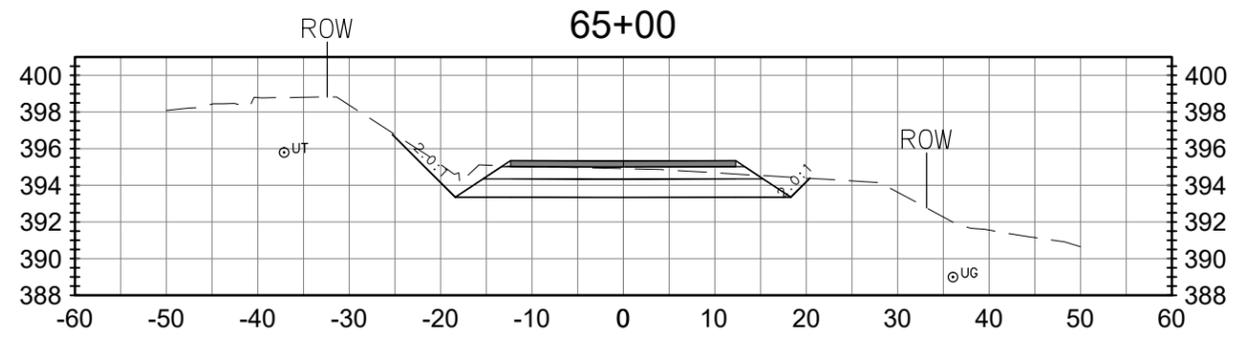
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NO.	DATE	DESCRIPTION

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- OE OVERHEAD ELECTRICAL
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 Wasilla, Alaska 99654 Phone:
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 FAX: (907) 376-7819

MAT-SU BOROUGH
 CARILLON DRIVE

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 CTB: DESIGNED BY: 25
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REVISIONS		
NO.	DATE	DESCRIPTION

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MAT-SU BOROUGH
 CARILLON DRIVE

MATANUSKA-SUSITNA BOROUGH

DEPARTMENT OF PUBLIC WORKS

OPERATIONS & MAINTENANCE DIVISION

CARILLON DR. IMPROVEMENTS

18-17-0457

DRIVEWAY PROFILES

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BY	DATE	REVISION

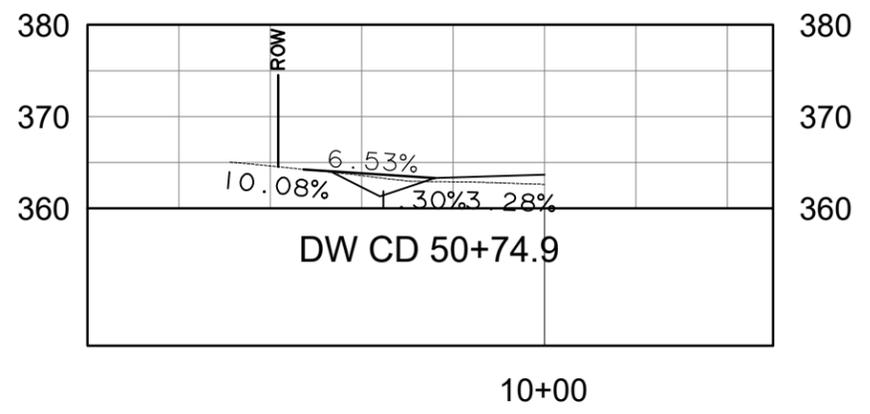
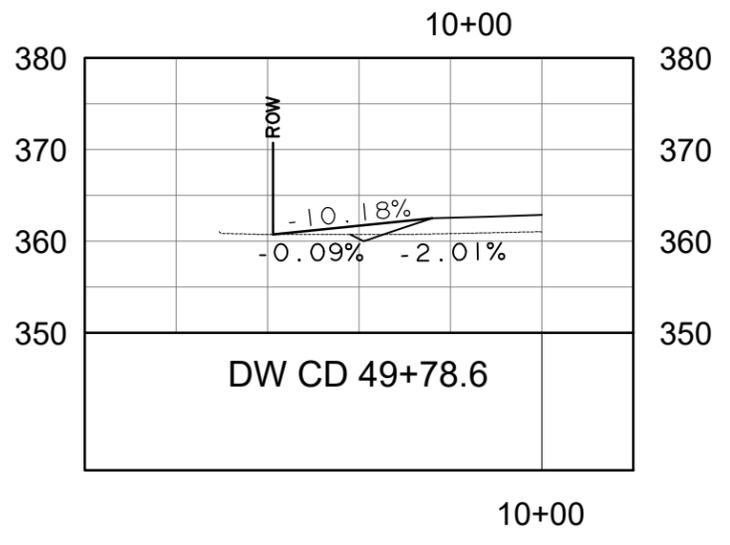
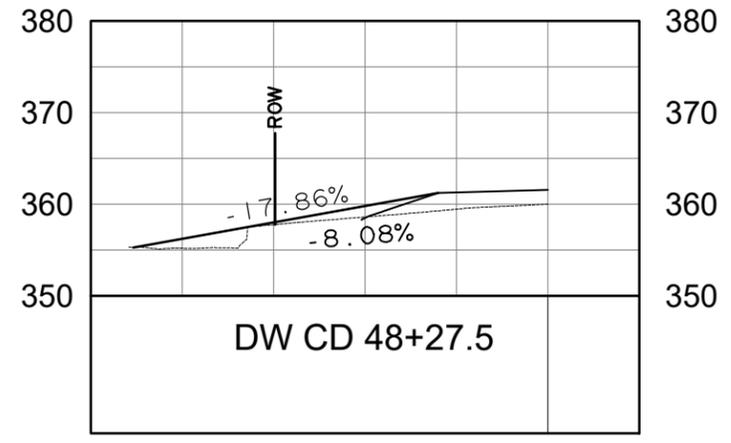
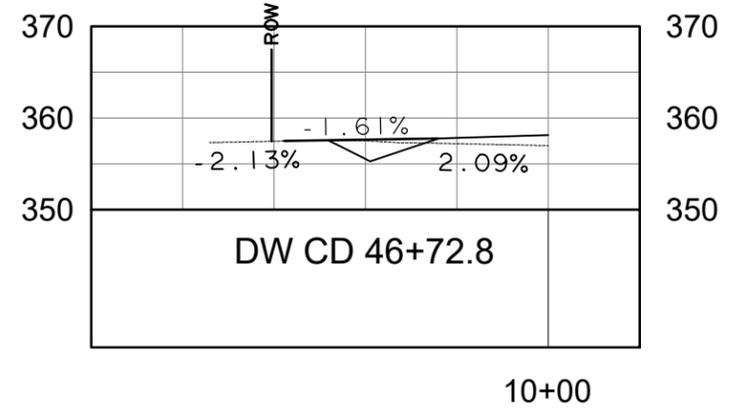
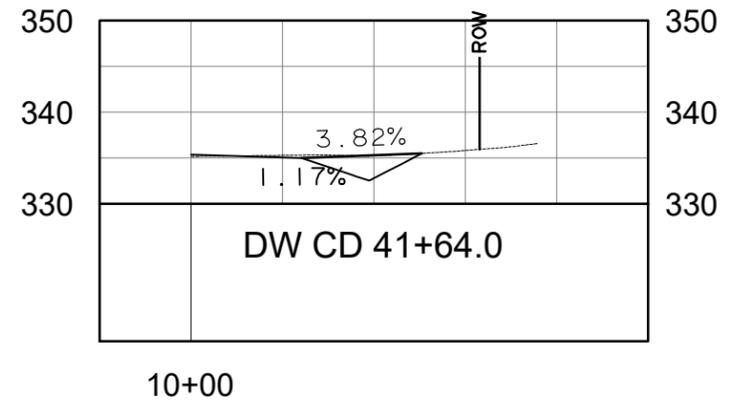
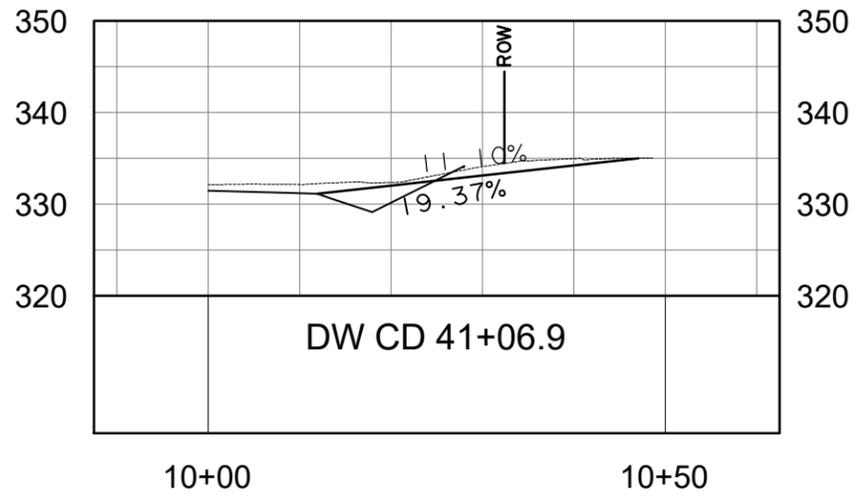


PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

**CARILLON DR.
 IMPROVEMENTS**
 MATANUSKA-SUSITNA BOROUGH

DATE:	9/6/18
AS-BUILT SHEET:	

Plotted by: chokari Plotted: Jul 25, 2018 , 12:16pm
 XREFS: DESIGNED BY: CHECKED BY: DRAFTED BY:
 SCALE 1"= COMPUTER DESIGNATION: U:\2047057200\drawing\source\alignments\carillon\DriveWay Alignments and Profiles.dwg Jul 25, 2018
 CIB: PLOT SCALE: 0.25



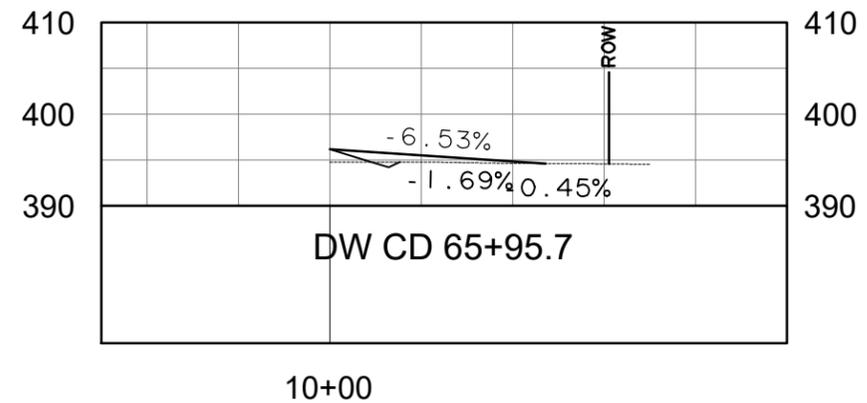
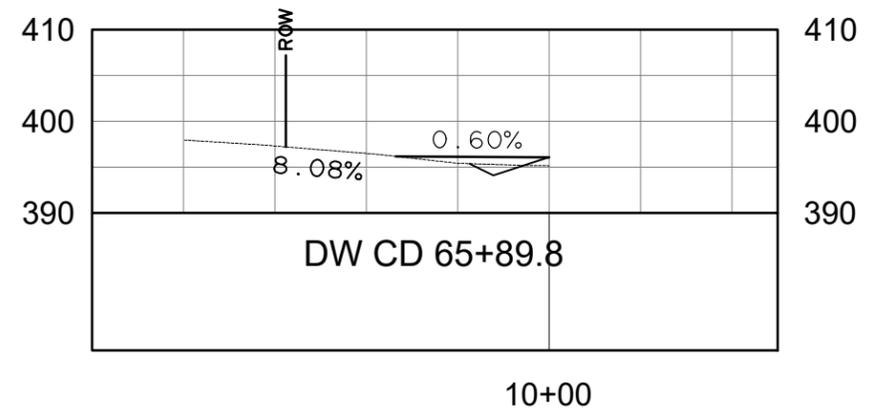
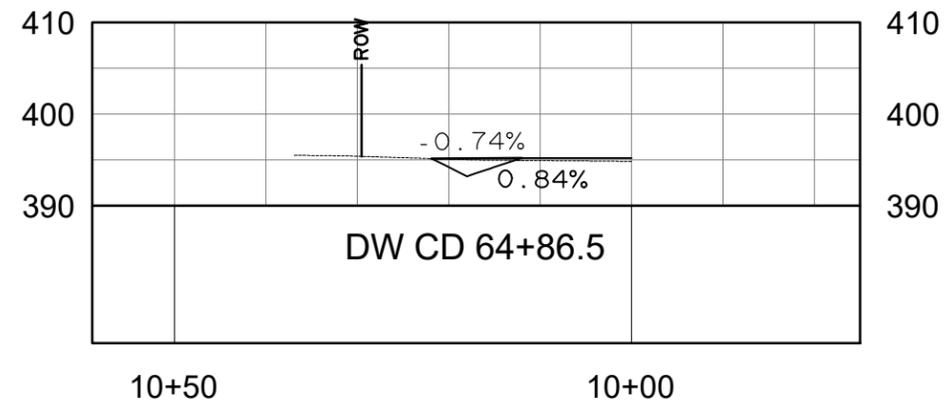
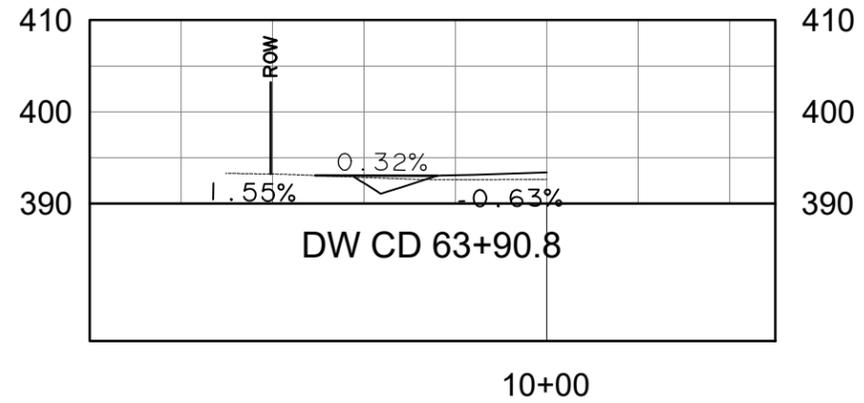
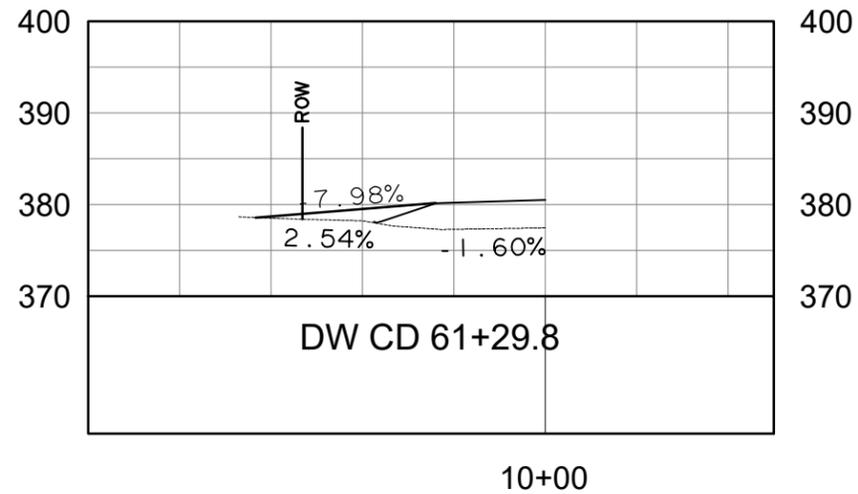
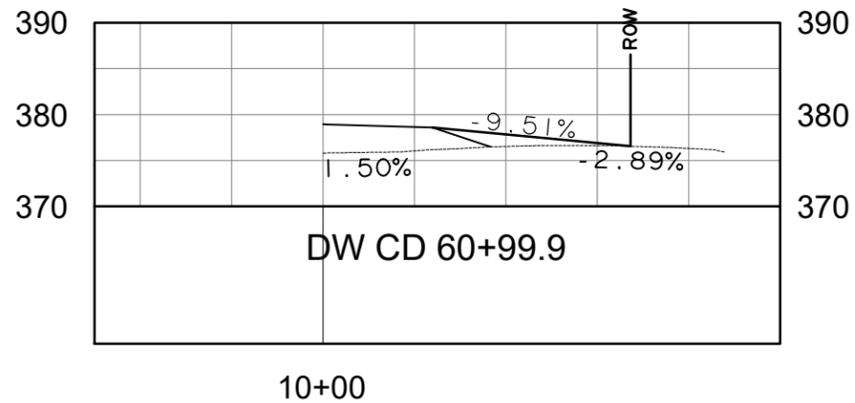
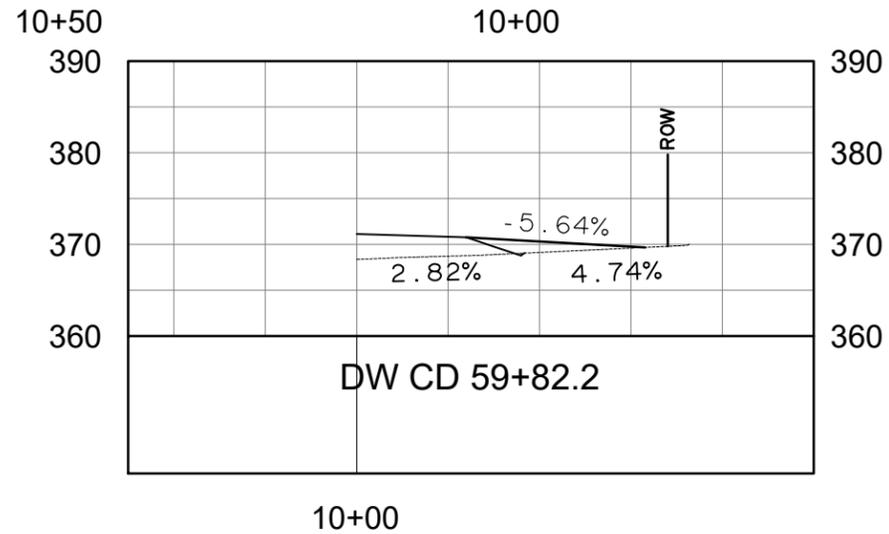
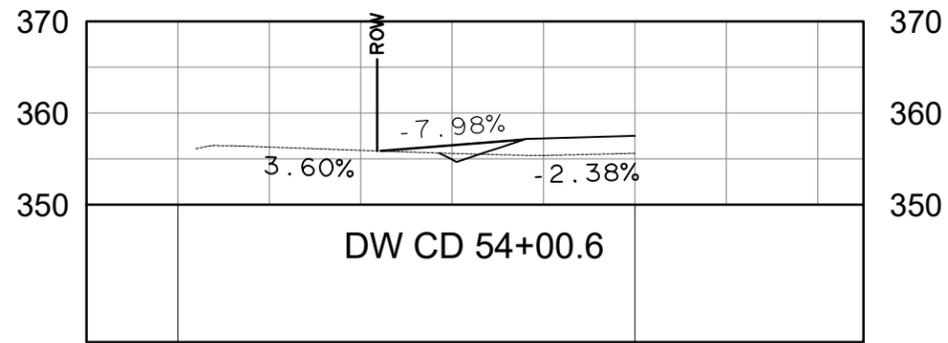
SHEET NO.	TOTAL SHEETS	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION


 PLANS DEVELOPED BY:
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 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

MAT-SU BOROUGH

 CARILLON DR.
 DRIVEWAYS

Plotted by: chokori
 CTB: 0.25
 XREFS:
 SCALE 1"=
 COMPUTER DESIGNATION
 DESIGNED BY
 CHECKED BY
 DRAFTED BY
 U:\2047057200\drawing\source\alignments\Carillon Driveway Alignments and Profiles.dwg
 Jul 25, 2018



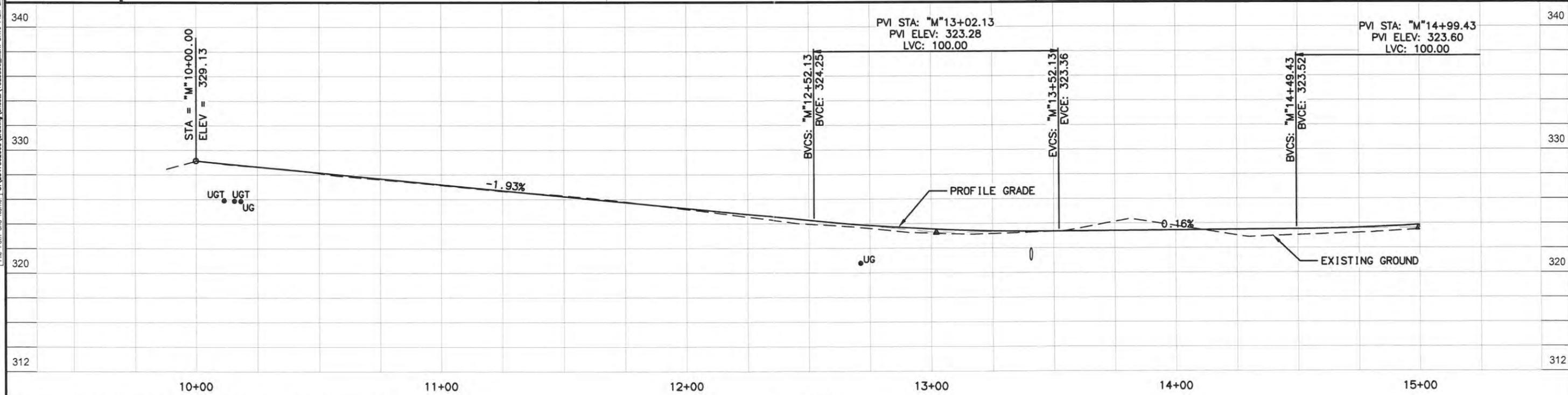
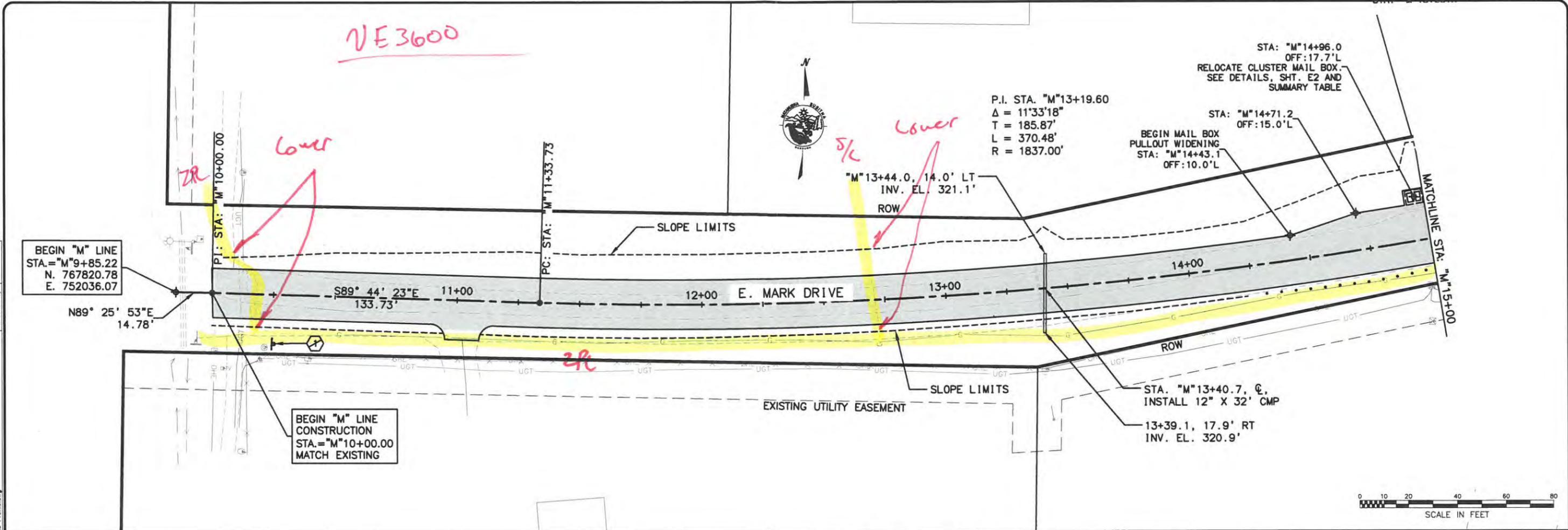
SHEET NO.	TOTAL SHEETS	
STATE	YEAR	
ALASKA	2016	
PROJECT DESIGNATION		
ADDENDUM NO.		
ATTACHMENT NO.		
REVISIONS		
NO.	DATE	DESCRIPTION


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 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

MAT-SU BOROUGH

**CARILLON DR.
 DRIVEWAYS**

10/09/2018, 8:46 AM
 Mark Drive - Plan and Profile
 Layout Name: U:\2017\06\2000\Mark Drive Plan and Profile.dwg
 Date Revised:
 Drawn By:
 Checked By:



BY	DATE	REVISION

Stantec
 PLANS DEVELOPED BY:
 STANTEC CONSULTING SERVICES INC.
 351 W. Parks Hwy., Suite 200
 Wasilla, Alaska 99654
 Phone: (907) 376-7815
 C.A. #126386

MARK DR. IMPROVEMENTS
 MATANUSKA-SUSITNA BOROUGH
MARK DRIVE
PLAN & PROFILE

DATE: 10/2/2018
 SHEET: F1 OF F3
 PROJECT NUMBER:
 18-09-1810

Reimbursable Project Cost Estimate

Project: Mark Drive Improvements
ENSTAR Proposal #: 7808 RC #: 41909

Date: 3/17/2019

A. Preliminary Engineering				
0 man hours @	\$80.00 /Hr		\$0.00	
Construction Overhead =	63.68% of Labor Cost		\$0.00	
Transportation & Equipment =	15.37% of Labor Cost		\$0.00	
Payroll Tax =	25.00% of Labor Cost		\$0.00	
Admin & General Overhead =	127.54% of Labor Cost		\$0.00	
				A. \$0.00
B. Construction Engineering, Engineering Services & Measurement				
Regular Time:	18 man hours @	\$60.00 /Hr	\$1,080.00	
Overtime:	0 man hours @	\$90.00 /Hr	\$0.00	
Payroll Tax =	25.00% of Labor Cost		\$270.00	
				B. \$1,350.00
C. Construction Labor				
Regular Time:	16 man hours @	\$60.00 /Hr	\$960.00	
Overtime:	0 man hours @	\$90.00 /Hr	\$0.00	
Payroll Tax =	25.00% of Labor Cost		\$240.00	
				C. \$1,200.00
D. Construction Overhead				
	63.68% of Labor Costs (in sections B + C)			D. \$1,299.00
E. Materials & Supplies				E. \$250.00
F. Materials Handling Charge				F. \$56.00
	22.28% of Materials (section E)			
G. Transportation & Equipment				G. \$314.00
	15.37% of Construction Eng. & Labor (in sections B + C)			
H. Contract Construction				
Contract Excavator (hrs)	8 /Hr @	\$278.04 /Hr	\$2,224.00	
Contract Backhoe (hrs)	0 /Hr @	\$192.42 /Hr	\$0.00	
Contract Dozer (hrs)	0 /Hr @	\$192.42 /Hr	\$0.00	
Contract Roller (hrs)	0 /Half Day @	\$445.81 /Half Day	\$0.00	
Contract Compressor (hrs)	0 /Day @	\$232.34 /Day	\$0.00	
Contract Service Truck (hrs)	8 /Hr @	\$76.28 /Hr	\$610.00	
Boring (2") [ft]	0 /Ft @	\$62.00 /Ft	\$0.00	
Permitting Fees	0 /EA @	\$0.00	0	\$0.00
				H. \$2,834.00
I. Administrative & General Overhead				
	127.54% of Labor Costs (excluding payroll tax)			I. \$2,602.00
				Project Sub-total: \$9,905.00
J. Department of Labor Notice of Work Fee				
	1.0% of contract construction costs <i>if contract construction costs over \$25,000</i>			J. \$0.00
				Total before any betterments: \$9,905.00
K. Betterments				
				Reimbursable Project Cost Estimate: \$9,905.00

CONTRACT FOR REIMBURSABLE ADJUSTMENTS TO ENSTAR FACILITIES NO. 41909

THIS AGREEMENT is between ENSTAR Natural Gas Company, a division of SEMCO Energy, Inc., (**ENSTAR**) whose address is 401 East International Airport Road, Anchorage, Alaska 99518 and Matanuska Susitna Borough (MSB), whose address is 350 E. Dahlia Avenua, Palmer, Alaska, 99645.

WHEREAS, Purchaser has requested ENSTAR to relocate or otherwise adjust its facilities in the manner and at the location indicated below, and the parties desire to enter into a contract that will facilitate the timely completion of the Work, provide for payment to ENSTAR, and establish certain other terms and conditions.

NOW THEREFORE, in consideration of the premises, the parties agree as follows:

1. Description of the Work.

Lower 2PL crossing at station 10+50 and service line crossing at station 12+75 along Mark Drive. The scope of work could change based on the requirements of the excavation of the COMPANY.

2. Payment. Purchaser shall pay for the Work performed on a time and materials basis, which cost items will be appropriately increased to compensate ENSTAR for its administrative and construction overheads. In addition (if applicable), the Purchaser shall pay the net book value of the ENSTAR facilities that are to be abandoned-in-place. The estimated amount does not include compation, asphalt repair, curb repair, or ground repair. The non-binding cost estimate for this project is **\$9,905.00**.

ENSTAR will bill Purchaser for actual costs following the completion of the Work. Purchaser shall pay such balance within 30 days following the mailing of ENSTAR's billing. Any amount outstanding after 30 days will accrue interest at the rate of 10.5 percent per annum.

3. Performance. Purchaser shall provide ENSTAR with written authorization to proceed. Upon receipt ENSTAR will conduct surveys, acquire permits, easements, and materials, and take other actions necessary to begin the Work. ENSTAR will complete the Work within a reasonable period of time of frost-free ground working conditions. In no event will ENSTAR be expected to complete the Work in less than 15 calendar days from the date on which Purchaser provides written authorization to proceed. However, ENSTAR reserves the right to cancel this Agreement if, in its sole discretion, the Work is deemed too costly or impractical. Within 30 days of the date of such determination ENSTAR will return to Purchaser any prepayment made in accordance with paragraph 2 above. Upon the return of the prepayment if any, this Agreement shall have no further force or effect.

4. Rights-of Way. To the extent required for the project as determined by ENSTAR in its sole discretion, Purchaser will grant ENSTAR or will otherwise obtain at Purchaser's expense all easements and rights-of way, and will sign all documents, necessary to permit the completion of the Work. ENSTAR will not be obligated to begin construction until all necessary easements, rights-of way, and other documents have been obtained.

5. Ownership of Facilities. The facilities and equipment installed in accordance with this Agreement are the property of and shall be under the control of ENSTAR.

6. Miscellaneous. This is the entire Agreement between the parties. It may not be modified except in writing. This Agreement shall be construed under the laws of Alaska. Any dispute hereunder will be resolved by the Alaska Superior Court at Anchorage. This Agreement is binding on the successors, assigns and legal representatives of the parties.

7. Notice. Notice under this Agreement may be mailed or faxed to the contact person listed below.

Mat-Su Borough
Contact Person: **Alex Senta**
Phone: **(907) 861-7763**

ENSTAR Natural Gas
Contact Person: **Jake Stephl**
Office Phone: **(907) 334-7915**

8. Davis Bacon Terms.

Davis Bacon labor rates and requirements are applied to this contract.

9. Additional Terms.

- All work will occur in frost-free ground.
- Purchaser must provide the necessary survey information for ENSTAR to determine the elevation and alignment of the proposed facilities.
- A written fifteen-day notice is required from Purchaser to schedule ENSTAR crews unless other arrangements are agreed to.
- COMPANY will provide traffic control.
- ENSTAR will not be responsible for any facilities that are abandoned in place. Any further disposal, if required, will be the responsibility of the Purchaser or its contractor.
- ENSTAR will not be responsible for the development of the Storm Water Pollution Prevention Plan (SWPPP), but will cooperate with the contractor or the Purchaser's SWPPP plan (if applicable) and be responsible for ensuring proper Best Management Practice's are implemented during the time of construction. The contractor or Purchaser will coordinate with ENSTAR by providing a copy of the SWPPP to ENSTAR.
- ENSTAR will be provided adequate work area and time during normal business hours to perform the Work.
- ENSTAR will not be responsible for clearing of the ROW. This estimate assumes that the contractor or Purchaser will have taken care of clearing requirements prior to relocation work commencing.
- ENSTAR will not be responsible for asphalt cutting or replacement.
- ENSTAR will not be responsible for revegetation of any disturbed area.
- ENSTAR will not be responsible for compaction, unless other arrangements are agreed to.
- Overhead rates applied to the cost of the Work shall be those established by ADOT & PF Internal Review Annual Systems Audit for 2018.

10. Execution. By signing, Purchaser acknowledges having read and understood each and every term and condition of this Agreement.

Purchaser

ENSTAR Natural Gas Company

By: _____

By: _____

Its: _____

Its: _____

Date: _____

Date: _____